



MEMORANDUM

TO: Water Resources Commission

FROM: Alyssa Mucken, Northwest Region Basin Coordinator

SUBJECT: Agenda Item E, June 15, 2023
Water Resources Commission

Willamette Basin Situation Assessment and Workplan

I. Introduction

This informational report provides an overview of an initial situation assessment conducted for the Willamette River Basin and the resulting 2023-2027 Willamette Basin Workplan. This effort is integrated into the Department's forward-looking approach to implementing the 2017 Integrated Water Resources Strategy.

II. Background

The Oregon Water Resources Department (Department) received funding during the 2021 Legislative Session to support two new positions focused on complex water management challenges in the Deschutes and Willamette River Basins. The new northwest region basin coordinator, Alyssa Mucken, conducted an initial situation assessment in 2022 to help the Department and partners gain a greater awareness of challenges facing the Willamette Basin. The final product from this assessment is a Willamette Basin workplan outlining Department-led priority projects, along with projects of other partners where staff will participate and provide support, when needed. The workplan also notes which water resources issues need further discussion for project development, as well as a list of projects that cannot be tackled in this five-year workplan for various reasons.

III. Discussion

To inform priority setting, discussions were held with different sections and divisions of the Department and with several state and federal agencies. To solicit external input, staff held interviews with different stakeholder organizations during the summer and fall of 2022.

Standardized questions were posed during each interview to identify the key water resources challenges and associated priorities for Department action.

A request for formal government-to-government consultation was sent to Oregon's nine federally recognized tribes. No requests for consultation were received. Staff provided a follow-up briefing to tribes during the quarterly Natural Resources Working Group meeting held in January 2023 and sent email invitations to meet and discuss Willamette Basin priorities. The Department did not receive responses to these requests.

Staff used the results of discussions and interviews to identify potential projects for further scoping or analysis. A summary of the situation assessment process and input gathered can be found in Attachment 1. The information from the assessment was evaluated and grouped into themes. Staff used a prioritization process to rank potential projects based on factors such as urgency, complexity, and whether undertaking certain efforts would help meet the state's objectives or recommendations of the Integrated Water Resources Strategy and the Department's Strategic Plan.

The resulting Willamette Basin workplan includes a high-level summary of projects aimed at advancing and resolving complex water management challenges in the basin. The workplan positions the Department to constructively engage with basin interests to implement priority actions across the Willamette Basin and, to the extent possible, align stakeholder and Department priorities. While it gives a broad five-year roadmap for Department involvement in the basin, a focus on 2023-2025 is detailed to align project priorities with available staff resources and plan for future needs. Refer to Attachment 2 for the 2023-2027 Willamette Basin workplan.

Projects that will be initiated by Department staff in 2023-2025 include:

1. Willamette Basin Review (Reallocation) Study Implementation,
2. Map Process for Conversion of Minimum Perennial Streamflows, and
3. Five-Year Groundwater Permits.

Projects or initiatives led by external partners where OWRD will play a support role:

1. USACE's Programmatic Environmental Impact Statement (EIS) & Biological Opinion,
2. North Santiam's Drought Contingency Plan Update,
3. USGS's Integrated Water Availability Assessment Project, and
4. Oregon DEQ's Temperature Replacement Project.

The Department welcomes the Commission's feedback on the workplan and associated implementation activities.

IV. Willamette Basin Review Study

The first project outlined in the Willamette Basin workplan is implementation of the Willamette Basin Review Study, also referred to as the Reallocation Study. The Department has been engaged in this effort for many years. With the Study's completion in 2019 and Congress passing legislation in 2020 to reallocate stored water held in the Willamette Valley Project reservoirs, implementation of the study is a priority for the agency.

A more detailed workplan for implementation of the Reallocation Study has been developed, using input from partner agencies and stakeholders. This standalone workplan can be found in Attachment 3 of the staff report.

IV. Conclusion

The Department will continue to coordinate with project partners on the Willamette Basin workplan and share project-specific updates with the Commission, stakeholders, and the public.

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Project implementation will continue with the timelines developed and progress monitored by staff. Project benchmarks and potential adjustments will be communicated to the Commission at future updates.

Attachments:

1. Willamette Basin Situation Assessment Summary Report
2. 2023 - 2027 Willamette Basin Workplan
3. Willamette Reallocation Implementation Workplan

Alyssa Mucken

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Willamette Basin Situation Assessment

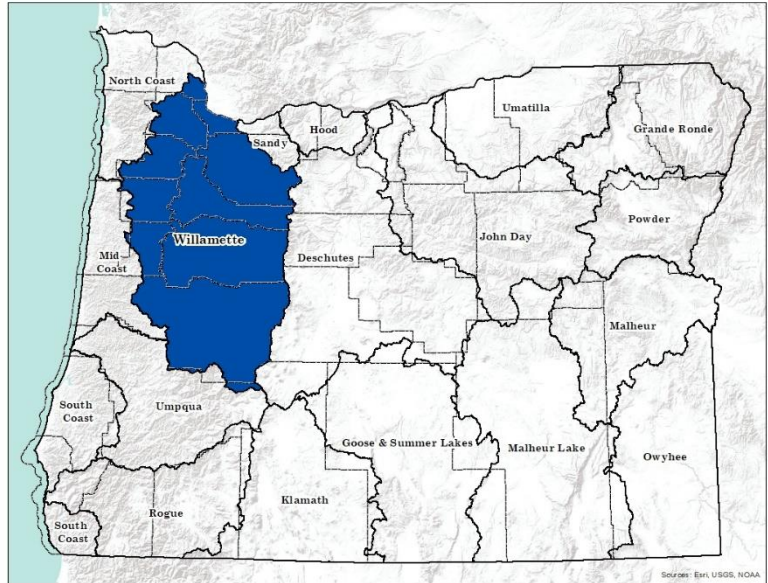
Summary of Issues & Challenges

June 2023

Background

In 2022, the Oregon Water Resources Department (OWRD) conducted an initial situation assessment to gain a greater awareness of the complex water management challenges facing the Willamette River Basin. The assessment focused primarily on seeking input via interviews and discussions with Department staff, sister agencies, stakeholders, and other interested parties. A similar effort was undertaken in the Deschutes River Basin.

The objective for this project was to utilize information gathered to identify and prioritize the range of water challenges that can and cannot be addressed in the next five years, while defining the roles and responsibilities of the agency (e.g., lead or support-role, coordination, awareness).



This document summarizes the process used and input received from the assessment. OWRD utilized this information to inform work priorities in the coming years, hear about efforts or initiatives led by others, and develop an understanding of where the agency can work together with partners on projects of mutual interest. A five-year [Willamette Basin workplan](#) has been created showing projects the agency will lead, projects staff will support, and issues that likely need further scoping or discussion before projects are identified.

Recent Willamette Basin Efforts

The assessment was conducted using two parallel steps: (1) to assess the complex water management issues across the Willamette River Basin, and (2) to more specifically identify the actions needed for implementation of the Willamette Basin Review (WBR) reallocation study.

Since 2013, participation in the Willamette Basin Review feasibility study has been a focus of the agency's efforts. The feasibility study was co-sponsored by OWRD and the U.S. Army Corps of Engineers to determine whether stored water could be re-allocated to multiple uses of water to help meet future water demands in the basin. The Corps finalized its Chief's Report in December 2019 and reallocation of stored water was approved by the passage of the federal Water Resources Development Act (2020). Implementation-related actions will be part of the agency's planned activities.

Key Assumptions

Similar to the Deschutes River Basin, staff laid out a set of assumptions for this project to help partners understand the scope of this effort. The following assumptions guided discussions:

- **Initial Assessment** – This was an initial assessment and will not represent a comprehensive summary of every complex water issue facing the basin. The focus was on water quantity issues – both instream and out-of-stream – while recognizing the interconnectedness to water quality, land-use management, and other resource issues. Not all issues or projects identified will be a priority for OWRD in the next five-year period (2023-2027).
- **Stakeholder Engagement** – The sheer size and complexity of the Willamette River Basin makes it difficult to reach all interested parties and efforts were made to include as many stakeholders as possible.
- **Agency Roles** – The intent of the assessment was to identify work that can be completed or coordinated by the newly funded Northwest Region Basin Coordinator. Some water issues or projects may be better suited for staff experts in other sections or divisions of the agency. Some external partners will lead projects, while OWRD may play a support role. Although the basin coordinator position was designed to focus on the Willamette Basin, it also has responsibilities for the larger NW Region. This includes providing implementation support for the Mid-Coast Water Planning Partnership’s Water Action Plan, recognized as a place-based integrated water resources plan by the Water Resources Commission.

Interviews & Discussions

OWRD developed a small list of interview questions to spark conversations about priorities and issues of concern. For internal discussions with staff, staff created additional discussion prompts to learn about the agency’s history of water regulation or water shortages in various parts of basin. Staff also reviewed existing plans or studies to situate the work and understand known issues and established basin priorities. Questions used to form the basis for discussion included:

- **Challenges** – In the Willamette River Basin, what complex water management challenges are of greatest concern to you?
- **Setting Priorities** – Which of those challenges do you think should be a priority for OWRD to address over the next five years?
- **The Department’s Role** – What role(s) should OWRD play in these issues or challenges? (Examples: lead, facilitation, coordination, general awareness, technical, or policy support)
- **Collaboration & Information** – Do you have an interest in partnering or supporting work on future projects? How would you like to receive information on progress?

Discussions were held with internal staff from several sections of the Department. Following those discussions, invitations were sent to various stakeholder organizations that had participated or shown interest in the Willamette Basin Review Reallocation Study. From there, meeting invitations were expanded to include organizations not involved in the study but may have an interest in its implementation or could shed light on other water related challenges facing the basin. The discussions were also an opportunity to learn about what people care about in the Willamette and what they view as a priority.

Project Prioritization & Scoping

OWRD undertook a prioritization of the water challenges identified through the interview process, grouping by themes or potential projects. The complexity of a project – such as associated risks, uncertainty, dependencies, near-term deadlines, and internal and external drivers – was considered when evaluating potential projects. Projects of significance, those that help OWRD achieve the goals or recommendations of the 2017 Integrated Water Resources Strategy and 2019-2024 Strategic Plan, ranked higher in the evaluations process. Following project evaluation and prioritization, discussions were held with OWRD’s managers to determine what should move forward with further scoping and which sections or staff may play a role in project implementation.

Willamette Assessment Participants

The following is a list of interview participants. Most interviews were conducted between late summer and early fall 2022. Although not all invitations were accepted to participate in the assessment process, staff will continue to make efforts to meet new and diverse stakeholders with the objective of building relationships and learning more about the concerns and challenges related to water in the Willamette Basin.

Internal Discussions

Dam Safety Section
 Groundwater Section
 Surface Water Section
 Field Services Division (Districts 2, 16, 18, 20, 22)
 Water Right Services Division
 Well Construction Section
 Agency Management Group

State Agencies

Dept. of Environmental Quality
 Dept. of Fish & Wildlife
 Dept. of Agriculture
 Oregon Watershed Enhancement Board

Federal Agencies

U.S. Army Corps of Engineers
 U.S. Bureau of Reclamation
 U.S. Geological Survey

Participating Stakeholders

Oregon Association of Nurseries
 Oregon Farm Bureau
 Oregon Water Resources Congress
 Santiam Water Control District
 Special Districts Association of Oregon
 League of Oregon Cities
 City of Hillsboro
 City of Salem
 City of Wilsonville
 Eugene Water and Electric Board
 GSI Water Solutions
 Joint Water Commission
 Tualatin Valley Water District
 Benton County
 Marion County
 Polk County
 Linn County
 Yamhill County
 McKenzie River Trust
 Native Fish Society
 South Santiam Watershed Council
 Trout Unlimited
 WaterWatch of Oregon
 League of Women Voters
 North Santiam Council of Water Leaders

Summary of Input: Issues and Challenges

This section summarizes the thoughts, concerns, and priorities shared by stakeholders, staff, and agency partners, grouped by themes commonly heard.

Willamette Programmatic EIS & Biological Opinions

- OWRD should take a leadership position in the EIS process; look for opportunities to engage.
- Fear that the federal agency assertions over Endangered Species Act enforcement in the Klamath Basin will play out in the Willamette Basin through the EIS process, Biological Opinions, and court case implications. It could have devastating effects on the economy, considering the population and sheer size of the Willamette Basin.
- Confusion surrounding the existing Reasonable and Prudent Alternatives in the 2019 Biological Opinion; need a better handle on how those are being interpreted.
- EIS is a critical component and will likely have implications for water management. Concerned that the EIS will negatively impact progress made under the Willamette Basin Review.
- Difficulty in balancing the need to fill the reservoirs with using that water downstream to support fisheries-related needs (e.g., flows, passage, etc.). Protection of the instream flows and trying to mimic the historic river flows as much as possible is a priority.
- Interested in better understanding the BiOp flow targets and whether those will change under the new EIS process.

Reallocation Study & Implementation

- Reallocation implementation should be the top priority
- Important questions regarding regulation and future water management left unanswered under the study.
- There will be a flurry of lawsuits filed when the transfer application for stored water is submitted and processed by the Department. Concerns about how the change in storage volumes will cause harm to irrigated agriculture. How will the Department address the harm and how will budget needs be factored into the process?
- Hiring a coordinator was a key legislative priority among stakeholders, and the reallocation work should be a priority.
- Several partners stated they would like to be involved in discussions on storage transfer and other associated work.
- In District 18, the Tualatin Basin has a good model for agency cooperation and regulation of water rights involving both stored water and live flow. Agency and local stakeholders are in constant contact with one another. An annual report summarizing operations has been published for 20+ years and includes information on streamflow, water quality, etc. Most users have both live flow and stored water as options, only a few, use stored water only. This is likely unique from the Willamette Projects where there is a mix of live flow, stored water, and a combination of both for each user. In Tualatin, gaging stations are key to determining when live flow is off and when users need to switch over to stored water (e.g., when the river drops to 20 CFS, the first batch of regulation notices are issued). The Pendleton watermaster's office also tracks stored water releases.
- Many landowners don't have access to river frontage, making it difficult to obtain a stored water contract when easements would be needed. Financial means also an issue for landowners and small towns or cities.

- Reallocation implementation will be a big lift for OWRD field staff. Measurement and installation of new stream gages will be a significant undertaking. Need a better system to track live flow and stored water secondary rights.

Fish Passage and Restoration

- Generally interested in fish passage and seeing it occur above Foster Reservoir
- FEMA's changes to floodplain rules have changed the permitting process, requiring more engineering assessments for construction and development on floodplains. New requirements also impact floodplain restoration projects via new permitting requirements.
- Loss of side channel habitats due to changing hydrology. River is more incised, seeing groundwater levels drop on adjacent farms. Channelizing of the upper Willamette River watersheds is a concern.
- Partners, such as the Corps, are working on augmenting gravels in different river reaches below the dams. Interested in learning what opportunities exist to work on that elsewhere in the Willamette Basin.
- Concerned with existing and new revetments being permitted and negatively impacting river dynamism.

Municipal and Small Domestic Water Uses

- State is not tracking municipal water use development closely. These water rights have long development timelines, high quantities, and at full development and fully exercised, they could deplete salmon/steelhead water. An example – the ongoing court case in Clackamas with water providers.
- Some diversions are located high in the watershed, with not enough sufficient flow, and options to resolve are limited, place drinking water supplies at risk.
- Small municipalities are struggling to understand future development, some need new water sources, with large developments underway. Some cities do not have a staff person dedicated to taking care of their water rights and their water future. OWRD field staff can provide some technical assistance and help with basic understanding of water law, but entities still struggle to understand the limitations and constraints of water rights.
- Uncertainty and potential conflicts surrounding protested water right applications currently pending and newly filed instream water rights and how approval of those rights could impact future water supply options for growing cities or other out-of-stream needs.
- Very concerned about small unincorporated areas that lack a redundant supply, especially those that have a small tax base and cannot afford upgrades to their water systems to improve intakes, replace old wooden pipes, expand storage capacity, etc.

Instream Water Rights

- Will instream flows be additive? For instance, live flow, stored water, and new instream water rights?
- A priority for some conservation groups is trying to restore streamflows and lease water rights back instream. Important to look at our laws, like "use it or lose it" and remove associated barriers to implement instream flow projects.
- When the remaining minimum perennial streamflows are converted, it will impact regulation and associated workload priorities. Public education/outreach is needed to understand how water

regulation could change in the future. OWRD needs to elevate the collective knowledge about this process, and more generally about water - for all water users.

- Water users who hold live flow water rights need to understand impacts associated with newly established instream water rights, including conversions.
- Understand and explain to stakeholders how new instream water rights or conversions will change regulation in the basin.
- Define whether agencies will regulate off drinking water supplies for protection of instream water rights.

Water Quality

- Harmful algal bloom events at Detroit Lake are concerning. Water quality will continue to get worse with less water overall.
- Local jurisdictions are required to keep sediment out of local rivers; how can we slow down the water, retain it in ponds, to prevent further contamination - are state water rights needed, or exemptions? Help navigating the regulatory landscape for new or innovative ideas is needed.
- Willamette TMDL is underway; may have implications for water management.
- Landowners concerned about the development of new Confined Animal Feeding Operations (CAFO) out near Scio. Overland flows will contribute to North Santiam, but effluent will be directed to S. Santiam River.

Hydropower

- Support efforts to de-authorize hydropower at Army Corps dams to allow greater management flexibility for fish.

Funding for Infrastructure, including Water Delivery Systems

- State is not effective in funding new infrastructure.
- Some farmers have had difficulty accessing funds to modernize irrigation systems, especially for private systems using 100-year-old ditches, and a series of in-channel ponds.
- Lack of incentives to move to more efficient delivery systems. Some systems are on leaky old canals and other irrigation delivery systems use shared canals for drinking water systems (e.g., Lebanon-Albany Canal)

Groundwater

- Support Department's current efforts to update its groundwater allocation policy.
- OWRD should not be issuing new water rights when it cannot determine whether groundwater is over-appropriated or available.
- Fractured basalt domestic wells in rural areas represent 25-33 percent of residents in my county; OWRD doesn't have answers to water problems, leaving residents with uncertainty and the situation continues to worsen and conditions will become drier in the future.
- Understand and explain how OWRD will regulate hydraulically connected wells in the basin.

- In the GWLA area in Clackamas County, they adopted a county code that requires the hiring of a hydrogeologist for starting a new business or subdividing land, even it's an exempt use. Could be an example for other counties?
- Rock Quarry near Tonquin Rd area – major groundwater issue. Dry domestic wells. Near Sherwood & Tualatin.
- Chehalem Mountain Groundwater Limited Area (in WM District 18)– concerns from neighbors regarding active cannabis development.
- Domestic wells are being used for cannabis, rather than legally obtaining irrigation water rights.
- OWRD field staff receive many calls from concerned landowners having well issues, but commonly the problem is old or failing infrastructure, rather than interference with neighboring properties.
- Investigating groundwater complaints is time consuming for field staff.
- Although groundwater supply issues aren't a basin-wide concern, there are individual issues, and impacts of groundwater use on surface water flows is a concern and the problem will likely be exacerbated by future groundwater development. It's not just Willamette, but a statewide issue.
- Concern regarding the cumulative impacts of groundwater use on surface water and associated water rights. The continuing issuance of groundwater permits in areas where stream systems and water users are regulated on a regular basis will continue to exacerbate conflicts. The Molalla River is an example of regulation and continued groundwater development.
- The public often turns to field staff to assess when to apply for a groundwater permit and to learn what factors are considered when making an agency determination. Any changes in the state's groundwater policies should be well communicated throughout the agency to manage expectations.

Irrigation-Related Challenges

- A lot of dryland farming for grass seed and hazelnuts exists in the basin. Farmers are beginning to irrigate those crops, but likely don't understand the legal mechanisms for obtaining water rights.
- Large areas from Albany to Brownsville, between the Willamette River and the Calapooia River, are not irrigated; likely interest among landowners for agricultural development.
- Land use developments that divide small, irrigated farms into lots can cut off access to the source of water for some property owners. This happens quite often and will continue as rural residential demand increases (e.g., lot line adjustments and other factors).

Planning

- Unclear to external stakeholders how the Integrated Water Resources Strategy, the 100-year Water Vision, and the recently funded USGS study all fit together in relation to the Willamette Basin work and other priorities.
- State needs to act, not continue only with studies.

Climate Change

- Basin has a standard duty of 2.5 acre-feet/acre. The consumptive demand will change under a new climate; it will not be sufficient.
- Do not believe the state properly considered or analyzed future demands of water, especially when we consider climate change. Grass seed is the largest crop in the basin, isn't irrigated today, and all of it will require irrigation.

Engagement & Public Education

- Continue to engage stakeholders; show progress made on projects and initiatives.
- OWRD needs a tool that is more interactive than just the Aqua Book to better communicate when and what water rights are needed, what transaction options are available, and what uses are exempt from permitting requirements. It could be a click-thru mention option with a customized user interface.
- The water right and transfer application mapping requirements are a significant equity issue for the agency. Not everyone can afford to hire a consultant to prepare a map, the map standards require surveying experience, and there are no online tools to assist landowners with a map. Either invest in do-it-yourself online map making tools, as other agencies have done (e.g., ODA) or the alternative is to provide sufficiently packaged training modules to all applicants.
- Public understanding of water law is lacking in many ways (history of farmers relying on neighboring farmers to advise, based on experience). When approached by department field staff, often hear the response, "I've been using this water for 50 years and there has never been a problem."

Water Right Application Processes

- Unpredictable and untimely application processing hinders capital improvement projects for drinking water. For small communities that lack the rate base for improvements, being able to plan for permitting decisions is critical.
- General frustration among applicants and consultants about the mitigation recommendations resulting from inter-agency Division 33 reviews pertaining to listed fish species. Applicants are unclear about the suitable pathways or potential modifications needed to avoid mitigation requirements.
- Transfers are a good tool for water users; however, the review process lacks key public interest considerations for fish, instream flows, and habitat needs.

Water Rights Regulation

Five watermaster districts cover the Willamette Basin with some districts covering areas outside of the basin. Districts 18 and 22 are located west of the Willamette River, and Districts 16 and 20 are east of the river. Regulation of water rights does occur in the basin, but not to the same extent as Eastern, Central, or Southwest Oregon. During internal discussions, watermasters were asked to share information about regulation history in their districts, recognizing that regulation will likely increase over time and water users may need back-up water supplies.

- **Watermaster District 2:** Geographic area: covers all of Lane County, extending to the coast and includes Mid-Coast basin, includes a portion of Linn County). Regulated streams include the Mohawk River (tributary to the McKenzie River), and the Calapooia River for three instream water rights (significant time commitment), along with several streams outside of the Willamette Basin.
- **Watermaster District 16:** Geographic area: covers most of Linn and Marion Counties, and a small portion of Clackamas County). Regulated streams include Butte Creek, Abiqua Creek, Thomas Creek, Crabtree Creek. In lean years, Crabtree Creek is regulated based on calls from senior irrigators. The Pudding River (measured at Aurora, OR) is also regulated.
- **Watermaster District 18:** Geographic area: Washington and Columbia Counties. Regulation-related activities: On Gales Creek, several water users are regulated off each year, and lack a back-up water supply. This area is not within the Tualatin Valley Irrigation District distribution area, nor is it good for groundwater development. The East Fork of Dairy Creek & McKay Creek are regulated in favor of instream water rights. Not as many users are shut off, compared to Gales Creek. Likely don't have a

backup supply. The Tualatin River is managed river system with regulation affecting both live flow water rights and stored water releases.

- **Watermaster District 20:** Geographic areas: most of Clackamas County and all of Multnomah County. Regulated streams include the Molalla River and Milk Creek, a tributary; Tickle Creek, Eagle Creek, North Fork of Deep Creek, and Deep Creek, Clear Creek, all tributaries to Clackamas River. Beaver Creek, tributary to the Willamette, is regulated every year per a condition on a water right.
- **Watermaster District 22:** Geographic area: covers Yamhill, Polk, most of Benton County. Regulated streams: the Luckiamute River, Rickreal Creek, and South Yamhill River.

Water Rights Adjudication

- Willamette Falls are ancestral fishing grounds. When the Willamette is adjudicated, tribes can make a call for water. Municipalities are moving to the Willamette as a source of water. Conflicts over water use in the Willamette are likely to continue and could become exacerbated by continued development. This is a very long-term issue.

Monitoring

- Washington County has ~45 groundwater monitoring wells where quarterly static water level measurements are collected.
- Most streamgages located in the Willamette Basin are owned and operated by the USGS.
- In District 16, 10 wells are measured on a quarterly basis.
- Improved measurement of live flow vs. stored water releases from the dams. Currently, dam releases are published online, however, in order to understand differences in water stored vs. bypassed flow, additional monitoring would be needed on inflows coming into the reservoirs. That would require extensive instrumentation, which may not be feasible.
- Demand exists from some small residential communities for additional measurement and/or monitoring of groundwater wells; however, that is not always feasible for the agency. OWRD may need to provide technical assistance to establish volunteer-led monitoring program to meet the need.

Notes from State and Federal Agencies

The following section is a summary of ongoing or planned activities in the Willamette Basin by state and federal agencies that may be of significance to OWRD or water management generally. As mentioned earlier, the Department will continue to look for opportunities to engage with tribal governments to hear and understand perspectives of the water challenges, concerns, or priorities in the basin.

- **Dept. of Environmental Quality (ODEQ)** – TMDL temperature replacement work in the Willamette will occur over the next two years. Work in 2023 will focus on Willamette River sub-basins (Coast Fork, McKenzie, Middle Fork, Upper Willamette, Middle Willamette, Molalla-Pudding, North Santiam, South Santiam, Lower Willamette, and Clackamas). Following this work, ODEQ will start a separate project for the Willamette mainstem and other major tributaries. Per a court order, DEQ must complete rulemaking and submit the TMDL to EPA by January 2024 for the sub-basin project and February 2025 for the mainstem work. Temperature TMDL's are planned for other major rivers basins in other parts of the state through 2028. Online resources: [Temperature TMDL Replacement Project webpage](#), [Map of Affected Areas](#), and the [January 2023 Informational Webinar Slide Deck](#). DEQ is also participating in the Willamette EIS as a cooperating agency. Additionally, DEQ may have in interest in discussions

surrounding conversion of minimum perennial streamflows, which were established to support aquatic life and minimize pollution.

- **Dept. of Fish and Wildlife (ODFW)** – the agency will be hiring a Willamette Water Coordinator and continues its participation in the Willamette EIS process as a cooperating agency. ODFW will also engage in the Willamette Basin Review Reallocation study implementation, which includes efforts to pursue conversion of minimum perennial streamflows to instream water rights.
- **Oregon Watershed Enhancement Board (OWEB)** – as the primary habitat restoration agency, OWEB has existing regional capacity to support watershed councils and other partners in the Willamette Basin. Water quality tends to be more of focus for restoration partners in the basin, whereas water quantity/conservation hasn't been as actively pursued by watershed councils through OWEB's grants.
- **Dept. of Agriculture (ODA)** – ODA focuses primarily on water quality issues but does engage on water supply issues when needed or requested. ODA will continue as a cooperating agency for the Willamette EIS process and contribute to implementation discussions for the Willamette Basin Review study, when needed.
- **U.S. Geological Survey (USGS)** – the USGS is undertaking a 10-year study of the Willamette Basin as part of its Integrated Water Science program to help improve water availability assessments as a national scale. The effort will include a basin-specific study (2023 – 2026) and a comprehensive study with national applicability (2027-2031).
- **U.S. Army Corps of Engineers** – The Corps is completing a programmatic Environmental Impact Statement for the continued operation and maintenance of the Willamette Valley Project reservoirs. In conjunction with this effort, the U.S. National Marine Fisheries Service and U.S. Fish and Wildlife Service will be developing new Biological Opinions. Both the EIS and Biological Opinions are currently planned for completion in June 2024, but could be delayed if a jeopardy opinion is issued.



Willamette Basin Workplan 2023 – 2027

Photo: Willamette River near Eugene. Credit: Josh Ward, Creative Commons

Introduction

The Oregon Water Resources Department (OWRD) added a position during the 2021-2023 biennium to work on complex water management challenges in the Willamette River Basin and to strengthen the level of engagement with other partners and organizations. In 2022, staff conducted an [initial situation assessment](#) to gain a greater awareness of the issues facing the basin, using interviews and hosting discussions with those interested, including OWRD’s staff and managers, state and federal agencies, and several basin stakeholders.

The objective of the assessment was to utilize the input gathered to identify and begin prioritizing the range of water challenges that can and cannot be addressed in the next five years by OWRD staff, while defining the roles and responsibilities of the agency and other partners (e.g., lead, support-role, coordination, awareness).

Using the assessment results, OWRD evaluated and prioritized potential projects, considering the significance of the effort to achieving the goals and recommendations of the 2017 Integrated Water Resources Strategy and OWRD’s 2019-2024 Strategic Plan. Other factors were also considered, such as the complexity and urgency of a water challenge or project and how the agency or its partners could benefit by working together on projects of mutual interest.

Project timelines have been arranged to maximize available staff capacity and budget resources, while also keeping existing agency priorities and other ongoing projects in mind.

This document represents a five-year workplan summarizing the projects and activities that OWRD intends to initiate and lead, and describes our participation in studies, assessments, or planning-related efforts of partner agencies and organizations. A few projects will require a more detailed project plan to carry out the project successfully. Two issue areas need further scoping and discussion, which are also highlighted in the document. Lastly, there are a few projects the agency cannot undertake during the next five years, due to staff capacity or higher priorities for the agency. Those are noted in this workplan as well.

Willamette Basin Projects and Initiatives	
OWRD-Led Priorities 2023 – 2025	
1	Willamette Basin Review (Reallocation) Study Implementation
2	Map Process for Conversion of Minimum Perennial Streamflows
3	Five-Year Groundwater Permits
Supporting Partner-Led Efforts 2023 – 2025	
1	USACE’s Willamette Environmental Impact Statement (EIS)
2	North Santiam’s Drought Contingency Plan Update
3	USGS’s Integrated Water Availability Assessment Project
4	Oregon DEQ’s Temperature Replacement Project
Issue Areas that Need Further Scoping 2025 - 2027	
1	Vulnerable Small Drinking Water Systems
2	Water and Land-Use Development



OWRD-Led Priorities for 2023 – 2025

The following three projects will be led by OWRD staff. Implementing the Willamette Basin Review study and mapping out the process for conversion of minimum perennial streamflows are two significant and inter-related projects that represent a considerable workload and key focus areas for the next few years. Documenting the five-year permit renewal process is a smaller project between sections of the agency that can be accomplished within a shorter timeframe.

1 Implement the Willamette Basin Review (Reallocation) Study

OWRD acted as the non-federal sponsor for the Willamette Basin Review Feasibility Study, completed in 2019, and implementation will be carried out in phases. Completing some of the initial tasks is largely dependent upon federal agencies and their capacity to engage and participate. The U.S. Bureau of Reclamation, for example, holds water rights for the storage of water in the Willamette Valley Project reservoirs and filing a transfer application is needed to change the character of use from irrigation only to also include municipal, industrial, and fish and wildlife uses. The U.S. Army Corps of Engineers is responsible for developing the contracting process for municipal and industrial uses. Carrying out implementation will help ensure the desired outcomes of managing stored water for diverse water needs occurs and that pathways exist for accessing existing water supplies. More information can be found in the [Implementation Workplan for the Willamette Basin Review Reallocation Study](#).

- Lead: OWRD
- State Support: ODFW, ODEQ
- Federal Support: USACE, BOR
- Timeline:
 - Ph. 1 tasks: 2023-25
 - Implementation: ongoing

2 Map Process for Conversion of Minimum Perennial Streamflows

This project involves mapping out the process for conversion of the remaining minimum perennial streamflows to instream water rights, specifically, those that call upon live flow and storage releases. This project would be a significant undertaking and a considerable investment of agency time and resources, with high public interest. Additionally, this project intersects with the Willamette Basin Review Study and associated 2019 Biological Opinion, along with the 2008 Biological Opinion, where federal fisheries agencies have identified the creation of instream water rights as a Reasonable and Prudent Alternative to protect and maintain listed fish species. Phase I scoping will include development of a detailed standalone workplan.

- Lead: OWRD
- State Support: ODFW, ODEQ
- Federal Support: USACE, NMFS
- Timeline:
 - Ph. 1 Scoping: 2023-24
 - Implementation: 2025 - 27

3 Five-Year Groundwater Permits

This is a small-scale project designed to support improved integration and alignment between the Groundwater Section and Water Rights Section. The team will document the process for evaluating renewal of existing five-year permits located in the Willamette Basin's groundwater limited areas. Documentation will streamline the process and help staff, water users, and others understand review timelines and expectations of permittees.

- Lead: OWRD – PCI Section
- Support: OWRD – Groundwater & Water Rights Section
- Timeline: 2023 – Q1 & Q2



Supporting Partner-Led Efforts

OWRD plans to provide support to a few efforts being led by partner agencies or organizations. The level of support and involvement will vary over time. For example, OWRD may be less involved in the Willamette EIS process while the federal action agencies consult under Section 7 of the Endangered Species Act. The following is a summary of projects or initiatives that include OWRD support or involvement.

1 USACE's Willamette Programmatic EIS & Biological Opinion

Some efforts in the basin, such as development of a programmatic Environmental Impact Statement (EIS), Endangered Species Act consultation and implementation of a Biological Opinion, are currently being led by federal agencies.

- EIS Lead: USACE
- BiOp Lead: NMFS + USFWS
- EIS Cooperating State Agencies: OWRD, ODFW, DEQ, ODA
- Timeline: 2019 - 2024

In April 2019, the U.S. Army Corps of Engineers began scoping a programmatic EIS for the operations and maintenance of the Willamette Valley Project reservoirs. A public review draft was released for comment in November 2022. See project webpage: [Willamette EIS \(army.mil\)](https://www.army.mil/willamette-eis).

OWRD and others are contributing as cooperating agencies. Although OWRD is not a decision-maker in these processes, the agency's responsibility is to understand and communicate the potential impacts on water supply, water management, and regulation in the basin. OWRD will continue to participate as a cooperating agency, coordinate with other agencies and stakeholders, and provide comment and subject matter expertise when opportunities arise. OWRD will also continue to participate in the Corps' WATER Teams, which are meant to improve inter-agency coordination on flow management and other activities associated with implementation of the 2008 Biological Opinions. A new Biological Opinion will be developed and integrated into the final EIS, which is expected to be completed in mid-2024.

2 USGS's Willamette Integrated Water Availability Assessment

The USGS Integrated Water Availability Assessments (IWAAs) are a multi-extent, stakeholder driven, near real-time census and prediction of water availability for both human and ecological uses at regional and national extents. In the Willamette Basin, the USGS will conduct studies that focus on applied science that can help balance human needs for water management such as flood control, water supply, recreation with the need to maintain ecological sustainability.

- Lead: USACE
- Support: Partners
- Timeline: 2023 Start; 10-year study

In 2023, the USGS will begin the planning phase for this 10-year assessment. OWRD will contribute information or expertise, where needed, potentially helping to identify new stream gaging sites, contributing data or knowledge about water rights and associated uses, while gaining new information about the basin as the study progresses.



3 N. Santiam's Drought Contingency Plan Update

Led by the North Santiam Watershed Task Force (NSWTF) with support from GSI Water Solutions, local partners will be updating a drought contingency plan, starting in early 2023. The effort is being supported by the BOR's WaterSMART Drought Response Program with funding awarded in August 2022 to Santiam Water Control District. The goal of updating the plan is to address emerging concerns, improve the drought monitoring process, incorporate new mitigation and drought response actions, and streamline the administrative framework.

- Lead: NSWTF
- Support: Various partners
- Timeline: Nov. 2022 – Nov. 2024

This planning effort builds upon the coordination established with the North Santiam Watershed Collaborative Planning Initiative started in 2009, including the annual North Santiam Watershed Summit hosted by Salem and the North Santiam Watershed Council to discuss regional watershed management issues. OWRD staff plan to attend monthly meetings and review and provide input on reports. For more information see website: [2017 Drought Contingency Plan](#).

4 DEQ's Oregon DEQ Temperature Replacement Project

TMDL temperature replacement work in the Willamette will occur over the next two years. Oregon DEQ's work in 2023 will focus on Willamette River sub-basins (Coast Fork, McKenzie, Middle Fork, Upper Willamette, Middle Willamette, Molalla-Pudding, North Santiam, South Santiam, Lower Willamette, and Clackamas).

- Lead: Oregon DEQ
- Timeline:
 - 2023 - Willamette sub-basins
 - 2024 – Willamette mainstem + other tributaries

Following this work, ODEQ will start a separate project for the Willamette mainstem and other major tributaries.

Per a court order, ODEQ must complete rulemaking and submit the TMDL to EPA by January 2024 for the sub-basin project and February 2025 for the mainstem work. Temperature TMDL's are planned for other major rivers basins in other parts of the state through 2028.

Minimal work is needed from OWRD staff; however, staff will be tracking this effort over the next two years and may provide data or information to support TMDL development.

Online resources: [Temperature TMDL Replacement Project webpage](#), [Map of Affected Areas](#), and the [January 2023 Informational Webinar Slide Deck](#).



Issue Areas that Need Further Scoping During 2025 – 2027

During the 2022 situation assessment interviews and discussions, several concerns were raised about drinking water security, vulnerability, and conflicts among water users in rural areas of the Willamette Basin. OWRD recognizes the importance of addressing these issues and documenting them as potential projects for further development and discussion. That work is planned for 2025 and beyond to allow time for other projects to be completed, as noted earlier in this workplan.

1 Vulnerable Small Drinking Water Systems

OWRD staff often provide technical assistance to small rural water systems, helping them understand water rights, limitations, and supply issues, when known. This work is typically reactive, however, occurring when problems arise and communities are seeking assistance. OWRD can continue with this level of support, to some extent, however, additional work or analysis is likely needed.

OWRD is currently partnering with the National Drought Mitigation Center and the Oregon Climate Change Research Institute to complete a statewide drought vulnerability assessment by the end of 2023. That project could provide the information needed to better understand vulnerabilities in the basin or it may serve as the basis for conducting a more detailed basin-wide assessment of small drinking water systems throughout the Willamette Basin. To further scope this issue, discussions with other agencies and partners (e.g., Oregon Health Authority, Oregon DEQ, and small water providers) would be valuable to assess ongoing work, potential gaps, or unmet needs.

2 Water and Land-Use Development

During interviews with agency staff and stakeholders, concerns were raised regarding the expansion of rural residential development and whether there is sufficient water available to support domestic water use in the future. Ongoing conflicts between exempt well users and water right holders were also noted as a concern, along with the need to improve coordination on water and land-use decisions between state and local governments.

These same concerns and issues were highlighted in the 2017 Integrated Water Resources Strategy, which includes many recommendations for improving coordination with local governments. For example, local government land use planners do not always have the tools or information needed to make long-term decisions that affect water resources. OWRD will need to further scope these issues and identify which projects or efforts would help alleviate conflicts between groundwater uses while improving coordination with local governments. This work will need to occur after higher priority projects have been initiated or significant progress has been made.



Projects Not Recommended for Further Work During 2022 – 2027

The following water issues were identified as potential projects that when implemented, would provide greater certainty for water management, refine our understanding of limited groundwater areas, and aid in our overall understanding of water supply planning in the basin. Although worthy projects, OWRD lacks the capacity to undertake these efforts along with the priorities noted above. Further, OWRD has a significant need to conduct rulemaking for other topics or geographic areas, making these projects a lower priority. OWRD will need to assess and evaluate whether these projects or others could be initiated in the next iteration of this workplan.

1 Willamette Adjudication

Portions of the Willamette River Basin have not undergone an adjudication process for surface water. Westside tributaries have been adjudicated, however, the Willamette mainstem, the McKenzie, Middle Fork, Coast Fork, Molalla, and Clackamas sub-basins have not been adjudicated. This map shows the [Surface Water Adjudicated Areas Within Oregon](#). The ability to manage water resources has been greatly facilitated in those areas of Oregon where adjudications have been completed; however, the process can take several years or even decades to fully implement (the Klamath Basin being a recent example). Currently, OWRD does not have the resources to undertake a new adjudication in the state.

2 Review Groundwater Limited/Restricted Areas

Several groundwater limited areas exist in the Willamette River Basin, most of which were established via rulemaking in the early 1990's. OWRD is interested in reviewing the existing boundaries of these designated areas, along with evaluating the aquifers, to determine if the boundaries need adjustments. Because the agency has a significant backlog in rulemaking needs, along with other groundwater-related efforts occurring across the state, this project will not move forward at this time.

3 Update Willamette Basin Program Rules

The Willamette Basin Program administrative rules have not been significantly updated since 1992. The rules classify surface water for different types of water use at various times of the year, which guide agency determinations on whether a proposed water right application may be allowable. Groundwater is also classified in rules. Compared to most other basin programs, the Willamette rules are complicated for staff and the public to interpret, and difficult to summarize for basin planning-related efforts. Water Right staff have been interested in updating the rules to simplify for public and staff understanding, along with developing an interactive tool to help make classifications easier to understand. Because of higher priority rulemaking needs, along with the need to develop a larger statewide strategy for updating basin program rules across the state, OWRD will not be moving forward with this work at this time.



Next Steps & Implementation

As OWRD moves ahead on various projects in this workplan, it will need to employ an adaptive and iterative process to account for changing circumstances or needs. At times, priorities can shift due to new regulatory requirements, legislative direction, or investments. Oregon is also updating its Integrated Water Resources Strategy, which will be considered for adoption in 2024 and a new agency Strategic Plan is on the horizon. Both efforts will guide statewide priorities with the potential to influence work in the Willamette or other river basins.

Adaptive and iterative processes is a guiding principle of Oregon's IWRS and this workplan will employ such a process. Keeping equity and environmental justice in mind, along with transparency, and a commitment to reporting out progress while seeking input from partners are all principles that will be used to guide Willamette Basin efforts.

Undertaking this work cannot be done in a vacuum. Creating and sustaining partnerships and continuing to coordinate among state and federal agencies as well as with Oregon's tribes will be necessary throughout implementation of these projects and initiatives. OWRD will continue to look for ways to increase that coordination over time on various water management topics or projects.



Willamette Basin Review Reallocation Study Implementation Workplan: 2023-2027

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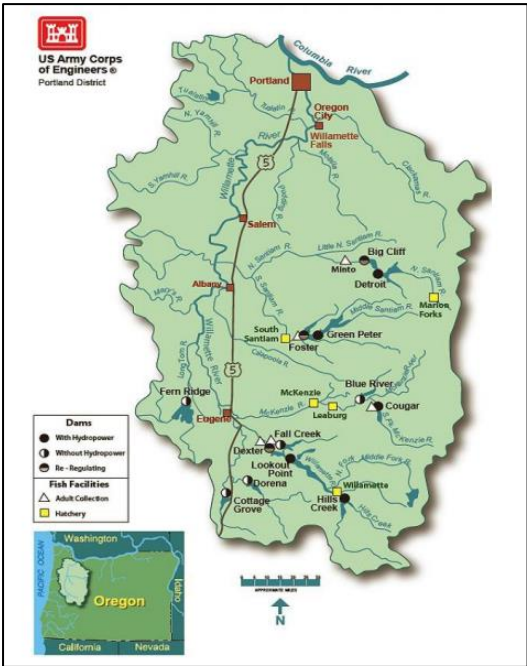
Introduction

This implementation workplan is meant to lay out the tasks and deliverables needed to carry out the Willamette Basin Review Reallocation Study and authorizing legislation from the 2020 Water Resources Development Act. Undertaking many of these tasks will take several years and may require additional funding and staff support. This document also notes other initiatives or ongoing efforts in the basin that may impact or influence the outcomes of implementation or management of water in the basin.

Planning implementation work is an iterative process, and this document will be refined over time as project partners gain greater detail on the schedule and estimates of workload. Some tasks are dependent on completion of other tasks as well. OWRD intends to update this workplan on a regular basis to reflect new information and progress made in the coming years.

Study Background

The Oregon Water Resources Department served as the non-federal sponsor of the Reallocation Study, providing 50 percent of the costs to support the U.S. Army Corps of Engineers (USACE) efforts to examine whether stored water could be allocated to meet a broad range of future



water needs in the basin. In December 2019, the USACE completed the study, submitting a final Chief’s Report to U.S. Congress with recommendations regarding the use of stored water from USACE’s Willamette Valley Project reservoirs.

Table 1: Reallocation Amounts approved by Congress

In 2020, Congress approved the reallocation of conservation storage to the following uses: fish and wildlife uses, agricultural irrigation, and municipal and industrial uses. Refer to Table 1 for allocation volumes and the percentage of conservation storage for each use.

Allocation Uses	Volume (Acre-Feet)	Percentage of Total
Fish and Wildlife (F&W)	1,102,600	69 %
Agricultural Irrigation (AI)	327,650	21 %
Municipal and Industrial (M&I)	159,750	10 %
Total:	1,590,000	100 %

The reallocation volumes approved by Congress are limited by the National Marine Fisheries Service’s Biological Opinion (BiOp) for the Reallocation Study. The BiOp includes a reasonable and prudent alternative with five measures for protecting listed threatened and endangered fish species. Those measures include limitations on the amount of contracted stored water for irrigation, municipal, and industrial uses. Irrigation contracts cannot exceed a combined total of 95,000 acre-feet and municipal and industrial contracts are currently limited to 11,000 acre-feet. Further, no contracts can be issued in the North or South Santiam Rivers from Detroit, Green Peter, or Foster Reservoirs until instream protections are in place.

The allocation recommendations from the study were developed in coordination and consultation with federal, state, local agencies, and tribes and represents a compromise among various interests and sectors throughout the basin. There is a strong interest and desire among agencies, basin stakeholders, and others to contribute to a longer-term water management plan to better define water supply reliability and how decisions will be made in water-short years.

Implementation Objectives

Carrying out the study into this next phase of implementation is critical for achieving the recommendations of the Integrated Water Resources Strategy as well as supporting the overall mission and goals of the Oregon Water Resources Department. “Improving Access to Built Storage” is a recommended action in the 2017 IWRS and reallocating stored water held in federal reservoir systems is an example of how to implement this action. The Willamette Basin Review Reallocation Study and associated implementation also helps the Department achieve its mission of directly addressing Oregon’s water supply needs while also helping to maintain and restore streamflows.

As OWRD works with state and federal agency partners on implementation, the following overarching objectives will guide agency efforts:

- Objective: Pursue water management solutions that balance both instream and out-of-stream water needs.
- Objective: Keep basin stakeholders informed and provide opportunities for meaningful engagement.
- Objective: Maintain project transparency by continually updating the workplan, including any changes in projects tasks and associated timelines, while providing regular progress updates.

Roles and Responsibilities

The Oregon Water Resources Department (OWRD) is responsible for coordinating with agencies and stakeholders to ensure that various tasks associated with implementation occur. Several agencies involved in the feasibility study phase will have a role in implementation-related activities or have an interest in the management and use of stored water.

Both OWRD and the U.S. Army Corps of Engineers (USACE) were the key project team agencies for the feasibility study. OWRD acted as the non-federal sponsor and was primarily responsible for ensuring coordination with sister agencies and supporting stakeholder involvement. The USACE completed much of the technical analysis, adhering to its key planning framework principles and project deadlines, while also carrying out required notifications, soliciting public comment, and consulting with federal agencies under the Endangered Species Act.

The following agencies were involved in the study phase and will likely contribute to various aspects of implementation:

- U.S. Army Corps of Engineers – Responsible for the operation and maintenance of the Willamette Valley Reservoir System in accordance with the Congressionally designated uses for the system, including irrigation, water supply, and fish and wildlife.
- Oregon's Tribes – During the study, USACE sent formal requests to initiate government-to-government consultation to the Creek Band of Umpqua Indians, Cowlitz Indian Tribe, Confederated Tribes of the Grand Ronde Community of Oregon, Confederated Tribes of the Siletz Indians, and the Confederated Tribes of the Warm Springs Reservation of Oregon. OWRD will look for opportunities to engage with Oregon's tribes during implementation.
- U.S. Bureau of Reclamation (BOR) – Administers the water marketing program for irrigation contracts in the basin. BOR also holds the water rights for the storage of water and will play a key role in the water rights transfer application process.
- U.S. National Marine Fisheries Service (NMFS) – Developed the 2019 BiOp for the study and consults with the USACE and other federal agencies on Endangered Species Act listings. NMFS will play a key role in helping agencies and others understand constraints or limitations placed on the use of stored water to protect ESA-listed fish species.
- Oregon Department of Agriculture (ODA) – ODA contributed to the technical analysis of the study for agricultural-related water needs and has an interest in future management of stored water for existing and future irrigation contracts.
- Oregon Department of Fish and Wildlife (ODFW) – ODFW served as a partner agency during the study phase, assisting with instream flow and allocation discussions. ODFW will be involved in securing instream water rights for the use of stored water.
- Oregon Department of Environmental Quality (ODEQ) – a partner agency during the study phase, Oregon DEQ helped agencies and partners understand implications for water quality. ODEQ also has an interest in conversion of the minimum perennial streamflows.

Communications Plan

During the study phase, several stakeholder groups actively participated in discussions, public meetings, contributed data or information, and provided comments on draft analyses or reports. Other individuals were interested in the study's outcomes, but not necessarily engaged in data analyses or other technical aspects of the study.

As the project team transitions to implementation, the focus will shift to water management, distribution of stored water, and securing water rights and associated contracts, many of which will involve complex policy and legal considerations. Several stakeholder organizations expressed interest in participating as part of a workgroup consisting of state and federal agencies and local representatives. OWRD plans to convene stakeholders and agency partners to support stakeholder engagement, which will serve as a foundation for communications with external parties (see Task 4 below).

OWRD will also use other avenues for keeping the public and decision-makers informed of the progress made and opportunities to participate or engage in implementation-related activities. Examples include:

- Maintaining online presence. Regularly updating the agency's website and implementation workplan.
- Maintaining a mailing list. Utilize the existing Willamette Basin Review Study distribution list to share regular updates, announce meetings, etc.
- Providing regular updates. This includes providing updates to the Water Resources Commission, other agencies or commissions, the Oregon Legislature, Oregon's tribes, and other groups or organizations with interest.
- Creating informational materials. Largely intended for the public, such as fact sheets, presentations, or other media to simplify technical studies and legal aspects to aid in overall understanding of the study, implementation, and related efforts (e.g., 2019 BiOp and outcomes of the final EIS).

Milestones and Project Phases

The following three tasks/milestones represent a significant point or event for implementation of the study during the first phase of implementation. Completion of tasks is also dependent on actions taken by federal agency partners. As partners develop a better understanding of workload and other priorities, the workplan will be updated with more detailed information about schedule and associated timelines.

Initial Milestones		Lead
1	Convene an implementation workgroup	OWRD
2	Submit transfer application to modify storage rights	BOR
3	Develop a process for requesting municipal and industrial water supply contracts	USACE

This workplan breaks up tasks into two phases to account for the initial work that must be completed to support later stages of implementation. Some of these tasks, such as Task 5 (address water management questions) may be taken care of as part of convening an implementation group (Task 2). Some redundancy has been built into this workplan to ensure certain elements are completed, regardless of which process is undertaken.

Phase 1 Tasks (2022 – 2024)		Estimated Timeframe
1	Submit and process claim of beneficial use for the 2014 Surplus Water Project	<input checked="" type="checkbox"/> Completed
2	Convene an implementation workgroup	Initiate in 2023
3	Submit transfer application to modify storage rights	Within six months of completing stakeholder outreach on proposed transfer
4	Develop a process for requesting municipal and industrial water supply contracts	Initiate in 2023
5	Address water management questions	Initiate in 2023
6	Map the process for the conversion of minimum perennial streamflows	Initiate in 2023, may continue into 2024

Phase 2 Tasks (2025 – 2027)		Estimated Timeframe
7	Apply for and process secondary instream and out-of-stream water rights	2025
8	Develop a monitoring strategy for future water management and regulation	2025
9	Develop tools for improved accounting of water rights	2025-26
10	Update water control manuals and drought contingency plans	TBD

Description of Tasks

The following section summarizes several implementation tasks that generally flow in order of initiation. Although, several tasks can be completed concurrently. For example, developing the contracting process and convening stakeholder workgroup meetings will overlap at different stages during 2023 and continuing into 2024.

Other tasks not fully defined are planned for later phases and some may depend on completion of other tasks before initiating. For example, OWRD could conduct an assessment of new streamgages or monitoring sites earlier than currently scheduled, but it’s quite likely that conversion of the minimum perennial streamflows or new gages installed by the USGS as part of its Willamette Integrated Water Availability Assessment would likely adjust our monitoring needs and associated investments. Both of those processes may take significant time to complete.

1. Submit and Process Claim of Beneficial Use for 2014 Surplus Water Project

Transfer T-12120 was filed in July 2015 to change the character of use on storage rights to facilitate the Coast Fork surplus water project. The transfer application was approved in June 2016, and a remaining right Certificate 91586 was issued at that time. The BOR submitted a Claim of Beneficial Use (CBU) in February 2022. OWRD processed the CBU and issued [Water Rights Certificate 96441](#) authorizing the storage of 437 acre-feet of water in Cottage Grove and Dorena Reservoirs, to be appropriated under secondary water rights for municipal or industrial uses.

- Lead: BOR
- Support: OWRD
- Timeline: Completed

2. Convene an Implementation Workgroup

As part of the 2021-23 budget development process, several organizations expressed interest in collaboratively developing outcome-based solutions to an identified list of complex issues specific to the Willamette Basin with relevant agencies and impacted stakeholders at the same table. These issues include, but are not limited to, contracting process for accessing stored water, conversion of minimum perennial streamflows, protection of existing water rights and contracts, and identifying gaps in state and federal agency authority.

- Lead: OWRD
- Support: USACE, BOR, NMFS, ODFW, ODA
- Timeline: 2023 – Q2 or Q3

3. Submit Transfer Application to Modify Storage Rights

Currently, the U.S. Bureau of Reclamation holds three water right certificates for storage in the Willamette Valley Project for irrigation, supplemental irrigation, and a small amount for M&I uses ([Certificate 91586](#), [Certificate 72756](#), and [Certificate 96441](#)). The storage rights represented by Certificates 72756 and 91586 need to be transferred to add the following purposes of use: municipal, industrial, and fish and wildlife. This action is also referenced as RPA 2.1 in NMFS's 2019 Biological Opinion.

- Lead: BOR
- Support: OWRD + USACE
- Timeline: Phase 1 – Following stakeholder outreach

After an application is received from the U.S. Bureau of Reclamation, OWRD's Transfer and Conservation Section is responsible for processing the transfer application. If the transfer application is approved, OWRD's Certificate Section is responsible for processing the Claim of Beneficial Use once received from the water right holder.

4. Develop a Process for Requesting Municipal and Industrial Water Supply Contracts

Currently, no federal contracting process exists for the administration of municipal or industrial (M&I) uses from stored water in the Willamette Basin. The USACE's Portland District does administer a water supply contracting process for municipal and industrial use contracts in the Rogue Basin for Applegate and Lost Creek reservoirs. This could be modeled for the Willamette Valley Project Reservoirs.

- Lead: USACE
- Support: OWRD
- Timeline: Phase 1 – Initiate 2023

However, the contracting template currently in use will likely differ from those in other river basins to account for certain constraints and limitations documented in NMFS' 2019 Biological Opinion for the Reallocation Study. Because the standard template will be customized, the USACE's Portland District office must coordinate with its NW Division team and approval may be needed from the USACE's Assistant Secretary of the Army's Office. The additional review and approval process will lengthen completion of this task.

5. Address Water Management Questions

Address questions posed by stakeholders pertaining to water management and regulation during water-short years, the process for conversion of the minimum perennial streamflows, contracting, pending reservations, and other issues. Questions were developed in 2017 and submitted by the Oregon Water Utilities Council and agricultural stakeholder groups. Additional or similar questions were documented during the 2021 Legislative Session.

- Lead: OWRD
- Support: USACE, ODFW, BOR
- Timeline: Phase 1 – Initiate 2023

The objective is to address as many of these questions as part of an implementation workgroup effort, however, some may require additional discussions outside of a workgroup, or need to occur at different stages. Additionally, outcomes resulting from the EIS and Biological Opinion, both in development and due in late 2024, may limit the scope of workgroup discussions or provide insight or direction on these remaining questions.

6. Map the Process for the Conversion Minimum Perennial Streamflows

Conversion of all minimum perennial streamflows (MPSFs) to instream water rights is required by the 1987 Instream Water Rights Act. NMFS's 2008 Biological Opinion identified conversion of the MPSFs to instream water rights as an action needed to protect listed fish species. However, there are several that remain unconverted in the basin, located on each major tributary below the USACE dams and the mainstem Willamette River.

- Lead: OWRD, ODFW
- Support: USACE, NMFS, DEQ
- Scoping Timeline: 2023-24

Special provisions regarding MPSFs in the Willamette Basin exist in ORS 537.346. For example, the statute requires a contract between the State of Oregon and the owner of the storage facility (USACE) for the release of stored water to satisfy an instream water right. The Willamette MPSFs are unique because they include both live flow and stored water releases.

Undertaking this process is a significant investment of time and resources that requires a thoughtful approach. OWRD will work with ODFW and other agencies to map out the process, identifying roles and responsibilities, along with the necessary steps, risks, and uncertainties associated with the project. Agencies will also need to determine the level of public engagement, technical analysis, staffing, or other resources needed to carry out conversion process.

Although this task is directly related to the Reallocation Study implementation, it also represents a significant and complex project on its own that will require a detailed workplan.

7. Apply for and Process Secondary Instream and Out-of-Stream Water Rights

Water users will be responsible for submitting water right applications for the use of stored water and obtaining water supply agreements/contracts from either the USACE or BOR. OWRD will be responsible for processing those applications and providing guidance, where needed. When using stored water exclusively, entities have the option of using OWRD's expedited review application process ([690-340-0060](https://www.owrd.org/690-340-0060)) or the standard application review process.

- Lead: Water users, ODFW
- Support: OWRD, USACE, NMFS
- Timeline: See narrative

The timeline for applying and processing new secondary water rights applications is dependent upon completion of the storage transfer application process (Task 3) and creating a contracting process (Task 4).

Additional secondary water rights for instream purposes and associated contracts may be needed if the instream water rights granted through the MPSF conversion process are not sufficient to support fish and

wildlife needs. ODFW may need to secure additional instream water rights from stored water at different locations, amounts, or at other times of the year. ODFW may need to develop an instream protection process plan that can be used to determine whether other instream processes, beyond conversion or new ISWR apps for instance, are needed.

The 2019 NMFS Biological Opinion also includes reference to determining the appropriate combination of minimum perennial streamflows and secondary instream water rights necessary to meet instream flow needs throughout the Willamette Valley Project area. The timeline for securing additional instream water rights and storage contracts will be affected by the outcomes of MPSF conversion process (Task 6) and potentially the Biological Opinion currently in development.

8. Develop a Monitoring Strategy for Future Water Management and Regulation

Develop a strategy for future measurement and monitoring of streamflows below and above the dams to support future regulation needs. OWRD will likely need additional streamgages in key locations in the basin and likely additional field staff.

Drivers for increased measurement include the conversion of the minimum perennial streamflows to new instream water rights, additional new instream water rights, municipal, industrial, or irrigation water rights for the use of stored water, and any potential conditions or limitations on new uses of water from the Willamette Valley Project reservoirs.

- Lead: OWRD Field Services & Technical Services, ODFW
- Support: USACE, USGS
- Timeline: Phase II (2025 – 2027)

9. Develop Tools for Improved Accounting of Water Rights

OWRD needs a decision support tool to understand the types of water rights in the tributaries and mainstem, for example, those that rely on live flow only, those that contain both live flow and stored water, and those that are stored water only. Such a tool is needed for better management, distribution, and regulation of water rights in the future.

- Lead: OWRD
- Support: BOR, USACE
- Timeline: Phase II (2025-2027)

This effort would also clean up water rights by identifying those without a valid stored water contract. This type of work has been done in the past for one watermaster district, but it was time consuming to maintain because no process exists to associate contract information with individual water rights on a consistent basis.

10. Update Water Control Manuals and Drought Contingency Plan

The December 18, 2019, transmittal memo to the Secretary of the Army for the Willamette Basin Review Reallocation Study states that the USACE will need to update water control manuals and the drought contingency plan to reflect the updated storage allocations and an adaptive management plan.

The estimated federal cost to update the manuals is \$62,000 (refer to Pg. 6, Item #6 from 2019 memo). The USACE notes that drought plans were developed a few years ago and updates won't be made until after the EIS process is complete in 2024.

- Lead: USACE
- Support: TBD
- Timeline: TBD

Other Willamette Basin Efforts

The Army Corps of Engineers, U.S. Geological Survey, and the Oregon Department of Environmental Quality are currently leading projects that may affect water management, contribute to the overall understanding of water supplies and associated challenges in the Willamette Basin, or influence the tasks and associated timelines described in this workplan. OWRD will be participating or tracking these efforts over the next several years.

USACE Willamette Programmatic Environmental Impact Statement

In April 2019, the USACE began scoping a [programmatic Environmental Impact Statement \(EIS\)](#) for the operations and maintenance of the Willamette Valley Project. In November 2022, a draft EIS was released for public comment. In 2023, the USACE will undergo consultation with the federal agencies under the Endangered Species Act. A final EIS and new Biological Opinion is planned for release in June 2024 and will likely have implications for the use and management of stored water from the Willamette Valley Project reservoirs.

USGS Willamette Integrated Water Availability Assessment

With funding secured in 2022, the USGS will undertake a multi-extent, stakeholder driven, near real-time census and prediction of water availability for both human and ecological uses at regional and national extents. In the Willamette Basin, the [integrated water availability assessment](#) will focus on applied science that can help balance human needs for water management such as flood control, water supply, recreation with the need to maintain ecological sustainability. During 2023, the USGS will focus on planning the overall study design for the integrated water availability assessment, with the entire project completed over a ten-year period.

ODEQ Temperature Replacement Project

Oregon DEQ will undertake [TMDL-related projects for temperature in the Willamette](#) over the next two years. Work in 2023 will focus on Willamette River sub-basins (Coast Fork, McKenzie, Middle Fork, Upper Willamette, Middle Willamette, Molalla-Pudding, North Santiam, South Santiam, Lower Willamette, and Clackamas). Following this work, ODEQ will start a separate project for the Willamette mainstem and other major tributaries. Per a court order, DEQ must complete rulemaking and submit the TMDL to EPA by January 2024 for the sub-basin project and February 2025 for the mainstem-focused project.

Online Reference Materials

- Willamette Basin Review Reallocation Study Chief's Report (December 2019)
<https://www.oregon.gov/owrd/programs/Planning/FederalBasinStudies/Willamette/Pages/IntegratedReport.aspx>
- 2019 Biological Opinion for the Willamette Basin Review Reallocation Study
https://www.oregon.gov/owrd/WRDReports/appendix_m_final-biological-opinion.pdf
- Oregon Administrative Rules for the Willamette Basin (OAR 690-502)
<https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=3209>
- Minimum Perennial Streamflows (Exhibit from 690-502, beginning on pg. 26)
https://apps.wrd.state.or.us/apps/misc/vault/vault.aspx?Type=WrdNotice¬ice_item_id=8069
- Letter from Oregon Water Utilities Council letter (September 2017)
https://www.oregon.gov/owrd/programs/Planning/FederalBasinStudies/Willamette/Documents/2017_09_Letter_Oregon_Water_UTILITY_Council.pdf

- Letter from Agricultural Organizations (December 2017)
https://www.oregon.gov/owrd/programs/Planning/FederalBasinStudies/Willamette/Documents/2017_12_Letter_Reallocation_Implementation_Questions_from_Agricultural_Organizations.pdf
- Letter to Joint Ways and Means Natural Resources Subcommittee (May 2021)
https://www.oregon.gov/owrd/programs/Planning/FederalBasinStudies/Willamette/Documents/2021_05_Joint_Ways_and_Means_Natural_Resources%20_Subcommittee.pdf

Acronyms

BOR	U.S. Bureau of Reclamation
M&I	Municipal and Industrial Use
NMFS	U.S. National Marine Fisheries Service
ODA	Oregon Department of Agriculture
ODFW	Oregon Department of Fish and Wildlife
OWRD	Oregon Water Resources Department
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey