

Staff Report

TO: Water Resources Commission
FROM: Ivan Gall, Director
DATE: September 12, 2025
SUBJECT: Agenda Item H
Water Resources Commission

STATE RECOGNITION OF THE HARNEY COMMUNITY-BASED WATER PLANNING COLLABORATIVE'S INTEGRATED WATER RESOURCES PLAN

I. Introduction

The Harney Community-Based Water Planning Collaborative (Collaborative) is seeking state recognition of their place-based integrated water resources plan (Plan). The Commission will be asked to recognize the Collaborative's plan.

II. Integrated Water Resources Strategy Recommended Action

- 9.A - Continue to Undertake Place-Based Integrated Water Resources Planning

III. Background

In 2015, the Oregon Legislature provided authority through Senate Bill 266 for the state to support place-based integrated water resources planning. In 2016, the Department awarded grants to four planning groups, including the Collaborative, to undertake place-based water planning using the 2015 Draft Place-Based Water Planning Guidelines (Draft Guidelines) (Attachment 1).

Place-based integrated water resources planning is a voluntary, locally-led effort in which a balanced representation of water interests within a basin or watershed work collaboratively and in partnership with the state to complete a five-step planning process to: 1) Build a collaborative and integrated process; 2) Characterize water resources, water quality, and ecological issues; 3) Quantify existing and future needs; 4) Develop integrated solutions for meeting long-term water needs; and 5) Adopt and implement the plan.

A planning group can choose to seek state recognition for their place-based integrated water resources plan. The 2015 Draft Guidelines call for state agencies to review the plan and make a recommendation to the Water Resources Commission on whether to recognize a plan. The core Integrated Water Resources Strategy (IWRS) agencies, and others as appropriate, review the plan to evaluate whether it is consistent with the Draft Guidelines and IWRS principles. The Department developed the 2019 Planning

Step 5 DRAFT Guidance to aid the planning groups and state agencies through this evaluation process (Attachment 2). The planning group then presents their plan to the Commission with the accompanying state agency recommendation and asks the Commission to recognize the plan on behalf of the State of Oregon. To date the Commission has recognized three place-based integrated water resources plans:

- Upper Grande Ronde River Watershed Partnership's Place-Based Integrated Water Resources Plan (March 2022, [Item F](#))
- Mid-Coast Water Planning Partnership's Water Action Plan (June 2022, [Item E](#))
- Lower John Day Place-Based Partnership's Integrated Water Resources Plan (June 2022, [Item I](#))

IV. Discussion

Since 2016, the Collaborative has conducted place-based planning in partnership with the state, following the 2015 Draft Place-Based Planning Guidelines. The Collaborative approached place-based planning differently from the other groups piloting place-based water planning, splitting groundwater planning from surface water planning.

The Collaborative completed the groundwater portion of their integrated water resources plan in 2023, outlining their planning progress to date, key findings, and more than two dozen strategies developed by the Collaborative to help address groundwater declines and related issues in the planning area. At that time, representatives from the Department, Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, Oregon Department of Agriculture, and the Oregon Watershed Enhancement Board reviewed the draft groundwater plan and determined that the content and development process of the groundwater portion of the Collaborative's place-based integrated water resources plan were in alignment with the requirements to receive state recognition once the surface water portion of the plan was completed. In June 2023, the Collaborative presented the groundwater portion of their plan to the Commission as an informational item ([Item F](#)).

Since 2023, the Collaborative has completed the surface water portion of their plan and integrated it with the groundwater portion to create an integrated water resources plan. The Collaborative submitted their draft Harney Community-Based Water Planning Collaborative Integrated Water Resources Plan for formal state agency review on March 24, 2025. A Plan Review Team consisting of representatives from the Department, Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, Oregon Department of Agriculture, and the Oregon Watershed Enhancement Board determined by consensus that a number of improvements to the draft Plan were required to receive an agency recommendation for state recognition.

The Collaborative worked to address the required improvements and on August 4, 2025, adopted its final Plan by consensus as outlined in the Collaborative's shared governance agreement (Attachment 3). The Plan Review Team verified that the revised Plan addressed the required improvements and is consistent with the 2015 Draft Guidelines and IWRS principles. Therefore, the state agencies recommend that the Commission recognize the Plan (Attachment 4). Attachment 5 includes draft

resolution language for the Commission to consider.

V. Conclusion

The Collaborative developed a place-based integrated water resources plan in partnership with the state and adopted it by consensus. The Plan Review Team reviewed the Plan and determined that the Collaborative's Harney Community-Based Water Planning Collaborative Integrated Water Resources Plan from August 4, 2025, is consistent with the 2015 Draft Guidelines and the principles of the IWRS. Therefore, the Plan Review Team recommends the Commission award state recognition to the Collaborative's Plan.

VI. Alternatives

The Commission may consider the following alternatives:

1. Vote to formally recognize the Harney Community-Based Water Planning Collaborative Integrated Water Resources Plan included as Attachment 4 by resolution of the Commission (Attachment 5).
2. Vote not to recognize the Plan.
3. Direct the Department to work with the Harney Community-Based Water Planning Collaborative to incorporate specific changes and return with an updated Integrated Water Resources Plan at a future Commission meeting.

VII. Recommendation

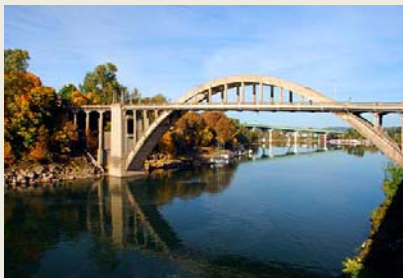
The Director recommends Alternative 1, vote to formally recognize the Harney Community-Based Water Planning Collaborative Integrated Water Resources Plan included as Attachment 4 by resolution of the Commission (Attachment 5).

Attachments:

1. 2015 Draft Place-Based Water Planning Guidelines
2. 2019 Planning Step 5 DRAFT Guidance
3. Harney Community-Based Water Planning Collaborative Shared Governance Agreement
4. Harney Community-Based Water Planning Collaborative Integrated Water Resources Plan
5. Draft Commission Resolution

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Draft Guidelines

A Tool for Conducting Place-Based
Integrated Water Resources Planning in Oregon

February 2015

About these Draft Guidelines

These guidelines were written to support implementation of Oregon's 2012 Integrated Water Resources Strategy, specifically Recommended Action 9A: "Undertake Place-Based Integrated Water Resources Planning." They were developed by the Oregon Water Resources Department through a series of stakeholder workshops, public input, and assistance from several natural resource agencies. These guidelines are a tool to support voluntary planning efforts aimed at meeting instream and out-of-stream needs, including water quantity, water quality, and ecosystem needs.

The state will provide technical assistance and seek funding to further place-based integrated water resources planning efforts across the state. The Governor's Budget, released in December 2014, proposes grant funds and two additional staff housed at the Water Resources Department.

These guidelines remain in draft form to allow for suggestions and adjustments that may be made during 2015. By releasing these guidelines now, our hope is that a given 'place' will have time to pilot test these guidelines and provide productive feedback.

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Why Take a Place-Based Approach to Integrated Water Resources Planning?

Introduction

Water is one of the world's most precious natural resources. With more than 100,000 miles of rivers and streams, 360 miles of coastline, and more than 1,400 named lakes, Oregon is renowned for its water. Our rivers, streams, lakes, wetlands, estuaries, springs, and aquifers provide a wide range of benefits to all Oregonians.

A clean and reliable source of water is essential for meeting our basic human needs, and for supporting Oregon's economy. Thousands of businesses and industries rely upon water in some form, to irrigate a crop, to manufacture a product, or to provide a service or experience.

Oregon's economy, in turn, is dependent upon a healthy environment where water resources play an essential part. Fish and wildlife need water of sufficient quantity and quality to live, reproduce, and thrive. Fully functioning ecosystems are necessary to support our commercial and recreational needs and a quality of life unique to Oregon and the Pacific Northwest.

In recognition of the importance of water to all Oregonians, and with leadership, support, and direction from the Oregon Legislature and the Water Resources Commission, the Oregon Water Resources Department led the development of the state's first Integrated Water Resources Strategy (IWRS). The Department worked closely with the Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, and the Oregon Department of Agriculture during its development.

Adopted in 2012, the IWRS serves as a blueprint for achieving the state's long-term goals of improving our understanding of the status of Oregon's water resources, including our instream and out-of-stream needs (water quantity, water quality, and ecosystem needs), and implementing recommended actions to meet those needs today and into the future. One action in the IWRS, Recommended Action 9A, calls for helping communities undertake a place-based approach to integrated water resources planning.

Place-Based Planning – A Key Step for Attaining a Community's Vision for the Future

Although Oregon is often thought of as a water-rich place, it is not without challenges. As described in the Integrated Water Resources Strategy, the state faces many water-related challenges. Organized in broad categories called "critical issues," these statewide challenges are summarized below.

- Limited water supplies and systems
- Gaps in data & information
- Understanding various institutions
- Understanding needs/demands
- Population growth
- Economic development
- Climate change
- Energy-water nexus
- Infrastructure challenges
- Changes in land-use
- Education and outreach
- Integrating various planning activities
- Maintaining and developing partnerships
- Water management/development (conservation, storage, reuse, etc.)
- Ecological health (natural storage, instream protections, invasive species, habitat)
- Public health (drinking water, toxics, pollutants, recreation)
- Funding

These issues affect most communities across the state. Water supply shortages for instream and out-of-stream uses already occur in many locations throughout the state, and will likely be intensified by a changing climate and increases in future demand. Similarly, while efforts have been successful in improving water quality, new pollutants are emerging, and about 22,000 stream miles and 30 lakes and reservoirs are water-quality impaired. Even with significant gains in restoring habitats and watersheds functions throughout Oregon, many species are still at a fraction of their historic levels, with several listed as threatened or endangered under the Federal Endangered Species Act.

Although every river basin in Oregon is unique in terms of widely varying ecological issues, community values, and economic dynamics, every community has its own water challenges that if left unaddressed, will likely increase in the future. Failing to address these challenges can impair the quality of life for Oregonians and hinder communities from reaching their economic, social, and environmental potential.

Water is essential for economic growth in both urban and rural areas across the state. In order for a community to achieve its economic and environmental goals for the future – for example, to provide jobs for its citizens and to ensure that a strong vibrant fishery and recreation opportunity exist – we must consider how instream and out-of-stream water quantity, water quality, and ecosystem needs will be met today and in the future.

Water crosses political boundaries and connects the landscape, and as such, water challenges cannot be adequately addressed using a piecemeal, uncoordinated approach. Solutions must be holistic and coordinated so that partners are not working at odds with one another.

Initiating a “place-based” integrated water resources planning approach is a tool for Oregon communities to achieve that level of coordination, by collaboratively developing a shared vision for the future, and anticipating and addressing specific water-related challenges. Such planning gives those who live, work, and play in a community and who care deeply about it a stronger voice in their water future, which in turn will provide a pathway for building the political and public support needed for water resources projects (instream and out-of-stream). This support will be particularly helpful in demonstrating that projects are well-vetted and supported at the local level, and therefore merit technical or financial assistance. Furthermore, communities that undertake a place-based approach can help inform statewide efforts, including providing data and input to future iterations of the IWRS. In essence, place-based integrated water resources planning will allow communities to identify their water resources needs and then partner with the state to develop solutions and a suite of projects that will help meet those needs now and into the future.

Purpose and Use of the Guidelines

These guidelines were written knowing that piloting integrated water resources planning at a watershed level will inform the long-term, place-based planning program in Oregon. During this pilot phase, the state can adjust or adapt the guidelines to provide greater clarity or direction as needed.

The IWRS Project Team welcomes input from local communities employing these guidelines. Send comments to: waterstrategy@wrdd.state.or.us.

Five Steps of Place-Based Planning

A place-based plan should adhere to the following five steps:

1. **Build a Collaborative & Integrated Process**
Create a structure and process that fosters collaboration, bringing together various sectors and interests to work toward the common purpose of maintaining healthy water resources to meet the needs of the community and the environment. Ensure a balanced representation of interests and a meaningful process for public involvement.
2. **Characterize Water Resources, Water Quality, & Ecological Issues**
Describe and assess current water supplies, water quality, and the status of ecosystem health to determine any existing challenges and potential opportunities.
3. **Quantify Existing and Future Needs/Demands**
Define how much water is needed to meet current and future water needs – instream and out-of-stream – water quantity, water quality, and ecosystem needs/demands. Plans should address how climate change, population growth, and land use affect water resources and the ability to meet these needs within the community. Meeting water needs should be considered within the context of specific watersheds, accounting for the hydrological, geological, biological, climatic, socio-economic, cultural, legal, and political conditions of a community.
4. **Develop Integrated Solutions for Meeting Long-Term Water Needs**
Recommend a suite of actions to address the community's water-related challenges with the goal of meeting both instream and out-of-stream needs.
5. **Adopt the Plan**
Planning groups should formally adopt the plan. Agencies will review the plan and the Water Resources Commission will have an opportunity to formally accept the plan, based upon whether it meets the goals and objectives of the statewide Integrated Water Resources Strategy.

To be considered a place-based plan that helps implement the statewide Integrated Water Resources Strategy, planning groups should adhere to these planning guidelines and the following fundamentals:

- Recognize the public interest in water, state authorities, and responsibilities.
- Comply with existing state laws and policies.
- Ensure balanced representation of all interests.
- Have a meaningful process for public involvement (e.g., advertise and hold public meetings).
- Adhere to the 2012 IWRS Guiding Principles. Refer to Appendix A.
- Remember that a place-based plan, on its own, cannot change existing laws or jeopardize existing water rights.

Within a basin or sub-basin, multiple plans governing the use and protection of water resources may already exist. Examples include water management and conservation plans (by a municipal water provider or irrigation district), fish conservation and recovery plans, Biological Opinion Implementation Plans, basin programs that govern future allocations, the laws administering the

Forest Practices Act, Total Maximum Daily Loads (TMDLs) for improving water quality, and many local implementation plans. There are also local land-use plans, watershed restoration action plans, and locally-developed agricultural water quality management plans. Taken together, these plans and their respective strategies engage many agencies and entities at every level.

In envisioning a place-based planning approach, these existing regulations, plans, and programs do not go away, but instead provide a baseline of information, history, and rules that should be considered, coordinated, and built upon. A voluntary integrated water resources plan can help bring together these plans and programs in a more strategic and effective way, providing greater opportunities for coordination and funding while making progress on multiple fronts.

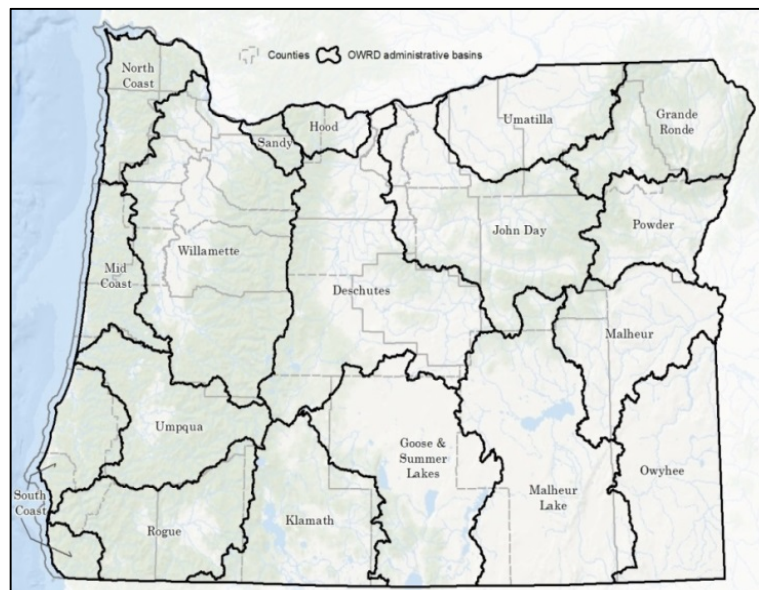
Planning Step 1: Build a Collaborative & Integrated Process

During this initial step, a representative(s) of the planning group should consult with the Water Resources Department for the purposes of: defining the planning scale, convening the process, involving state agencies as partners, inviting and involving diverse interests, and ensuring a public process with consensus decision-making.

Define the Planning Scale

Planning groups have the flexibility of establishing their own geographic planning scale, so long as it meets certain criteria. The Water Resources Department's existing administrative drainage basins are a good starting point for identifying the planning scale (see Figure 1). These administrative boundaries are further divided into smaller geographic areas within the Department's basin programs (refer to OAR Chapter 690, Divisions 500-520). Planning groups can choose to focus on smaller geographic areas, such as a sub-basin, or a group of sub-basins, within these boundaries. For example, planning groups could focus on the upper, middle, or lower section of a basin. To the extent possible, planning groups should utilize watershed-based boundaries, accounting for both groundwater and surface water, and situations where the source of water for certain uses (e.g., drinking water or irrigation) originates in an adjacent basin or sub-basin.

Figure 1: Administrative Basins in Oregon (OWRD)



Convene the Process

Since developing a place-based plan is completely voluntary, local partners will need to initiate the effort and convene the process. These guidelines do not suggest who the convener should be, but rather, describe the role and responsibilities of a convener(s). Oregon's Policy Consensus Initiative (PCI) provides resources to help facilitate collaborative planning and has developed basic principles

to help conveners understand their role in the planning process. Planning groups should refer to PCI's resources, particularly the "Role of a Convener," an excerpt of which is included as Appendix B. Conveners, and any sponsoring entities, should communicate to the Water Resources Department of their intentions to organize a planning group and to develop a place-based plan.

Involve Agencies as Partners

The role of state agencies in development of a place-based plan is to provide data and information, and generally, offer support, advice and direction throughout development of the plan. The Water Resources Department and its sister agencies can help planning groups incorporate the goals and objectives of the Integrated Water Resources Strategy at the local level, and understand the regulatory structures in place today.

If resources allow, the Water Resources Department could serve as a planning member or act as a liaison for other natural resources agencies not able to commit staff resources to participate in planning-related activities, such as face-to-face meetings. At a minimum, planning groups should consult with other agencies, such as the Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, and Oregon Department of Agriculture to determine agency participation. A state agency could serve as a facilitator or play a co-convening role, if requested by local communities and if resources allow.

If federal projects or land management programs exist within the planning area, groups should reach out to federal agencies to determine participation as well.

Invite & Involve Diverse Interests

The planning group will need to decide its own structure for involving diverse interests and should describe this approach within its plan. Most importantly, the structure needs to ensure that the planning body represents a balance of interests from different sectors. Diverse representation is a key tenet of integrated water resources management. Each basin will be unique in terms of the actual distribution of interests and stakeholders. Having diverse interests engaged and invested from the beginning will help ensure a process that meets both instream and out-of-stream water needs. Remember that these needs encompass water quantity, water quality, and ecosystem needs, considering both surface water and groundwater resources.

In determining the composition of a planning group, it is important to ensure that all persons potentially affected by a place-based plan have a voice in the decision-making process. This includes environmental justice communities, particularly members of minority or low-income communities, tribal communities, and those traditionally under-represented in public processes.

The place-based plan should describe how the planning members were determined, including a list of those that were invited to participate. Interest groups will need to decide for themselves what individual(s) best represents their interests for planning group participation. The plan should describe those responsible for its development and implementation. The description should contain enough detail to help stakeholders and the public understand how to communicate with the planning group and participate in plan development. Generally, interests in any given place will include:

- Local governments (cities and counties)
- Tribal governments
- Municipal water and wastewater utilities

- Major industries or employers
- Agriculture
- Forestry
- Self-supplied water users
- Conservation/environmental groups
- Power companies
- Small business
- Private landowners
- Special districts (e.g., irrigation, public utilities, flood control, parks/recreation, drainage, ports, etc.).
- State and federal agencies (natural resources, land management, business development)

Ensure a Public Process & Consensus Decision-Making

Reaching decisions within the planning group must be an inclusive and transparent process. Making decisions by consensus is an effective technique, meaning that one or two in the group may dissent, while the rest of the group supports the decision—or can “live with it.” Getting to consensus provides a solid foundation upon which to build a plan and subsequent related actions, because it signals long-term support and commitment from a diverse set of stakeholders and partners.

Any place-based plan needs to employ a strong communication strategy, not only to ensure public participation in plan development, but to also engage the broader community on implementation of the plan. Publicize, in advance, meetings of the planning group, and accept public comment during every meeting.

Ensure a means of online communication as well, by setting up a website and posting materials regularly. Consider using a list-serve, and/or email account that can be used to quickly and widely disseminate information. Use these media, as well as print or other venues, to advertise upcoming meetings and public comment opportunities. Planning groups should comply with the state’s Public Meetings Law. Refer to Appendix C for references, including a “quick guide” developed in 2010 for local and state officials, members of Oregon boards and commissions, citizens, and non-profit groups.

Planning Step 2: Characterize Water Resources, Water Quality, & Ecological Issues

The purpose of this step is to help the planning partners collectively identify challenges currently facing the community, and to start mapping potential solutions or opportunities to address any water quantity, water quality, or ecological issues. This planning step represents the data gathering and assessment phase. Oregon’s 2012 Integrated Water Resources Strategy provides a statewide framework of critical issues that can be used for reference.

This step of the planning process is also an opportunity to tell the story of what makes the area unique, describing the economic, social, cultural, and landscape characteristics of the community. This includes the physical characteristics of water resources, such as major rivers, tributaries, aquifers, and other resources, noting whether they are rain, snow, or spring-fed systems.

Extensive planning efforts in the 1960s through the early 1990s examined water resources issues for most areas of the state and resulting basin programs describe how water can be allocated in the future. Planning groups should consider existing basin program policies, objectives, and

classifications (OAR Chapter 690, 500-520), and any other existing legal protections, when characterizing water resources issues.

In addition to surface water, describe the availability of groundwater resources to the extent known. Describe, if possible, where additional data is needed. Note any groundwater protected areas and the status of groundwater in these areas. Existing data or basin investigations are available from the Water Resources Department and the U.S. Geological Survey.

The place-based plan should describe water quality –both surface water and groundwater– in the planning area. Items to consider for water quality include: designated beneficial uses, impaired water bodies, groundwater management areas, total maximum daily loads, permitted discharges, non-point sources of pollution, and any monitoring or relevant publications that can be used to characterize surface water or groundwater quality conditions.

The plan should include a general description of the ecological health of the planning area. This section should include a description of key species and habitats. Describe the historical and current presence of aquatic species, including any migratory fish, listed species under the Endangered Species Act with their current status, and species on ODFW's State Sensitive List. Include a discussion of limiting factors that affect aquatic habitats in the watershed. As an example, the 2006 Oregon Conservation Strategy provides a list of limiting factors to consider: water quantity (low flows), water quality, invasive species, water temperature, sedimentation, passage barriers, degraded riparian condition, and loss of habitat complexity.

Refer to Appendix C for technical resources and publications to help complete Planning Step 2.

Planning Step 3: Quantify Existing and Future Needs/Demands

The purpose of Planning Step 3 is to identify how much water is needed to support current and future uses of water, to examine when and where supplies do not meet instream or out-of-stream needs / demands today, and to determine where existing supplies are likely to fall short in the future.

Planning groups should quantify existing and future instream and out-of-stream water needs in the watershed, using a 50-year planning horizon, and accounting for future pressures such as climate change, population growth, and changes to land-use. Keep in mind that such needs encompass water quantity, water quality, and ecosystem needs. Many of these needs may already be quantified in municipal or agricultural water management plans, TMDL plans, habitat restoration plans, forest management plans, or conservation and species recovery plans. Planning groups should identify where conflicts among uses are most likely to arise in the future. This is critical information that will shape how solutions are developed later in the planning process.

Out-of-Stream Needs/Demands

Describe existing water rights in the basin, generally. Are consumptive uses (e.g., municipal, agricultural, industrial, domestic, etc.) being met today? Are uses met by surface water, groundwater, stored water, or non-traditional sources of water, such as recycled water, treated effluent, rainwater catchment, or stormwater? Evaluate the reliability of existing infrastructure (diversion works, storage reservoirs, delivery systems, etc.). The local watermaster may have information regarding the history and frequency of water shortages during dry years in the area.

Oregon's Water Rights Information System and annual water use reports may also be useful for understanding existing water uses.

Instream Needs/Demands

Describe existing instream needs in the planning area to determine if such needs are currently being met. Consider existing protections (e.g., instream water rights, pending instream water right applications, scenic waterway flows, or flows specified in project operations) to support fish, wildlife, recreation, or pollution abatement. Also assess flow needs to support other uses, such as navigation or hydropower. Groundwater often contributes flow to surface water bodies and supports various ecological functions; therefore, groundwater should be considered for assessing instream needs. Determine how often instream flows are met in wet or dry years and the likelihood such flows will be met in the future. Refer to the Integrated Water Resources Strategy for more information on the suite of flows that are needed to support instream uses.

Climate Change & Natural Hazards

As planning groups are conducting assessments under Planning Element #2 (characterizing issues) and Planning Element #3 (defining needs/demands), groups will need to consider the risks posed by climate change. The analysis could identify vulnerabilities of (a) human systems, (b) natural systems, and (c) infrastructure and the built environment. Projected climate change impacts include a longer freeze-free season, increased water demand due to warmer summertime temperatures, and higher spring flows/lower summer flows in snowmelt-dominated basins.

Planning groups should assess whether natural and built systems are vulnerable to certain natural events, such as droughts, wildfires, floods, or possibly seismic events. The frequency, duration, intensity, and impacts of past events and potential future events should be considered. Planning groups may wish to consider developing a multi-year, worst-case planning scenario to aid in development of drought, flood, or other preparedness-type strategies.

Planning Step 4: Develop Integrated Solutions for Meeting Long-Term Water Needs

Developing the solutions toolbox is paramount for meeting instream and out-of-stream water needs in a given place, today and into the future. Considering the diversity of water challenges, planning groups will likely need to consider a suite of tools, examining various options for meeting unmet needs/ demands. This can include maintaining current practices, if they are sufficient to meet future needs / demands. Use of the following tools can help bridge any gaps identified. Note that the following solutions, listed in no particular order, is not all encompassing. Innovative approaches or solutions are strongly encouraged.

(a). Efficiency and Conservation Measures

Consider improving water-use efficiency and employing conservation practices as a means for meeting water needs. At the individual level, irrigators can reduce on-farm water use by implementing a number of new technologies and practices. Several irrigation districts throughout Oregon have made their delivery systems more efficient in recent years, finding ways to save water, reduce costs, and improve the reliability of deliveries to water users. The state's Allocation of Conserved Water program is a water right transfer tool that puts some water back instream while allowing some water to be applied to additional acreage.

Water conservation opportunities exist within municipal water systems as well. Delivery system upgrades and household-level programs that install low-flow toilets, faucet aerators, and high-efficiency shower heads can be effective tools for reducing water use and meeting additional demands. Rebate or outreach programs sponsored by municipal water providers have been effectively used in Oregon in the past and continue to be used to complement system upgrades.

Landscaping can account for a significant use of water; installing efficient irrigation systems or selecting plants that require less water can also be effective tools, along with other landscaping techniques. (Refer to IWRS Action 10A for more information).

(b). Built and Natural Storage

Storage as a water management tool includes natural storage, built storage (above-ground and below-ground), and operational changes to existing storage projects.

The state of Oregon has a policy described in OAR 690-410-0080 that gives high priority to storage that optimizes instream and out-of-stream public benefits and beneficial uses. Multi-purpose storage is preferred over single-purpose storage.

If planning groups are considering new storage as a potential water management tool, the following should be considered:

- Purpose (e.g., type, location and extent of use, benefits);
- Legal Requirements (e.g., state, federal, and local legal requirements);
- Social Considerations (e.g., recreational, public support, cultural, historic);
- Technical Constraints (e.g., siting issues, public safety and structural integrity);
- Financial Realities (e.g., project financing including site costs, cost sharing and repayment, and operating, maintenance and rehabilitation costs);
- Economic Analysis (e.g., project benefit/cost analysis);
- Land Use (e.g., ownership, comprehensive plans, coordination);
- Environmental Effects (e.g., impacts on streamflows, fisheries, wildlife, wetlands, habitat, biological diversity, water quality and opportunities for mitigation);
- Other (e.g., direct and indirect impacts).

For existing storage projects within the watershed, planning groups should evaluate current storage capacities, authorized purposes, and operational practices to determine if management or engineering adjustments could help meet any unmet needs/demands.

Planning groups should also consider the enhancement of watershed storage capacity through natural processes using non-structural means. These non-structural means include maintaining forested and riparian areas, protecting or restoring floodplain functions, preserving wetlands, and restoring upland meadows. (Refer to IWRS Actions 10B and 11A for more information).

(c). Water Right Transfers & Rotation Agreements

Water right transfers allow the water right holder to change the point of diversion, place of use, or type of use. The state provides options for permanent transfers, temporary transfers, and instream leases. Transfers can be used to move water to where it is needed, or to provide mitigation water for new consumptive uses of water. One of the basic tenets of a water right transfer is ensuring that

other instream or out-of-stream uses are not injured as a result of the changes to the use. Whether the change is a transfer or a lease, it will not be authorized if other instream or out-of-stream water right holders are injured as a result of the change.

In addition to transfers, there are a number of other innovative management methods that can provide some flexibility and alternatives. For example, water users with existing water rights can enter into private signed agreements to rotate water and make the most economical use of a limited supply. Other examples of permanent and temporary options include dry year options and forbearance agreements.

(d). Non-Traditional Water Supply Techniques

Planning groups should consider alternative or non-traditional supplies, such as the use of rainwater, stormwater, greywater, or desalinated water as a management strategy.

For example, some Oregon communities have installed purple pipe as a means to use reclaimed water for golf courses or other greenways. Such installations require a parallel system of infrastructure, alongside traditional wastewater and stormwater pipes. The ability to use reclaimed water for non-potable uses means that large amounts of water can by-pass the treatment facility process, usually reserved for potable water supplies. (Refer to IWRS Action 10C for more information).

Desalination is a technique that allows communities to address water scarcity by treating brackish groundwater or saltwater. Both inland and coastal communities may wish to undertake desalination projects to meet their water needs. Such projects would need to seek approval through existing regulatory pathways, and where appropriate, planning groups may need to identify policy gaps that create barriers to desalination projects. The identification of these barriers would allow the state to pursue policy changes, if needed, so that desalination can occur where appropriate, without jeopardizing existing water rights and identified beneficial uses.

(e). Infrastructure

Water infrastructure needs are many and growing. As water and wastewater systems age, maintenance becomes a greater challenge and cost. Many of the diversion, conveyance, storage, and other infrastructure in Oregon are more than 100 years old and in need of repair or replacement. As communities grow and technologies improve, the need for modern infrastructure continues to grow as well. Developing regional partnerships among water providers and wastewater utilities can be a key component to a successful infrastructure program.

Planning groups should consider taking stock of water-related infrastructure in the community to determine whether maintenance or upgrades are necessary and whether plans are in place to save for and invest in maintenance needs. A thorough structural review should be undertaken to assess the integrity of structures to withstand disturbances, such as earthquakes or large flood events. In addition, the planning group may want to evaluate whether reservoir storage capacity has been reduced, by sedimentation for example, or for public safety reasons. Doing so could help expand water supplies or provide greater system reliability during dry years. (Refer to IWRS Action 7A and 7B for more information).

(f). Watershed & Habitat Restoration

Planning groups will need to consider actions to improve and maintain the ecological health of the planning area. Watershed restoration efforts have been occurring throughout Oregon for many years, providing the habitat needed to support fish, wildlife, and a variety of ecosystem services, such as recycling nutrients back into the soil and therefore, improving water quality.

The Integrated Water Resources Strategy contains four recommended actions to improve or maintain the health of Oregon's ecosystems: improve watershed health, resiliency, and capacity for natural storage; develop additional instream protections; prevent and eradicate invasive species; and protect and restore instream habitat and access for fish and wildlife. In particular, removing fish passage barriers and screening diversions are key actions to consider. Planning groups can look to the IWRS for other tools to consider during plan development.

Oregon's network of watershed councils, soil and water conservation districts, and non-profit conservation organizations are at the forefront of on-the-ground restoration projects. Planning groups should consider building upon the expertise and strategic action plans of these local organizations.

(g). Instream Flow Protections

The protection and maintenance of instream flows are necessary to support ecosystem health. Oregon's instream flow policy in OAR 690-410-0030 recognizes that benefits are provided by water remaining where it naturally occurs.

Protecting streamflows that are needed to support public uses is a high priority for the state. The long-term goal of the state's policy is to establish an instream water right on every stream, river and lake that can provide significant public benefits. Where streamflows have been depleted to the point that public uses have been impaired, methods to restore the flows should be developed and implemented. These activities must be consistent with the preservation of existing rights, established duties of water, priority dates, and with the principle that all of the waters within the state belong to the public to be used beneficially without waste.

Many watersheds throughout the state contain protections for instream flows through instream water rights, permit conditions, by-pass conditions, scenic waterway designations, and biological opinions. There are a number of tools available to meet instream flows needs, including streamflow measurement and management, transferring senior water rights instream, leasing water temporary instream, and regulating in favor of senior instream water rights. Streamflow restoration projects should seek cooperation and coordination between instream water interests and out-of-stream water users. The Water Resources Department and the Department of Fish and Wildlife have jointly identified priority areas for streamflow restoration throughout the state.

A place-based plan should identify opportunities for meeting instream flow needs. If instream flow requirements do not exist for a particular stream, river, or lake within the planning area, or if conflicting federal or state targets exist, the planning group may want to consult and seek recommendations from the Oregon Department of Fish and Wildlife on how to proceed in determining the appropriate instream flow. (Refer to IWRS Action 11B for more information on instream protections).

(h). Water Quality Protections

The Integrated Water Resources Strategy contains recommended actions to improve and protect water quality for the benefit of many uses, such as drinking water, ecosystem health, aquatic life, agriculture, and industry.

Some of the state's water quality priorities are set forth in water quality management plans (e.g., Senate Bill 1010 plans, Forest Practices Act, TMDLs and associated implementation plans) and groundwater protection plans. Ultimately, a place-based plan should identify opportunities for protecting and improving water quality in the planning area. This could be through the implementation of existing plans, undertaking actions in basin assessments, or developing new tools and collaborative strategies among community partners. Planning groups should consider potential pollutant sources and their potential solutions, such as using low impact development to mitigate stormwater impacts, using community outreach and grants to fix leaky septic systems, and using take-back programs to avoid toxic and pharmaceutical contamination of water supplies. Below are two examples from the Integrated Water Resources Strategy that demonstrate how to protect and improve water quality and public health:

Drinking Water

Planning groups should identify actions to address drinking water quality needs by considering collaborative source water protection strategies and various treatment technologies. Drinking water protection should focus on both large municipal systems, as well as community or individual drinking water systems.

Toxics and Other Pollutants

The IWRS recommends a number of ways to reduce toxics and other pollutants. The Oregon Department of Environmental Quality and its partners are pursuing many of these recommendations, with implementation being carried out at the local or community level. Planning groups should evaluate what strategies are in place within their community, such as the promotion of pesticide collection events, pharmaceutical take-back programs, the use of integrated pest management techniques, reducing cyanotoxins in fresh and marine waters, or raising public awareness.

(i). Monitoring

Expanding monitoring efforts to better understand water quantity, water quality, ecological issues, and program effectiveness is a key recommendation of the 2012 IWRS. Planning groups may need to install measurement devices or include monitoring as part of plan development, or the group may recommend increasing monitoring efforts as a management tool. Place-based planning efforts could help identify additional data needs, which can include monitoring and evaluating: streamflow (e.g. adding real-time capabilities), groundwater levels, water use, water quality, habitat conditions, and watershed functions. Several types of monitoring needs are described in the 2012 IWRS.

Development of new data or monitoring tools should be compatible with and available to partners, including state agencies. Oregon DEQ has resources available for local entities that are monitoring water quality conditions within their watershed, including directions for quality assurance, sampling, and analysis. The place-based plan should include a description of any current or proposed monitoring activities occurring in the watershed. Refer to Appendix C for monitoring standards and other related resources.

Planning Step 5: Plan Adoption & Implementation

On occasion, the planning group may be asked to present or share information with the Oregon Water Resources Commission, primarily to provide feedback on the use of these guidelines and to give Commission members an opportunity to offer recommendations and general input.

A place-based plan should be completed within a reasonable time frame. For the purposes of piloting these guidelines, plans are expected to be completed within three years of initiating the planning process. The state recognizes, however, that communities are at different stages of planning; some communities have already initiated discussions, collected data, or conducted assessments, whereas others are in the very early stages of organizing themselves. For these reasons, it is important to work with state agencies throughout the planning process to adjust completion timeframes, if needed.

Planning group members should formally approve their plan. Individual planning members should seek an affirmative vote from their respective governing boards or commissions to confirm any funding or political commitments made by the planning group.

The Department, working closely with the IWRS Project Team Agencies—namely the Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, and the Oregon Department of Agriculture—will conduct an inter-agency review of each place-based plan during the final stages of plan development. The Water Resources Commission will ultimately make the final decision about whether to formally accept a place-based plan as a component of the Integrated Water Resources Strategy. More specifically, the Commission will decide whether the plan adheres to these guidelines and the statewide goals and objectives of meeting instream and out-of-stream water needs, including water quantity, water quality, and ecosystem needs.

Implementation of a place-based plan will likely involve various partners and result in a suite of projects and/or long-term programs. Some projects may need additional analyses (e.g., feasibility studies) that are beyond the scope of a place-based plan. It is very likely that permits or some type of state or federal approval will be needed for certain projects, as well as funding, likely from multiple sources. Planning groups may need to develop a more detailed implementation strategy, agreement, or workplan to ensure that all of the hard work of creating the integrated water resources plan is carried out by various public and private partners.

Appendix A: Guiding Principles from Oregon's Statewide Strategy

The fifty-year vision and guiding principles from the 2012 Integrated Water Resources Strategy are reproduced below as a reference for planning groups. The guiding principles were developed to help shape the development and implementation of the Strategy. These principles should serve as a constant reminder to recognize the public interest in water, to include a meaningful process for public involvement, and to maintain a balanced representation of all interests.

Accountable and Enforceable Actions

Ensure that actions comply with existing water laws and policies. Actions should include better measurement and enforcement tools to ensure desired results.

Balance

The [place-based] strategy must balance current and future instream and out-of-stream needs supplied by all water systems (above ground and below ground). Actions should consider and balance tradeoffs between ecosystem benefits and traditional management of water supplies.

Collaboration

Support formation of regional, coordinated, and collaborative partnerships that include representatives of all levels of government, private, and non-profit sectors, tribes, stakeholders, and the public. Collaborate in ways that help agencies cut across silos.

Everywhere in our State, we see healthy waters, able to sustain a healthy economy, environment, and cultures & communities.

Healthy waters...are abundant and clean. A healthy economy...is a diverse and balanced economy, nurturing and employing the state's natural resources and human capital to meet evolving local and global needs, including a desirable quality of life in urban and rural areas. A healthy environment...includes fully functioning ecosystems, including headwaters, river systems, wetlands, forests, floodplains, estuaries, and aquifers. Healthy cultures and communities...depend on adequate and reliable water supplies to sustain public health, safety, nourishment, recreation, sport, and other quality of life needs.

A Fifty-Year Vision for Oregon's Water Future
Policy Advisory Group
2012 Integrated Water Resources Strategy

Conflict Resolution

Be cognizant of and work to address long-standing conflicts.

Facilitation by the State

The State should provide direction and maintain authority for local planning and implementation. Where appropriate, the State sets the framework, provides tools, and defines the direction.

Incentives

Where appropriate, utilize incentive-based approaches. These could be funding, technical assistance, partnerships / shared resources, regulatory flexibility, or other incentives.

Implementation

Actions should empower Oregonians to implement local solutions; recognize regional differences, while supporting the statewide strategy and resources. Take into account the success of existing plans, tools, data, and programs; do not lose commonsense approach; develop actions that are measurable, attainable, and effective.

Interconnection/Integration

Recognize that many actions (e.g. land-use actions) in some way affect water resources (quality and/or quantity); recognize the relationship between water quantity and water quality; integrate participation of agencies and parties.

Public Process

Employ an open, transparent process that fosters public participation and supports social equity, fairness, and environmental justice. Advocate for all Oregonians.

Reasonable Cost

Weigh the cost of an approach with its benefits to determine whether one approach is better than another, or whether an approach is worth pursuing at all. Actions should focus on reducing the costs of delivering services to the state's residents, without neglecting social and environmental costs.

Science-Based, Flexible Approaches

Base decisions on best available science and local input. Employ an iterative process that includes "lessons learned" from the previous round. Establish a policy framework that is flexible. Build in mechanisms that allow for learning, adaptation, and innovative ideas or approaches.

Streamlining

Streamline processes without circumventing the law or cutting corners. Avoid recommendations that are overly complicated, legalistic, or administrative.

Sustainability

Ensure that actions sustain water resources by balancing the needs of Oregon's environment, economy, and communities.

Appendix B: The Convener's Role & Responsibilities

The following information contains excerpts from the Policy Consensus Initiative's document entitled, "The Role of a Convener." For the full version or to find more information or resources visit: http://www.policyconsensus.org/publicsolutions/ps_6.html.

The Convener

A convener is a person—typically a well-known public leader with credibility and stature—who brings a diverse group of people together to resolve a problem collaboratively. Experience over the past 25 years has demonstrated that conveners are often essential to achieving successful outcomes in collaborative processes, especially when the solutions reached require action by multiple sectors and levels of government.

Conveners get people involved in finding effective solutions together; they do not seek to impose their own solutions. Experience has shown that [public officials] and other respected civic leaders can be very effective as conveners or co-conveners of collaborative processes, so long as they act in impartial ways. By virtue of their office, elected leaders have the power to convene people from a variety of sectors to work on public problems. Other respected leaders, by virtue of the credibility and social capital they have built in their communities, regions, or states, also have the power to convene. When leaders serve as conveners or co-conveners of collaborative processes, the outcomes of these processes are more likely to receive support and to be formally adopted and implemented.

Selecting a Convener

The process for selecting a convener needs to be transparent, so that the parties and the public understand who made the selection. During the assessment, the parties should be asked who would make a good convener. The purpose of the question is not to have the parties choose the convener, but rather to understand their perceptions about the kind of person who is needed to gain the cooperation of all interests in working toward a solution.

The most important criteria for selecting a convener is that the person be highly respected and statesmanlike—someone with a reputation for serving the public interest, with no particular ax to grind or perspective to push on the issue at hand. Sometimes people will come to the table primarily because of the convener's status—because the stature of the convener makes them feel they are doing something important and worthwhile.

Best Practices for a Convener

To be effective, conveners should abide by the following key guidelines:

1. Be inclusive.

Conveners should be sure that a wide variety of people from different perspectives are involved. They should welcome participants from all interests—not just those with obvious interests, but also those with the economic, political, or technical resources that will help make for successful outcomes.

2. Establish a neutral meeting place.

When the issue is complex and divisive, the convener must establish an impartial process and a safe space for people to open up about their beliefs and opinions. It is often helpful to get assistance from an experienced facilitator to plan and conduct the process.

3. Be impartial to the solution.

Participants must believe that the convener is not predisposed to one side or another and is trying to find a solution that all sides can embrace. The convener may need to work in a bipartisan fashion with a co-convener from the other side of the aisle, to ensure the perception of impartiality.

4. Direct, rather than dominate, the discussions.

The convener must enable people to talk with each other, rather than talking only to the convener. It is often useful for someone else to facilitate the discussions so the convener can listen and ask questions. Besides, conveners will rarely have time to run all of the meetings.

5. Frame the meeting and the issue.

The convener must establish a purpose for each meeting and help to ensure that the issue is framed in a way that enables all people to work together productively. Defining and naming the issue jointly can ensure that everyone is willing to contribute to the solution.

6. Keep people moving and working together.

The convener should provide feedback to the group on their progress. Where institutional impediments or red tape crop up, the convener should consider using his or her own capabilities to overcome them.

7. Demonstrate ongoing visible commitment.

The convener can help keep participants at the table by demonstrating that they care about the progress the group is making. Even if the convener cannot be present at every meeting, he or she should send signals demonstrating on-going interest.

8. Make sure there is an outcome.

The convener can help a group get to closure by establishing timetables for the process and reminding people of those timetables. The best outcome involves written agreements that spell out an action and implementation plan, including specifying different people's responsibilities.

Appendix C: Technical Resources & Publications

This appendix is a starting point for planning groups looking for pertinent data and information, technical reports, statewide or regional plans and assessments, and agency contacts.

Public Process, Meetings

Oregon's Public Meeting Laws – Reference Guide (2010)

<http://www.open-oregon.com/wp-content/uploads/2010/06/publicMEETINGSreader.pdf>

Oregon Attorney General's Public Records and Meetings Manual (2011)

http://www.doj.state.or.us/pdf/public_records_and_meetings_manual.pdf

Policy Consensus Initiative's Resources for Leaders and Conveners

http://www.policyconsensus.org/publicsolutions/ps_6.html

Environmental Justice in Oregon, It's the Law (2008)

<https://law.lclark.edu/live/files/17291-38-2collin>

Water Quantity Data

Near Real-Time Streamflow Data

https://apps.wrd.state.or.us/apps/sw/hydro_near_real_time/

Historical Streamflow and Lake Level Data

https://apps.wrd.state.or.us/apps/sw/hydro_report/

Monthly Water Use Data

https://www.oregon.gov/owrd/access_data/

Groundwater Level Data

https://www.oregon.gov/owrd/access_data/

Groundwater Studies and Publications

<https://www.oregon.gov/owrd/programs/gwwl/gw/>

Critical Groundwater Areas (Map)

<https://www.oregon.gov/owrd/programs/gwwl/gw/>

Water Availability Database

OWRD's model for estimating water availability can provide useful information on whether any new water is available during different months of the year to support future uses.

https://apps.wrd.state.or.us/apps/wars/wars_display_wa_tables/MainMenu1.aspx

Water Rights Database

https://www.oregon.gov/owrd/access_data/

Water Rights Maps (GIS themes)

https://www.oregon.gov/owrd/access_data/

Water Quality Data

Wastewater Permits Database

<http://www.deq.state.or.us/wq/sisdata/sisdata.asp>

Water Quality Monitoring Data

<http://deq12.deq.state.or.us/lasar2/>

The Oregon Water Quality Index

<http://www.deq.state.or.us/lab/wqm/wqimain.htm>

Impaired Water Bodies

<http://www.deq.state.or.us/wq/assessment/assessment.htm>

Designated Beneficial Uses for Water Quality

<http://www.deq.state.or.us/wq/standards/uses.htm>

Groundwater Management Areas for Water Quality

<http://www.deq.state.or.us/wq/groundwater/gwmas.htm>

Ecological Data

Fish Distribution Data

<https://nrimp.dfw.state.or.us/nrimp/default.aspx?pn=fishdistdata>

State Species Sensitive List

http://www.dfw.state.or.us/wildlife/diversity/species/sensitive_species.asp

Streamflow Restoration Priority Areas (Maps)

<https://nrimp.dfw.state.or.us/nrimp/default.aspx?pn=streamflowmaps>

Salmon and Steelhead Recovery Tracker

<http://www.odfwrecoverytracker.org/>

Instream Water Rights in Oregon (Map)

http://filepickup.wrd.state.or.us/files/Publications/Place_Based_IWRS/ISWR_SWW_Map.JPG

ODFW's Compass Tool

Online mapping that displays passage barriers and status

<https://nrimp.dfw.state.or.us/compass/>

2013 Statewide Fish Passage Priority List

ODFW's statewide inventory of fish passage barriers, prioritized for enforcement, based on the needs of native migratory fish

<http://www.dfw.state.or.us/fish/passage/>

Fish Screening Information

<http://www.dfw.state.or.us/fish/screening/index.asp>

DSL's Technical Resources for Wetlands

http://www.oregon.gov/dsl/WETLAND/Pages/technical_resources.aspx

Watershed assessments funded by OWEB

http://www.oregon.gov/OWEB/MONITOR/pages/watershedassessments_linked.aspx

Monitoring-Related Resources (see also water quality / quantity sections, above)

Measurement and Computation of Streamflow, Volumes 1 & 2: USGS Water Supply Paper 2175

<http://pubs.usgs.gov/wsp/wsp2175/>

Stage Measurement at Gaging Stations (2010)

<http://pubs.usgs.gov/tm/tm3-a7/>

Discharge Measurements at Gaging Stations (2010)

<http://pubs.usgs.gov/tm/tm3-a8/>

DEQ's Volunteer Water Quality Monitoring Resources

<http://www.deq.state.or.us/lab/wqm/volmonresources.htm>

Climate Change Resources

IPCC Fifth Assessment Report (2013)
<http://www.ipcc.ch/report/ar5/>

Northwest Climate Assessment Report (2013)
<http://occri.net/wp-content/uploads/2013/11/ClimateChangeInTheNorthwest.pdf>

Oregon's Climate and Health Profile (2014)
<https://public.health.oregon.gov/HealthyEnvironments/climatechange/Pages/Climate-and-Health-Profile.aspx>

DLCD's Website: Planning for Climate Change
<http://www.oregon.gov/LCD/CLIMATECHANGE/Pages/index.aspx>

Natural Hazards: Drought, Floods, Earthquakes etc.

AWRA's Proactive Flood and Drought Management Applied Strategies (2013)
http://www.awra.org/news/AWRA_report_proactive_flood_drought_final.pdf

Oregon Resilience Plan (2013)
http://www.oregon.gov/OMD/OEM/osspace/docs/Oregon_Resilience_Plan_Final.pdf

Oregon's Natural Hazard Mitigation Plan (2015)
In addition to the statewide Natural Hazard Mitigation Plan, hazard plans developed by cities and counties may also be useful in understanding past hazard events in a community.
<http://www.oregon.gov/LCD/HAZ/pages/NHMP.aspx>

Oregon Hazards Explorer
<http://oregonexplorer.info/hazards>

Infrastructure

OWRD's Dam Inventory
https://apps.wrd.state.or.us/apps/misc/dam_inventory/default.aspx

Oregon Association of Clean Water Agencies
<http://www.oracwa.org/c-energy.html>

Pacific Northwest Seismic Network
<http://pnsn.org/earthquakes/recent>

U.S. Army Corps of Engineers National Inventory of Dams
<http://geo.usace.army.mil/pgis/f?p=397:12>

Statewide or Regional Plans & Assessments

Oregon's Integrated Water Resources Strategy
<https://www.oregon.gov/OWRD/programs/planning/iwrs/>

Oregon Conservation Strategy (ODFW)
http://www.dfw.state.or.us/conservationstrategy/read_the_strategy.asp

Oregon Plan for Salmon and Watersheds (OWEB)
<http://www.oregon.gov/OPSW/pages/index.aspx>

Conservation and Recovery Plans (ODFW)
http://www.dfw.state.or.us/fish/CRP/conservation_recovery_plans.asp

TMDLs in Oregon (DEQ)
This site contains links to Total Maximum Daily Load and Water Quality Management Plan documents prepared for water bodies in Oregon designated as water quality limited on the 303(d) list.
<http://www.deq.state.or.us/wq/tmdls/tmdls.htm>

Agricultural Water Quality Management Plans (SB 1010)

<http://geo.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=e48e9d32e854458a8079b10852c3100b>

DEQ Basin Assessments

Basin assessments have been completed for the North Coast, Deschutes, Rogue, and Powder River Basins.

<http://www.deq.state.or.us/wq/watershed/watershed.htm>

OWRD Basin Programs

Some stream systems are only classified for certain uses during certain times of the year. These classifications are used, in conjunction with other laws or rules, to determine whether the state can allow new uses of water. Basin programs exist for most of the state's major drainage basins, and are described in Oregon Administrative Rules Chapter 690, Division 500 – 520.

| | |
|------------------------------------|----------------------------------|
| North Coast Basin Program | [Available here] |
| Willamette Basin Program | [Available here] |
| Sandy Basin Program | [Available here] |
| Hood Basin Program | [Available here] |
| Deschutes Basin Program | [Available here] |
| John Day Basin Program | [Available here] |
| Umatilla Basin Program | [Available here] |
| Grande Ronde Basin Program | [Available here] |
| Powder Basin Program | [Available here] |
| Malheur Lake Basin Program | [Available here] |
| Owyhee Basin Program | [Available here] |
| Malheur Lake Basin (Provision) | [Available here] |
| Goose & Summer Lakes Basin Program | [Available here] |
| Rogue Basin Program | [Available here] |
| Umpqua Basin Program | [Available here] |
| South Coast Basin Program | [Available here] |
| Mid-Coast Basin Program | [Available here] |
| Columbia River Basin Program | [Available here] |
| Middle Snake River Basin Program | [Available here] |

Contacts

Integrated Water Resources State Agency Contacts:

| | |
|-------|--|
| OWRD: | Alyssa Mucken, alyssa.m.mucken@state.or.us ; 503-986-0911 (Salem) |
| ODEQ: | Wade Peerman, wade.peerman@state.or.us ; 503-229-5046 (Portland) Heather Tugaw, heather.tugaw@state.or.us ; 541-776-6091 (Medford) Smita Mehta, smita.mehta@state.or.us ; 541-278-4609 (Pendleton) |
| ODFW: | Danette Faucera, danette.l.faucera@state.or.us ; 503-947-6092 (Salem) |
| ODA: | Margaret Matter, mmatter@oda.state.or.us ; 503-986-4561 (Salem) |

Watershed Councils

http://www.oregon.gov/OWEB/GRANTS/docs/councilcapacity/June_2014_Map_Watershed_Councils.pdf

Soil and Water Conservation Districts

<http://geo.maps.arcgis.com/apps/Viewer/index.html?appid=9cee1a8b865140d5b71253975fb7fe6d>

DEQ's Basin Coordinators

<http://www.deq.state.or.us/wq/tmdls/docs/basincoordinators.pdf>

OWRD's Watermasters in Oregon

<http://www.oregon.gov/owrd/aboutus/contactus/>

Appendix D: Quick Guide for Place-Based Planning

The appendix is a short list of the place-based planning elements. It provides the general topic areas and key points to consider while developing a place-based plan.

Planning Step 1: Building a Collaborative & Integrated Process

Place-Based Planning Under the IWRS

- Adhere to fundamentals
- Follow IWRS Guiding Principles

Define the Planning Scale

- Establish the geographic planning scale
- Correspond with existing basins
- Watershed-based

Convene the Process

- Public official or of similar stature
- Adhere to basic principles (See App. B)
- Notify OWRD of planning initiation

Involve Agency Partners

- Technical contacts
- Guidance; support
- Seek federal participation

Invite and Involve Diverse Interests

- A balance of interests from different sectors
- Define responsible parties
- Include all persons potentially affected

Employ a Public Process

- Must be an inclusive and transparent process
- Seek consensus
- Develop communication strategy/plan
- Follow Public Meetings law

Planning Step 2: Characterize Water Resources, Water Quality, & Ecological Issues

Describe the Place

- Economic, social, cultural characteristics
- Unique features or attributes
- Physical and landscape characteristics:
 - Major rivers & tributaries
 - Aquifer systems and springs
 - Estuaries and bays
 - Reservoirs and lakes
 - Conveyance systems
 - Hydrology (rain, snow or spring fed systems), etc.

Surface & Groundwater Quality/Quantity

- Availability
- Existing protections
- OWRD basin programs
- Beneficial uses (water quality)
- Impaired water bodies
- Groundwater management areas (water quality)
- Total maximum daily loads
- Permitted discharges

Ecological Health of the Watershed

- Key species & habitats
- Historical and current fish species
- ESA STE species; ODFW sensitive species
- Limiting factors

Planning Step 3: Quantify Existing & Future Needs/Demands

Existing and Future Needs/Demands

- Instream and out-of-stream
- Quantity, quality, & ecosystems
- Future pressures (e.g., population, land-use, etc.)

Out-of-Stream Needs

- Agricultural uses (irrigated and non-irrigated)
- Municipal uses
- Industrial uses
- Domestic uses

Instream Needs

- Meeting existing targets (water rights, scenic waterways flows, etc.)
- Fish and wildlife, water quality, recreation, etc.

Climate Change & Natural Hazards

- Human and natural risks
- Infrastructure and built environment risks
- Drought, floods, seismic, other natural hazards
- Multi-year, worst-case scenario

Planning Step 4: Develop Integrated Solutions for Meeting Long-Term Water Needs

Efficiency & Conservation Measures

- Allocation of Conserved Water; on-farm activities
- Infrastructure upgrades
- Household level conservation programs

Built & Natural Storage

- Capacity & operations
- Above & below
- Natural storage (forests, floodplains, wetlands, snowpack)

Transfers & Rotation Agreements

- Permanent transfers
- Temporary transfers
- Instream leases
- Rotation or forbearance agreements

Non-Traditional Techniques

- Recycled or reclaimed water projects
- Graywater, rainwater, stormwater
- Desalination

Infrastructure

- Aging water and wastewater systems
- Energy efficiencies
- Storage capacities
- Safety (e.g., seismic, flood risk)
- Regional partnerships
- Long-term maintenance strategies

Watershed & Habitat Restoration

- Improve/maintain ecological health
- Utilize existing plans/efforts (e.g. Oregon Plan)
- Fish passage barriers/screening

Instream Flow Protections

- New instream water rights
- Streamflow restoration priorities
- Improved measurement/monitoring
- Consult with ODFW

Water Quality Protections

- Pollution reduction strategies
- Nonpoint source projects
- Source water protection
- Toxics (e.g., nutrients reduction)
- Education and outreach

Monitoring

- Measurement (streamflows/water use)
- Program Effectiveness
- Quality assurance
- Shared information

Planning Step 5: Plan Adoption & Implementation

Review Process

- Three-year completion timeframe
- Seek input from WRC
- Inter-agency review

Adoption

- Planning members adopt
- Seek approval from boards/commissions
- Submit to WRC for acceptance process
- Develop workplan/implementation strategy

Place-Based Integrated Water Resources Planning

DRAFT Guidance for Planning Step 5

Plan Adoption and Implementation

September 13, 2019



Water is a finite resource with growing demands; water scarcity is a reality in Oregon. Water-related decisions should rest on a thorough analysis of supply, the demand/need for water, the potential for increasing efficiencies and conservation, and alternative ways to meet these demands.

Oregon's Integrated Water Resources Strategy Policy Advisory Group (2016)

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Introduction

Planning Step 5, Plan Adoption and Implementation, is about bringing all the planning work accomplished during Planning Steps 1 through 4 together into a concise, *place-based integrated water resources plan* (the “Plan”) that is locally-developed and adopted, state-recognized, and actionable. The Plan should tell a compelling story about the critical water issues in the planning area, the vision for the future, recommended actions, and a strategy for implementation.

This guidance is intended to assist in drafting the Plan and to explain the process for state agency review and formal recognition of the Plan by the Oregon Water Resources Commission (the “Commission”). This guidance includes the following sections:

- Purpose and Value of a Plan. This section briefly describes the purpose and value of a completed Plan.
- Developing the Plan. This section describes the need for a clear process and work plan, how the Plan can be developed using existing work products, the required Plan contents, other considerations, and the importance of gaining support for the Plan.
- State Agency Review of DRAFT Final Plan. This section describes the review team composition, review steps and timeline, criteria for Final Draft Plan review by state agency reviewers, outcomes of the state agency review, and Final Plan adoption by the planning group.
- Commission Recognition of Final Plan. This section describes the process and purpose of seeking recognition by the Commission of the locally-adopted Final Plan including the steps for Commission recognition and factors the Commission will consider.
- Appendix A. Example Plan Template. This appendix provides one example of how a planning group could organize their Plan. Groups are not required to use this template.
- Appendix B. State Agency Review Criteria. This appendix describes criteria state agencies will use to review the Final Draft Plan and includes the worksheet agency reviewers will use as well as draft templates for conveying results. The criteria are based on the 2015 Draft Place-Based Planning Guidelines and the statewide Integrated Water Resources Strategy (IWRS) Guiding Principles.
- Appendix C. Links to Relevant Funding Programs. As planning groups consider Plan implementation they may wish to see if any of these funding programs might be a good fit for their recommended actions.

Purpose and Value of a Plan

The purpose of a Plan is to communicate and engage a variety of audiences – water partners, the general public, potential funders, and decision-makers – about the community’s water resources situation, critical water issues, its shared vision and goals, recommended actions, and a strategy for implementing the Plan.

The Plan can have significant value in several important ways:

- Competitive Edge for Funding Opportunities. State-recognized Plans built through a locally-led, collaborative process describe recommended actions that may be attractive investment opportunities for funding programs offered by state and federal agencies, philanthropic organizations, partners, local government, the state legislature, and others.
- Relationship Development. Developing the Plan has brought diverse water interests together, provided new opportunities for dialogue about difficult water issues, and built new levels of cooperation, trust, and respect for diverse perspectives about the different values of water. These relationships can have positive effects for many years, especially as the group transitions from planning to implementation of the Plan.
- Shared Vision for Action. Most communities in Oregon have not previously developed such a deep, common understanding of their local water resources and of the water challenges they face, and then developed actions to address those challenges. Being better informed and having a vision and Plan for a better future can lead to improved cooperation and proactive solutions to complex water challenges.
- Communication Tool. A Plan containing consensus-based solutions/strategies that are broadly supported by diverse interests is a powerful tool for communicating to decision-makers and the public what you need to succeed. The Plan will communicate to decision-makers - local, state, and federal - the community’s vision and the financial and technical resources, and cooperation, needed to achieve that vision.
- Alignment of Plan with the Statewide Integrated Water Resources Strategy. The Plan should identify which of the planning group’s recommended actions are consistent with IWRS recommended actions and will help the state achieve its 50-year vision of “...maintaining healthy water resources to meet the needs of Oregonians and Oregon’s environment for generations to come.” The Plan will also inform updates to the statewide IWRS and highlight opportunities for achieving statewide IWRS goals at the local level. It can help ensure alignment between local, state and federal actions that affect water management.

Developing the Plan

Utilize existing work products to develop the Plan. Summarize the planning effort into an accessible and readable document using planning step deliverables, reports, or other materials developed during the planning process. The executive summaries or conclusion sections of the planning step deliverables - modified and supplemented with key figures, graphs, maps, and tables - can be used to develop the majority of the Plan.

Establish a Clear Process and a Work Plan

As with previous planning steps, it is important to have a clear work plan for the progress and timing of work to complete Planning Step 5. The work plan should describe the scope and flow of work, responsibilities among participants, the timeline, work products the stakeholders will be asked to review, and key decision points.

If the planning group is interested in having state recognition of their Plan, then the group should include a state agency review in its process and work plan. That state agency review occurs when the Plan is nearly final, but still in draft form (meaning that it can be revised if necessary), a “Final Draft Plan.” More information on that review and the time required is included later in this guidance.

Required Plan Contents

This section describes the required contents for the Plan. Plans do not have to follow this exact order and may contain additional or modified sections. These topics mirror the review criteria that will be used during the interagency review process. The topics should look familiar as almost all will have been covered in Planning Steps 1 through 4. Planning groups can use these topics as the primary Plan sections as shown in the example Plan template in Appendix A. Or groups can structure their Plan differently. Regardless of Plan organization, if a planning group seeks to have a *state-recognized place-based integrated water resources plan* then it must include these contents and meet the criteria covered in Appendix B.

- **Executive Summary.** An executive summary is a short overview of the main points of the longer Plan. It often includes the most important points or take-aways that the author wants to communicate, including key findings, conclusions, recommendations, justifications, and next steps. An executive summary can be a useful communication tool for those readers who are either not likely to read the entire Plan or to pique their interest in reading further.
- **Planning Purpose.** This should include a description of why the group undertook place-based water planning, the original issues the planning was initiated to address, and early organizers of the effort. The letter of interest, governance agreement and outreach materials may be good sources of this background information.

- Scope of the Plan. This should include a description of the planning area and the scope of the planning effort. The section should describe significant water features, water users or interests, key drivers and significant features, and a map of the planning area showing major streams, roads, cities, political boundaries, watershed boundaries, and any other geographic features you want to highlight. This should also include the planning timeframe that was used. It can also include a description of elements of water planning that were determined to be outside the scope of the planning effort.
- Plan Development Process, Outreach, and Participants. This content area may include information from the governance agreement, organizational structure, decision-making process, the planning group's vision or mission, the governance agreement signatories and other participants in the planning process. Additionally, this portion of the Plan might describe outreach efforts taken to achieve a *balanced representation of interests* and the results of that outreach. It could include a description of how the group worked to ensure an *open and transparent public process that fosters meaningful public participation*. Information on this topic may be found in materials developed during Planning Step 1 and/or in a Communication and Outreach Plan. This section could also include a description of the process that was used for Final Plan adoption.
- Understanding Water Resources Quantity, Quality, and Ecological Issues. This topic was the focus of Planning Step 2. Summarize the key information from Planning Step 2, which may include a summary of the status of water quantity, water quality, and ecological issues and the results and conclusions from the analysis completed. This should be a high level summary of the findings. Additional technical information can be included as an appendix or a reference to a stand alone document such as the Planning Step 2 materials.
- Current and Future Water Needs and Vulnerabilities. This topic covers the planning work and the results from Planning Step 3. Summarize key information about the instream and out-of-stream water needs/demands and vulnerabilities associated with a changing climate. Methods used to develop current and future needs can be included as an appendix or a reference to a stand alone document such as the Planning Step 3 materials.
- Data Gaps Identified. Data gaps should be identified and the planning group may also consider including a description of how data gaps impacted various aspects of the planning. Data gaps may be considered as a type of critical water issue. Data gaps may need proposed solutions or recommended actions to address them. However, in some

cases identifying the data gaps, even without a proposed solution, will be important to inform others, such as state agencies, of the need.

- Critical Water Issues. By the end of Planning Step 3 or early in Step 4, the planning group identified a set of critical water issues. These critical water issues should be described as well as the information and method used to identify them as critical water issues. The Plan should be as specific about the scope and scale of the critical water issues as the supporting information will allow. It may also be beneficial to include goals and metrics that the group can use to determine when they have been successful at addressing a critical water issue.
- Solutions or Recommended Actions. The “solutions” (or “strategies”) should be described and related specifically to how they will solve a critical water issue or fill a data gap. The Planning Step 4 guidance provided this definition of **solutions**: *“the strategies, practices, programs, projects, studies, management actions, and other efforts taken to address a critical water issue.”* In the 2017 Statewide IWRS, solutions proposed for implementation are termed “recommended actions.” It would be beneficial to also describe the decision support system or process used to evaluate, select, or prioritize recommended actions.
- Plan Implementation Strategy. This section should describe the strategy for implementing the Plan. To the extent possible, the implementation strategy should describe which recommended actions will have initial focus, what feasibility studies or funding is needed to implement various aspects of the Plan, and the timeline for Plan implementation. It should also address who will lead various aspects of Plan implementation and what resources are needed to keep the planning group coordinated during implementation. One approach could be an implementation team coordinated by a project manager, and semi-annual stakeholder meetings where interested parties are updated on progress, help draft funding proposals, visit project sites, or review other work products. Keeping the planning group or core team working together, to some extent, and supporting each other over a sustained timeframe will be critical to the success of Plan implementation.

Other Plan Development Considerations

In addition to the required contents above, there are other topics or issues the planning group might consider during Plan development:

- Document Length. There is no prescribed length for a Plan, however a Plan should not be a voluminous collection of documents previously developed during the planning process. *The Plan should be a summary of the key conclusions, findings, and*

recommendations from the planning process. The planning group will need to balance the need to include enough information to make a compelling case for Plan implementation, but not too much information that will lose the reader. If additional supporting information is needed, consider including it as an appendix or referring the reader to another document.

- **Audience.** A Plan often has many audiences such as water partners, the general public, potential funders, and decision-makers. The planning group might consider who its primary audiences are and structure the Plan organization and content to speak to those audiences. For instance, if a group intends to pursue funding from the Oregon Watershed Enhancement Board (OWEB), it could be worthwhile to include plan components that would make the group eligible for OWEB funds.
- **Visuals.** Visuals such as maps, figures, graphs, diagrams, and pictures can be powerful ways to communicate information and increase the visual appeal and readability of your Plan.
- **Supporting materials.** As mentioned previously, these Plans can have a lot of value. But that does not mean they are always the best tool for communicating key information from the Plan or planning process. Other materials such as brochures, videos, one-pagers, or story maps may be more effective at communicating some aspects of the Plan to different audiences. These are not required, but the planning group might consider how supporting materials would add value. These materials could be developed as part of the early stages of Plan implementation.
- **Setting Plan up for success.** The time, energy, and thought invested in the planning process along with all the items listed above will help set the Plan up for success. Other ways the planning group can set the Plan up for success include: 1) telling a clear and compelling story that can be understood by both the planning group and others who have not been involved in the planning process, 2) clearly identifying immediate next steps to facilitate the transition to plan implementation, and 3) being thoughtful about wrestling with tough or complex issues versus deferring them to a later date (it may be tempting to quickly write up a plan, but it may be worth spending extra time to work through potential barriers to successful implementation).

Partner Review of Draft Plan and Public Support

Though planning groups will take different approaches to involving partners or participants in drafting the Plan, it is important that participants have a meaningful way to contribute so they are well-informed and invested in the Plan's contents and can support the Plan. Some

participants may need time to review the Draft Plan several times through or have other people within their organizations review the Draft Plan. Some audiences will benefit from a presentation of the Draft Plan including time for discussion and/or review of the entire Draft Plan. Allow adequate time for review, but also have clear deadlines so the group can meet its agreed-upon deadlines. Once the feedback is returned, the planning group can decide what changes are needed to address any concerns and improve the Draft Plan to gain broad support.

It is recommended that the group do a self-assessment using the criteria in Appendix B in the final stages of plan development. The group can use the self-assessment to determine if any modifications are needed before the Final Draft Plan is submitted for the state agency review.

Once the planning participants have reached consensus on the Final Draft Plan as defined by the governance agreement, a broader community outreach effort should be undertaken to inform the public at large, obtain their feedback, and gain their support. This should not be the first time the broader community hears about the planning effort. The group may consider doing a public review process concurrently with the state agency review.

State Agency Review of Final Draft Plan

The 2015 Draft Guidelines state that the Oregon Water Resources Department (OWRD) will conduct a state agency review of each Plan during the final stages of Plan development with the state IWRP Project Team Agencies: Oregon Department of Fish and Wildlife (ODFW), Oregon Department of Agriculture (ODA) and Oregon Department of Environmental Quality (DEQ). The state agency review team will include a combination of policy staff, who are generally based in agency headquarters, and regional field staff who may be more familiar with the planning group submitting the Final Draft Plan.

The primary purpose of the state agency review is to make a recommendation to the Commission as to whether a Plan was developed in a manner consistent with the 2015 Draft Guidelines and statewide IWRP principles and should be recognized by the Commission.

State Agency Review Participants

Different agencies will bring different areas of expertise to the review. Table 1 highlights the expertise and focus of the IWRP Project Team Agencies. In some cases, it may be helpful to consult other agencies with other areas of expertise. Table 2 provides a list of other potential reviewers that OWRD may consult or invite to participate in the review process as needed. If a planning group wants OWRD to invite any particular agency beyond the IWRP Project Team, then they should let their designated Planning Coordinator know so he/she can reach out to the other state agency and invite them to participate.

Table 1. IWRS partner agencies that will participate in the state agency review

| Agency | Area of Water Expertise and Review Focus |
|--|--|
| Oregon Water Resources Department | Water quantity/supply, water availability, water rights, water use |
| Oregon Department of Environmental Quality | Water quality |
| Oregon Department of Fish and Wildlife | Ecology, instream water use and demands, water quality |
| Oregon Department of Agriculture | Agricultural water use and demands |

Table 2. Additional reviewers that may be consulted in the state agency review

| Agency | Area of Expertise and Review Focus |
|---|---|
| Oregon Health Authority | Public health and public water supply systems |
| Oregon Climate Change Research Institute | Climate change, vulnerabilities |
| Regional Solutions | Regional priorities, economic development |
| Oregon Watershed Enhancement Board | Watershed restoration |
| Oregon Department of Energy | Water and energy nexus |
| Department of Land Conservation and Development | Land use planning |
| Department of State Lands | Wetlands |
| Oregon State Marine Board | Boater recreation |
| Infrastructure Finance Authority | Infrastructure funding |

State Agency Review Steps and Timeline

OWRD will coordinate the state agency review process which may require approximately 90 days from submission of a Final Draft Plan to OWRD to the results being communicated and discussed with the Convener(s) as shown in Table 3 below. OWRD will keep the conveners apprised of progress during the review process. If the planning group incorporates changes based on results of the state agency review, it may take OWRD another 30 days to review and verify the changes in consultation with the reviewers. The exact timeline of the state agency review will depend on staff workload and capacity at the time of the request, and the length of the Plan.

If desired, the planning group may want to deliver a presentation to the interagency review team about their planning process and plan. A presentation to the agencies should be considered and in the group's review process and schedule and should be communicated to agencies as early as possible. Requesting a presentation may increase the length of time required for the review, with an in-person meeting in the basin requiring more time to schedule than a conference call/webinar. State agencies will do their best to participate in such a presentation, but may not be able to attend depending on timing and resource availability.

Table 3. State Agency Review Steps and Timeline

| State Agency Review Steps | Estimated Timeline |
|--|---------------------------|
| Final Draft Plan submitted to OWRD Planning Coordinator* | Day 1 |
| State agencies complete their review using guidance criteria | Day 60 |
| State agency review team meeting to discuss and develop recommendation | Day 70 |
| Consolidated comments sent to Convener(s) | Day 80 |
| Review team follow-up call or meeting with Convener(s) | Day 90 |
| Opportunity for planning group to revise Final Draft Plan (if needed) | TBD |

*Provide advanced notice if possible to assist in scheduling.

State Agency Review Criteria

The criteria developed to assist the state agency review team are included in Appendix B. The state agency review team will review the Plan using the criteria to answer questions divided into three major categories: plan development, plan content, and plan implementation. The questions and criteria were developed primarily to assess whether the Plan includes the required Plan contents and demonstrates it was developed in a manner consistent with the 2015 Draft Guidelines and statewide IWRS principles. These criteria will also help the reviewers check if the Final Draft Plan includes the information needed to have the value described above.

Although there are aspects of the state agency review that require an assessment of the technical work quality, the state agency review will not include a comprehensive review of all technical work performed during the planning process. Planning groups are responsible for assuring the quality and accuracy of technical work conducted during each planning step.

Outcomes of the State Agency Review Process

OWRD will manage the state agency review process and communicate the review results in writing to the convener(s) describing what, if any, changes or improvements the planning group must make to their Final Draft Plan before the state agency team can provide an affirmative recommendation to the Commission. OWRD will be judicious in requesting changes and will only request changes that are essential to ensuring the Final Plan is consistent with the 2015 Draft Guidelines and IWRS Principles. Consolidated review team feedback will be provided in two categories: 1) required changes needed for an affirmative review team recommendation to the Commission, and 2) suggested changes that may help improve the Plan.

The state agency review can add value to the Plan, especially if any actions will necessitate working with state agencies during implementation. State agency reviewers will be reviewing the Plan consistent with the criteria in Appendix B, but will also be looking for opportunities to

strengthen the Plan by proactively identifying potential barriers and challenges and ways they may be able to support implementation.

Agencies may provide other comments for consideration of the planning group as they finalize the Plan and transition to implementation. Agencies may consider writing a letter of support for the Plan, which could form part of the package of information presented to the Commission. Each agency is welcome to determine the intent and content of their support letter. Content can range from general support for the Plan to identification of specific support that the agency may be able to offer. Agencies may consider highlighting any funding or other opportunities they offer that possibly could support Plan implementation.

State agency review and Commission recognition does not:

- Legally bind the State to perform any activity;
- Obligate the State to provide financial assistance for any activity;
- Obligate the State to rely on or utilize any analysis performed in the planning process;
- Indicate all the Plan contents are technically accurate as technical accuracy is the responsibility of the planning groups; and
- Indicate that a proposed action has been approved or is being directly promoted by OWRD or other agencies.

Adoption of Final Plan by Planning Group

The planning group should formally adopt its Final Plan after the state agency review is complete, and the planning group has made any revisions required or recommended by the state agencies. The group should follow the decision-making process outlined in their governance agreement to formally adopt the Final Plan. Following adoption of the Final Plan, the Convener can make arrangements with the OWRD Planning Coordinator to present the Final Plan to the Commission for state-recognition at a regularly-scheduled Commission meeting.

Commission Recognition of Final Plan

This section describes the process of seeking state recognition and the role of the Commission in recognizing the Final Plan. It is not required that a Plan be recognized by the Commission and each planning group can decide whether it desires such state recognition. Commission meetings are held four times a year and it generally takes two months advanced notice to be placed on the agenda.

Steps for Commission Recognition

If a planning group would like the Commission to formally recognize the Final Plan, the process will follow these steps:

1. State agency review results in a recommendation that the Final Draft Plan be recognized;
2. Planning Group adopts a Final Plan;
3. Convener(s) work with Planning Coordinators to request time on a regular Commission agenda;
4. Public notification of the Final Plan on the Commission agenda;
5. Posting of Final Plan, staff report and PowerPoint on OWRD's website;
6. Convener(s) present Final Plan to the Commission;
7. Public comments to the Commission at the meeting; and
8. Commission discussion, motion and decision.

Factors in Commission Recognition

The Commission will make a decision after considering the following factors:

- The Convener(s) presentation of the Final Plan;
- The state agency review team recommendation;
- The Commissioners' review of the Final Plan;
- Letters of support from partners, state agencies and others¹; and
- Public comments received prior to or during the Commission meeting.

State-recognized Plans will be memorialized by the Commission in a formal resolution signed by the Commissioners. The resolution will recognize that the Plan was developed following the 2015 Draft Guidelines and statewide IWRS principles and will recognize the value of the Plan and its implementation in helping to meet Oregon's instream and out-of-stream water needs.

Plan Updates and Subsequent State Recognition

It is up to the planning group to decide if, when, and/or how frequently it would like to revisit and/or revise their Plan. This could include a specific process or criteria for determining when the plan needs to be revised or updated. The planning groups may choose to periodically update the Commission on progress and accomplishments, needs, and Plan revisions as they implement their Plans. The planning group may consider seeking state recognition again when the Plan is substantially changed.

¹ Letters of support are great ways for planning partners and other to express support for a plan to the Commission. However, they are not required to receive state recognition.

Appendix A. Example Plan Template

Executive Summary

Introduction

- Planning Purpose
- Geographic Scope
- Plan Organization

Chapter 1: The Planning Process (Planning Step 1)

- Planning Participants
- Governance and Organizational Structure
- Public Outreach
- Collaborative, Open and Transparent Public Process

Chapter 2: Water Resources (Planning Step 2)

- Water Resource Supply
- Water Quality
- Ecological Issues
- Data Gaps

Chapter 3: Current Uses and Future Water Demands (Planning Step 3)

- Instream Demands
- Out of Stream Demands
- Data Gaps
- Natural Hazards and Climate Change

Chapter 4: Critical Water Issues and Recommended Actions (Planning Step 4)

- Critical Water Issues (including data gaps)
- Solutions Considered
- Recommended Actions

Chapter 5: Plan Implementation Strategy (Planning Step 5)

- Priority Actions
- Timeline
- Resource Needs
- Implementation Team
- Keeping the Public Engaged

Appendices: References, Acronyms, Acknowledgements, Signatory Page

Appendix B. State Agency Review Criteria

State Agency Review Criteria

The state agency review criteria are organized into three categories: plan development, plan content, and plan implementation. Each criterion includes one or more questions for the reviewers to address as well as examples of what indicators demonstrate that a Plan has met the criteria.

Plan Development

One of the key differences between place-based water planning and other forms of planning is the process by which a plan is developed. A place-based integrated water resources plan ("Plan") is developed through a five-step process that is locally-led and collaborative, voluntary and not regulatory, done in partnership with the state, and conducted through an open and transparent process (among additional planning principles). As such, the first component of the state agency review is to reflect on whether the plan was developed using a process consistent with the Guidelines and IWRS Guiding Principles. A Plan should describe how it was developed. That description should provide insights into whether the plan development criteria are satisfied. The review of Plan development is optional for all agency reviewers with the exception of OWRD. Input from other agencies is welcome, but not required.

Balanced Representation of Interests

Review Question: Did a balanced representation of interests participate in the development of the plan?

The first step of place-based water planning is to develop a collaborative and inclusive process that includes a balanced representation of interests to the best extent possible. This includes instream and out-of-stream interests from various levels of government, tribes, stakeholders, and private and non-profit sectors. Indication of a balanced representation of interests includes:

- Documentation of outreach to and active participation of representatives of all levels of government, private and non-profit sectors, tribes, stakeholders, and the public
- Process for engaging all interests in a fair and balanced manner
- Active participation from instream and out-of-stream interests
- Balanced attention given to instream and out-of-stream needs
- In the event some water sectors did not actively participate, then a description of efforts made to engage that sector should be provided

Indication that a planning process did not include a balanced representation of interests includes:

- Planning group membership is dominated by one sector or interest
- Either instream or out-of-stream needs were not identified by the plan or were significantly out of balance

- Recommended actions or solutions are focused on only one sector

Collaborative and Integrated Process

Review Question: Was a collaborative and integrative process used to develop the plan?

A Plan must be developed through a structure and process that fosters collaboration, bringing together various interests to work toward the common purpose of meeting the instream and out-of-stream water needs of the community, cultures, economy, and environment. Indication of a collaborative and integrated process includes:

- A structured decision-making process for reaching consensus
- A description of any conflict resolution efforts or processes used during plan development (i.e., how did the planning group work through conflicts or disagreements?)

Indication that the Plan was not developed through a collaborative or integrated process includes:

- Products or documentation developed by different sectors or interests that were not integrated together to form a shared understanding
- Decisions to adopt the plan or interim work products were not done in accordance with the planning groups' adopted governance agreement

Public Process

Review Question: Was the plan developed using an open and transparent public process that provided opportunities for meaningful public involvement?

Throughout the planning process, the planning groups should have provided the public with opportunities for meaningful engagement, where the public could affect the outcomes of the planning process. Reviewers should note if a public process was evident and documented within the submitted Plan. Indication of an open and transparent process includes:

- The make-up of the planning group participants – was the public invited to participate in meetings, planning discussions, and/or plan development?
- Public notices of meetings that demonstrate considerable effort to engage the public
- Opportunity for public comment or input into any reports produced by the planning process as well as opportunity for comment and input into the plan itself
- Were meetings accessible in both scheduled times and location

Indication that the Plan was not developed through a public process includes:

- Plan development occurred behind closed doors
- The public was not invited or was excluded from participation
- Minimal public meetings were held
- Public input was not sought at key steps in plan development

- Outreach efforts were not documented in the Plan

Plan Content

This section is largely documentation of work done during planning steps 2, 3 and 4.

Scope of Planning Effort

Review Question: Does the plan identify the scope of the planning effort?

A Plan must define the area or “place” to which it applies. Reviewers will look to see if the plan defines the geographic boundaries of the planning areas as well as the temporal scale.

Indication of a defined scope includes:

- A map and description of the planning area including characteristics such as terrain, population centers, major roads, river systems, etc.
- A list of watersheds, sub-watersheds, and aquifers included in the planning area
- Inclusion of a planning timeframe/horizon (i.e., 20 years? 50 years?)

Indication of an undefined geographic scope:

- Lack of a map and any clear description of the planning area’s geographic boundaries
- Inconsistent watersheds or aquifers described within the plan
- No consideration of a planning timeframe

Understanding Water Resources Supply, Quality, and Ecological Issues

Central Review Questions:

- *Does the plan document an understanding of the water resource supply, quality, and ecological issues in the planning area?*
- *Does the plan document this understanding for both groundwater and surface water?*

A Plan should include a high-level summary of the efforts made to describe and assess current water supplies, water quality, and the status of ecosystem health to determine any existing challenges and potential opportunities. Reviewers should comment on the completeness of work that resulted from this Step, including whether the group identified existing challenges and potential opportunities.

Indication of an understanding of water resource supply, quality, and ecological issues includes:

- A description of the current and expected future water supply in the planning area, including groundwater and surface water
- A description of the current and future water quality in the planning area, including groundwater and surface water
- A description of the current and future ecological issues in the planning area, including groundwater and surface water
- Identification of relevant gaps in data and information

Indication of a lack of understanding of the water resource supply, quality, and ecological issues includes:

- Exclusion of water supply, water quality, or ecological issues from the plan (note: in some cases the information needed is not available; acknowledging a data gap is an acceptable way to meet this plan requirement)
- Inclusion of raw data or information without any analysis or synthesis to draw conclusions about the status of water in the planning area and what challenges or opportunities the area has as a result of that status

Current and Future Water Needs

Review Question: Does the Plan document the current and future instream and out-of-stream water needs of the planning area?

The Plan should summarize how much water is needed to meet current and future water needs-both instream and out-of-stream. Plans should address how climate change, population growth, and land use affect water resources and the ability to meet these water needs within the community. Meeting water needs should be considered within the context of specific watersheds, accounting for the hydrological, geological, biological, climatic, socio-economic, cultural, legal, and political conditions of a community. Reviewers should comment on the completeness of work that resulted from this Step, including whether comparable effort and treatment was given to defining instream and out-of-stream needs. Indication that a Plan documents current and future water needs includes:

- A list of critical water issues in the planning area
- Identification of water needs relative to the planning timeframe
- Descriptions of current and future consumptive water needs for different out-of-stream uses, including municipal, industrial, and agricultural
- Descriptions of current and future instream needs for different uses, including fish and wildlife, ecological functions, water quality, recreation and scenic uses, and cultural significance
- Descriptions of how climate change, population growth, and land use affect water resources and the ability to meet these needs within the community
- Identification of times and locations where water needs are not met or are likely not to be met in the future
- Identification of data and information gaps and uncertainties

Indication that a plan did not sufficiently document current and future needs includes:

- Failure to document both instream and out-of-stream needs
- Failure to document future needs
- No description of coming pressures (e.g., climate change, population growth, etc.)

Compliance with State Law

Review Task: Identify any plan content that may not be in compliance with state law particular to your agency.

A Plan cannot change existing laws or jeopardize existing water rights. A group can identify that a solution requires that a law be changed; however, the plan does not carry the weight of law. Reviewers should note those proposed activities that may be perceived as changing laws or jeopardizing existing water rights. All solutions and approaches should be legal according to state and federal law and policies, though the review team only includes state agency representatives who may not have sufficient expertise to assess compliance with federal law. Any apparently illegal activities should be identified for the group. Indication that a plan complies with state laws and policies includes:

- Proposed solutions acknowledge authorities of existing agencies and mechanisms for pursuing permits or other regulatory approvals needed
- Identification of legal barriers that might interfere with a proposed solution

Proposing Statute, Rule, and/or Policy Changes in a Plan

It is not illegal to propose pursuing a change in law or policy. Oregon's laws have evolved over time and will continue to evolve. However, that does not mean that changing the law will be easy or successful.

For those reasons, the IWRS recommends pursuing solutions that have an established legal process whenever possible. However, planning groups can include recommendations to pursue changes in statute, rule, or policy. Please remember that a state agency recommendation to accept a Plan is not an agency endorsement of a proposed law change or proposed solution.

Indication that a Plan does not comply with state laws and policies includes identification of illegal solutions, or solutions where the state lacks the authority to facilitate or assist them without acknowledgment that a statute, rule, or policy change is required.

NOTE: The state agency review does not constitute a full legal review – actions not identified here may not have had enough detail associated in order to determine their legality.

Solutions or Recommended Actions

Review Questions:

- *Does the plan identify solutions or recommended actions that address the critical water issues identified during the planning process?*
- *Does the plan identify integrated solutions to the extent practical?*
- *Do the solutions identified adhere to the IWRS Guiding Principles listed in Appendix C?*
- *Does the plan include recommendations for addressing information/data gaps?*

Plans should include a suite of solutions or recommended actions to address the community's water-related challenges with the goal of meeting both instream and out-of-stream needs. Solutions can include methods for addressing existing data and analysis gaps. Table B.1 lists the sub-criteria for evaluating the plan's proposed solutions and recommended actions against the IWRS Guiding Principles.

Table B.1. IWRS Guiding Principles Relevant to Solutions or Recommended Actions

| Principle | Positive Indicators | Indicators of plan deficiency |
|-------------------------------------|--|---|
| Integration | <ul style="list-style-type: none"> To the extent possible, solutions work to address multiple needs Solutions recognize the relationship between water quantity, water quality, and ecosystem needs | <ul style="list-style-type: none"> There is no evidence of an attempt to integrate solutions, where practical |
| Balanced | <ul style="list-style-type: none"> The suite of solutions listed work to address both instream and out-of-stream needs | <ul style="list-style-type: none"> Solutions only address instream or out-of-stream needs (not both) or are disproportionately focused on one or the other |
| Enhance sustainability | <ul style="list-style-type: none"> Solutions seek to improve sustainable management of water resources by balancing the needs of Oregon's environment, economy, and communities | <ul style="list-style-type: none"> Solutions only address the needs of one group Solutions are not forward looking; acknowledging climate change and population growth |
| Accountable and enforceable actions | <ul style="list-style-type: none"> Actions comply with existing state laws and policies Actions include measures of success | <ul style="list-style-type: none"> Solutions are illegal* If feasible, solutions include a description of how success may be measured |
| Science-based, flexible approaches | <ul style="list-style-type: none"> Solutions are based on or supported by on best available science and local input | <ul style="list-style-type: none"> Solutions do not accurately reflect or respond to best available science as documented in background information/best available science reflected in the supporting documentation |
| Streamlined | <ul style="list-style-type: none"> To the extent possible, the plan avoids recommendations that are overly complicated, legalistic, or administrative | <ul style="list-style-type: none"> The suite of solutions is mostly comprised of projects which are difficult to understand or seem infeasible |
| Reasonable cost | <ul style="list-style-type: none"> Plans weigh the costs and benefits to determine whether one approach is better than another, or whether an approach is worth pursuing Solutions may reduce the costs of delivering services to the state's residents, without neglecting social and environmental costs | <ul style="list-style-type: none"> Solution prioritization does not consider estimated cost |

Addresses In-stream and Out-of-Stream Needs

Review Question: Does the plan consider both instream and out-of-stream needs?

Planning groups should quantify current and future instream and out-of-stream water needs in the planning area, keeping in mind that such needs encompass water quantity, quality and ecosystem needs. While the instream and out-of-stream water needs may not be equal, consideration of water needs and solutions should be balanced. Indication that a Plan does give a balanced consideration of needs includes:

- Information about the water needs for the water sectors: agriculture, municipal, instream and ecology, and industry
- Engagement from multiple interests representing each water sector
- Solutions are considered and/or included for each water sector throughout the planning area

Indication that the Plan does not give balanced consideration includes:

- A plan focused primarily on one primary sector with little or no information about the water needs of other sectors
- Recommended actions or solutions are focused to primarily benefit one water sector

NOTE: It is possible that NO critical water issues were identified for a water sector in the planning area.

Validity of Information

Review Question: Is the Plan based on accurate, appropriate, and adequate information in the characterization of the water resources, identification of critical issues, and selection of solutions?

Decisions should be based on best available science, accurate information, and local input. Having a balanced representation of interests involved in the planning process and including the state as a partner will help ensure information presented in the Plan is reviewed, well-vetted, and verified. Critical water issues in the Plan should be substantiated by data or information in the plan. Recommended actions or solutions should correspond to the identified critical water issues. Indication of the validity of information includes:

- Citation of data sources
- A description of appropriate technical approaches used to analyze the data or information demonstrates the appropriation information, data, and analyses were used
- Inclusion of assumptions and description of appropriate use of technical information
- Inclusion of data gaps and how the gaps affect planning
- Critical issues and solutions identified in the plan are supported by appropriate data and information

Indication that the Plan is not based on accurate, appropriate, and adequate information includes:

- Invalid information may be outdated
- Data inappropriate for the purpose described, of the wrong scale or precision
- Conflicting data and information in the plan
- Critical issues or recommended actions are not supported by the appropriate data or information

Comprehensive assessments of the technical information used in the Plan do not fall under the scope of the state agency review.

Plan Adoption and Implementation

Planning Step 5 of Place-based water planning is to “Adopt and implement a place-based integrated water resources plan.” Plan adoption by the planning group is not the end of the process, but signals a shift to a new phase: plan implementation. This review category seeks to discern whether the Plan looks ahead towards implementation and is set up for success. While the success of Plan implementation is dependent on a number of factors, (many outside of the planning group’s control) the state agency review will help discern whether the Plan is well-positioned for implementation, to the extent feasible.

Plan Adoption by Planning Group

Review Question: Does the planning group have a sound process for Final Plan adoption?

If plan adoption by the planning group is rushed or does not follow a good process, then the value of the Plan may be reduced in the eyes of partners or funders. This could negatively impact future Plan implementation. The state agency review of the Plan happens shortly before Final Plan adoption. This allows for the planning group to consider and incorporate feedback from the state agency review prior to planning partner adoption of the Final Plan. Reviewers should determine if the group has a sound approach for formally adopting the Plan that is consistent with the collaborative process adopted by the planning group. Indication of a sound approach for Final Plan adoption:

- An explanation of the process the planning group will use to adopt or approve the Final Plan
- A reliance on the consensus-based decision making process identified by the planning group and documented in their governance agreement
- Indication that the approach for plan adoption was clearly communicated to planning group partners

Indication of a poor adoption approach includes:

- No opportunity for planning group partners to express concern or provide critical feedback on the Plan
- Inadequate time for partners to review the Plan

- Disregard for decision-making approaches previously adopted by the planning group (e.g., switching from a consensus or consensus minus 1 approach to simple voting majority)

Plan Implementation Strategy

Review Question: Does the Plan propose a clear strategy for implementation?

The Plan should describe how it will be implemented, who will be responsible for implementation, and how implementation will be coordinated and funded. The Plan should have a high likelihood of leading to the implementation of local solutions.

Indication of a strategy for implementation includes:

- Identification of next steps for some or all of the solutions or recommended actions listed in the Plan, including those that are complex and may require additional feasibility or review
- Identification of roles in plan implementation, including who might pursue different solutions or efforts to fill information gaps
- Identification of barriers to solutions or plan implementation and a path forward for addressing those barriers
- Prioritization of proposed solutions and proposed sequence of implementation
- Timelines for plan implementation
- The plan is formatted in a way that allows for easy use in seeking support and funds
- The plan explains how partners and others may use the plan (or alternatively how it should not be used)
- Identification of a timeline for plan revision or amendment

Indication that a Plan does not include an implementation strategy includes:

- Vague, unclear, or no next steps described
- No explanation of who is responsible for plan implementation (note: a general statement that partners or planning group members will individually implement pieces is acceptable, but some level of coordination and communication about progress and success should be evident)
- No acknowledgement of a change in roles and responsibilities as the Plan moves from planning to implementation

Agency Review Worksheet

Instructions: Read through the submitted Plan and review it considering the questions about plan development, content, and implementation below. Check whether the Plan meets these criteria or does not meet the criteria. Include comments about how the Plan did or did not meet the criteria. Please be thoughtful and constructive in your feedback.

Plan Development (Optional for other than OWRD)

| Category | Review Question | Yes | No |
|--------------------------------------|---|-----|----|
| Balanced Representation of Interests | Did a balanced representation of interests participate in the development of the plan? | | |
| Collaborative and Integrated Process | Was a collaborative and integrated process used to develop the plan? | | |
| Public Process | Was the plan developed using an open and transparent public process that fostered public participation? | | |
| OWRD Consultation | Was the plan developed in consultation with OWRD? | | |

| Reviewer Comments on Plan Content |
|-----------------------------------|
| |

Plan Content

| Category | Review Question | Yes | No |
|---|--|-----|----|
| Scope of Planning Effort | Does the Plan identify the scope of the planning effort, including geographic area? | | |
| Understanding Water Resource Supply, Quality, & Ecological Issues | Does the Plan document an understanding of the water resource supply, quality, and ecological issues in the planning area? | | |
| | Does the Plan document this understanding for both groundwater and surface water? | | |
| Current and Future Water Needs | Does the Plan document the current and future instream and out-of-stream water needs of the planning area? | | |
| Solutions or Recommended Actions | Does the Plan identify solutions or recommended actions that respond to or address the critical water issues identified during the planning process? | | |
| | Does the Plan identify integrated solutions to the extent practical? | | |
| | Do the solutions identified adhere to the IWRS Guiding Principles? | | |
| Addresses In-stream and Out-of-Stream Needs | Does the Plan consider current and future instream and out-of-stream needs in a balanced manner? | | |

DRAFT Planning Step 5 Guidance

September 13, 2019

| | | | |
|---------------------------|---|--|--|
| Validity of Information | Is the Plan based on accurate, appropriate, and adequate information in the characterization of the water resources, identification of critical issues, and selection of solutions? | | |
| Information and data gaps | Does the Plan clearly identify information and data gaps? | | |

Reviewer Comments on Plan Content (including compliance with State law)

| |
|--|
| |
|--|

Plan Adoption and Implementation Strategy

| Category | Review Question | Yes | No |
|---------------------------------|---|-----|----|
| Plan Adoption by Planning Group | Does the planning group have a sound process for final review and adoption of the Final Plan? | | |
| Implementation Strategy | Does the Plan propose a strategy or approach for implementation? | | |

Reviewer Comments on Plan Content

| |
|--|
| |
|--|

Template for Communicating Inter-Agency Review Results

Below are two draft templates for letters OWRD may use to communicate the results of the state agency review to the planning group. OWRD and its partner agencies may amend this template and tailor any letter to the specific plan being reviewed. These templates are provided to provide some information as to what a planning group can expect to receive as a result of the state agency review.

Letter Template for Recommended Plan

Dear [Insert Convener(s)] and members of [insert planning group name],

Thank you for your submission of the Final Draft of your Place-Based Integrated Water Resources Plan for the [insert planning area]. The Integrated Water Resources Strategy (IWRs) Agency Project Team (the Oregon Water Resources Department, Oregon Department of Agriculture, Oregon Department of Environmental Quality, and Oregon Department of Fish and Wildlife) reviewed your plan and determined that it adheres to the 2015 Draft Place-based water planning Guidelines and IWRs Guiding Principles. Therefore, the agencies recommend the Oregon Water Resources Commission (Commission) recognize your plan as Place-Based Integrated Water Resources Plan.

In addition to their recommendation that the Commission recognize your plan, the agencies offer the following feedback for your consideration.

Recommended Revisions

[The letter may include recommended changes to the plan that would strengthen or improve the plan, but are not required for recognition by the Commission.]

Strengths of the Plan

[The letter may also include a summary of the plan strengths.]

Other Agency Comments

[The letter may also provide other comments related to plan development, content, or implementation. For example, it may identify shared goals of the plan and an agency.]

We commend your hard work in developing an Integrated Water Resource Plan and we look forward to working with you to coordinate a presentation of your plan to the Commission who will decide whether to formally recognize your plan. Please contact [insert contact person] at [insert contact information] to discuss the Commission schedule and when you might be to present your plan to the Commission.

Sincerely,

[insert name]

Planning Coordinator, Oregon Water Resources Department

Letter Template for Plan That Is Not Recommended

Dear [Insert Convener(s)] and members of [insert planning group name],

Thank you for your submission of the Final Draft of your Place-Based Integrated Water Resources Plan for the [insert planning area]. The Integrated Water Resources Strategy (IWRS) Agency Project Team (the Oregon Water Resources Department, Oregon Department of Agriculture, Oregon Department of Environmental Quality, and Oregon Department of Fish and Wildlife) reviewed your plan and determined that it currently does not adhere to the 2015 Draft Place-based water planning Guidelines (Guidelines) and/or IWRS Guiding Principles. Therefore, the agencies recommend that you continue to work through your planning process to address the items listed below. In addition to those changes that are required, the agencies provided other feedback, including recommended changes as well as strengths of the Plan.

Required Changes to Demonstrate Adherence to Guidelines and IWRS Guiding Principles

[The letter will describe why they found that the plan did not adhere to the Guidelines or IWRS Guiding Principles and offer suggestions for how the planning group might address the issue.]

Recommended Revisions

[The letter may include recommended changes to the plan that would strengthen or improve the plan, but are not required for recognition by the Commission.]

Strengths of the Plan

[The letter may also include a summary of the plan strengths.]

Other Agency Comments

[The letter may also provide other comments related to plan development, content, or implementation. For example, it may identify shared goals of a plan and an agency.]

If you have any questions about this feedback, please contact me at [insert contact information]. Place-based water planning is done in partnership with the State and we would like to work with you to address these items so that a revised plan can be recommended to the Oregon Water Resources Commission (Commission) for recognition as a Place-Based Integrated Water Resources Plan. We commend your hard work to develop an Integrated Water Resources Plan and look forward to working with you to revise your plan so that it adheres to the 2015 Draft Place-based water planning Guidelines and IWRS Guiding Principles.

Sincerely,

[insert name]

Planning Coordinator, Oregon Water Resources Department

Appendix C. Links to Relevant Funding Programs (Forthcoming)

DRAFT



HARNEY COMMUNITY-BASED WATER PLANNING COLLABORATIVE PROCESS

WORKING AGREEMENTS

For any collaborative process to be constructive, effective and successful, it is helpful for those involved to agree at the outset on the purpose for the process and on the procedures by which the group will govern its discussions, deliberations, and decision-making.

The following Working Agreements will serve the Harney Community-Based Water Planning process. The Working Agreements will be revisited periodically by the group to refine as needed to meet the changing needs of the process. Note that if future changes are made to the Working Agreements for the sake of clarity in language or in process, signatories and the full Collaborative will be notified. Signatories will have the option to retract their signature if they do not support the changes to the Working Agreements.

I. BACKGROUND AND PURPOSE

In June 2016, the Harney County Watershed Council received a grant from the Oregon Water Resources Department to initiate a place-based collaborative water planning effort to address water challenges, and plan for a sustainable water future. The goals established through the place based planning grant are to build an inclusive collaborative process, understand the water system, identify and prioritize strategic solutions to balance the basin's current and future instream and out-of-stream water needs, and implement a place-based integrated water resources plan. A reference document with statutory language that guided the initiation and structure of integrated water resources planning.

Vision of the Harney Community-Based Water Planning Collaborative: ***A sustainably managed supply of quality water for people, the economy, and the environment.***

To realize this vision, a diverse group of partners will work together through a collaborative community based planning process to:

- More effectively balance water uses between many different water needs, including instream and out-of-stream water needs.
- Promote conservation and efficiencies in water use.
- Maximize the value of each unit of water that is put to use.
- Ensure adequate, clean water supplies for people, the economy, and the environment.

II. PARTICIPANTS

Interests Represented. All participants come to the table with interests and/or expertise in water resources planning in the Malheur Lake Basin and make up the Collaborative. They operate within the following organizational structure:



- Collaborative: The Collaborative is a voluntary association that actively seeks to include diverse perspectives, interests, and expertise regarding water issues in the Malheur Lake Basin. **Organizations or individuals may join the Collaborative at any time by agreeing to the terms of the Working Agreements.** (For a list of current Members, see the attached ‘Signatories to the Working Agreements’.) The Collaborative is an advisory group that reviews recommendations from technical work groups and oversees development of the water planning effort. Members are expected to make a good faith effort to attend all meetings. It is expected that the group will meet every 2-3 months, and more frequently as needs arise. ***Operates by consensus on strategies for inclusion in the place-based integrated water resources strategy.***
- Working Groups: Provide technical assistance and more detailed information review and deliberation through monitoring, evaluating, and making recommendations on specific water strategies to the Collaborative. Work groups focus on specific topics as needed to support the Vision of Harney County place based water planning for ***a sustainably managed supply of quality water for people, the economy, and the environment.*** Typically meet once per month, more as often as needed. Members are expected to make a good faith effort to attend all meetings. ***Recommendations are developed through consensus of the group.***
- Coordinating Committee: Small leadership and process support team focused on overall process design, coordination and communication of the Collaborative. The group meets frequently to discuss process and communication needs as well as ways to coordinate other efforts related to water with the water planning collaborative. Members include but are not limited to the Project Coordinator, County Commissioner Convener, and

Harney County Watershed Council Convener. Other members of the Collaborative participate on a voluntary basis to support process coordination. Conference calls are held once a week or less frequently as needed to meet the needs of the Collaborative.

- Support Resources: The Harney County Watershed Council, Oregon Water Resources Department, and other entities and organizations will serve as support resources to the Collaborative as needed and per their expertise.

III. MEETINGS

All Collaborative and Working Group meetings will be open to the public and will be held in the Malheur Lake region. The Collaborative will meet every month and Working Groups will determine their specific meeting schedules as they are formed. Alternatives to face to face meetings to account for conditions like snow storms will be accommodated on a case by case basis.

A project Calendar, meeting materials and other information about the planning effort will be posted to a web page on the Harney County Watershed Council website:

<http://hcwatershedcouncil.com/community-based-water-planning/>

In addition, the public are able to interface with the effort through:

Holly Mondo, holly@hcwatershedcouncil.com

Karen Moon, hcwatershedcouncil@gmail.com

IV. DECISION-MAKING AND COMMITMENTS

- Consensus: The Collaborative, Working Groups, and Coordinating Committee will operate by consensus. **Consensus is defined as “all group members can live with the recommendation or decision.”** Instead of simply voting for an item and having the majority determine the decision, a group using consensus is committed to finding solutions that everyone actively supports, or at least can live with. A consensus tool (see below) will be used to signify whether the group has reached a consensus and the level of agreement on a given proposal which will indicate whether refinements to a proposal are needed to get to a consensus. It is the responsibility of all members with a concern to describe their concerns to the group and also offer alternatives for consideration which meet the Vision of the Collaborative. If consensus is not achieved the group will use time as available to refine the proposal in the meeting, and if they cannot reach consensus it will go back to the working group to develop into a refined proposal.
- Notice of Decision-Making: Collaborative and Working Group agendas will note if a decision is to be made during a meeting and will be distributed at least two (2) weeks in advance of a meeting. Materials and information that will help inform the Collaborative or Working Group member about the decision-point will be distributed at least one (1) week before the issue is to be considered. While anyone may participate in meetings

and deliberations of the Collaborative or any Working Groups that have been established, only persons signing the Working Agreements document may participate in decision-making.

- Working Group Process: Working Groups members will do their best to work toward consensus on any recommendations to the Collaborative. It is important that participants are fully informed and engaged when building recommendations or options. Recommendations or options (and background context) will be clearly captured in the meeting notes and framed for the Collaborative's decision making. Alternative points of view if a consensus is NOT reached will be documented for the Collaborative. A regular Working Group participant who is not present at a meeting at which recommendations are prepared for the Collaborative have a responsibility to raise issues or concerns via email or phone to the Working Group lead, and also provide a constructive alternative that seeks to meet the needs of all parties involved and commit to work through them in person at a future meeting.
- Collaborative Decision-Making: All substantive decisions about the contents of the plan and recommended actions will ultimately be reached by consensus of the Collaborative's signatories. Signatories must have attended at least two (2) of the last four (4) full Collaborative meetings to formally participate in making decisions. If a signatory to the Working Agreements cannot attend, either in person or remotely, a meeting of the full Collaborative at which a consensus decision will take place, the signatory may designate an alternate to make his/her decision of support by proxy. It is the signatory's responsibility to inform their alternate about the decision to be made, as well as relevant background context, and to prepare the alternate for stating the signatory's level of support. Decisions of the Collaborative will be reached by consensus of those in attendance (in-person or by phone) and clearly captured in the meeting notes.

Decisions made along the way will be considered "Agreements in Principle" with the understanding that once all the individual decisions are put together in a plan, there will be a consensus process on the package as a whole. On occasion, the Collaborative may be asked to make a decision on an "early action" that would allow the Collaborative to move forward on a proposal on its own merits prior to completing the plan. Decisions will be clearly captured in the meeting notes.

Disagreement with Decisions of the Collaborative: Throughout the process each participant has the freedom to disagree with elements of decisions as they're being developed, but also has the responsibility to offer a constructive alternative that seeks to meet the needs of all parties involved. Members who have outstanding issues or concerns after reviewing the consensus decision captured in the notes have the responsibility to raise their issues and concerns with the Conveners. The Conveners may take the following actions:

- Ask them to provide a written "minority report" with the inclusion of constructive alternatives that seeks to address their issues and concerns and meet the needs of all

parties involved.

- Recommend that a working group or Collaborative take up their issues and concerns at a future meeting.
- Convene an ad hoc group to work through their issues and concerns and recommend a path forward.
- Reconfirm the consensus decision that was already reached.

Consensus Tool: A consensus tool using a range of 1-5 will be used to signify whether the group has reached a consensus and the level of agreement on a given proposal which will indicate whether more work is needed to refine the proposal toward a consensus. If anyone in the group shows a “5”, the group does not have consensus.

The levels are:

“1” I enthusiastically agree.

“2” I agree.

“3” I am on the fence, have questions, or am neutral.

“4” I have serious questions or concerns, but not willing to block forward movement of the group.

“5” I object and will block forward movement of the group.

V. PARTICIPATION

Good Faith. All members agree to act in good faith in all aspects of the collaborative effort. As such, members will do their best to participate consistently, will consider the input and viewpoint of other participants, and conduct themselves in a manner that promotes joint problem solving and collaboration.

Discussion Protocols. Participants in this process agree to the following:

- Be willing to bring your best intentions of helping to plan for the instream and out-of-stream water needs of the Malheur Lake Basin
- Approach the discussion with a spirit of curiosity and a willingness to learn something new
- Bewilling to say what is most important to you and listen to what is important to others
- Be willing to disagree – without being disagreeable
- Try to stay on topic
- Share the air time with everyone else
- Limit side conversations to breaks or outside the room
- Limit cell phone use to emergencies

VI. SIGNATURE

I agree to abide by the Community-Based Water Planning Working Agreement.

Print name

Date

Signature

Date

**Appendix to Harney Community-Based Water Planning Working Agreements: Legislative
Language establishing Place-Based Planning:**

78th OREGON LEGISLATIVE ASSEMBLY--2015 Regular Session

Enrolled

Printed pursuant to Senate Interim Rule 213.28 by order of the President of the Senate in conformance with pre-session filing rules, indicating neither advocacy nor opposition on the part of the President (at the request of Governor John A. Kitzhaber, M.D., for Water Resources Department)

Senate Bill 266

CHAPTER

AN ACT

Relating to place-based integrated water resources strategies; and declaring an emergency.

Be It Enacted by the People of the State of Oregon:

SECTION 1. Section 2 of this 2015 Act is added to and made a part of ORS chapter 536.

SECTION 2. (1) As used in this section, “place-based integrated water resources” means waters that are from sources within a single drainage basin or within an area that is a subset of a single drainage basin.

(2) The Water Resources Department may issue grants from available moneys to facilitate the preparation of place-based integrated water resources strategies that are consistent with state laws concerning the water resources of this state, state water resources policy and department requirements. The department may issue grants under this subsection to: (a) A person;

(b) A public body as defined in ORS 174.109; or

(c) An Indian tribe.

(3) The department may enter into contracts or agreements with, and provide technical assistance and information to, a person, a public body as defined in ORS 174.109 or an Indian tribe for the development of place-based integrated water resources strategies.

(4) Place-based integrated water resources strategies described in subsections (2) and (3) of this section must:

(a) Be developed in collaboration with a balanced representation of interests;

(b) Balance current and future in-stream and out-of-stream needs;

(c) Include the development of actions that are consistent with the existing state laws concerning the water resources of this state and state water resources policy;

(d) Facilitate implementation of local solutions;

(e) Be developed utilizing an open and transparent process that fosters public participation;

and

(f) Be developed in consultation with the department.

(5) The Water Resources Commission may adopt rules for the administration of this section.

SECTION 3. (1) Section 2 of this 2015 Act is repealed July 1, 2019.

(2) The repeal of section 2 of this 2015 Act does not affect any rights or responsibilities established in a grant, contract or agreement made under section 2 of this 2015 Act prior to July 1, 2019.

SECTION 4. This 2015 Act being necessary for the immediate preservation of the public peace, health and safety, an emergency is declared to exist, and this 2015 Act takes effect on its passage.

Passed by Senate June 26, 2015

.....

Lori L. Bocker, Secretary of Senate

.....

Peter Courtney, President of Senate

Passed by House July 1, 2015

.....

Tina Kotek, Speaker of House

Enrolled Senate Bill 266 (SB 266-A)

Received by Governor:

....., 2015

Approved:

....., 2015

Kate Brown, Governor

Filed in Office of Secretary of State:

....., 2015

Jeanne P. Atkins, Secretary of State

Enrolled Senate Bill 266 (SB 266-A)

Harney Community-Based Water Planning Collaborative Integrated Water Resources Plan

August 4, 2025

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Definitions

| | |
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| CBWP | Community Based Water Planning |
| GDE | Groundwater Dependent Ecosystem |
| MNWR | Malheur National Wildlife Refuge |
| ODEQ | Oregon Department of Environmental Quality |
| ODFW | Oregon Department of Fish and Wildlife |
| OWRD | Oregon Water Resources Department |
| PBP | Place-Based Planning |
| USGS | U.S. Geological Survey |
| USFWS | U.S. Fish and Wildlife Service |

About This Document

The Harney Basin Integrated Water Resource Plan is composed of four parts; 1) Background Information developed by Working Groups (Appendices C and F), 2) a Groundwater Plan approved by consensus in April 2023 by the Collaborative and as modified from review comments from the Interagency Review Team (Appendix B), 3) the Surface Water Plan approved by the Collaborative in December 2024 (Appendix D), and 4) an Implementation Approach developed by the Collaborative in 2025 and delivered to the Harney County Watershed Council and High Desert Partnership. The following document was prepared to make the detailed information in those official documents available in summary fashion to a broad audience.

The significance of water resources to the people in Harney County, Oregon, and beyond, and to fish and wildlife cannot be ignored. In many ways the critical nature of water resource issues and how they are approached and addressed in the Harney Basin will be either instructive or a caution to the rest of the state. We wish to tell the unique story of the Harney Basin as simply as possible yet make sure it is tied to the detailed and difficult work done by many people over a long time.

This summary incorporates information developed since consensus approval of the CBWP Groundwater Plan, involving application of the groundwater model developed by USGS and OWRD and a description of the nature of Malheur Lake, Mud Lake, and Harney Lake as a wetland complex. The place names will be used throughout the document, but the National Wetlands Inventory identifies Malheur Lake as a lacustrine, littoral, unconsolidated bottom, permanently flooded wetland fringed by Palustrine, emergent, persistent, seasonally flooded wetlands. Mud Lake and Harney Lake are similarly identified as complexes of different wetland types. While there will always be improved knowledge, the underlying stresses on the water resources of the basin remain and the hopes and dreams of residents of the basin continue.

Acknowledgements

The Harney Community-Based Water Planning (CBWP) Collaborative extends heartfelt appreciation to the many individuals, organizations, and agencies that contributed to the development of this Integrated Water Resources Plan.

This Plan reflects years of dedication, dialogue, and collaboration amongst those who live, work, and play in the Harney Basin. The Collaborative thanks all partners for their commitment to building a shared vision for the future of water in the Harney Basin.

We especially acknowledge the generous support of our funders, whose contributions made this process possible:

- Oregon Water Resources Department – Place-Based Planning Program
- Oregon Water Resources Department – American Rescue Plan Act (ARPA) Funds
- Harney County Watershed Council
- Bureau of Reclamation / Oregon Department of Environmental Quality – Section 319 Funds
- Natural Resources Conservation Service (NRCS)
- U.S. Department of the Interior – Congressional Funds
- Meyer Memorial Trust
- The Collins Foundation
- The Oregon Community Foundation
- The Ford Family Foundation

Their investment in community-driven water solutions enabled the Collaborative to engage broadly, bring forward diverse perspectives, and develop a locally tailored Integrated Plan for the Harney Basin.

The Collaborative also extends appreciation to Southworth Bros, HydroLogic Strategies, and Bierly & Associates for their facilitation, drafting, and technical support in preparing this Plan.

Finally, we thank the residents of Harney County, whose voices, knowledge, and resilience have guided this effort from the beginning. This Plan is a reflection of your priorities and your vision for a sustainable future.

Introduction

The Harney Basin Integrated Water Resource Plan (Plan) was developed as part of Oregon's pilot efforts to assess place-based integrated water resources planning, using guidelines developed by the Oregon Water Resources Department in 2015. These guidelines provided a framework for voluntary, locally initiated and led planning efforts in which a balanced representation of water interests work in partnership with the state to understand and meet both instream and out-of-stream water needs through collaborative, basin-scale planning.

Recognizing the urgency of groundwater issues, the CBWP Collaborative chose to undertake a phased planning approach. The Collaborative first focused on developing the Groundwater Plan (Appendix B), which was completed in 2023 following the release of key groundwater studies by USGS and OWRD. With the foundational work on groundwater in place, the group then turned its attention to surface water issues, culminating in the development of the Surface Water Plan (Appendix D). These two foundational plans were ultimately synthesized into this Integrated Plan (Plan), which offers a unified framework for understanding and addressing water resource challenges in the Harney Basin. This Plan aims to foster sustainable and equitable water management by balancing diverse and often competing water needs through collaborative, community-driven solutions. It identifies the most pressing water challenges impacting those who live, work, and recreate in the Harney Basin, and outlines actionable strategies to address them through integrated, long-term planning.

This integrated effort builds on the strong foundation of collaboration in the Harney Basin and reflects the community's commitment to locally driven solutions. The development of this Plan was informed by years of engagement, study, and coordination, and is intended to serve as both a roadmap and a living document that will continue to evolve with input from the community and partners.

The Basin has a long history of successful collaborative efforts to address shared challenges, including:

- Significant overallocation of both surface and groundwater
- Localized significant declines in groundwater level and domestic well impacts
- Lack of a diverse economy and economic challenges from changes in natural resource uses
- Accommodation to highly variable surface water availability
- Aging surface water irrigation infrastructure
- Conflict over water distribution
- Landscape scale fire and overstocked forest conditions

This Plan is intended as a framework to guide future decision making and to address water resource issues with a balanced, collaborative, and solutions-oriented approach. Working within these challenges will require cooperation of the entire community. This Integrated Summary provides an overview of the major components detailed in the Groundwater Plan and Surface

Water Plan, including water needs, issues, and strategies that support efforts to meet the water resources challenges ahead.

The CBWP Collaborative and the Planning Process

Planning Context: Relationship to Regulatory and Legislative Efforts

Several regulatory and legislative efforts are currently underway that will affect water management in the Harney Basin. These include OWRD’s proposed amendments to OAR-690-512 to designate a Critical Groundwater Management Area and a Serious Water Management Problem Area. If adopted, these rule changes could significantly reduce groundwater irrigation and alter irrigation practices across the basin. Additional measures, such as the Harney Valley Groundwater Conservation Reserve Enhancement Program (CREP), the Harney Basin Domestic Well Fund, and anticipated legislation from the 2025 Oregon Legislature, also aim to address water scarcity and resilience.

While these efforts are important, the CBWP’s Place-Based Planning process is distinct. It is a voluntary, locally initiated effort focused on creating a collaborative, community-driven vision for the long-term management of the Basin’s water resources. The Integrated Plan is designed to complement, rather than duplicate, regulatory actions.

Phased Planning Approach

As outlined in the Introduction, the CBWP Collaborative adopted a phased planning approach. The process began with a focus on groundwater and resulted in the Groundwater Plan (Appendix B), followed by the development of the Surface Water Plan (Appendix D). The current Integrated Plan synthesizes the two efforts and presents a unified vision for addressing the Harney Basin’s water challenges.

Stakeholder Collaboration

Stakeholder involvement was a cornerstone of the planning process. A wide range of groups actively participated in identifying challenges, providing input, and shaping strategies. Table 1 below summarizes the stakeholder groups involved in the groundwater and/or planning phases.

Table 1. Stakeholders involved in groundwater and surface water planning

| Stakeholder Group | Participated in GW Plan | Participated in SW Plan | Participated in Past |
|-------------------|-------------------------|-------------------------|----------------------|
| | | | |

| | | | Consensus Events |
|---|---|---|---------------------|
| Harney County Court (County Government) | ✓ | ✓ | ✓ |
| Harney County Watershed Council (Conservation) | ✓ | ✓ | ✓ |
| Bureau of Land Management (Federal Government) | ✓ | | ✓ |
| Burns Paiute Tribe (Tribal Government) | ✓ | ✓ | ✓ |
| Ducks Unlimited; Trout Unlimited (Recreation) | ✓ | ✓ | ✓ |
| Harney County Cattlewomen (Agriculture Assoc.) | ✓ | | ✓ |
| Landowners (Resident) | ✓ | ✓ | ✓ |
| Malheur National Wildlife Refuge (Federal Gov.) | ✓ | ✓ | ✓ |
| Numu Allottee Association (Tribal Government) | ✓ | | |
| Oregon Dept. of Environmental Quality (State) | ✓ | ✓ | Abstained |
| Oregon Farm Bureau (Agriculture Association) | ✓ | ✓ | ✓ |
| Oregon State Univ. Extension (State Government) | ✓ | ✓ | ✓ |
| Oregon Water Resources Department (State Gov.) | ✓ | ✓ | Abstained |
| Audubon Society / Bird Alliance of Oregon | ✓ | ✓ | ✓ |
| Rural Domestic Well Users (Resident) | ✓ | | ✓ |
| Stock Well Users (Resident) | ✓ | | ✓ |

| | | | |
|--|--------------------------------|--------------------------------|-----------|
| The Nature Conservancy (Conservation) | ✓ | ✓ | ✓ |
| U.S. Forest Service (Federal Government) | ✓ | | Abstained |
| Water Right Services, LLC (Business) | ✓ | ✓ | ✓ |
| WaterWatch of Oregon (Conservation) | ✓ | ✓ | ✓ |
| High Desert Partnership | ✓ | ✓ | ✓ |
| Harney County Soil & Water Cons. District | ✓ | ✓ | ✓ |
| Oregon Dept. of Fish & Wildlife (State Gov.) | ✓ | ✓ | Abstained |
| Oregon Dept. of Agriculture (State Government) | ✓ | | Abstained |
| Farm Service Agency (Federal Government) | ✓ | | Abstained |
| Natural Resources Conservation Services (Federal Government) | ✓ | | |
| City of Burns / Hines (Municipal Government) | Invited, limited participation | Invited, limited participation | |
| Well Drillers & Ag Service Providers | ✓ | ✓ | ✓ |

Consensus-Based Decision Making

The CBWP Collaborative operated under formal consensus guidelines defined in its Working Agreement (Appendix A). Consensus was reached when all group members could support a recommendation or at least "live with it." Rather than relying on majority rule, the Collaborative was committed to finding solutions that everyone could actively support or not oppose. A five-point consensus tool was used to indicate levels of agreement and to guide refinement of proposals when needed.

The consensus scale included:

- 1: I enthusiastically agree.

- 2: I agree.
- 3: I am on the fence, have questions, or am neutral.
- 4: I have serious concerns but will not block group progress.
- 5: I object and will block forward movement.

If a "5" was registered, consensus was not reached, and the proposal was refined or returned to the group for further editing. All major decisions about plan content were made by consensus among signatories to the Collaborative's Working Agreement who had attended at least two of the last four full Collaborative meetings (See Appendix A.1 for an example consensus recommendation). Proxy participation was allowed if a signatory could not attend, provided they designated and informed an alternate. All decisions were documented clearly in meeting summaries.

Coordinating Committee (CC)

To support process efficiency and transparency, a Coordinating Committee (CC) composed of active Collaborative members was formed. The CC met regularly to guide agendas, review materials, and support productive and inclusive discussions. Recommendations from the CC were shared with the full Collaborative to inform decision-making.

Outreach and Engagement

The Collaborative prioritized transparency and community access to information. The project manager maintained and updated an email list of over 160 stakeholders and interested parties. Meeting announcements and materials were distributed via email, posted on the Harney County Watershed Council website and Facebook page, and promoted through local newspapers and radio. A project website, Harney's Water Future, was also developed to share groundwater conservation information with the broader community. After each meeting, summaries, presentation slides, recordings, and decisions were circulated and posted online. Additionally, the project manager remained available to answer questions.

Data-Driven Decision Making

The CBWP's strategies and recommendations were grounded in comprehensive research, including studies conducted by USGS and OWRD. The Collaborative also drew on monitoring data, local knowledge, and community experience to develop a thorough understanding of groundwater and surface water conditions, usage, and availability.

To support this work, the Collaborative formed several topic-specific Working Groups (Appendices C and F). These groups focused on key interests and played a vital role in synthesizing technical findings, exploring management options, and making recommendations that informed strategy development in the Groundwater, Surface Water, and Integrated Plans.

Strategy Development

With data and stakeholder input in hand, the Collaborative identified the most critical water issues and developed strategies aimed at sustainable, equitable water management. These strategies form the core of the Integrated Plan and are intended to guide future action while remaining adaptable to changing conditions.

From First Draft to Final Draft

The development of this Integrated Plan followed a structured, transparent process designed to ensure broad engagement and community ownership. After each draft was distributed to the Collaborative, comments and feedback were collected, reviewed, and synthesized. A tracked-changes version incorporating this input was shared alongside each updated draft to support iterative review and transparency.

Draft 1 was released to the full Collaborative on January 24, 2025, with feedback due by February 7. Draft 2 followed on February 14, with comments due by February 28. Draft 3 was distributed on March 6, and feedback was accepted through March 20. That same day, the Collaborative held a formal consensus event to confirm agreement among eligible participants to submit the Integrated Plan to OWRD's Interagency Plan Review Team (PRT). Consensus was achieved, and the Plan was submitted to the PRT on March 24.

A public comment period was held from March 26 through June 26, 2025. In parallel, the PRT conducted a thorough review and submitted formal feedback to the Collaborative on June 20. Revisions based on both public and agency input were incorporated into an updated version of the Plan, which was resubmitted to the PRT on July 14. The final review window ran from July 14 through August 1.

To formally conclude the planning process, the Collaborative held a final consensus event to adopt the Final Integrated Plan. Eligibility criteria for participation remained the same as those used during the March 2025 consensus event (See Appendix A.1).

To support broad participation and awareness of the planning process and consensus events, the Collaborative implemented a comprehensive outreach strategy. This included radio announcements, flyers posted in key community locations, social media posts, online updates, newspaper coverage, and direct outreach to key stakeholder groups such as the Cattlemen and Cattlewomen associations, Farm Bureau, Stock Growers, Harney County Court, individuals involved in the Groundwater Phase, and other local organizations and community leaders.

This inclusive and iterative process has been instrumental in addressing the complex and often competing demands for water in the Harney Basin. By ensuring that diverse perspectives were represented throughout the process, the Plan reflects a shared commitment to a balanced and resilient water future.

Harney Basin Overview

The Harney Basin, located in southeastern Oregon, is a closed surface basin where all the snowmelt and other precipitation drains to the center of the basin into Malheur Lake and Harney Lake, the lowest part of the basin (Figure 1). The basin is some 5,240 square miles in area, composed of four subbasins; Silver Creek, Silvies River, Donner and Blitzen River, and the immediate drainages to Harney and Malheur Lakes. The basin is bordered on the north by the Blue Mountains, on the east by the Stinkingwater Mountains and on the south by Steens Mountain. The Harney Basin is the northernmost extension of the Great Basin.

The climate of the Harney Basin is semi-arid with mild summers and cool winters. Precipitation, dominantly snow, in the upper elevations of the Blue Mountains and Steens Mountain. Snowmelt ranges from 30 to 45 inches/year. Snowmelt runoff is the main contributor to stream flow in each of the streams that enter the broad lake basin. At around 4,150 feet in elevation, the Harney basin is subject to regular freezing events and has annual precipitation of less than 10 inches per year.

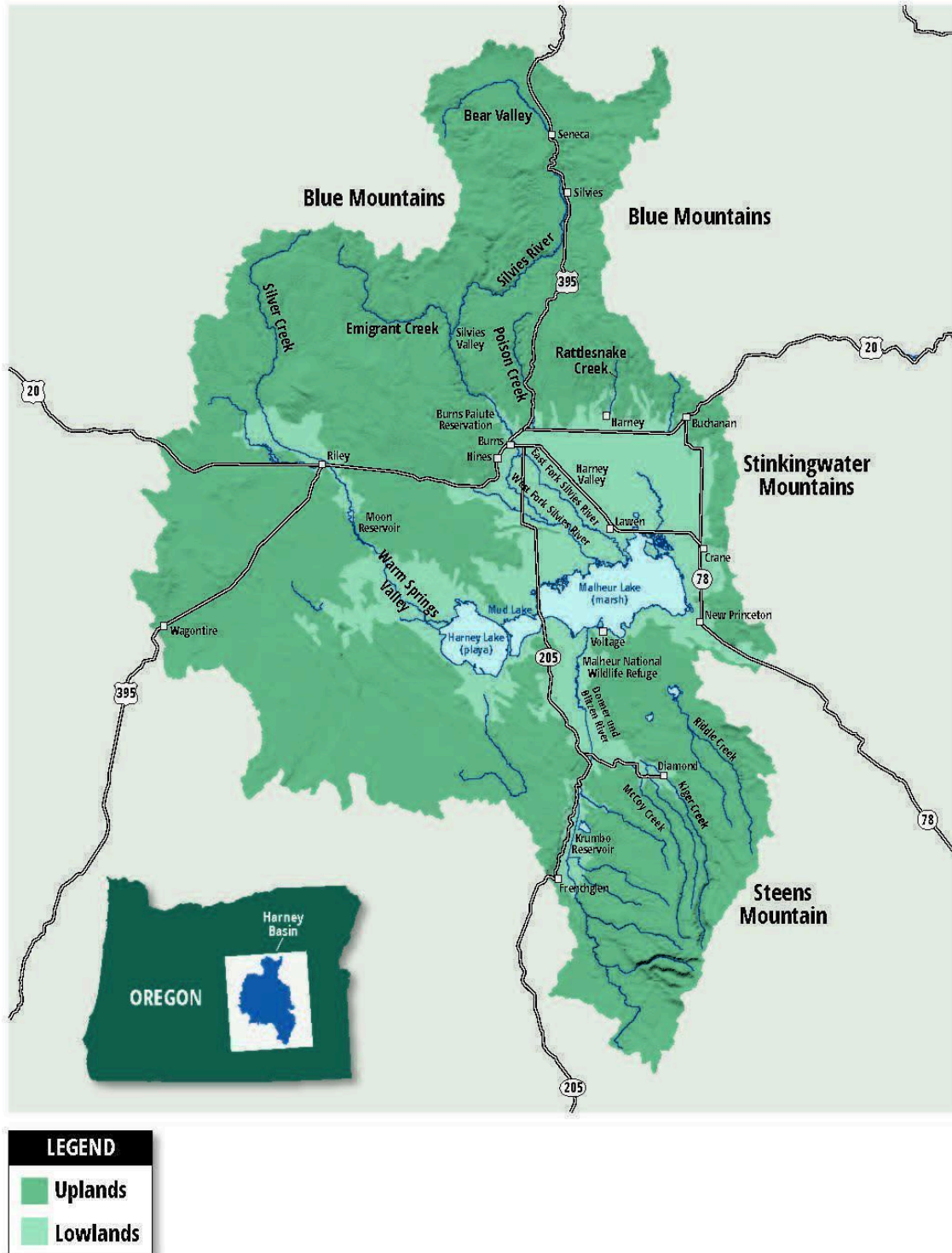


Figure 1: Harney Basin Study Area showing surface water streams

Surface Water Hydrology

See Appendix D, Chapter 3

Streams, rivers, and lakes are fed primarily by snowmelt runoff. While the basin has few stream gauges, the Silvies River gauge near Burns provides a good idea of the flows from the uplands to the Harney Valley. Similarly, the stream gauge on the Donner und Blitzen River at Page Springs provides a good measure of the upland runoff from Steens Mountain. The Basin experiences highly variable seasonal and year-to-year fluctuations in streamflow.

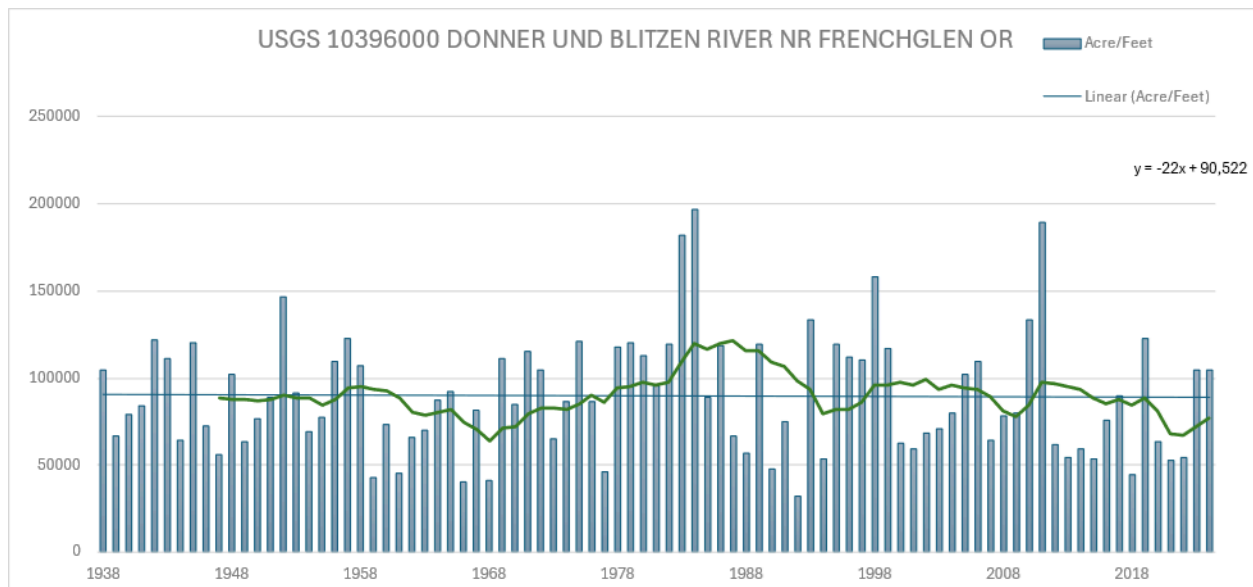


Figure 2: Annual Discharge variability, Average Annual Discharge and 10-year running average Donner und Blitzen, Silvies River and Silver Creek)

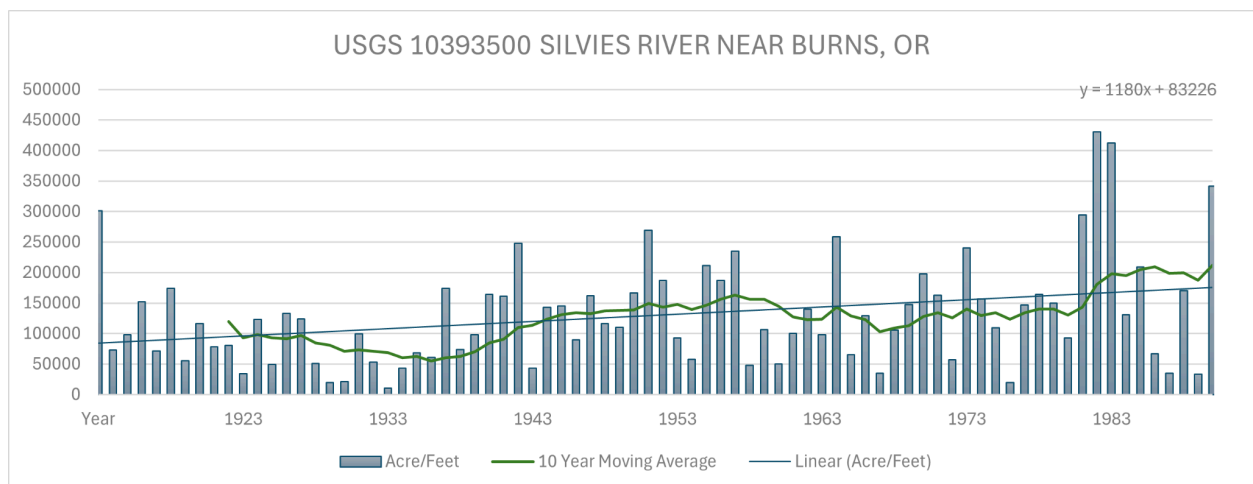


Figure 3: Annual Discharge variability, Average Annual Discharge and 10-year running average Donner und Blitzen, Silvies River and Silver Creek)

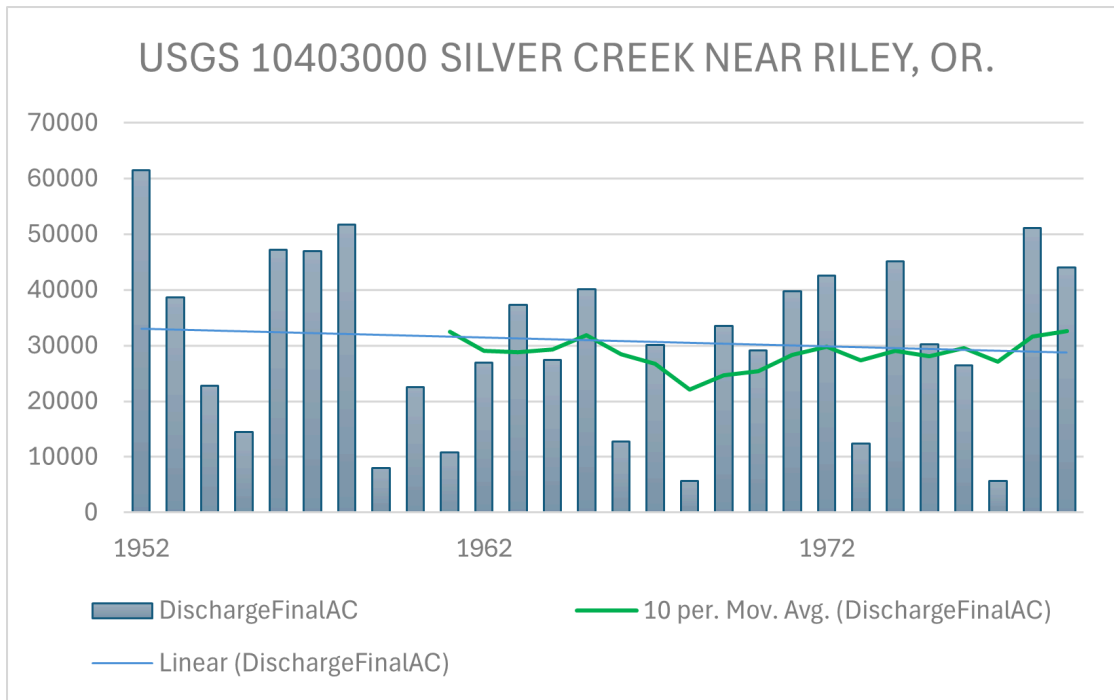


Figure 4: Annual Discharge variability, Average Annual Discharge and 10-year running average Donner und Blitzen, Silvies River and Silver Creek)

Runoff timing varies among the three major contributing catchments. Flows from Silver Creek typically peak earliest, with Silvies River peaking shortly thereafter and Donner und Blitzen having peak flows nearly a month later. While Silver Creek has the largest catchment, it has the least flow into the Harney Basin lowlands. Silvies River has significantly greater flows both in total volume and peak flows. Flows off Steens Mountain have a more protracted flow duration during high flows.



Figure 5: Comparison of mean daily streamflows at Donner und Blitzen River, Silvies Rivers, and Silver Creek for Water Years 2011-2019

The surface water hydrology of the Harney Basin is quite variable both year to year and month to month. This variability is known from only a limited number of measurement locations with many surface water streams not measured, however, these locations reflect the general hydrologic pattern in the Basin. Stream runoff is dominated by spring snowmelt. The terminus of the basin hydrology is Malheur and Harney Lakes. There is no major storage affecting flows in the basin but significant irrigation diversions occur in areas of low gradient suitable for flood irrigation. The very limited surface water storage in the basin includes Moon Reservoir in the Silver Creek drainage that supplies irrigation water to the Diamond O area and Chickahominy Reservoir that is a fishing reservoir sourced from Chickahominy Creek. There are small reservoirs in Silvies Valley (Buffalo Lake, Charlie Smith Reservoir, and others) and in the Donner und Blitzen and tributaries (Krumbo Reservoir, Kern Reservoir, and ponds in the Blitzen River floodplain managed by the Malheur National Wildlife Refuge such as Buena Vista Lake, Boca Lake, Knox Pond, Benson Pond, etc.)

During very wet years, Malheur Lake can overflow into Mud Lake, creating a surface water connection to Harney Lake. However, it typically takes several consecutive wet years for this connection to occur. In most years, both Malheur and Harney Lakes remain terminal, with no surface water outflows, even during periods of high water. The surface area of Malheur Lake varies with annual runoff from the Blitzen River. Neither the West Fork Silvies River nor the East Fork Silvies River are gaged near their connection with Malheur Lake making their contributions difficult to monitor.

Occasionally, the West Fork Silvies River connects with Malheur Lake while the East Fork Silvies River is not connected, such as in water year 2020 (Smith and Wood, 2023); however, this connection is often short-lived and results in a relatively small amount of flow. For example, the flow from the West Fork Silvies River in 2020 was 3 percent of the combined flow from both forks of the river in 2019 (Smith and Wood, 2023). The surface area and elevation of Malheur Lake varies significantly year to year. The annual variation in the surface area of the marsh can be quite significant (Figure 6). Historic records of peak elevation (Figure 7) show the year-to-year variability.

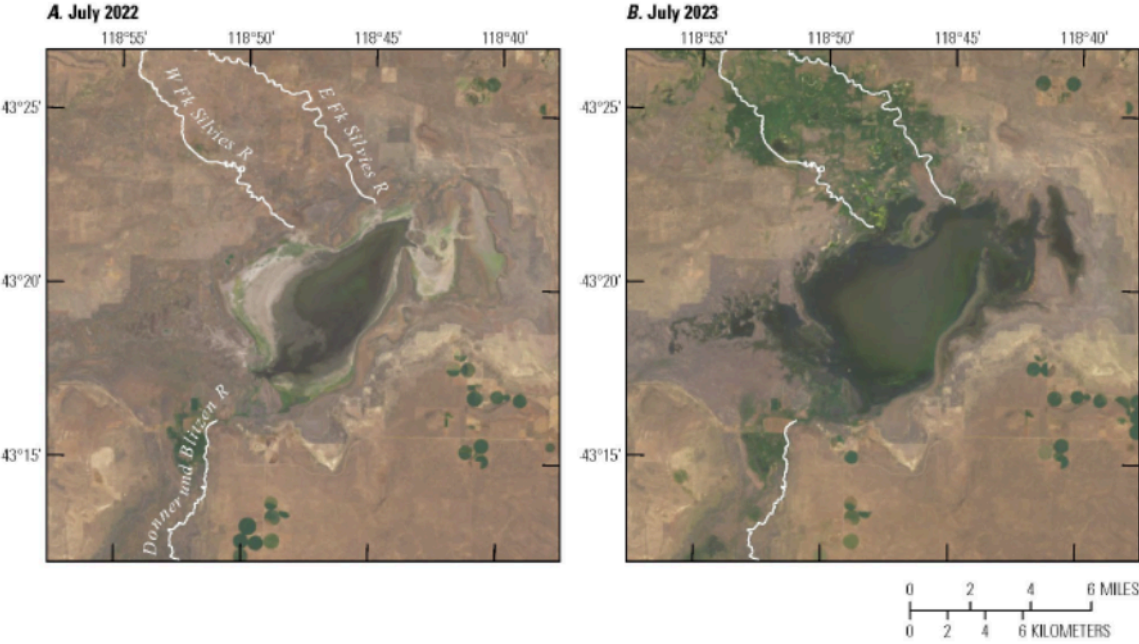


Figure 6: Malheur Lake under varying stream flow conditions A 2022, B 2023 (from Smith, 2024)

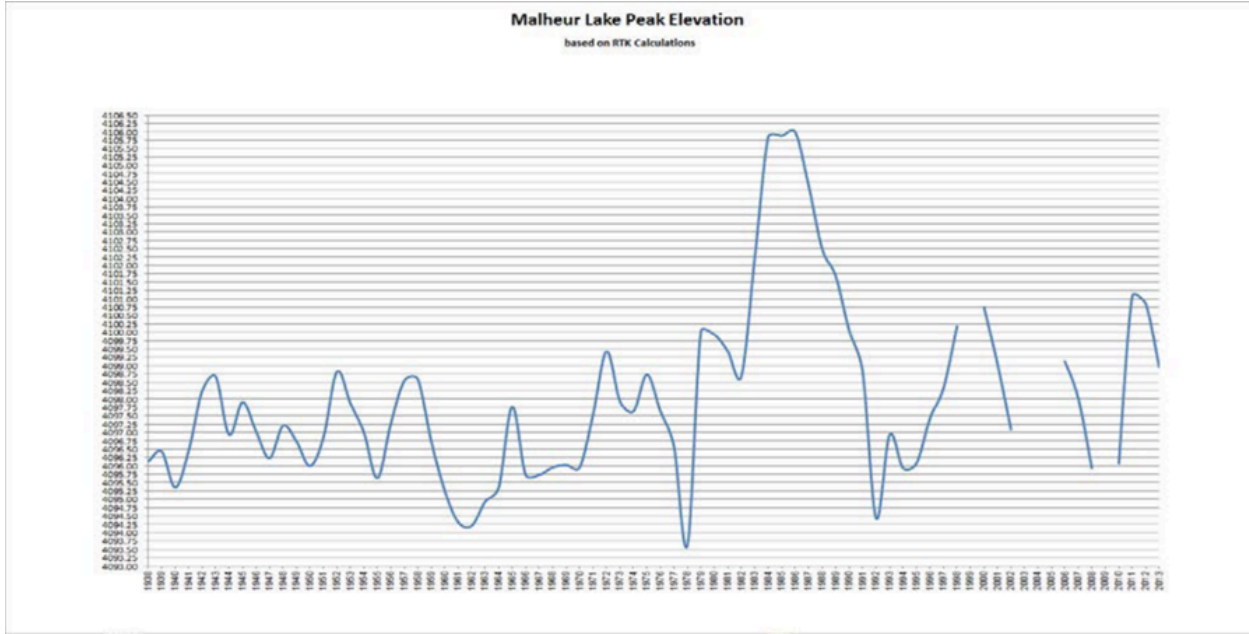


Figure 7: Malheur Lake peak water level

Groundwater of the Harney Basin

See Appendix B, Chapter 3

A detailed groundwater resource study (Gingerich et al., 2022) and groundwater budget (Garcia et al., 2022) have been prepared for the Harney Basin. The study identified three regions (North, South and West) and distinguished uplands from lowlands (Figure 8).

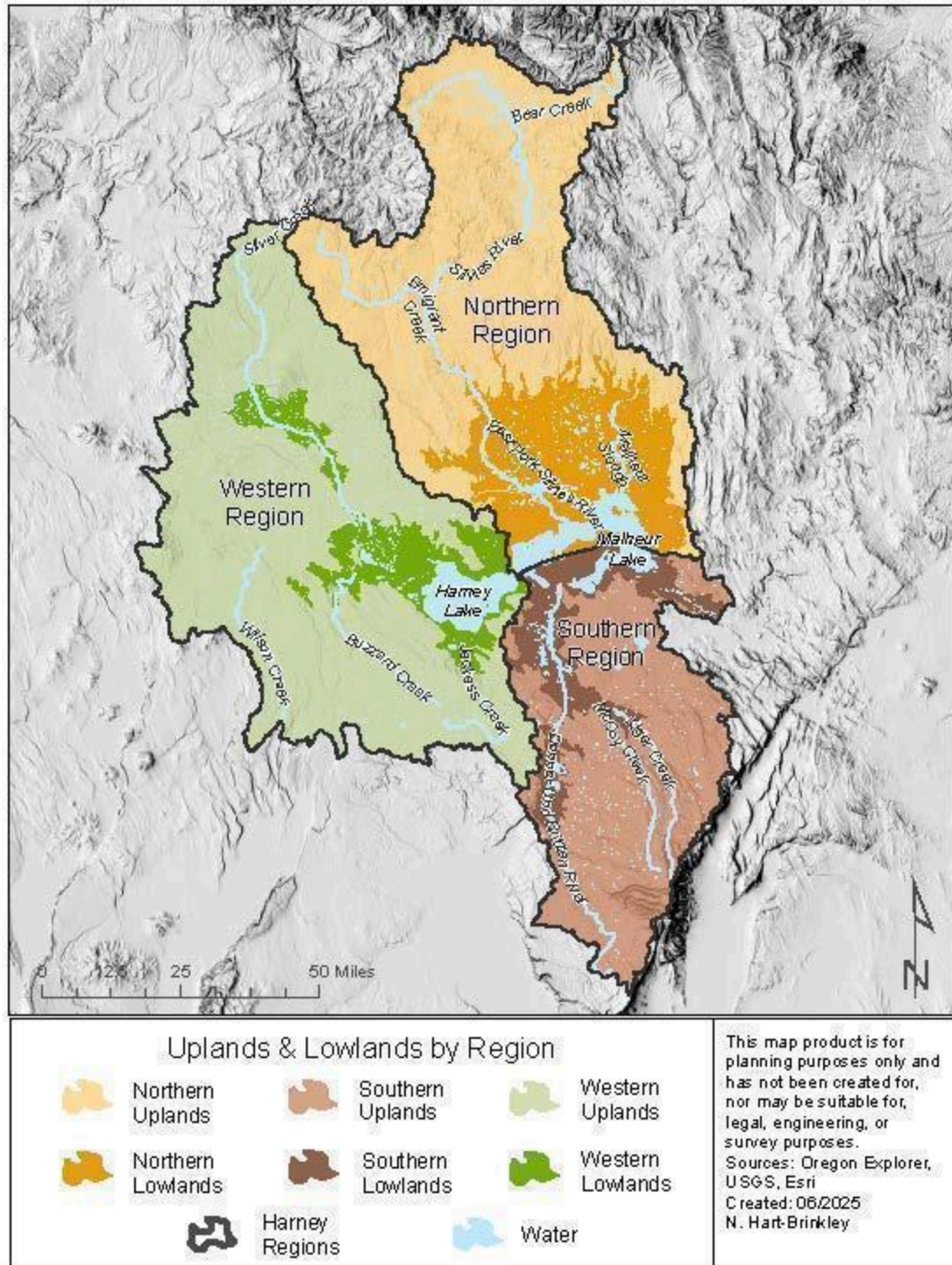


Figure 8: Groundwater study areas showing uplands v. lowlands and the three groundwater evaluation areas

While the entire basin is considered a single groundwater unit, different locations in the basin respond differently to groundwater flow and pumping due to relatively complex geology. Different rock layers have significantly different transmissivity values affecting groundwater flow. In general, the uplands have very low transmissivity geology and short flow paths for groundwater between recharge and springs or streams.

The studies show that groundwater in the Harney basin is recharged at a relatively low rate from the uplands. Groundwater recharge from the uplands rapidly returns to the streams draining the uplands. The shallow levels of the groundwater are recharged from spring flooding and irrigation as well as recharge from the uplands. Discharge is to springs, streams and evaporation under natural conditions. Groundwater pumping constitutes a significant amount of groundwater discharge at this time (Figure 9).

There is a significant amount of stored groundwater dating from the Pleistocene Lake era (30,000 to 5,000 years ago) . Deeper wells show that they are pumping this older stored water.

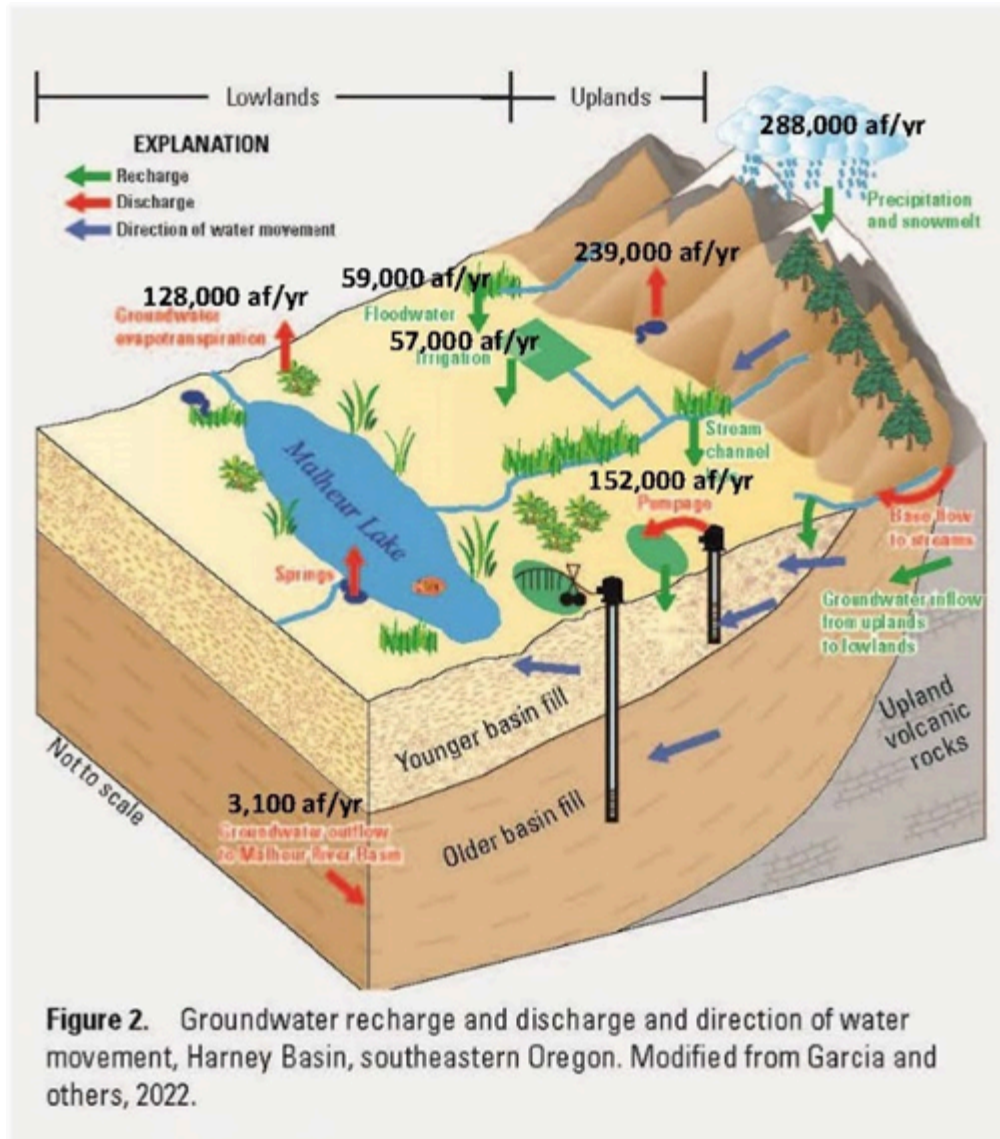


Figure 9: Block diagram of groundwater recharge and discharge

Recent groundwater budget estimates show an imbalance of discharge over recharge by some 110,000 acre- feet per year (Garcia et al, 2022). Groundwater is pumped for agricultural irrigation, domestic, municipal, and stock watering purposes. However the dominant use of groundwater is for irrigation. Current use patterns have resulted in locally severe groundwater declines and larger areas of less severe but more large-scale declines. The groundwater budget (Figure 10) indicates the need to reduce withdrawal, primarily a reduction in agricultural pumping. OWRD is currently conducting a rulemaking process (Division 512) to designate a Critical Groundwater Area and a Serious Water Management Problem Area in the Harney Basin. A Rules Advisory Committee began meeting in April, 2023 and is expected to meet through April 2025. Designating an area as a Critical Groundwater Area allows OWRD to implement corrective control provisions through a contested case process to reduce existing groundwater use in the area to a sustainable level. This rulemaking and the expected related

contested case process(es) are outside the Harney County community-based planning program.

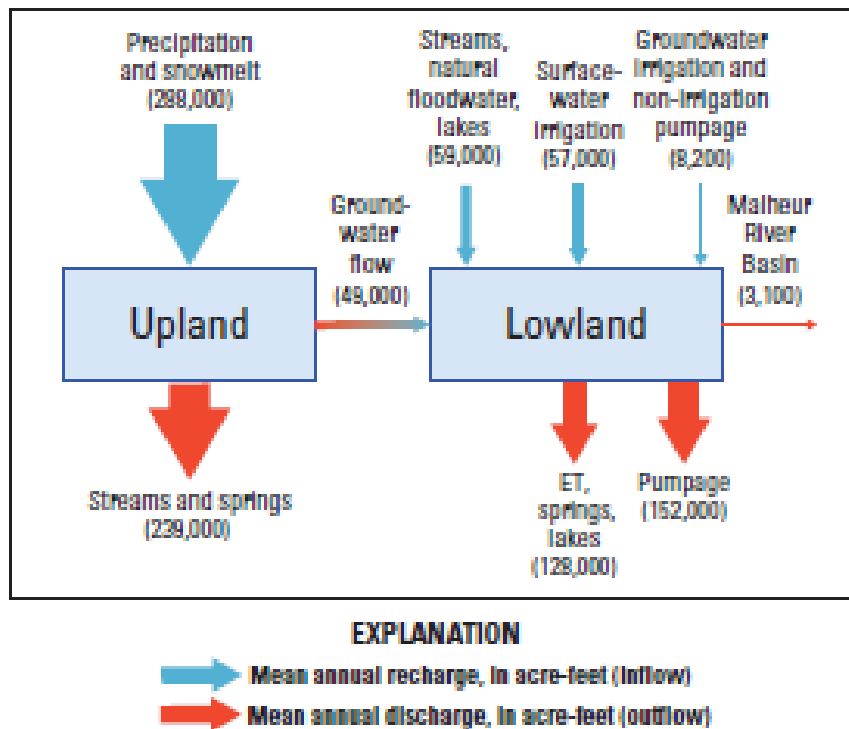


Figure 10: Harney Basin groundwater budget (from Garcia et al., 2022)

Ecological Resources of the Harney Basin

See Appendix B, Chapter 3 and Appendix D, Chapter 3

The upper watershed of the Silvies and Silver Creek is dominantly Malheur National Forest lands (Figure 11). This forest land is used for timber harvest and summer range for cattle ranchers who have grazing permits.

A significant portion of the western and southern portion of the basin is sagebrush steppe. Meadow vegetation dominates the lowland portions of the Bear Valley, Silvies Valley, Harney Valley, Blitzen Valley, and Silver Creek Valley

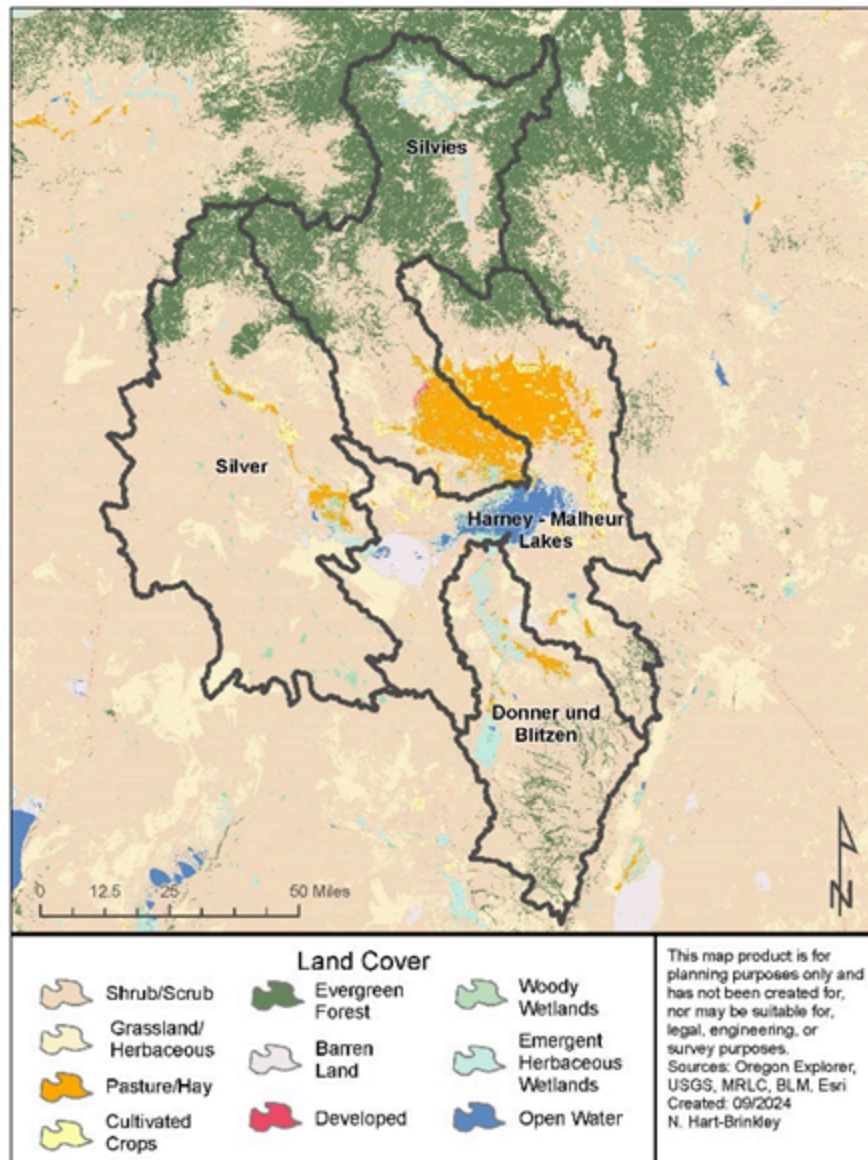


Figure 11: Land cover of Harney Basin

The upper watersheds of the Silvies and Silver Creek are forested and the cold-water streams support Redband trout and other native aquatic species. Conservation of Redband trout is a priority for the Oregon Department of Fish and Wildlife. The lower reach of each river may contain habitat for Western ridged mussel (which has been petitioned for listing under the federal Endangered Species Act).

Flooded meadows of the Silvies River, Donner und Blitzen River, and Silver Creek floodplains are used by hundreds of thousands of migratory and numerous resident birds. While best known for supporting tens of thousands of migratory waterbirds, flood irrigated wetlands are

also important to migratory Bobolinks, Greater Sandhill Cranes, and Cinnamon Teal which serve as indicator species for wet meadow habitat. Other species that use this habitat type include nesting Long-billed Curlew, Wilson's Snipe, and other shorebirds; and foraging waterfowl, White-faced Ibis, Mule deer, Pronghorn, and the occasional Rocky Mountain elk. Small mammals that live in these meadows are an important food source for raptors (USFWS 2013).

Groundwater-dependent ecosystems in the Harney Basin include springs, spring-fed lakes, wetlands, and phreatophyte vegetation. Sod House Springs, located near the Malheur National Wildlife Refuge headquarters, has historically provided critical water to support the refuge's wetlands and the diverse wildlife they sustain. However, the spring has gone dry recently, likely due to declining groundwater levels in the region. The loss of Sod House Springs has significantly impacted nearby wetland habitats that support migratory and resident bird species, including waterfowl and shorebirds that depend on these wetlands for feeding and nesting. The drying of the spring also affects the hydrological balance of the Refuge, which relies on consistent spring flows to maintain its ecological functions. Limited monitoring of groundwater-dependent ecosystems, including Sod House Springs, underscores the need to better understand how groundwater level declines—and any potential recovery—affect these vital resources. Addressing these impacts is a key focus of the Critical Groundwater Area Designation and the related measures and controls being developed. Ongoing monitoring and further study will be essential to inform water resource management decisions and to help preserve these ecosystems into the future.

Economic Values of Surface Water and Groundwater in the Harney Basin

As of 2022 there was a total of \$99.4 million in sales for crops and livestock in Harney County (Census of Agriculture, 2022). On average, a farm in Harney County has a market value of agricultural products sold of \$208,252 and a net cash farm income of \$48,832 (a 30% increase since 2017). There are some 965 producers in the basin, mostly family farms and ranches. There are a number of larger farm ownerships with nearly one third of the farms over 1,000 acres. Annual gross revenue received per farm varies significantly with approximately one-third receiving less than \$2,500 per year and one-third receiving more than \$100,000 per year.

Estimated Value of Surface Water (taken from Blair et al., 2021)

Harney County is a rural county in southeast Oregon and, like many rural counties, one of the main economic sectors is agriculture. Agricultural production in the county is primarily cattle, including cow/calf operations, and hay crops. Surface water diversions from rivers and creeks in the Harney Basin are used to inundate flood plains for irrigated pasture production. Forage produced from irrigated pasture is used to supplement winter feed for cow-calf operations. Without the production on flood-irrigated pasture, cow-calf operations would have to rely on off-ranch sources of forage on the open market. There are approximately 106,530 acres of

flood-irrigated pasture in the basin in an average water year, or at the 50-percent exceedance level.

Given this relationship, grazing of flood-irrigated pasture in the Harney Basin supports 718 jobs, \$11.6 million in labor income, \$40.1 million in economic output, and \$22.1 million in value added in the State of Oregon, including both inside and outside the basin (Blair et al., 2021).

In addition to flood-irrigated pasture, bird viewing and fishing are two important outdoor recreation activities that rely on surface water flows in the Harney Basin. For example, each spring, the region hosts the Harney County Migratory Bird Festival to celebrate migratory birds that rely on the Malheur National Wildlife Refuge (MNWR) and surrounding private flood-irrigated pasture for stopover and nesting habitat. Recreational fishing for native redband trout (*Oncorhynchus mykiss spp.*) is popular throughout the region as well.

The Harney Basin supports an estimated 54,889 bird viewing days and 8,000 fishing days annually. Bird viewing contributes approximately \$2.9 million in economic benefits each year, while recreational fishing generates an additional \$526,800. These figures represent the total economic value that bird viewers and anglers derive from their experiences in the basin, beyond the costs of their trips. It is important to note that groundwater plays a critical role in sustaining groundwater-dependent ecosystems, such as springs, rivers, streams, and lakes, that contribute to these recreational opportunities and their associated economic benefits.

Employment and business activities are supported by local and non-local recreation visitor expenditures related to bird viewing and fishing in the Harney Basin. Combined spending from local and non-local bird viewers and anglers in the basin supports 85 jobs, \$2.8 million in labor income, \$7.2 million in economic output, and \$4.1 million in value added in the State of Oregon, including both inside and outside the basin with most in Harney County.

Flood-irrigated pasture in the basin may provide ecosystem services that are indirectly used and benefit society, such as carbon sequestration, nutrient cycling, and pollination. Individuals that view or hunt migratory birds outside of the basin along the migratory route are also indirectly benefiting from the habitat provided within the basin. Passive-use values include existence values (the value in maintaining a resource regardless of actual or intended direct use) and bequest values (the value in maintaining a resource for the enjoyment of future generations). For example, people may place an economic value on maintaining migratory birds along the flyway regardless of whether they visit the basin. Research has shown that the economic benefit for the preservation of wildlife can be large when aggregating across households in a region or the United States. Other research has demonstrated that there is also individual and collective amenity and lifestyle value associated with working landscapes. Although we do not attempt to quantify the value of indirect or passive use, the evidence suggests that the total economic benefit for the production of ecosystem services provided by the management of surface water in the basin may be large.

Estimated Value of Groundwater

Groundwater irrigated agriculture in Harney County is used to grow primarily alfalfa (USDA Census of Agriculture, 2022). A portion of alfalfa is used regionally for dairy fodder in western Oregon and other locations in the Western U.S. Some of the high-quality alfalfa is exported internationally to be used as feed for dairy cows primarily in Asia, with most of the rest of the high quality Alfalfa used as a supplemental winter feed for livestock in the basin. In contrast, meadow hay is generally used as cattle feed locally and not exported out of the county. Meadow hay is less water intensive annually than alfalfa mainly because it is limited to one cutting opposed to three to four cuttings for alfalfa (depending on weather conditions). Every six to ten years alfalfa land needs to be rotated, and annual barley, triticale, or oats are often grown in those rotation years as forage crops.

The estimated gross revenue from lands irrigated with groundwater is approximately \$51.6 million. The estimated net cash farm income on these lands is \$12.6 million. The estimated property tax payment from these lands is \$1.7 million. The total property tax revenue in Harney County collected for 2019-2020 was \$2.6 million, meaning that property tax revenues from these properties is approximately 65 percent of total annual property tax collections. The total employment on these lands is 720 jobs based on the proportion of groundwater irrigated agriculture (108,760 acres) compared to total agricultural area (173,533). This level of employment is approximately 16 percent of total employment (4,353 jobs) in Harney County.

Groundwater dependent ecosystems (GDEs) play a critical role in maintaining the health and stability of the Harney Basin's natural environment. By sustaining springs, rivers, streams, and lakes, GDEs contribute to the basin's biodiversity, support aquatic habitats, and ensure the availability of water for both ecological and human use. These ecosystems provide essential services, such as water filtration, nutrient cycling, and habitat connectivity, which are vital for maintaining the region's environmental resilience. Groundwater dependent ecosystems also support fish and wildlife, including birds and other wildlife that utilize the Malheur National Wildlife Refuge, and game, providing an economic benefit that can be hard to quantify. The preservation and understanding of GDEs are integral to protecting the overall ecological health and economic vitality of the Harney Basin.

History of Water Use in the Harney Basin

The Wadatika people have used the resources of the basin for millennia to sustain their lives and culture. The seasonal round of the Wadatika includes Redband trout in the Blitzen River and Malheur Lake in December and January, waterfowl February through April, Indian Potato (*Sagittaria Latifolia*) in May, camas (*Camassia quamash*) in June in the Cow Creek area, and wada (*Suaeda depressa*) harvest in August from Malheur Lake. Seeds traditionally harvested, including wada (*Suaeda depressa*), Indian rice grass (*Oryzopsis hymenoides*), and Great Basin wild rye (*Elymus cinereus*), are still available in the area. The fall takes the people to the mountains for huckleberry and choke cherry harvest. The Burns Paiute Tribe adopted a resolution in 2016 as Formal Recognition of Malheur Lake and its shoreline as Sacred Places

and Traditional Cultural Properties of the Burns Paiute Tribe (RESOLUTION NO: 2016-01). Previously, in 2006, the Burns Paiute Tribal Council adopted an Aboriginal Territorial Protection Policy (RESOLUTION NO. 2006-12). The water resources and associated ecological resources of the Harney Basin have been and remain of cultural value for the Burns Paiute people.

The Collaborative and the Burns Paiute Tribe worked together to create Resolution 2023-25 (Appendix G). It was adopted by the Burns Paiute Tribe to renew and affirm their commitment to protecting, conserving, and restoring water resources (referred to as “Paa”) in their traditional homelands. The resolution highlights the deep historical and ongoing cultural connection the Burns Paiute people have with local rivers, lakes, streams, wetlands, and groundwater, emphasizing the Tribe's inherent right to protect these resources.

It notes that the Tribe's water rights, guaranteed by historical treaties and recognized as federally reserved rights, remain unresolved, leading to ongoing challenges in managing water sustainably. The resolution addresses concerns over the continued misuse and mismanagement of water resources, including overuse, water quality degradation, habitat destruction, and inadequate regulatory frameworks.

To address these issues, the Tribe calls for cooperative, government-to-government discussions with the State of Oregon and federal agencies. The goal is to develop inclusive and meaningful co-management agreements for jointly managing water resources and fisheries, thereby ensuring water sustainability, ecosystem health, and cultural well-being for future generations. The resolution strongly supports establishing balanced water-use practices and policies that promote ecological resilience, public health, and community needs alongside traditional and cultural priorities. This resolution reaffirms the Tribe's inherent rights and underscores the importance of collaboration to safeguard water resources for current and future generations.

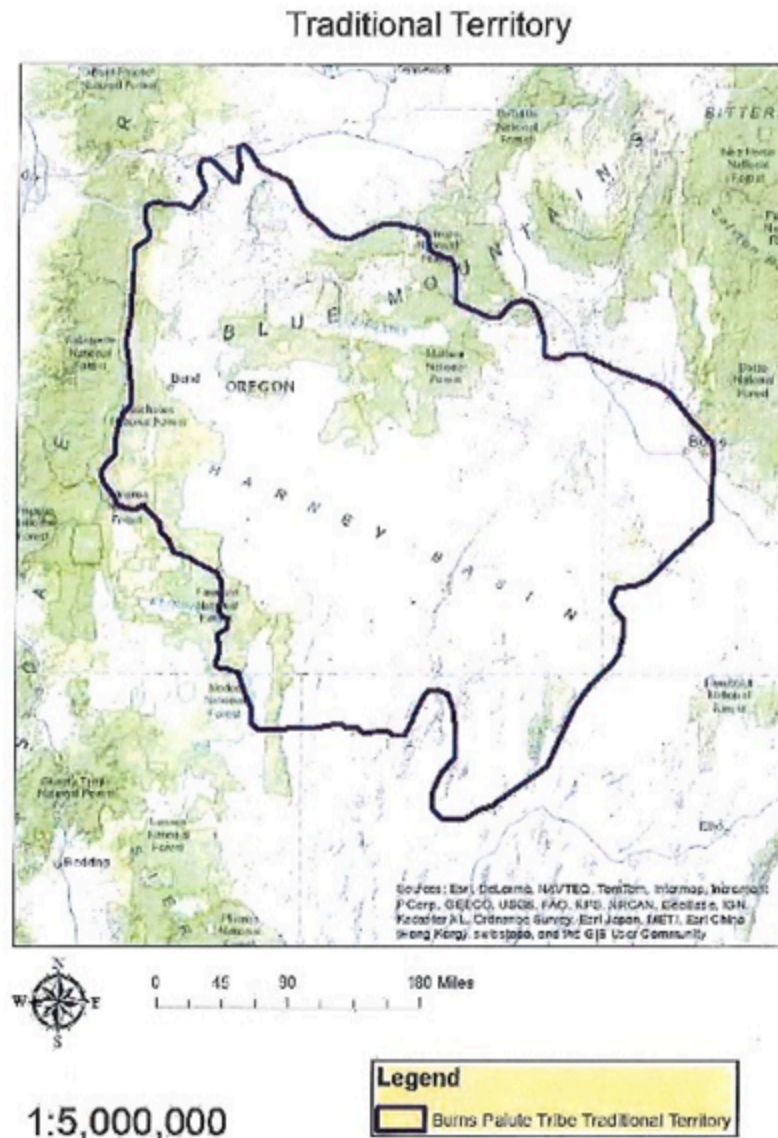


Figure 12: Burns Paiute Tribe traditional territory

Fur trappers and explorers traveled through the Harney Basin in the early 1800's naming streams and taking beaver from the area. A number of military outposts were established in the basin to protect travelers to gold fields and other areas further west. The Harney Valley was seen as an excellent cattle producing area and early Swamp Land Act land acquisitions in the Diamond and Blitzen Valley area were as stated by Lo Piccolo (1962) "Water and its distribution became a determining factor in the range cattle industry. The rancher who controlled the source of the water supply ruled the range and in an area of short creeks and springs complete control became plausible." Early ranchers built dams and ditches draining "swamp lands" and flooding

sagebrush land creating forage meadows. In the Blitzen, Pete French “laid out a plan for the drainage of the swamp by a main canal and the irrigation of all lands between the foothills and the canal, putting the water on the land along the highest lines using the canal itself as a final drain ditch for the irrigation system.” (Langston, 2003). The method was utilized in the Silvies drainage of the Harney Valley by Miller and Lux (Langston, 2003).

Shortly after the turn of the century the Harney Valley was evaluated for irrigation and drainage (Whistler and Lewis, 1916). The report identified that 20,000 to 25,000 acres of tule swamp had been drained with 25 miles of main canal and 10 miles of tributary canals in the Blitzen Valley. The report identified three reservoir sites on the Silvies River, the Krumbo reservoir site and a P Ranch site on the Blitzen River, and a Silver Creek Reservoir site. One feature of the report was a proposal to drain Malheur Lake to the South Fork of the Malheur River. Only the Krumbo Reservoir has been constructed. The proposal to construct a reservoir on Silvies River was raised in the 1950’s but a report from the U.S. Army Corps of Engineers in 1957 recommended that it not be constructed.

As a result, surface water use has been relatively consistent for multiple decades, relying on spring freshets for flood irrigation of wet meadow vegetation.

Groundwater use in the Harney Basin developed much later than surface water development. The first estimate of groundwater pumpage was in the 1930’s of approximately 1,000 acre-feet/year (Piper et al., 1939) from wells less than 100 feet deep. Leonard (1970) estimated that groundwater pumpage for irrigation was between 7,900 and 10,700 acre-feet/year and was from wells less than 300 feet in depth. Schibel and Grondin (2023) developed estimates for groundwater pumpage from 1930 to 2018 using Beamer and Hoskinson, 2021 estimates for 1991-2018. There has been significant development of groundwater for irrigation purposes since the 1930’s. Significant groundwater development occurred in the late 1970’s and early 1980’s with a surge in the 2000’s (Figure 13) leading to a closure of the basin to new groundwater permitting in 2015 (with limited exceptions).

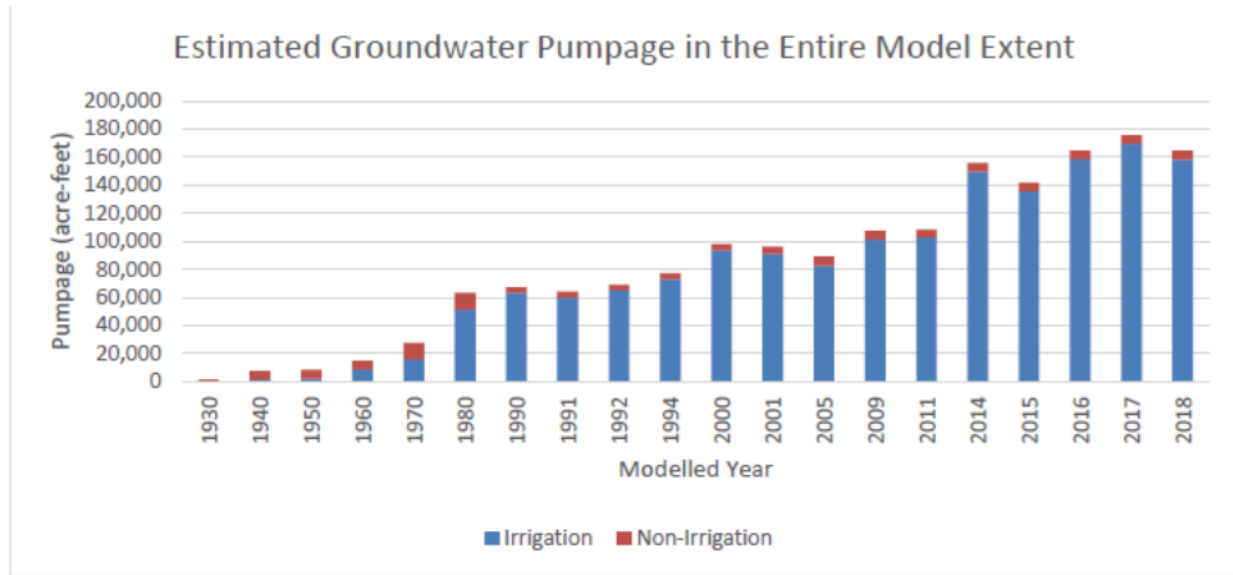


Figure 13: Total groundwater pumpage for irrigation and non-irrigation uses for the Harney Basin (from Schibel and Grondin, 2023)

The most recent estimate of groundwater pumping from the Harney Basin (Beamer and Hoskinson, 2021) provides pumping estimates for the period of 1991 through 2018. The 2018 estimate is used in developing the groundwater budget for the basin (Garcia et al., 2022).

Water Resource Management in the Harney Basin

See Appendix B, Chapter 4 and Appendix D, Chapter 4

Since the early cattle ranching days of the 1870s, surface water in the Harney Basin has been managed through diversions to flood meadows in the spring, supporting both traditional agricultural practices and the region's natural ecosystem. While many of these meadows and marshes existed naturally and provided critical habitat for migratory and resident birds, flood irrigation has continued to enhance these functions by stimulating meadow growth and supporting pasture and hay production for nearly 150 years. Additionally, surface water diversions have contributed to maintaining water levels in Malheur Lake, which supports aquatic vegetation, though the lake historically received natural inflows as part of the basin's hydrology.

Most of the surface water has been adjudicated and over allocated. As a result, irrigation users may be regulated to allow the seasonal spring flows to reach senior users, relying on what has been described as an antiquated and decaying irrigation infrastructure system. Regulation of water distribution by the OWRD Water Master and change in infrastructure has been limited since the early 1900's. Recent efforts to upgrade irrigation infrastructure has been started by replacing certain failing diversion structures with structures with fish passage and screening. It is important to note, some ranches have recently completed engineered, full-scale upgrades to their landscape wide irrigation system.

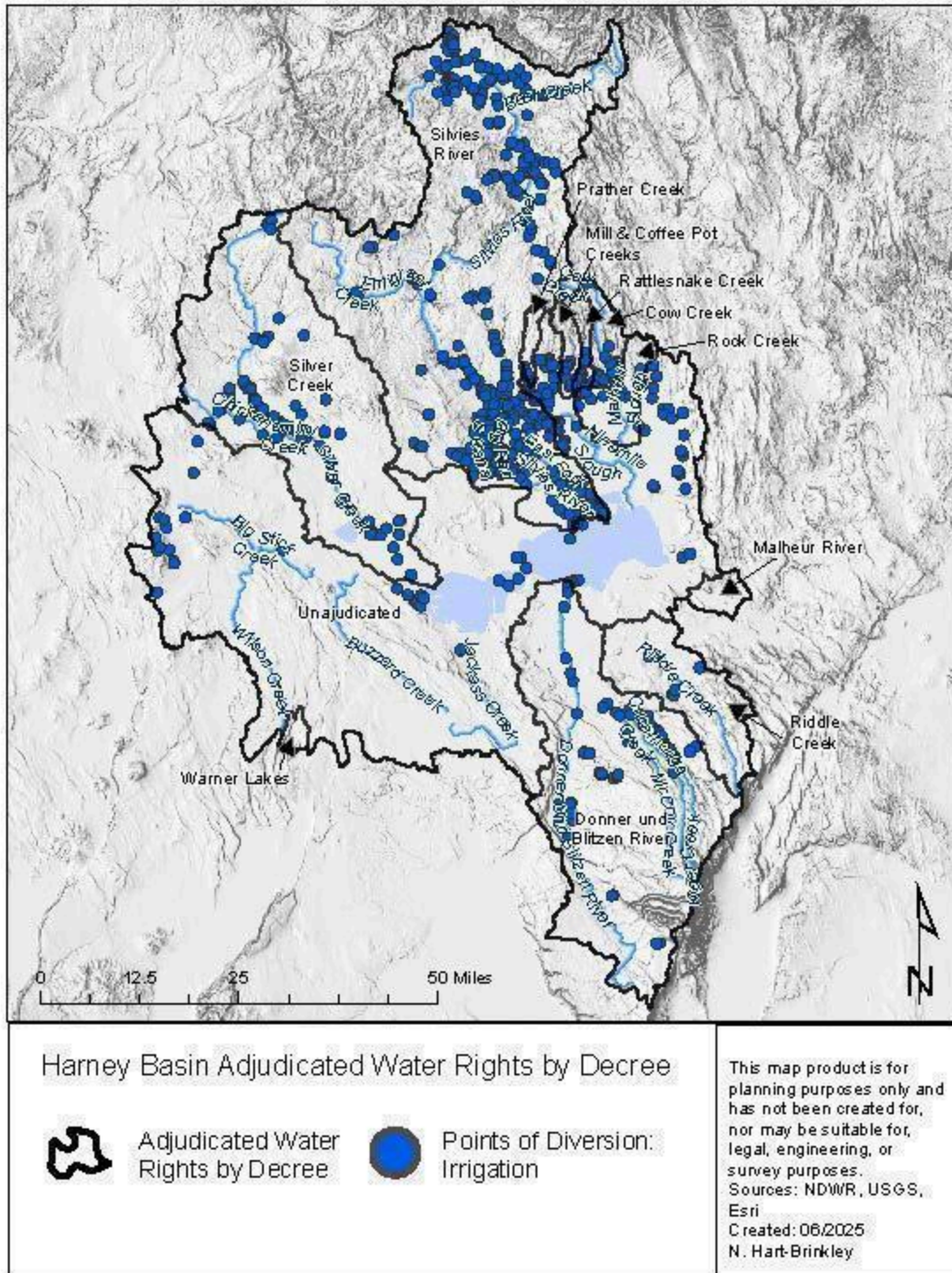


Figure 14: Areas Surface Water Adjudication by Court Decree and irrigation points of surface diversion

Groundwater management in the basin primarily relied on permitting until 2016, when a moratorium was placed on new groundwater right applications by OWRD. That year, concerns about groundwater over-allocation prompted community discussions, the initiation of a groundwater study, and a rulemaking process. As a result, the basin was effectively closed to new groundwater permits (with limited exceptions) through a basin classification, accompanied by a requirement to evaluate and update the rules within one year of publishing the groundwater study. However, significant groundwater transfers continued to occur during this time, highlighting the need for comprehensive management beyond just restricting new permits. Following the basin classification and limiting new permits transfers of groundwater permits were allowed. During the study period (2015–2023), significant data and insights were gathered about the groundwater resource. In 2024, the Oregon Water Resources Commission adopted new administrative rules to ensure that groundwater availability is confirmed before granting permits. Currently, the Oregon Water Resources Department is conducting a rulemaking process to address basin classification and to establish a Serious Water Management Problem Area and a Critical Groundwater Area in the Harney Basin.

Water Resource Issues and Future Water Needs

See Appendix B, Chapter 4-5 and Appendix D, Chapter 4-5

The surface water supply in the Harney Basin is limited and exhibits significant annual variability. While the groundwater reserves are significant, they are being withdrawn at a rate beyond the ability to recharge. The economy of Harney Basin is deeply intertwined with the availability of surface and groundwater. Identifying the collaborative efforts necessary to maximize benefits, minimize impacts and protect and restore the aquatic ecosystems and groundwater dependent ecosystems are challenges of the planning effort.

Consumptive water use in the Harney Basin, both surface and groundwater, is primarily driven by agricultural irrigation, which is the backbone of the local economy. Ensuring water availability to support a thriving agricultural community remains a high priority. However, water also plays a vital role in meeting the needs of residents, including those in rural areas who rely on domestic wells, as well as small towns like Burns, Hines, and Seneca, and local industries, all of which require significantly less water than agriculture. Equally important is the role of water in sustaining the Harney Basin's diverse aquatic systems, which provide critical habitats for fish and wildlife. The upland streams and lowland wetlands, particularly the marshes and wetlands of the Harney Valley, are of continental importance, offering essential stopover and breeding grounds for migratory and resident waterbirds, while supporting the broader ecological health of the region and the Pacific Flyway.

Agricultural Use & Needs

See Appendix C.2.1

The challenge for agriculture is not how to develop more water resources, but rather how to effectively use the surface water that is available in any given year. Both surface and groundwater are significantly overappropriated. The challenge for agricultural groundwater use is finding a way to maintain a stable agricultural base, despite the need for significant reductions in groundwater pumping and the already substantial declines in groundwater levels in some areas

Surface Water Issues and Needs for Irrigation

See Appendix F.3

In the Harney Basin, irrigation demand for water often exceeds the available supply, and water can also naturally occur at times when it cannot be fully utilized for irrigation. Early-season high flows, for instance, may coincide with frozen lowland fields, preventing both senior and junior water users from utilizing the water. Additionally, the relatively short runoff season can lead to situations where flows exceed the needs of senior water right holders but only for brief periods, during which the excess water may not always be effectively distributed to junior users.

Surface irrigation has been conducted, almost exclusively, by flood irrigation for nearly a century and a half. For the last century it has been recognized that the surface water is over appropriated. Irrigators recognize that they are subject to the availability of springtime flows to spread water to wet meadow fields for hay production.

Since water management with highly variable runoff conditions means different regulatory actions may be necessary (which junior appropriator is cut off), effective communication of water availability and potential use/non-use decisions is very important to irrigators. Creating ways to ensure water is available only to legal users and users have as much information as possible about the difficult management decisions being made to regulate water use is a critical issue for effective management of surface water.

It is critically important that illegal use of surface water in all its forms be eliminated for both ecological and economic reasons.

The impacts of climate change on a variable hydrologic system remains to be seen. However, there is a possibility of altered springtime runoff by changing from a snowmelt dominated to a rainfall dominated pattern from the Silvies River and Silver Creek. While there likely will be less dramatic change to runoff from Steens Mountain, more subtle shifts could occur. Evidence of these patterns appears visible already in the streamflow gaging records (Appendix F.1.2); More data is needed.

The sparse distribution of flow measurement locations in the basin make it difficult to accurately determine the amount of flow in unmeasured tributaries and at locations along the three streams where there are not measurement devices. A need for improved streamflow monitoring and water use measurement exists throughout the basin.

There is a need to improve aging and poorly functioning agricultural diversions and headgates along the streams that enter the basin. The outdated infrastructure can negatively impact sensitive fish species and other aquatic species, as well as reduce delivery efficiency. Carefully designed projects to upgrade agricultural infrastructure, with consideration for a broad range of interests addressed, can enhance habitat for aquatic species, support waterbird population, and facilitate more efficient flood irrigation management.

Groundwater Issues and Needs for Irrigation

See Appendix C.2.1

Groundwater is dominantly used for growing alfalfa in the Harney basin. Significant overappropriation has led to the need to reduce groundwater consumptive uses. The estimated overuse by some 110,000 acre-feet/year is more acute in localized cones of depression and generalized lowering of the static groundwater level. A portion of the basin was closed to new permits in 2015 by classification of the basin as the Greater Harney Valley Groundwater Area of Concern. The collaborative supported the development of a voluntary program (Harney Valley Groundwater Conservation Reserve Enhancement Program) to reduce groundwater use on up to 20,000 acres and the exploration of voluntary agreements as identified in state statute among other approaches to reduce groundwater pumping.

While stockwater use has been estimated (Grondin, 2021), there is no current inventory or accurate measurement of groundwater use for stockwater. Conducting such an inventory and assessment would help us better understand the impacts of declining groundwater levels on stockwater wells. This information could inform future water management decisions and help assess the resilience of stockwater supplies amid changing groundwater conditions.

As noted above, Oregon Water Resources Department initiated a rulemaking process in 2023 (set to conclude in 2025) to 1) update the classification, 2) designate and implement a Serious Water Management Problem Area, 3) designate a Critical Groundwater Area. Following the designation of a Critical Groundwater Area, OWRD has the authority to propose control measures in the designated Critical Groundwater Area through a contested case process.

Non-Agricultural Uses and Needs

Domestic and Municipal Water Use and Needs

See Appendix C.3.1

Nearly all domestic water use is from groundwater. The interference of typically shallow domestic wells by a lowering groundwater table due to irrigation pumping has led to domestic well users experiencing problems accessing adequate water from their wells. The planning collaborative obtained funding for a survey of some 1,200 individuals that have domestic wells in the County. Based on the returned surveys (some 47%) nearly one third of the surveyed population had an issue with their domestic well. The survey also indicated that most of the

domestic well users addressed the situation by themselves by either recasing the well, deepening the well, or some other remedial measures.

Due to serious concerns regarding impacts to domestic well users, the planning collaborative sought assistance from the Oregon Legislature, which responded by establishing a funding program to assist Harney Basin domestic well users in remediating or replacing wells affected by declining groundwater levels. The Harney Basin Domestic Well Fund (HDWF) was approved by the 2021 Legislature and allocated \$500,000. In 2024, the Oregon Water Resources Department (OWRD) solicited applications for the first time, receiving seven applications that were all approved for funding, totaling \$71,649.63. Of these, four grants have been completed and closed, with reimbursements totaling \$34,634.63. The funded projects included repairs to three wells, replacements for four wells, and the abandonment of three wells. Additionally, Harney Basin well owners have benefited from a statewide program addressing similar issues, which funded seven additional well replacements in the region. In total, 14 domestic wells have been replaced in the Harney Basin, seven through the statewide program and seven via the HDWF, at an average cost of around \$20,000 per well. The towns of Seneca, Hines, and Burns provide water to municipal customers from city wells. Each community has indicated that they have sufficient supplies for the future and have not been affected by groundwater declines. Projected growth in population is not expected to be significant and each community indicated they have supplies for the foreseeable future. Population projections from Portland State University indicates Harney County will experience a “decline at a slow rate in both the near-term (2018 to 2043) and long-term (2043-2068)” (PSU Center for Population Research, 2018). The only concern expressed has been whether additional groundwater could be available for a future industrial user. All non-agricultural uses amount to a small fraction of the total groundwater use (less than 5%).

Instream Uses and Needs

Watershed Health and Ecosystem Function

See Appendix F.3 and F.4

The Harney Basin's water resources are deeply interconnected with the uplands of the Blue Mountains, Stinkingwater Mountain, and Steens Mountain, which serve as the primary sources of water supply through snowpack accumulation. Snowmelt runoff feeds streams, springs, and groundwater systems, supporting both instream and out-of-stream uses in the Harney Valley. These uplands have experienced significant disturbances, including wildfires and changes in forest structure due to timber harvests. Enhancing the resiliency of forest stands through sustainable management practices is essential to protect this critical source of water supply. See Appendix F.4.

The interaction between surface water and groundwater plays a pivotal role in maintaining watershed health. Groundwater recharge from snowmelt and surface water infiltration sustains springs, wetlands, and lowland streams, which are vital for ecological balance and water

availability during dry periods. Effective management of these interconnected systems is necessary to support the Basin's diverse water needs. See Appendix F.3.

Instream Needs

See Appendix F.1.1 and F.1.2

Human activities have changed the flow of water in the Harney Basin. While we can't fully restore past conditions, understanding historical flow patterns helps us make informed water management decisions that benefit both people and nature.

Understanding Instream Flow Needs

Healthy rivers and streams need enough water to support fish, wildlife, and ecosystems. The Oregon Department of Fish and Wildlife (ODFW) has developed guidelines to help communities assess these needs (ODFW, 2018; ODFW, 2023). The documents describe elements within an instream flow demand for ecological needs and provide an overview of tools for assessing instream flow needs, both now and in the future with respect to climate change.

How Much Water is Needed?

A general rule derived from case studies, called the "Presumptive Standard," is that rivers and streams need 80-90% of their natural flow to remain healthy. (Richter et al. 2011). In the Harney Basin, many streams fall below this level from May to September.

Because there are only three long-term streamflow gauges in the Harney Basin, experts analyzed different datasets to determine water availability. The Surface Water Availability Reporting Systems (SWARS) dataset was first chosen to evaluate streamflows relative to the modified Presumptive Standard and instream water rights because it closely tracked the gauge data and because it is used by the Oregon Water Resources Department (OWRD) in water management. Similar analysis was also conducted using the monthly median of all available modeled datasets (NHD, VIC StreamStats, WAB).

Instream Water Rights

In Oregon, public uses of water such as conservation of aquatic and fish life, wildlife and wildlife habitat, and recreation are beneficial uses of water. Instream water rights are water rights issued for the purpose of protecting a public use. The Harney Basin has ten certified instream water rights, with three more applications that were protested and remain pending. As in many other parts of the state, instream water rights in the Harney Basin are very junior to other water rights. The collaborative review found that, after accounting for diversions made under other water rights, streamflows are often too low to meet the basin's instream water rights, particularly in late summer and early fall (See Appendix D, pp 53-54).

Restoring Streamflow

In 2001, state agencies identified priority areas for restoring streamflows and the Surface Water Plan further developed analysis in this area. No recorded instream water leases or transfers have occurred since 2001 to address these priority streamflow restoration reaches. Experts recognize that rivers need a natural mix of high and low flows to stay healthy. Oregon's Conservation Strategy recommends keeping flows as close to natural patterns as possible (ODFW, 2016).

Summary

Finding ways to balance water use and address streamflows and ecosystem health is an ongoing challenge, especially during dry months. Using SWARS data and other modeled flow datasets with a modified Presumptive Standard helps guide decisions, but more data and community collaboration are needed to prioritize and find long-term solutions.

Aquatic Life Uses and Needs

See Appendix F.1.1 and F.1.2

The Harney Basin is home to a range of aquatic species that depend on the connectivity and health of its waterways. Streamflow connectivity between the three major watersheds and Malheur Lake is critical for species such as the adfluvial life forms of fish that migrate between these areas to grow, mature, and spawn.

Recent studies (Laramie et al., 2023) highlight the potential impact of altered hydrology and land use on native fish species, including Redband trout, Tui chub, Chiselmouth, Largescale sucker, Northern ikeminnow, and Redside shiner. These warm-adapted fish, particularly those occupying lower-elevation streams, are vulnerable to changes in stream connectivity, land use, and water availability. Efforts to enhance fish passage and conserve streamflow will be crucial to supporting these species. In addition to fish species, there are three varieties of mussels that call the Harney Basin home: the Western pearlshell mussel, the Western ridged mussel and a floater species. Amphibians found in the Harney Basin include Tiger salamander, Pacific tree frog, Spotted frog, Great Basin spadefoot, and Western toad.

Additionally, the potential listing of the Western ridged mussel (*Gonidea angulata*) under the Endangered Species Act emphasizes the need for targeted conservation efforts. Recent relocation of approximately 8,000 mussels during the replacement of Dunn Dam on the Donner und Blitzen River underscores the importance of understanding and protecting the species' distribution and habitat within the Basin.

Macroinvertebrates of springs in the basin have been surveyed (Mazzacano and Mazzacano, 2018).

Riparian Habitat Needs

See Appendix F.1.1 and F.1.2

Riparian habitats throughout the Harney Basin are essential for maintaining stream health, providing shade, reducing water temperatures, and improving dissolved oxygen levels. However, limited data on the condition of riparian habitats suggests degradation in some areas, leading to elevated stream temperatures and reduced water quality. Restoration of riparian areas is necessary to enhance critical ecosystem functions as these efforts may lead to improvements in water temperature and dissolved oxygen levels, supporting both aquatic and terrestrial species. Comprehensive evaluation and targeted restoration efforts are key priorities for the Basin.

Wetland Uses and Needs

See Appendix F.1.5 and F.1.6

The wetlands of the Harney Basin, including those surrounding Malheur Lake, provide vital habitat for resident and migratory waterbirds. Flows into these wetlands, particularly from the Donner und Blitzen River and the Silvies River, support emergent and submergent vegetation critical for waterfowl. However, shifts in hydrology, such as reduced contributions from the Silvies River and vegetation changes in Malheur Lake due to several consecutive years of high-water flooding, have negatively impacted habitat quality. The decline in resident waterfowl populations since the late 1980s (Figure 15) reflects these changes. Targeted efforts to manage flow patterns, improve habitat conditions, and enhance wetland connectivity are essential for supporting waterbird populations and maintaining the ecological integrity of the Basin's wetlands.

Malheur Lake Resident Waterfowl

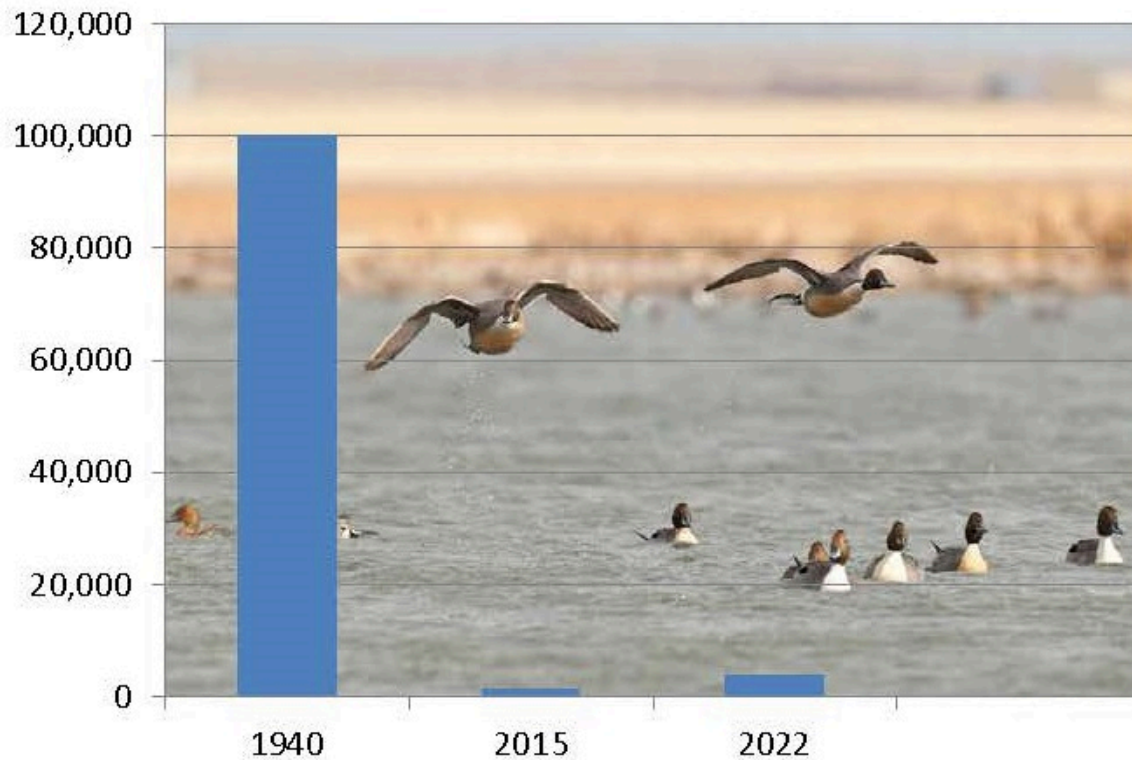


Figure 15: Change in abundance of resident waterfowl in Malheur Lake (USFS)

Groundwater-Dependent Ecosystems (GDEs)

See Appendix C.1.1 and C.1.2

Groundwater supports a range of ecosystems in the Basin, including springs, wetlands, and phreatophyte vegetation. These groundwater-dependent ecosystems are critical indicators of groundwater conditions and provide habitat for numerous species. Stinking Lake, a groundwater-dependent lake designated as a research natural area, exemplifies the unique ecological value of these systems. However, reductions in groundwater flow to some springs have been linked to groundwater pumping, highlighting the impacts of groundwater pumping on these ecological resources. Efforts to study, monitor, and protect GDEs will help ensure their continued function as sentinels of groundwater sustainability.

Integration of Groundwater and Surface Water

The intricate relationship between groundwater and surface water in the Harney Basin requires integrated management to address competing water needs effectively. Groundwater recharge relies on surface water infiltration, while streams and springs depend on groundwater discharge

to maintain flow during dry periods. Coordinating the management of these interconnected systems will enhance the resilience of aquatic habitats, support instream flows, and balance ecological and economic demands across the Basin.

Challenges

Water users in the Harney Basin have long faced significant challenges in managing water resources, which are expected to intensify in the coming decades. Addressing these issues requires a clear understanding of the interconnected surface water and groundwater systems and the ecological and economic demands they support. Below is a summary of the key challenges organized by surface water and groundwater issues:

Surface Water Challenges

- **Overallocation:** Surface water resources have been significantly overallocated for over a century, creating competition among users and limiting availability during dry years.
- **Illegal Use:** Persistent illegal surface water use further strains resources, undermines the rights of legal users, and complicates water management efforts.
- **High Variability:** The highly variable surface water supply, driven by snowmelt and seasonal flows, complicates resource management and long-term planning.
- **Aging Infrastructure:** Flood irrigation infrastructure is outdated and inefficient, resulting in water loss, reduced delivery reliability, and challenges in meeting both agricultural and ecological needs.
- **Ecological Impacts:** Surface water shortages and flow interruptions adversely affect streamflows needed to maintain aquatic habitats and marsh ecosystems in the Harney Basin, including Malheur National Wildlife Refuge. These shortages disrupt critical habitats for marsh-dwelling species, migratory birds, and aquatic species like Redband trout.
- **Riparian Habitat Degradation:** Degraded riparian areas contribute to elevated stream temperatures, reduced dissolved oxygen, and poor water quality, threatening both aquatic and terrestrial ecosystems.
- **Invasive Species:** The spread of invasive species, including hybrid cattail, common carp, reed canary grass, and pepperweed, further degrades wetland habitats and disrupts ecosystem functions.
- **Climate Change Impacts:** Climate change, drought, shifting precipitation patterns, and variations in snowpack are altering runoff timing and volume, further stressing the already over allocated surface water resources.

Groundwater Challenges

- **Over allocation and Overuse:** Groundwater pumping exceeds net recharge by an estimated 110,000 acre-feet per year in the lowlands, leading to areas of declining water levels, localized cones of depression and loss of discharge to springs, streams and evapotranspiration in the lowlands of the basin.
- **Impacts on Springs, Wetlands, and Riparian Areas:** Declining groundwater levels threaten groundwater-dependent ecosystems such as springs, wetlands, and riparian areas, which are vital habitats for fish, wildlife, and vegetation.
- **Interference with Domestic Wells:** Groundwater pumping for agricultural irrigation has reduced water availability for domestic wells, creating challenges for rural residents to access reliable water supplies.
- **Economic Consequences:** Reducing groundwater use to sustainable levels will likely result in significant economic impacts for agricultural operations reliant on irrigation.
- **Impacts on Rivers and Streams:** Groundwater decline reduces spring flow contributions to streams and rivers, exacerbating streamflow interruptions that impact aquatic species like Redband trout and other native fish.
- **Insufficient Data:** Limited information on groundwater use, recharge rates, and ecosystem interactions hinders effective groundwater management.
- **Climate and Land Use Impacts:** Wildfires, changes in forest structure, and shifting land use patterns affect groundwater recharge rates and hydrology, further compounding resource challenges.

Major Issues

See Appendix B, Chapter 5 and Appendix D, Chapter 5

The following are major issues identified during the planning process (Table 1 & Table 2). As time goes on, future, unforeseen issues will emerge that influence the implementation of strategies to address the issues identified; however, the following challenges will be important for addressing issues.

Over Appropriation of Surface and Groundwater

It has been clear for nearly a century that surface water has been overallocated. Curtailment of junior users has been necessary for dry years for many decades. Flood irrigators have been coping with the situation for decades and have adapted operations to accommodate dry years.

On the other hand, groundwater over appropriation has been a more recent revelation to groundwater irrigators. In 2016, the Greater Harney Valley Groundwater Area of Concern was

adopted in rule as classified for exempt¹ groundwater uses only, which was the first major step to stop further impacts to the groundwater resource. Ongoing discussions of designation of a critical groundwater area with management controls to reduce groundwater pumping were started in 2023.

Given the status of water resource allocation, nearly all future water right transactions will be either to transfer, or voluntarily cancellation of water rights. The integrated water resource plan identifies the necessity to enforce forfeiture of rights that are not put to beneficial uses to ensure “paper rights” are limited to actual uses.

Factors Affecting Surface Hydrology

There are a multitude of factors that affect the hydrology in the Harney Basin. The main driver of both surface and groundwater recharge is precipitation. The amount of snowpack and timing of snowmelt drive streamflow characteristics that are important both ecologically and economically. Highly variable precipitation, changes in temperatures, and changes in tree density on forested ground could impact snowpack and runoff, especially from the Blue Mountains into the Silvies River and Silver Creek (Appendix F.4.1).

Forest vegetation and forest fire could affect the water yield from the Blue Mountains as well. Recent large-scale fires will have a near-term impact on runoff. For example, loss of canopy cover could change snowpack accumulation and rate of melt, increase infiltration, and reduce evapotranspiration. It is unknown how these changes will impact the overall amount and timing of inputs to the local water budget. Forest thinning to improve forest health could have a small impact on runoff and water infiltration. Wildfires have several impacts upon hydrology and water quality. As has been documented in other post-wildfire landscapes, snowpack, spring runoff levels, and timing of flows will likely be altered by a lack of overstory vegetation to gather and shade ground snowpack, and by the black, charred backdrop that increases solar intensity and melting. On the other hand, lack of overstory reduces evapotranspiration, which results in greater infiltration.

Basin hydrology is driven predominately by precipitation and temperature. Over many decades, decision making and policy for water management have been based upon existing hydrology. Climate change has the potential to alter the timing and amount of runoff from the uplands. With the changes already observed and climate change science suggesting even greater change, current operations will be affected.

Factors Affecting Aquifer Sustainability

The recent USGS/OWRD groundwater study (Garcia et al., 2022) documented an estimate of over pumping of the aquifer by 110,000 acre-feet per year. The dominant pumping from the

¹ These are set out in Oregon Revised Statutes (ORS 537.545) and further clarified in OWRD guidance. They’re essentially groundwater withdrawals that do not require a water right permit, certificate, or license, as long as they stay within the statutory purpose and quantity limits.

aquifer is for agricultural irrigation. Localized irrigation pumping results in the loss of domestic wells and possible stockwater wells from static groundwater level declines, as well as impacts to groundwater dependent ecosystems and springs (such as evidenced by the drying up of Sod House Spring next to the Malheur Wildlife Refuge headquarters). A number of areas of significant localized declines have been documented and larger areas of general decline in static groundwater levels have been documented. Limited data on actual use has required the use of remote sensing coupled with what documentation of actual use records are available to develop an estimate of use (Beamer and Hoskinson, 2021). Deeper wells are pumping from aquifer storage that dates from many centuries ago. Meeting the sustainability requirement will be a very difficult challenge for the Basin and will require significant reductions in pumping.

Factors Affecting Stream Habitats

Out of stream diversions and changing climate affect the stream flow of upland and lowland portions of the basin affecting Redband trout habitat. Coupled with altered riparian habitats and historic elimination of beaver, stream habitats have been altered significantly resulting in increased thermal loads and reduced oxygen levels in the water column. Fish access throughout stream systems in the basin is interrupted by culvert, diversion structure, barriers, and low flows. Fish screens on diversions are needed to keep fish out of field ditches where conditions allow entrainment of fish into diversions and to prevent carp from entering through diversions where ditches can serve as refugia. With warming streams, non-native fish have become more prevalent over the last 50 years even with the retention of the relatively widespread distribution of native species. Non-native species dominate the lowland streams where stream temperatures are more elevated (Figure 16 taken from Laramie et al., 2023).

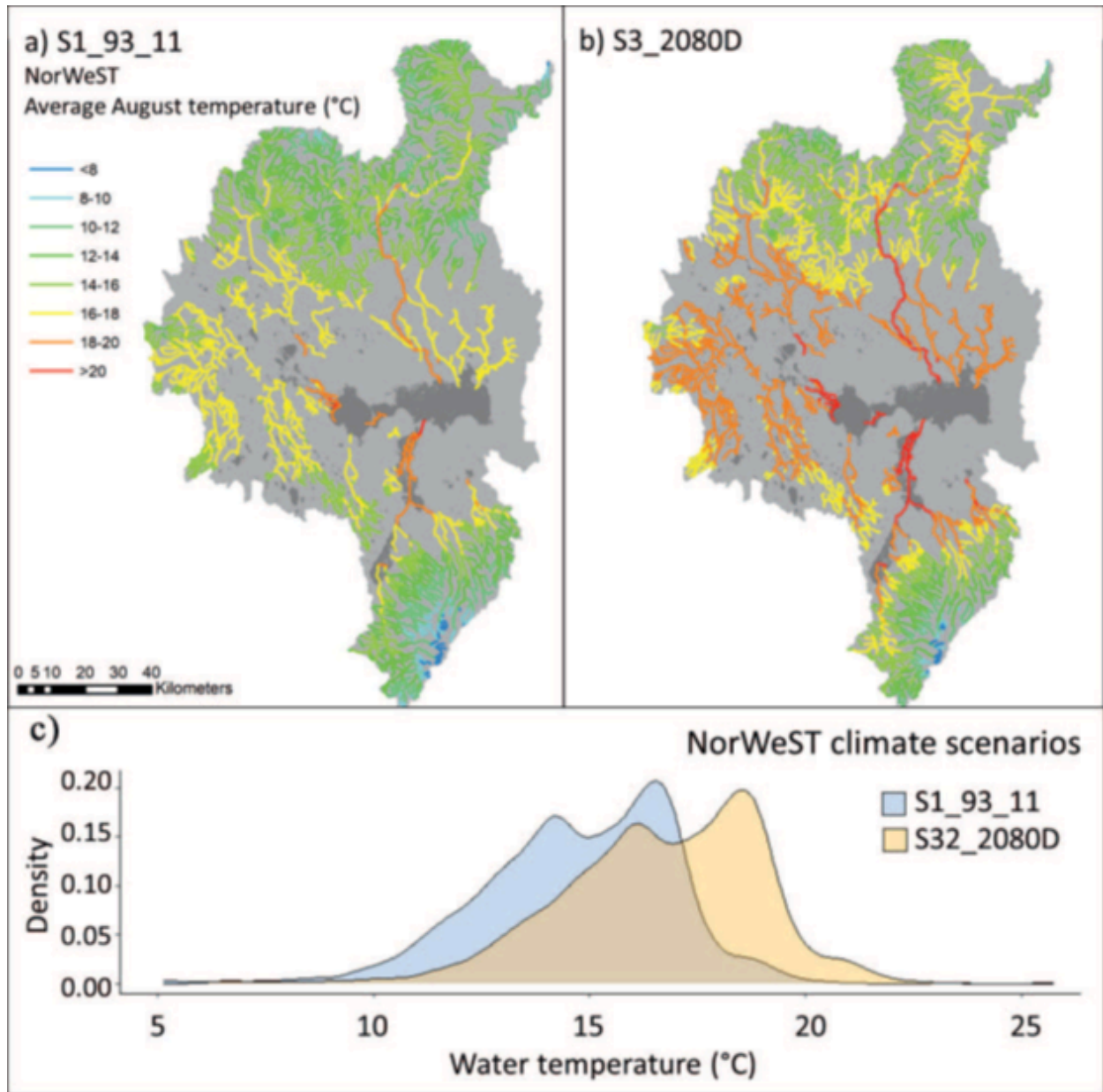


Figure 16: Contemporary and future stream temperature models for Harney Basin

Stream temperatures in the Harney Basin (Figure 16 from Laramie et al., 2023) are shown for both current and future climate scenarios. The first model (a) represents the average stream temperatures in August from 1993 to 2011. The second model (b) predicts how August stream temperatures might change by the 2080s (2070–2099) due to rising air temperatures and changes in water flow. The bottom graph (c) compares the range of stream temperatures for both scenarios, giving a clearer picture of how climate change could impact the basin's streams.

Factors Affecting Basin Wetland Habitats

Most wetlands are supplied by surface water. Spring flooding and flood irrigation maintain wet meadow conditions in the Harney Valley, Bear Valley, Blitzen Valley, Silver Creek, and Silvies Valley. The terminal ponding of water from all streams in the basin create the playa of Harney Lake (from Silver Creek) and the marshes of Malheur Lake and Diamond Valley. Spring discharges into the Malheur marshlands, Stinking Lake and Harney Lake playa also support important bird habitats.

Groundwater declines have affected some spring flow and further declines have the potential to further affect spring flow. Increased temperatures could affect the amount of surface water getting to the Refuge wetlands, thereby reducing the surface area. Drought and flood cycles have led to a resurgence of emergent vegetation and with low populations of common carp, a short term resurgence of submergent vegetation.

Wetlands of the Malheur Refuge contain invasive common carp that helps to maintain turbid conditions of Malheur Lake. Another invasive species in the marsh is hybrid cattail that has only recently become predominant in areas previously dominated by bullrush. Reed canary grass and pepper weed have expanded in the flood irrigated meadows with the potential to diminish the value of both the bird habitat and cattle forage. Smooth brome (*Bromus inermis*) is a recent invader of the meadows that also reduces value for birds.

Factors Affecting Domestic and Municipal Water Supplies

Nearly all residents of the Harney Basin rely on groundwater for drinking water. Many of the domestic wells are relatively shallow and in some cases are affected by groundwater declines from irrigation pumping. The communities of Burns, Hines, and Seneca have groundwater wells to supply municipal, commercial and industrial water supplies. Each community has indicated that they have sufficient supplies for the future.

Strategies

See Appendix B, Chapter 7, Appendix B.1, Appendix D, Chapter 7, Appendix D.1

Both the Groundwater Plan and Surface Water Plans have detailed strategies and actions aimed at addressing the complex water resource challenges in the Harney Basin. To provide clarity and guide implementation efforts, each strategy in the Integrated Plan has been categorized by an anticipated implementation horizon: near-term, mid-term, or long-term. These timeframes are intended to reflect general expectations around feasibility, sequencing, and resource availability.

- Near-term strategies are those already initiated or expected to be prioritized within the next 1–3 years.
- Mid-term strategies are anticipated to move forward within the 4–10 year range.
- Long-term strategies are expected to take place beyond 10 years.

The Integrated Plan as a whole is intended to guide implementation over a 20+ year period, with plan implementation led by the Harney County Watershed Council (HCWC), in coordination with interested Collaborative members and other entities, and support from High Desert Partnership (HDP). The Collaborative's Implementation Frameworks (Appendices B.1 and D.1) will be used to support strategy implementation. The Implementation Frameworks include information on:

- How strategies are prioritized (i.e., near-term, mid-term, or long-term)
- Ideas for lead entities and supporting entities for each strategy
- Estimated costs and potential funding sources
- Performance and monitoring metrics

In recognition of the dynamic nature of water resources and community capacity, the Integrated Plan will be formally reviewed and updated every five years. This will allow for strategic course corrections, integration of new science or policy developments, and reassessment of strategy timing based on progress and conditions.

The tables below compile all identified strategies from both the Groundwater and Surface Water Plans, along with their current status as of mid-2025. Where applicable, strategies that influence both surface water and groundwater have been noted to support integration and alignment in future planning and implementation efforts.

Table 2. Near-term groundwater and surface water strategies

| Strategy | Status | Water Source Affected |
|---|---|-----------------------|
| Prioritize enforcement to diminish and ultimately stop illegal water use | Initial meetings sponsored by Harney County Court. (though deemed inadequate by some Collaborative members) | Surface Water |
| Implement riparian restoration and management actions in priority areas and early opportunity areas throughout the basin. | Ongoing | Surface Water |

| | | |
|--|---|---------------|
| Continue investigations of sediment sources to Malheur Marsh. | Work funded by Harney Basin Wetlands Collab | Surface Water |
| Continue investigations of water quantity and flow influences on Malheur Marsh conditions. | Ongoing | Surface Water |
| Adequately maintain irrigation ditches. | Funding provided for Harney SWCD to provide the opportunity to conduct work | Surface Water |
| Conduct a comprehensive assessment of riparian conditions of the streams associated with the Harney Basin. | Contract work started through the Harney Basin Wetlands Collaborative | Surface Water |
| Identify and prioritize riparian habitat conditions for restoration or management to improve ecosystem functions. | Contracted work as part of the Harney Basin Wetlands Collaborative | Surface Water |
| Identify potential opportunities for beaver reintroduction. | Contracted with Dr. Emily Fairfax to identify potential reintroduction areas. | Surface Water |
| Expand the Open Range Consulting (ORC) mapping off Refuge to allow for a fuller understanding of on-the-ground conditions. | Funded through Harney Basin Wetlands Collaborative | Surface Water |

| | | |
|--|--|--------------------------------------|
| Conduct an evaluation on the local-scale effects on spring and river baseflow that are near concentrated groundwater withdrawal areas. | Not Started | Surface Water and Groundwater (Both) |
| Inventory irrigation and other infrastructure that affects distribution of water. Use that inventory to evaluate distribution and efficiencies that consider irrigation water, bird habitat, and aquatic life. | Not Started | Surface Water and Groundwater (Both) |
| Develop a communications and information program to inform irrigators about surface water conditions (including water availability and current priority date for regulation). | OWRD website provides information, additional effort appears necessary | Surface Water |
| Increase the efficiency and accuracy of stream flow measurement in the basin for management of water use. | Not Started | Surface Water |
| Measure the quantity of water being diverted out-of-stream at primary diversions, report to OWRD, and make publicly available. | Not Started | Surface Water |

| | | |
|--|-------------|--------------------------------------|
| Identify streamflow restoration needs and develop a program to address the needs. | Not started | Surface Water |
| Achieve more complete streamflow gaging in the Harney Basin. | Not started | Surface Water |
| Establish appropriate volitional fish passage throughout the basin, recognizing that the prevention of expansion of common carp is an important consideration. | Not started | Surface Water |
| Install screens to encourage healthy populations of native fishes. | Not Started | Surface Water |
| Explore Long-Term Approaches to Assist Domestic Water Users | Ongoing | Groundwater |
| Conserve Groundwater Dependent Ecosystems | Ongoing | Surface Water and Groundwater (Both) |
| Protect Water Rights when Reducing Groundwater Use | Ongoing | Groundwater |
| Develop Alternative Crops | Ongoing | Groundwater |

| | | |
|--|-------------|--------------------------------------|
| Monitor and Inventory Groundwater Dependent Ecosystems | Not Started | Surface Water and Groundwater (Both) |
| Explore Remote Sensing of Groundwater Use | Ongoing | Groundwater |
| Measure Groundwater Use | Not Started | Groundwater |
| Continue Groundwater Studies | Ongoing | Groundwater |
| Identify and Utilize Best Available Science | Ongoing | Surface Water and Groundwater (Both) |
| Use Less Water Through Technology | Ongoing | Surface Water and Groundwater (Both) |
| Support a Groundwater CREP Program | Ongoing | Groundwater |
| Develop a Domestic Well Remediation Fund | Completed | Groundwater |
| Advocate for Groundwater Permit Compliance | Ongoing | Groundwater |
| Ensure CBWP Representation in Rulemaking | Ongoing | Groundwater |

| | | |
|--|-------------|--------------------------------------|
| Improve Community Information about Groundwater Conditions | Not Started | Groundwater |
| Build Understanding of Voluntary Agreements | Ongoing | Surface Water and Groundwater (Both) |
| Improve Well Construction and Permit Standards | Ongoing | Groundwater |

Table 3. Mid-term groundwater and surface water strategies

| Strategy | Status | Water Source Affected |
|--|-------------|-----------------------|
| Develop a Drought Plan | Not Started | Groundwater |
| Increase Understanding of Groundwater Rights | Ongoing | Groundwater |
| Develop an Abandoned Well Safe Harbor Program | Not Started | Groundwater |
| Assess the Economic Value of Groundwater in the Harney Basin | Not Started | Groundwater |

| | | |
|--|-------------|-------------|
| Establish a Groundwater Quality Monitoring Program | Not Started | Groundwater |
| Expand Groundwater Quality Knowledge | Not Started | Groundwater |
| Develop Alternative Water Delivery for Rural Residents | Ongoing | Groundwater |
| Evaluate Well Standards for the Harney Basin | Not Started | Groundwater |
| Explore a Groundwater Market | Not Started | Groundwater |
| Integrate Water Use in Land Use Decisions | Not Started | Groundwater |
| Improve Citizen Engagement in OWRD Decisions | Ongoing | Groundwater |
| Work with OWRD to Address Abandoned Wells | Ongoing | Groundwater |

| | | |
|--|-------------|---------------|
| In the lower Silvies, explore feasibility of installing stream gages or other structure to assist with accurate gross division of water. | Not Started | Surface Water |
| Take appropriate actions to improve factors affecting degraded water quality. | Not Started | Surface Water |
| Reintroduce beavers and/or construct beaver dam analogs to the watershed where habitat exists and landowners and public land managers are willing. | Not Started | Surface Water |
| Identify stream restoration actions that reintroduce meanders and floodplain reconnection where appropriate and feasible. | Not Started | Surface Water |

| | | |
|--|---------|---------------|
| Install appropriate measuring devices to understand how much water is needed to irrigate specific wet meadows and associated seasonal and semi-permanent wetlands. | Ongoing | Surface Water |
|--|---------|---------------|

Table 4. Long-term groundwater and surface water strategies

| Strategy | Status | Type |
|--|-------------|-------------|
| Ensure Conserved Water Remains in the Ground | Not Started | Groundwater |
| Explore Groundwater Use Fees | Not Started | Groundwater |

| | | |
|---|---|----------------------|
| <p>Target conifer (ponderosa pine, mixed conifer, and juniper) reduction in snow accumulation (higher elevation) areas of the Silver Creek, Silvies, Malheur-Harney Lakes, and Donner und Blitzen Sub-basins receiving over 17.7 inches of annual precipitation to decrease losses associated with evapotranspiration and promote snow distribution patterns that contribute to improved capture, storage, and safe (slow) release of water in the Basin.</p> | <p>Started by the Harney Forest Collaborative</p> | <p>Surface Water</p> |
|---|---|----------------------|

| | | |
|---|--|---------------|
| Provide input to federal land management agencies to include and prioritize the location and level of conifer reduction treatments designed to decrease water losses associated with evapotranspiration and promote snow distribution patterns that contribute to improved capture, storage, and safe (slow) release of water and maintenance of wildlife habitat in coordination with ODFW in the Basin. | Started by the Harney Forest Collaborative | Surface Water |
| Manage surface water resources during climate change/drought events in a way that helps to meet the short- and long-term needs of the Harney basin's people, ecosystems, and economy. | Not Started | Surface Water |

Data Gaps

See Appendix B, Chapter 8 and Appendix D, Chapter 8

The detailed Groundwater Plan lists data needs that were identified throughout the CBWP Phase 1 planning process and suggestions for how they could be addressed. The needs include:

Groundwater Use and Management:

- Amount of groundwater pumpage.
- Number of unused/uncapped wells.
- Number of more efficient irrigation systems currently installed and where they are located.
- Status of livestock wells.
- Use of supplemental groundwater, including amount and timing.
- Groundwater permit compliance.
- Actual water use versus permitted use information.
- Location of unpermitted uses.
- Distribution of groundwater contaminants.

Groundwater Movement and Recharge:

- Distribution and rates of groundwater recharge in the Silvies floodplain.
- Contributions of intermittent streams to groundwater recharge.
- Groundwater movement in the Silver Creek area.
- The role of faults in groundwater flows.

Monitoring and Baseline Data:

- More monitoring to determine the relationship between shallow and deep groundwater flow systems.
- Better surface water flow information.
- Consistent and long-term time-series measurement of spring flow.
- Better geological information.
- Additional monitoring wells throughout the Harney Basin to enable adaptive water management strategies.
- Projected impacts of future climate conditions on groundwater recharge and discharge.
- Lack of information regarding riparian habitats.

Groundwater Dependent Ecosystems (GDEs):

- Volume and rate of groundwater needed to support GDEs.
- Short- and long-term impacts of groundwater withdrawal on Harney Basin GDEs.
- Comprehensive understanding of the distribution of Harney Basin GDEs.
- Consistent and long-term time-series monitoring data on GDE locations and status.
- Application of the Framework for Ecological Responses to Groundwater Regime Alteration.

Modeling and Scenario Planning:

- Scenarios model to estimate the impact of different water management strategies on groundwater levels (groundwater model availability provided by OWRD in the Division 512 RAC meetings).

The detailed Surface Water Plan also identifies a number of data gaps, many around the lack of detailed

stream gauge monitoring in the basin. The data gaps identified are:

Water Quality and Streamflow Monitoring:

- Lack of uniform information on water quality.
- Continuous data from streamflow gauges is patchily distributed in time and space.
- Lack of data for watersheds not included in OWRD's Surface Water Availability Reporting System (SWARS), including key watersheds for Redband trout (Coffeepot, Cow, Prater, and Riddle Creeks).
- Lack of data on consumptive uses in the basin.
- Relation between water quality and invasive fish species distribution/spread are unknown.
- Relation between streamflow, stream temperatures, and groundwater depletion are unknown.
- Lack of long-term measurement of stream flow, hindering understanding of surface-groundwater interactions.
- Changing snowpack conditions affecting runoff, flow timing, and flooding, compounded by insufficient monitoring.
- Lack of information on headwater conditions and hillslope water storage.

Species and Habitat Data:

- Improved information on species distribution, including fish and freshwater mussels.
- Information on specific species of host fish for Western Ridged mussels in the Harney Basin.
- Riparian conditions and their spatial relationship to fish and other species populations are not well known.
- Current information about specific species, particularly non-game species outside of the Refuge, is scarce.
- Wetland and woody riparian distribution is largely unmapped in the Harney Basin.
- Lack of information on how declining groundwater levels have affected and will affect wetlands.
- Information about the relationship between hydroperiod, vegetation, and bird communities is needed to understand climate resiliency.
- Accurate measurements of water quantities needed to maintain diverse wetland types across the Harney Basin.
- General need for better understanding of floral and faunal communities and their relationship to surface and groundwater.
- Lack of information on beaver reintroduction and its potential impacts.

Lakes and Wetlands:

- Estimated rather than precise information on historic surface water contributions to lakes.
- Poor understanding of changes in Silver Creek and its contributions to Harney Lake.
- Limited information on lake invertebrates and the relationship between lake-edge habitats and macroinvertebrate communities.
- Uncertainty regarding the method to assist reestablishment of emergent vegetation in Malheur Lake.
- Lack of information on sources of turbidity in Malheur Lake.
- Data gaps regarding wetland distribution, particularly for wetlands other than flood-irrigated meadows.
- Ongoing efforts through the HBWC aim to address some of these gaps.

Infrastructure and Hydrology:

- Lack of information regarding the potential for managing lowland recharge and identifying opportunities to increase recharge.
- Lack of information on prioritizing vegetation management for water yield purposes.

- Lack of information on future surface and groundwater management needs.
- Spring flooding and flood irrigation account for nearly 70% of Harney Valley groundwater recharge, but the efficiency of recharge areas is unknown.
- Unknown impacts of conifer forest thinning and western juniper clearing on catchment yield and surface-groundwater contributions.
- Lack of information on the current state of Harney County's surface water infrastructure system.
- No complete inventory of river diversion structures, including type, condition, working status, and diversion measurement.
- No headgate on Foley Slough, legally considered a distributary of the Silvies River.
- Dams at the bifurcation of the East and West Forks of the Silvies River lack measurement devices.
- Lack of information on modeling and measuring vegetation's influence on snow accumulation and redistribution in snow zones.

Ecological and Historical Data Gaps:

- Lack of capacity to help the interagency workgroup complete photo-monitoring assessments in the Silvies Subbasin (involving BLM, EOARC, Harney SWCD, and USDA Forest Service).
- Lack of information on historical and current vegetation conditions.
- Insufficient data to evaluate the potential impacts of large-scale forest management practices (e.g., watershed or subbasin level).
- Lack of comprehensive cover class data.

The Path Forward for the Harney Basin

Identifying critical challenges and developing clear strategies for managing water resources is a vital step in the Basin's path forward. The ongoing economic prosperity of this unique region, the health of its environment and fish and wildlife habitat, the sustainability of instream resources, and the development of expanded recreational opportunities for the community all depend on the implementation of the Plan's recommended strategies to protect and optimize the Basin's water resources.

While agricultural irrigation remains the primary water use in the Basin, addressing the needs of instream resources, critical for aquatic habitats, fish populations, and the wetlands that support waterbird species, is also essential. These elements contribute to the broader ecological balance and the recreational and environmental significance of the Harney Basin.

Benefits from successful implementation of this Plan extend beyond the Basin. The environmental and recreational attraction of the Malheur Refuge is of local, national, and international importance. Financial support from the State of Oregon, federal agencies, and private and public sources will be necessary to implement the action items outlined in the Plan.

As the Harney Valley communities address the obstacles to protecting and enhancing the Basin's water values, including agricultural, municipal, industrial, and instream needs, new challenges will arise. For this reason, the Plan is dynamic and will adapt as future opportunities and constraints present themselves. The Plan will be updated periodically as additional information is collected, new focus areas are identified, and emerging issues are addressed. Failure to take action could result in more drastic curtailment of water use and continuing and growing conflict among water users. Responsibilities lie with both water users and the Oregon Department of Water Resources.

The primary goal of the CBWP is to create a sustainable water future. The actions identified in this Plan for responsible stewardship of the Basin's water resources will help achieve that future and aim to preserve a balance of water uses and needs that will benefit generations to come.

In the short term, anticipated rules to address groundwater over-allocation may impact the agricultural economy of the Basin. However, in the long term, maintaining a stable groundwater supply, balancing surface water use, and addressing the needs of instream resources alongside agricultural and wet meadow cattle hay production will help ensure a sustainable future for all in the Harney Basin.

How YOU can help

Everyone has a role to play in protecting and conserving our water supply, ensuring a healthy future for people, wildlife, and the local economy. Here are ways you can contribute:

For Community Members

- **Stay Informed & Get Involved** – Learn about the water challenges facing the Harney Basin and participate in local discussions about water management. Attend CBWP Collaborative meetings, public hearings, and workshops to share your perspective and help shape future water policies.
- **Support Responsible Water Use** – Be mindful of your personal water use and adopt conservation practices at home, such as fixing leaks, using water-efficient appliances, and reducing outdoor water consumption.
- **Advocate for Sustainable Water Management** – Engage with local, state, and federal decision-makers to support policies and programs that promote balanced water use and protect groundwater-dependent ecosystems.
- **Help Monitor Local Water Conditions** – Share observations about changes in groundwater levels, surface water flows, or wetland conditions. Community knowledge is invaluable in identifying and addressing emerging water issues.
- **Support Water Conservation Programs** – Encourage voluntary participation in programs like the **Harney Valley Groundwater Conservation Reserve Enhancement Program (CREP)** and the **Harney Basin Domestic Well Fund**, which help reduce water use and provide assistance to those impacted by groundwater declines.
- **Protect Wetlands and Riparian Areas** – If you own or manage land near a river, stream, or wetland, consider restoration projects that enhance habitat for fish and wildlife, reduce erosion, and improve water retention.

For Irrigators & Landowners

- **Implement Irrigation Conservation Measures** – Use efficient irrigation technologies and strategies to reduce groundwater withdrawals and improve water application efficiency.
- **Monitor & Improve Water Infrastructure** – Maintain and upgrade ditches, headgates, and diversion structures to improve water distribution, reduce waste, and ensure compliance with water rights.
- **Participate in Voluntary Water Conservation Programs** – Consider enrolling in **CREP** or similar programs that offer financial incentives for implementing conservation measures on agricultural lands.
- **Support Enforcement of Water Rights** – Work with the Oregon Water Resources Department (OWRD) to ensure legal water use and compliance with existing water rights regulations.

- **Measure & Report Water Use** – Install metering devices on non-exempt groundwater points of diversion and ensure accurate reporting of water use to OWRD.
- **Explore Alternative Water Management Strategies** – Engage in discussions about voluntary groundwater markets, storage options, and alternative cropping practices that reduce overall water demand.
- **Enhance Riparian and Wetland Areas** – Implement land management practices that protect and restore riparian buffers, increase floodplain connectivity, and improve water retention.
- **Support Beaver Reintroduction Where Feasible** – In areas where habitat conditions allow, work with local organizations to explore beaver reintroduction efforts that can enhance natural water storage and riparian habitat.

For Local Businesses & Organizations

- **Promote Water Conservation Practices** – Encourage sustainable water use among employees and customers.
- **Support Research & Monitoring Efforts** – Partner with universities, government agencies, and conservation groups to contribute to data collection and research on water availability and use.
- **Invest in Water-Efficient Infrastructure** – If your business relies on water-intensive processes, consider upgrading to more efficient technologies.
- **Support Funding for Water Conservation Initiatives** – Advocate for state and federal funding to help implement conservation strategies, improve infrastructure, and support local water users.

For Tribal Partners, Conservation Groups, and State/Federal Agencies

- **Collaborate on Habitat Restoration & Water Conservation Efforts** – Continue working together to implement projects that benefit both water users and ecological resources in the Harney Basin.
- **Engage in Policy Discussions & Planning Processes** – Provide technical expertise, funding, and policy support for sustainable water management efforts.
- **Expand Monitoring & Research Initiatives** – Help fill critical data gaps by supporting additional streamflow monitoring, groundwater studies, and ecological assessments.

Everyone Has a Role

The future of water in the Harney Basin depends on collaboration and shared responsibility. Whether you are a landowner, irrigator, business owner, or community member, your actions can contribute to improved water management and a more resilient future.

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Appendices

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| Appendix A. | CBWP Working Agreement | https://drive.google.com/file/d/1doPYQlqMxRqO8zpo8EgyEMtmUX1b1iM8/view?usp=drive_link |
| | Example CBWP Consensus Recommendation | https://docs.google.com/document/d/1Hr02C-hBYUpGtjGeL8-rFACygH_CVb_2/edit |
| Appendix B. | CBWP Groundwater Plan | https://drive.google.com/file/d/1Hi97OrtUvp9obOZ70wqrCh-59ngB5k7K/view?usp=drive_link |
| | B.1 Groundwater Implementation Framework | https://docs.google.com/spreadsheets/d/13nbTm9lkToejqclSEh6mLhaBUyKJ-mpq/edit?usp=drive_link&oid=100956322340406543697&rtpof=true&sd=true |
| | B.2 Critical Groundwater Issues List | https://docs.google.com/document/d/1GyN_IAggSld8dYfhnNfrGr9iZi0wN0-e/edit?usp=sharing&oid=100956322340406543697&rtpof=true&sd=true |
| | B.3 Groundwater Strategies | https://docs.google.com/document/d/1ebuf-B0nk6zPxWkGCUiMfXVAQKuFSvbQ/edit |
| | B.4 Interagency Review, Letter from OWRD | https://drive.google.com/file/d/1haxs05ckoyVd6EeNzbr767IY8jnDNFXX/view?usp=share_link |
| Appendix C. | Groundwater Plan Working Group Reports | |
| | C.1 Ecological Working Group | |
| | C.1.1 Groundwater Dependent Ecosystems Step 2 Report | https://drive.google.com/file/d/1eYviiLX6rMdof5DlaI887D_tCcF-iOaZ/view?usp=sharing |
| | C.1.2 Groundwater Dependent Ecosystems Step 3 Report | https://drive.google.com/file/d/1Rx-0FvcelwQTxHRxMsUpeKxpD8e9KNlb/view?usp=sharing |

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| | C.2 Agricultural Working Group | |
| | C.2.1 Agriculture Step 2 and 3 Report | https://drive.google.com/file/d/1navvf5iAREjmkZWSe9ykvoDpwJeCHMqr/view?usp=sharing |
| | C.3 Exempt Uses Working Group | |
| | C.3.1 Rural Domestic and Municipal Groundwater USe Step 2 and 3 Reports | https://drive.google.com/file/d/1CmrVOIHBKajgJdBzck_GuYEyd5s7Mua8/view?usp=sharing |
| Appendix D. | CBWP Surface Water Plan | https://docs.google.com/document/d/1b06wVw2jbt1p4hKDDyXMxuNSwSC4gv5m/edit#heading=h.1juyekuxr0t |
| | D.1 Surface Water Plan Implementation Framework | https://docs.google.com/spreadsheets/d/18LITeE9KMn3rCe7LDMdNewPSHdq3Nmcx/edit?gid=183737896#gid=183737896 |
| | D.2 Critical Surface Water Issues List (see Appendix D.3 for most up-to-date language) | https://docs.google.com/document/d/19LijCILZVOcspCTrZdDV2eqSDGCT0PH3/edit?usp=drive_link&oid=100956322340406543697&rtpof=true&sd=true |
| | D.3 Surface Water Strategies | https://docs.google.com/document/d/1VKxQe0wclsP2ARny4paade0IOi7fuxFT/edit |
| Appendix F. | Surface Water Working Group Reports | |
| | F.1 Ecological Working Group | |
| | F.1.1 Rivers and Streams Step 2 Report | https://docs.google.com/document/d/1IEY9jIVRg6C4puL0ubXB-73N7hQvx4Yz/edit?usp=drive_link&oid=100956322340406543697&rtpof=true&sd=true |

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| | F.1.2 Rivers and Streams Step 3 Report, Step 3 Appendix | https://docs.google.com/document/d/1UUSxm20XXoYJ-NdG7oGYd4D6cdZeym2P/edit?usp=drive_link&oid=100956322340406543697&rtpof=true&sd=true https://drive.google.com/file/d/1WhsZUKVYa1pO9HmLC4fcrHcu37r0Xd3/view?usp=drive_link |
| | F.1.3 Lakes and Rivers Step 2 Report | https://drive.google.com/file/d/1ME86P5giLQZsPWB6bTA52jOOy9JkFTQz/view?usp=drive_link |
| | F.1.4 Lakes and Rivers Step 3 Report | https://drive.google.com/file/d/1y0opgbJICPuo mSPLdwlsPkl-R-jgL6G0/view?usp=drive_link |
| | F.1.5 Wetlands Step 2 Report | https://drive.google.com/file/d/1GXrUZW6JHjU2jtHukWDCc_IDUL5PVeTs/view?usp=drive_link |
| | F.1.6 Wetlands Step 3 Report | https://drive.google.com/file/d/1tatpmYOqSOZxNZqFLOd7vrbfWxW2YiKZ/view?usp=drive_link |
| | F.2 Surface Water-Groundwater Interaction Working Group | |
| | F.2.1 Surface Water-Groundwater Interaction Step 2 Report | https://drive.google.com/file/d/1Dsav2tAjYkthfE8Jgewx9GHLqbKgpQB/view?usp=drive_link |
| | F.2.2 Surface Water-Groundwater Interaction Step 3 Report | https://drive.google.com/file/d/1JxEpa6_InVbru_TXzCHsVWpmTP1Uk-Jg/view?usp=drive_link |
| | F.3 Surface Water Management Working Group | |
| | F.3.1 Surface Water Management Step 2 Report | https://drive.google.com/file/d/1Ri4PftuDldpBh0DqW8s0U_pUvIIMto5U/view?usp=drive_link |
| | F.3.2 Surface Water Management Step 3 Report | https://drive.google.com/file/d/11kBuRc4x7OlquF3rSP2de1FO3EQMLZ6T/view?usp=drive_link |
| | F.4 Vegetation Management Working Group | |

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| | F.4.1 Vegetation Management Step 2 and 3 Report | https://drive.google.com/file/d/1nbhEQqBNJdehvJODybLOgcM9eS9cA_Nq/view?usp=drive_link |
| Appendix G. | Burns Paiute Tribe Resolution | https://drive.google.com/file/d/1kQjWe62btRYG6XWvp14U_3DVPg9c0iEQ/view?usp=drive_link |



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Resolution of the Oregon Water Resources Commission Recognizing a Place-Based Integrated Water Resources Plan

Whereas, the Oregon Water Resources Commission adopted Oregon's first Integrated Water Resources Strategy (IWRs) in 2012, and an updated version in 2017, carrying out its vision of bringing various water sectors and interests together to work toward the common purpose of maintaining healthy water resources to meet the needs of Oregonians and the environment for generations to come;

Whereas, an important recommended action of the IWRs was to create and test a framework for developing place-based integrated water resources plans, which resulted in development and publication of a draft set of Planning Guidelines in 2015;

Whereas, the Legislature in 2015 invested in the pilot phase of place-based water planning and granted authority through Senate Bill 266, which resulted in financial and technical support for four communities to begin planning in accordance with the Guidelines;

Whereas, the **Harney Community-Based Water Planning Collaborative**, in partnership with the state and in consultation with the Oregon Water Resources Department, worked diligently to develop a Place-Based Integrated Water Resources Plan (Plan);

Whereas, the Commission recognizes the immense value and expresses gratitude for all those who contributed to the Plan;

Whereas, the Plan was developed in collaboration with a balanced representation of diverse water interests, representing both instream and out-of-stream values;

Whereas, the actions in the Plan are consistent with existing state laws concerning the water resources of this state and state water resources policy;

Whereas, the Plan contains the vision of the Collaborative, improves our understanding of water conditions and needs, both instream and out-of-stream, identifies critical water issues to be addressed, and recommends sound strategies for addressing the issues, implementation of the Plan will have significant value to the Collaborative, the broader local community, and the people of Oregon;

Whereas, the Plan will facilitate implementation of local solutions that will balance instream and out-of-stream water needs now and in the future;

Whereas, the **Harney Community-Based Water Planning Collaborative** has been and remains committed to utilizing an open and transparent process that fosters public participation;

Whereas, the Plan has been locally adopted by the Collaborative and the state's inter-agency Plan Review Team has determined that the plan follows the Guidelines and is consistent with principles of the IWRS;

Whereas, information contained in the Plan will inform future updates to the IWRS;

Whereas, implementation of the Plan will help meet the state's instream and out-of-stream water needs and support Oregon's economy, its renowned wildlife and nature, bountiful agricultural products, and healthy and livable communities as described in the IWRS; Now, therefore,

Be It Resolved, we the undersigned members of the Oregon Water Resources Commission do hereby recognize the Collaborative's Plan on this 12th Day of September, 2025 for as long as the Collaborative meets the requirements of state-recognition.

Julie Smitherman, Vice Chair
Oregon Water Resources Commission