

WHITE PAPER:

OREGON WATER DATA PORTAL

Supporting and Maturing the Basis for Better Water Decision Making

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Our Water Future: What's Needed?

In U.S. law, states have primary authority over water rights and water management within their borders. Oregon's water-related challenges are significant:

- Water resources vary greatly by region
- Local water conflicts abound
- Water-related decisions have agricultural and economic impacts
- Water policies have immediate and long-term impacts
- The public cares deeply about this natural resource

Oregon is entering an era in which water issues will grow more complex and competition for water resources more intense¹. Elected officials and agencies from local, state, federal, and tribal governments across Oregon should expect to spend more time on:

- Clarifying water policies
- Mediating or adjudicating water disputes
- Ensuring public health

Decisions will need to be made.

We are more likely to make helpful decisions when we're supported with trustworthy data.

What's one major water-related challenge we *can* solve?

Collecting and maintaining a treasury of water data, sharing it in a way that makes analysis easier and decision making both better and more transparent.

The benefits of well-informed water decisions are many:

- The health of Oregonians is improved
- The economic vitality of Oregon is increased
- We can secure our food supply
- There is more opportunity for recreation
- We bolster the State's awe-inspiring environment

A Successful Experiment: the Oregon Water Data Portal Project

The Oregon Legislature foresaw this need², and in 2021 called for the Department of Environmental Quality (DEQ) to scope and design a single point of access for public water and infrastructure data to inform water resource decisions.

The Oregon Water Data Portal (OWDP) project has succeeded in its Phase 1 mission and is fulfilling its Phase 2 mission to:

- Better understand stakeholders who would use such data, including underserved communities

¹ 2017 Oregon Statewide Integrated Water Resource Strategy:

<https://www.oregon.gov/owrd/programs/planning/iwrs/pages/default.aspx>

² Oregon's 100-Year Water Vision. The OWDP project was suggested in the Technical Workgroup stakeholder engagement meeting. A summary of this meeting is recorded on pages 171-209 in the following report: <https://www.oregon.gov/oweb/Documents/OWV-Full-Report.pdf>

- Identify State agencies that steward water-related data
- Assess the willingness of these agencies to participate in the OWDP
- Explore the level of process and data management maturity within the interested agencies
- Identify challenges related to operating and sustaining a single point of access for water data

Currently, the OWDP project is piloting an initial effort to aggregate and make accessible a set of data from multiple State agencies.

Legislative and administrative support is needed to fully employ the significant insight and valuable experience gained in Phase 1 and Phase 2 of the OWDP project, shifting the OWDP effort from an experimental stance to an increasingly operational stance during Phase 3.

OWDP Phase 3: Why You Should Support It, Now

The challenge for Oregon is to shift the OWDP project from investigating, exploring, and piloting (the goals of OWDP Phase 1 and Phase 2) to operating and sustaining (The goal of Phase 3).

The shift requires vision, resources, and active management.

The modest investments so far (\$350,000 in FB 2021-2023, \$1,240,000 in FB 2023-2025), as well as events around the state, make clear the value of additional investments:

- Stakeholders resonate with the idea of a single source of relevant, high quality water data
- The data would be used today, if it were available
- The value of the data – for many different Oregonians – is increasing

High Momentum Among Water Stakeholders

The OWDP project held listening sessions with various stakeholder groups, including historically underserved groups such as the state's indigenous peoples. Participants included private, public, and not-for-profit interests from sectors including forestry, local government, utilities, and conservation.

Participants expressed frustration with the availability of existing data and excitement at the concept of a single point of access for existing data.

Listening session participants prioritized the types of questions they wanted to answer, **which are now guiding the design and implementation of the OWDP. The top six guiding questions are:**

1. What do we know about surface water quality, and are there concerns?
2. How and where is water being monitored?
3. Do stream temperatures support native fish species at all necessary life stages?
4. Where are groundwater levels declining?
5. Are current stream flows adequate for native fish and wildlife?
6. Where are there concerns about groundwater supply and future development?

Many of the stakeholders who participated in listening sessions continue to participate in the project, consuming project updates and offering critique. **Seventeen state agencies have participated in OWDP Phase 2 activities.**

Better Water Data Would Be Used Right Now

A sampling of headlines makes clear that water issues are increasing in importance, not just to policy makers, but to community members around the state:

- Repeated drought declarations by the Governor

- Devastating wildfires in 2020 and a record wildfire year in 2024
- Groundwater contamination in Morrow Umatilla, and Crook Counties

Listening session participants were clear: they would use aggregated water data as soon as it was available.

Supporting the start of OWDP Phase 3 in the FY 2025-2027 means that aggregated data will be available at the earliest feasible date, reducing the likelihood of poorly informed decisions. The OWDP project team has anecdotal evidence that some poor decisions are being made because analyses cannot yet include data too-closely-held by other stakeholders.

Explorations by the OWDP team suggest that while the tools to aggregate and share data may get cheaper and more effective with time, waiting will not significantly reduce the cost of operationalizing the project, as most of the costs are incurred in business process and cultural change within agencies.

The Value of Water Data is Rising

Current trends have Oregonians expecting reduced snowpack, lower water tables in some areas, and increased competition for all water resources. The experience of the Colorado River basin is a trustworthy guide for Oregon: as water gets scarcer, data about water becomes more valuable and more useful.

Oregon's reputation as a forward-thinking community is bolstered by support for a focused approach to sharing water data.

Your Support in Action: Recommended Approaches for Current Conditions

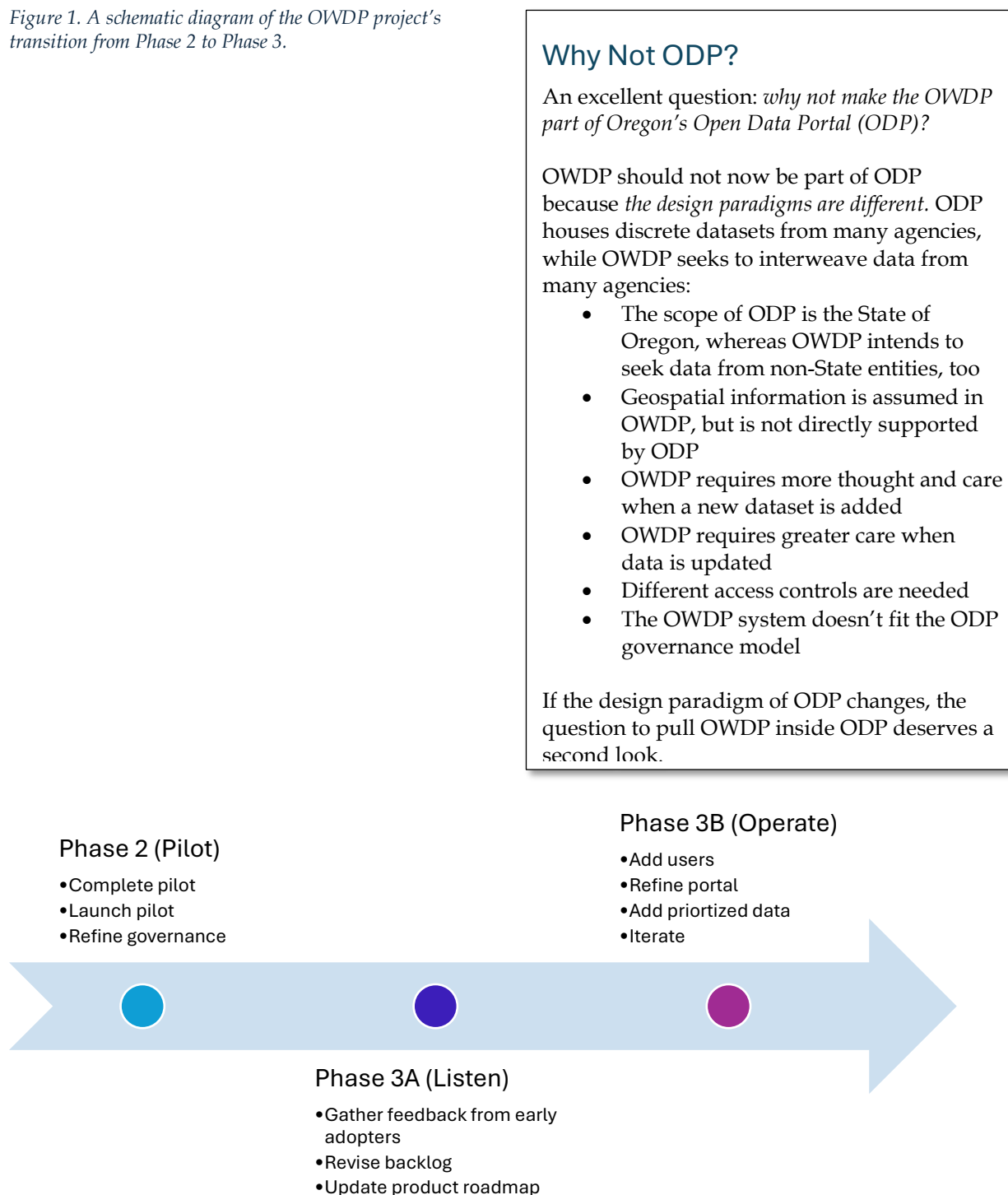
Phases 1 and 2 of the OWDP project have surfaced important issues that need to be addressed for Phase 3 to be successful.

Supporting the concept of Phase 3 is important. More important is supporting specific approaches and adjustments, the most important of which are outlined below.

Operational Vision: An Agile Approach

While the mission of Phase 3 – operationalization – was clarified early in the OWDP project, the structure and approach to operations was not. Figure 1 shows a schematic of the transition from Phase 2 to Phase 3.

Figure 1. A schematic diagram of the OWDP project's transition from Phase 2 to Phase 3.



What Needs Your Support

In Phase 3, OWDP needs to implement an agile approach to service delivery and to growing which data sets are included in the curated offering. At least three ongoing operations are needed:

1. Managing access to, maintenance of, and quality of already-curated data sets
2. Stakeholder engagement activities to identify additional data needed for sharing

3. A flexible project arm to engage with agencies (including those outside State government) who agree to publish and maintain their data

Organization: Home, Structure, and External Partnerships

Phase 1 and 2 of the OWDP project were performed under the organizational umbrella of DEQ. In accordance with DEQ's wishes and the best interests of the OWDP, Phase 3 should have a different organizational home and a different organizational structure.

OWDP has a unique mission and unique needs, which inherently cross the boundaries of State agencies. Multiple alternatives were considered as part of this recommendation, including the creation of a new agency, creation of a 501(c)3 or similar organization, and moving the effort to a different agency, such as the Department of Administrative Services or the Oregon Watershed Enhancement Board.

What Needs Your Support

To be successful at the significantly larger mission of Stage 3, the future OWDP should:

1. Be housed within an existing State agency, so that OWDP is not distracted by standing up its own infrastructure around personnel, finance, and related organizational functions
2. Operate within an agency who can make OWDP an significant part of its mission, ensuring this important effort gets focused managerial attention
3. Maintain and grow the outside-of-the-State partnerships that have served it well in Phases 1 & 2
4. Continue and expand its existing partnerships with the State University system, with local interested not-for-profit organizations as well as relevant corporate entities

Funding: Money for OWDP, Money for Collaboration

OWDP's unique mission—aggregating water-related data from across multiple agencies—means collaboration is essential. The structure of funding should support effective collaboration.

What Needs Your Support

To optimize focused, cross-agency collaboration, a unique approach to funding is needed:

1. Allocations to support OWDP operations: sharing, listening, and intake projects
2. Allocations for partner agencies—but granted by OWDP—to properly resource collaboration and focused business process change
3. The flexibility in funding to pursue quickly-changing stakeholder needs and/or ripe opportunities for collaboration

Policy: Attention to the Mission

At a minimum, water data collaboration needs willing parties. Targeted policies can help ensure that other agencies support the State's effort to aggregate and share water data.

What Needs Your Support

To invite and sustain collaboration, policies and agreements should be adjusted so that:

1. OWDP can infuse collaborators with additional funding for data sharing projects
2. Agencies across the State are motivated to support the OWDP and share their water-related data
3. Data sharing—with appropriate attention to policy and security—is an assumed part of future IT and data projects, statewide

Technical and Project Approach: Agile and Open-Ended

Phase 3 of the OWDP project will demand a data-sharing technology, a number of ongoing projects, and an expectation to deliver services for the foreseeable future. Because the future of technology and water are highly uncertain, agile approaches will help Phase 3 stay focused and efficient.

What Needs Your Support

Phase 3 of the OWDP project should maintain an agile approach to some major components of its work:

1. Design the data-sharing infrastructure with portability in mind, as the service will likely be offered for decades and underlying technologies will change
2. Maintain the current focus on data-users and their perception of valuable data
3. Remain mindful of the overarching State technology strategy, not just the strategy of the agency in which OWDP is housed

Governance: User Interests and State Interests

A core value in the design, creation, and maintenance of the OWDP is responsiveness to user needs. OWDP must also expect influence from appropriate State interests, in addition to State users.

What Needs Your Support

The governance structures in Phase 3 should balance OWDP vision, user needs, and State needs through:

1. Defining and implementing clear policies and procedures
2. Establishing mechanisms by which State and external users can offer feedback, raise new needs and participate in work prioritization
3. Participating in data/IT governance bodies and policies at both the home-agency and statewide level