

OREGON WATER DATA PORTAL

Phase 2 Project Management Review and Recommendations

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For: Oregon Department of Environmental Quality
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Executive Summary

To improve its effectiveness and project management performance, the Oregon Water Data Portal (OWDP) project should:

- Receive full funding in the FY 2025-2027 period
- Communicate more and more effectively about the benefits and objectives of OWDP
 - Deliver updates, via agency representatives, to the groups and committees the representatives regularly interact with
- Enhance visibility of project plans, timelines, and progress
- Source additional project management effort
- Pilot and refine a highly prioritized, agile approach for adding data sets to the Portal in future phases of the project
- Clarify the decision-making and governance processes related to the Steering Committee and the Project Team
 - Adopt a more transparent decision log

Deeper detail on each recommendation is available in the Recommendations section on page 6.

Context

In August 2024, Steaming Kettle Consulting LLC (in partnership with Olympic Performance Inc), was engaged by the Oregon Department of Environmental Quality to provide consulting and advisory services related to the Oregon Water Data Portal (OWDP) project. As described in our proposal submitted on July 15, 2024, consulting services to be provided included this review of project management processes used thus far, and recommendations for future project management.

Discovery

Our discovery activities included stakeholder interviews, attendance at selected project meetings, and documentation review as listed below.

Stakeholder Interviews and Project Meetings

Fifteen stakeholder interviews were conducted with the following individuals. All stakeholder interviews were conducted with the assurance of confidentiality, so that stakeholders could speak openly.

- Josh Weber, Project Manager, DEQ
 - September 12, October 22, October 28, November 21, December 4, 2024
- Carrie Hertel, Director Software Development, OSU Center for Applied Systems and Software (CASS)
 - October 7, October 15, and November 1, 2024
- Kathryn Helms, Chief Data Officer: October 8, 2024

- Jennifer Wigal, DEQ Water Administrator: October 9, 2024
- Dan Miller, Assistant Chief Information Officer: October 10, 2024
- Michele Martin, DEQ, OWDP team member: October 16, 2024
- Sarah Mattecheck, DEQ, OWDP team member: October 16, 2024
- Angel Gilette, Chief Information Officer – DEQ: October 18, 2024
- Harmony Burrignt, Chief of Staff, Joint Water Caucus: October 23, 2024
- Lillian Watson, Policy Associate, Internet of Water: November 14, 2024

In addition, Steaming Kettle attended the project Steering Committee meeting on October 15, 2024 and the OWDP Update Webinar on November 14, 2024.

Documentation Review

The following documents were consumed as part of the project management assessment:

- Notes from Second Annual Workshop, hosted by Internet of Water, 4/25/24
- Legislative presentation dated 2/14/24
- Final Funding Report and Recommendations – Phase 1, HB 5006, 6/30/23
- Legislative Report, 2/17/23
- Oregon 100-Year Water Vision, Summary Report, 2020
- Oregon Integrated Water Resources Strategy, 2017
- OWDP Status Report, January 2024
- Pilot Project Proposal, August 2024
- Steering committee notes

Performance Through November 2024 and Representative Quotes

Narrative and Quotes

1. **There is a need for better clarity around the decision-making and governance process between the Steering Committee and the Project Team.** While the Steering Committee meets regularly, and has good participation, it isn't clear what decisions should be brought to the Steering Committee for approval, and which should be made by the Project Team. When decisions do need to be made by the Steering Committee, the Project Team can do a better job of "framing" the decision – bringing options, recommendations and appropriate analysis for thoughtful discussion and decision by the Steering Committee. Additionally, project team members need regular, clear lines to communication with their agency's Steering Committee member. Representative quotes:
 - "There seems to be very good support and participation across the agencies"
 - "The Steering Committee isn't steering"
2. **The project is making good progress, despite operating with less funding than was requested for Phase 2.** Although there was a period of lost momentum in

the middle of the biennium, progress has improved with support from external contractors

- “I’m impressed with how much they are getting done with limited funding”
- “The project seems to have lost some momentum over the past few months”
- “Can be doing a better job with project documentation”
- “Be cautious about how much input vendors have into the plans; they should have input, but they don’t necessarily have Oregon’s specific interests as their priority - Are our needs the same as other states they have worked with?”

3. **There is a continued need to better articulate objectives of the OWDP.**

Gathering water data from multiple sources into one “single source of truth” is not an objective by itself; this work is a “means to an end,” facilitating improved decision-making with respect to water management issues. Even at the operational level of the project, the detailed objectives aren’t clear to many stakeholders.

- “We need to figure out whether this can just be done via the Oregon Open Data Portal”

4. **There is mismatch between the style of project the stakeholders expect, and the style of project demanded by objectives and conditions.**

OWDP has correctly created a fast-prototype-style project to support stakeholder evaluation of a real solution, under the assumptions that lessons learned will result in a superior second-generation product. In contrast, stakeholders are expecting a one-and-done approach common to State procurement of enterprise solutions.

- “Moving too fast. We can’t figure out how to build the solution until requirements are defined.”

5. **The benefits of the OWDP need to be better articulated.** Much of the current project communication speaks in generalities about the benefits of having water data integrated in one place and in a format that allows for analysis across data sources. There would be benefit in providing specific examples of the improvements in analysis and decision-making that can be made when the OWDP is available.

- “It’s hard to cite specific examples of problems we are addressing; agencies don’t want to admit they are making decisions with imperfect data”

Phase 2 Budget Impacts

The recommended funding level for OPDP was approximately \$2.5 M. The actual funding level was roughly \$1.24 M. Table 1 summarizes the impact of the budget limitations on the project, showing supported and unsupported elements of the proposed project.

Item	Supported After Budget Adjustment?	Detail
1.	Yes	Establish an inter-agency project steering committee, consisting of executive or leadership level representatives from, but not limited to, DEQ, OWRD, OWEB, and DAS.
2.	Yes	Establish an interagency project technical workgroup team consisting of representatives including, but not limited to DEQ, OWRD, OWEB
3.	Yes	Establish an interagency subject matter expert (SME) team consisting of representatives that may include any and all state agencies with a nexus to water related data, as well as DAS and applicable contractors
4.	Yes	Build a pilot Oregon Water Data Portal with basic features
5.	Yes	Make limited state water decision-making data available on the pilot portal
6.	Yes	Continue to evaluate data and documentation of information and lessons learned that are key to the future of the Oregon water data portal, and the future of Oregon water decision making
7.	Yes	Train a lead technical position for long-term maintenance of OWDP
8.	Yes	Set up an interagency, long-term governance agreement and structure for the OWDP
9.	Yes	Conduct Oregon tribal and stakeholder engagement opportunities
10.	No	Data sets beyond those that are beyond those immediately available
11.	No	Support for assumed Quality Assurance/Quality Control contract services from DAS
12.	No	The comprehensive stakeholder/tribal/public engagement originally proposed
13.	No	Identify multi-agency data readiness

Table 1--Elements of the original OWDP Phase 2 proposal, showing curtailment due to budget restrictions.

Phase 2 Project Progress Update

Table 2 summarizes project progress at the time interviews concluded, November 2024.

Month	Pilot Milestones	Status/Notes (November 2024)
Aug-24	Approval, prep work	Sufficient
	Initiate OWDP UX task force;	Sufficient
Sep-24	IoW Framework instance	Sufficient

Month	Pilot Milestones	Status/Notes (November 2024)
	INR build initial portal site	Sufficient
	IoW work with SME's on seed data selection	Sufficient
Oct-24	IoW & INR work to integrate, populate seed data	Sufficient
	IoW & DEQ work on AWQMS access	Sufficient
Nov-24	IoW & DEQ work to integrate AQWMS into portal	Sufficient
	IoW work with WRD (& others?) to integrate available data	Sufficient
Dec-24	Pilot Portal finishing touches, QA	On Track
Jan-24	Pilot Portal ready for showcase	On Track
Jan-24 to Jun-25	Add more data sets and information	On Track
TBD	Lessons learned and recommendations for next phase	On Track

Table 2--Milestones and performance of OWDP Phase 2 through November 2024.

Recommendations

Additional Documentation & Accessibility

- **A more transparent issue and decision log is needed:** a way for everyone involved to see which decisions got made by whom
 - Help the project team document issues that need to be resolved
 - It will help the Steering Committee to remember the decisions in which they participated
 - It will increase transparency between the project team and the Steering Committee
- **A method for giving visibility into project plans, timelines, and progress is needed**
 - Current briefings and status deliverables are helpful, and stakeholders long both for greater accessibility and detail
 - Agency representatives could provide updates to standing boards, commissions, and committees
 - Consider a dashboard web site where interested parties can get the information they need whenever its needed
 - Progress reports should be delivered within the context of the larger project plan, rather than as a stand-alone snapshot in time

Personnel

- **Additional project management effort is needed**
 - Even with the lower-than-requested funding of Phase 2, the project needs more day-to-day management and communication

- Compounding the challenge, Josh Weber’s time should be freed from day-to-day project management and communication so he can champion the project and work strategically
- The project management roles and responsibilities – many currently fulfilled by Carrie Hertel---are appropriate for the project, and Carrie’s part-time performance is exemplary.
 - Simply: Carrie’s position should be fully funded for Phase 2, not a part-time gig

General Communication

- **Better articulation of benefits and objectives of the OWDP is needed**
 - For detail, see Item 3 on page 4 and Item 5 on page 4
- **Better articulation of pilot plan progress is needed**
 - Data being collected
 - Questions that can be answered which weren’t easily answered before
 - For detail, see Item 2 on page 3

Prioritization of Efforts

- **Reframe the project’s near-term goals as providing access to “the high value, easier to gather” water data**
 - In discussions with various stakeholders, there have been references to the goal, over time, of integrating “all” water data into the OWDP. Water data is currently held across a variety of locations (federal, state, county and city and more) and in a variety of formats (including on spreadsheets or hand-written reports)
 - Leading communication with the goal of “all” water data makes the OWDP seem unattainable to some stakeholders
 - In addition, some water data is of higher value than other such data. The project team has started work to identify, through stakeholder information-gathering, which data has the most value to various stakeholders in supporting improved quality of decision-making
- **The project team should engage in a prioritization effort that will ensure clarity and focus are brought to the key data sets**
 - The project team should leave lower value data sets and/or more difficult data sets for future stages of the project
 - This work should be performed with oversight from the Steering Committee
 - A simple framework such as the one included in Appendix A on page 10 might be used to aid in such prioritization efforts
 - **Quadrant A: Low Effort, High Value**
 - This data should be at the top of the priority list for integration into the OWDP
 - **Quadrant B: High Effort, High Value**

- After integrating the Quadrant A data, OWDP should go after high value data
 - Sometimes, a match with available budget or effort might make Quadrant C data a better choice
- **Quadrant C: Low Effort, Low value**
 - These data sets are apropos when Quadrant A data sets are integrated and scarce resources do not allow for larger projects
- **Quadrant D: High Effort, Low Value**
 - Consider whether this data needs to be integrated at all, and if so, plan to tackle this data last
- **The project team should use an agile framework to integrate new data sets**
 - Data sets of different size, complexity and maturity will present themselves
 - Competing stakeholder interests will need to be addressed
 - Such challenges are best addressed with agile-style project approaches

Clarity of Governance and Decision-Making

- **A governance framework should be developed**, which specifies more clearly:
 - Who the sponsor of the OWDP is
 - Both as a project and as an operational entity
 - The governance and oversight role of the Steering Committee
 - The decision-making authority of the Project Team
 - The Governance Framework should include:
 - Meeting cadence and standard agenda, which can be modified as necessary
 - Definition as to
 - What types of decisions need to be brought to the Steering Committee?
 - Which decisions can be made at the project team level?
 - Guidance for the Project Team about how to present information to the Steering Committee to enhance decision-making
 - Flexibility to improve governance structures as the OWDP matures
- Context
 - There is good participation on the Steering Committee, with representation from seven agencies.
 - However, it isn't clear what decisions should be brought to the Steering Committee for approval, and which should be made by the Project Team.
 - When decisions do need to be made by the Steering Committee, the Project Team can do a better job of framing the decision – bringing options, recommendations and appropriate analysis for thoughtful discussion and decision by the Steering Committee.
- Possible roles and responsibilities within OWDP

- In general, we would anticipate that the Governance Framework would contemplate the following guidelines:
 - The Steering Committee is responsible for:
 - Representing the interests of relevant stakeholders
 - Approval of the overall Project Budget – in accordance with guidance as set by the Legislature.
 - Approval of the Product Roadmap
 - The Project Team is responsible for:
 - Managing the daily activities and execution of the project, in accordance with the approved Product Roadmap
 - Managing all project expenditures once budgets are set
 - Vendor and personnel selection and oversight

Appendix A

The Eisenhower matrix Table 3 — or a similar alternative — could be used to prioritize identified data sets for support by OWDP.

Higher Value	Quadrant A: Lower Effort, Higher Value (<i>Low Hanging Fruit</i>)	Quadrant B: Higher Effort, Higher Value (<i>Real Projects</i>)
Lower Value	Quadrant C: Lower Effort, Lower Value (<i>Fill-in Projects</i>)	Quadrant D: Higher Effort, Lower Value (<i><u>Don't Do</u></i>)
	Lower Effort	Higher Effort

Table 3--An Eisenhower matrix for prioritizing available data sets for OWDP conversion.