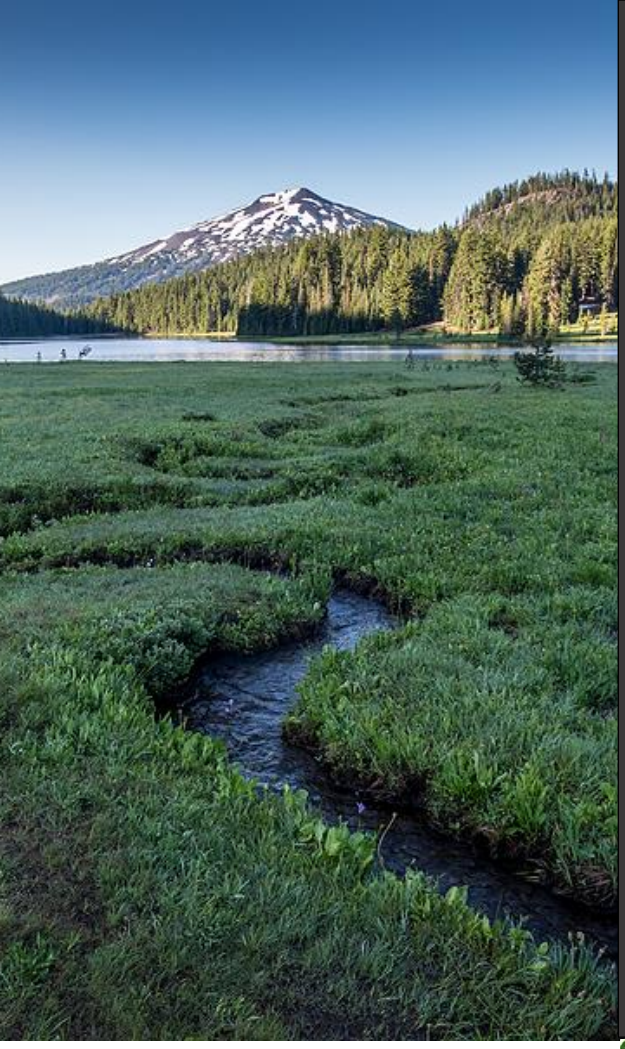

Water Reuse

House Bill 2010 (2023) – Section 22

Progress Report

December 2023

State of Oregon
DEQ Department of Environmental Quality

This document was prepared by
Oregon Department of Environmental Quality
Water Quality Division
700 NE Multnomah Street, Suite 600
Portland Oregon, 97232

Contact: Pat Heins
Phone: 503-299-5749
www.oregon.gov/deq

State of Oregon
DEQ Department of Environmental Quality

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800-452-4011 | TTY: 711 | deqinfo@deq.oregon.gov

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Executive Summary

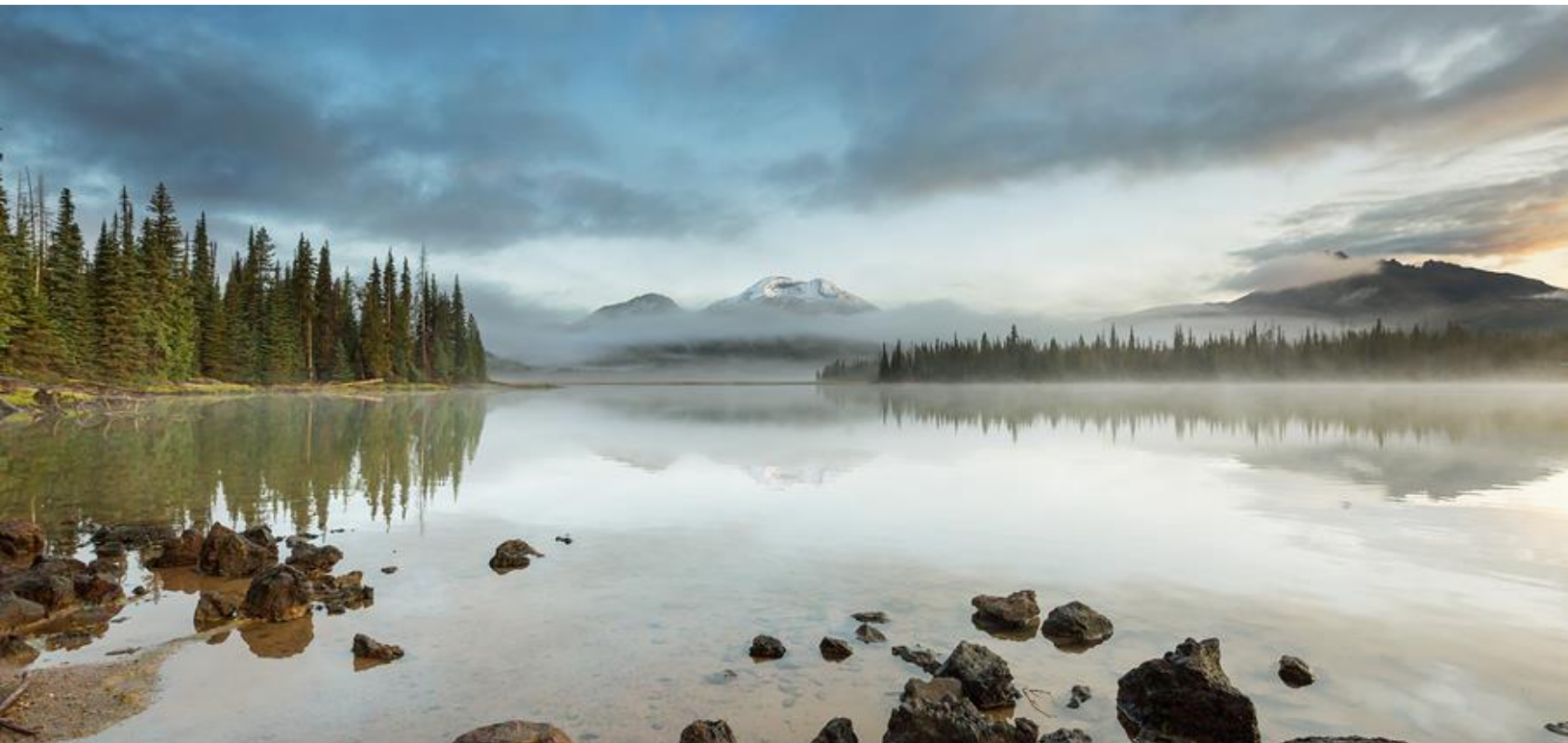
Pursuant to the directives outlined in House Bill 2010 (section 22) from the 82nd Oregon legislative assembly, the Oregon Department of Environmental Quality (DEQ) is presenting this progress report on the water reuse (recycling) initiatives established under this bill to the interim committees of the legislative assembly. The details presented reflect actions and activities as of December 1, 2023.

State of Oregon Department of Environmental Quality

To implement the objectives identified in HB 2010 (section 22), the 2023 Legislature authorized a full-time limited-duration position at DEQ, beginning after October 1st, 2023, to assess existing Oregon water reuse program policies, regulations, and laws. The objective of this work in fulfillment of HB 2010 is to identify potential adjustments to state regulatory policies and resources necessary to foster expanded utilization of recycled water in Oregon while maintaining a commitment to safeguarding public health and the environment. Approval for recruitment of this position is currently pending classification review approval by the Department of Administrative Services (DAS), and DEQ anticipates hiring the position in January 2024.

Despite the slight delay in recruitment for the associated limited duration resources, existing DEQ staff have prioritized efforts to initiate the required work elements specified in HB 2010. DEQ Water Quality staff have engaged in meetings with various program areas within DEQ and initiated workgroups to ensure that agency expertise is effectively leveraged. To date, DEQ staff from water quality permitting, water quality standards, regional solutions, land application specialists, and basin coordinators have convened to ensure that the appropriate personnel are actively involved in discussions and are providing their expertise and guidance for the development of this initiative.

DEQ staff have engaged in discussions regarding the components of the existing recycled water program with representatives from the Oregon Association of Clean Water Agencies (ACWA), the Oregon Chapter of the WateReuse Association, and various municipalities in Oregon. The objective of these conversations is to gain a better understanding of where and why recycled water programs have been eliminated from consideration by municipal wastewater utilities or industries, where their development was thwarted, and where facilities encountered obstacles or unnecessarily onerous or costly impediments in developing water reuse in Oregon. The insights gathered from these meetings are currently being incorporated into a document designed to guide



Executive summary (cont.)

the formulation of potential actions, proposed changes, or technical resources. These efforts aim to bolster municipalities' capabilities in implementing recycled water programs.

HB 2010 also requires DEQ to research other states' recycled water regulations and evaluate their applicability as alternative approaches that, if adopted in Oregon, could resolve some of the impediments to development of recycled water projects. DEQ staff have met with state regulators from California, Florida, Colorado, Arizona, Washington, and Idaho to learn about their programs. Discussions to date have focused on these states' water reuse/recycling regulatory frameworks, and on identifying both similarities and differences. The emphasis has been on aspects of each program that could be adapted to address identified barriers in Oregon. DEQ staff are proactively seeking out other states with effective recycled water programs to review and assess potential elements for integration into Oregon's program. As part of this initiative, DEQ staff are also examining information from water reuse programs in other countries, including Israel, England, Qatar, and Singapore. The findings from these meetings and additional research will be considered in the development of recommendations that will be included in the final report to the legislative assembly.

DEQ staff have either met with or scheduled meetings with representatives from other state agencies to ensure that any recommended changes align with the priorities and responsibilities of these agencies. DEQ is currently engaging Oregon Water Resources Department, Oregon Health Authority, Oregon Department of Fish and Wildlife, and Oregon Department of Agriculture. The Department of Justice will review the final recommendations to ensure consistency across state regulations.

DEQ will provide the final report to the committees by September 15, 2024, in compliance with the requirements of HB 2010.

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Introduction

In accordance with the directives outlined in House Bill 2010 (section 22) by the 82nd Oregon Legislative Assembly, the Oregon Department of Environmental Quality (DEQ), in collaboration with the Oregon Water Resources Department (OWRD) and various stakeholders, has started to formulate recommendations and identify additional resources aimed at promoting the expansion of beneficial water reuse within the state.

HB 2010 section 22 subpart 2 explicitly directs DEQ to undertake the following five elements of work:

a) "Characterize recycled water and beneficial land application project types that are priorities to support water quality, water supply or use, and habitat or ecosystem needs in this state;
b) Identify regulatory and other impediments to expanding water reuse;
c) Identify environmentally protective approaches successfully employed by other states;
d) Identify potential regulatory changes, including but not limited to changes to internal guidance, administrative rules or statutes needed to remove impediments, and propose an implementation schedule for enacting the proposed changes; and
e) Develop technical assistance, guidance, or other resources for local jurisdictions and industries…"

The legislation instructs DEQ to provide a progress report by December 31, 2023. This document satisfies the stipulated requirement for a progress report.

Status

The 2023 Legislature authorized limited duration staffing resources at DEQ and WRD to support reuse related directives and objectives identified in HB 2010. Although the resources were established beginning October 2023, a backlog of hiring and classification reviews at state agencies have delayed recruitment efforts; as a result, the DEQ limited duration position will be filled in early 2024. OWRD will evaluate the hiring of their limited duration resource once the DEQ position has been filled and scope of work activities are further developed for the two agencies. Despite this hiring delay, progress is being made by existing DEQ program staff on the five specific action items defined in HB 2010, as briefly summarized below.

1) DEQ has worked closely with stakeholders, such as the Oregon Association of Clean Water Agencies (OR ACWA), the Pacific Northwest Chapter of the WateReuse Association, and specific municipalities to gather information on reuse projects and regulatory impediments.
2) DEQ has initiated an internal review of the Oregon Administrative Rules (OAR) and associated Internal Management Directives (IMD) governing the state's recycled water programs. DEQ has also initiated coordination with other state agencies that have related responsibilities and authorities.

3) DEQ has established contacts and relationships with counterparts in other states and has begun to compile other states' regulatory information for evaluation and potential integration into Oregon's regulations.
4) DEQ has identified some potential areas in the OARs and the DEQ IMD that are potentially unnecessary regulatory impediments, create confusion, or are too vague for consistent interpretation. Work on this will be ongoing and will involve stakeholder input and review by other state agencies in the coming months. Completion of the required actions above will further inform this work as well as identification of potential recommendations for changes.
5) Preliminary brainstorming has occurred with ACWA to identify types of technical assistance guidance and other resources that would be beneficial to municipalities to support project planning, permitting and development, as well as public outreach and educational information on recycled water in Oregon.
6) DEQ is coordinating with OWRD and other sister agencies on this activity to ensure they are aware of this effort and provide input on any proposed action.

History

The practice of using recycled water has been going on since the formation of the earth. Here in Oregon the regulations for recycled water were first established in 1990 when the state recognized a need to ensure the activity is protective of public health and the environment.

In 2003, under Senate Bill 820, DEQ was mandated to collaborate with stakeholders to compile a report on the opportunities and obstacles linked to wastewater reuse in urban areas. This collaborative effort resulted in a senate report in December 2004, ultimately leading to a Governor's Executive Order in 2005, which directed the State of Oregon to:

- promote policies and programs to encourage and support water reuse,
- to work together to overcome institutional and regulatory barriers and funding constraints,
- to ensure protection of public health and the environment,
- to encourage public acceptance of water reuse, and help this state meet its overall water needs.

Furthermore, the directive necessitates state agencies to synchronize outreach efforts aimed at promoting water reuse. They are also mandated to convene annually to verify that agency procedures and activities align with the provisions outlined in this executive order.

In 2008 the Environmental Quality Commission (EQC) adopted the current recycled water regulations (OAR 340-055).

In 2011 the EQC adopted the current graywater regulations (OAR 340-053).

Due to budget cuts since the executive order, the outreach activities and annual meetings have not occurred for many years and interagency coordination has become more difficult with staff changes and position vacancies. Much of the work to resolve impediments, create incentives,

and promote reuse as a sustainable resource for Oregon has languished. Municipal wastewater utilities and their representative associations have continued to express their perspectives that the state's rules, guidance, and permitting practices continue to be implemented in an overly costly and onerous regulatory framework for establishing environmentally desirable, cost-effective projects for communities. Section 22 of HB 2010 (formerly HB 3231) arose from the stakeholders' conclusions that DEQ was insufficiently staffed to lead an effort to evaluate and update the state's recycled water program framework.

Significance of Water Reuse

DEQ and various state agencies acknowledge the imperative for implementing sustainable strategies in the management of water resources to guarantee a sufficient water supply, maintain water quality, and safeguard the environment into the future. Employing strategic approaches such as recycling and beneficial land application of treated wastewater is crucial in addressing the community, economic, and environmental demands for water supply and quality. Oregon's public wastewater utilities have expressed their dedication to securing the state's sustainable water future by fostering this valuable resource. Reclaimed water assets are becoming increasingly important to the state for the following reasons:

1) **Drought resilience and Climate Trends**: Recycled water can enhance water supply reliability by providing a secondary source of water for various purposes, such as crop irrigation and environmental enhancements, during droughts when other freshwater supplies are limited. It can also reduce the strain on freshwater resources, conserving potable water for essential uses and helping to address water scarcity issues.
2) **Environmentally sustainable water management:** Reusing water can reduce energy consumption, chemical demands, and costs for removing nutrients and thermal load from wastewater. By recognizing treated effluent as a resource rather than a waste, facilities can use recycled water for beneficial purposes such as agricultural irrigation. The nutrients in the water are beneficial for crop growth. This in turn can decrease demand for chemical fertilizers. Reusing treated wastewater can preserve instream flows, reduce degradation of aquatic ecosystems, and avoid increased energy dependence and carbon emissions.
3) **Ecosystem enhancement**: Critical habitats at risk due to drought and diminishing fresh water supplies can be preserved through reuse of treated effluent. Wetlands, vernal pools, riparian zones, and oak savannas once common in Oregon have been restored in several communities. Exchanges supported by recycled water have allowed for converting out-of-stream water rights into instream water rights providing critical instream water.
4) **Compliance with permits and Administrative Rules:** Reuse provides an additional compliance strategy for programs to achieve important water quality limits, such as temperature.
5) **Industrial applications**: Many industries can use recycled water for cooling, processing, and other non-potable applications, reducing their reliance on freshwater and lowering operational costs.

6) **Cost-effective**: With increasing restrictions on surface water discharges, many municipalities are struggling with meeting temperature limits and other regulatory requirements. Providing recycled water for irrigation and other uses can be more cost-effective than cooling their effluent, making it a sustainable and economical choice.
7) **Job creation**: Developing and maintaining recycled water infrastructure can create employment opportunities in water treatment, distribution, and related fields. Additionally, developed natural treatment systems such as the City of Prineville's Crooked River Wetland Complex and the Clean Water Services Forest Grove facilities attract tourism to the communities because they become a destination for birders and other outdoor enthusiasts.

As such, the Environmental Quality Commission established the following recycled water policy.

"It is the policy of the Environmental Quality Commission to encourage the use of recycled water for domestic, agricultural, industrial, recreational, and other beneficial purposes in a manner which protects public health and the environment of the state. The use of recycled water for beneficial purposes will improve water quality by reducing discharge of treated effluent to surface waters, reduce the demand on drinking water sources for uses not requiring potable water, and may conserve stream flows by reducing withdrawal for out-of-stream use." OAR 340-055-0007

Priority land application projects

The first required action identified under section 22 of HB 2010 is to characterize priority beneficial reuse and other land application project types that support water supply, water quality, and ecosystem needs in the state. DEQ, along with other stakeholders, has started to identify potential projects, which could provide significant multi-objective benefits for communities and the environment, but face significant regulatory challenges. The projects identified so far include:

1) Recycled water augmentation of irrigation canals to support agricultural uses and offset surface and groundwater extraction during critical time periods.
2) Identify a new class of recycled water with additional treatment standards that would ensure sufficient treatment such that no additional use restrictions or requirements beyond end of pipe standards for domestic or industrial nonpotable use would be needed. Such a designation could result in offsetting diversion or pumping of surface or groundwater.
3) Recycled water provided for constructed wetlands or other environmental restoration/enhancement projects.
4) Create a streamlined procedure that facilitates the development of pilot projects capable of outlining the necessary criteria and study essentials for establishing future permitting and recycled water plan requirements. This approach aims to prevent redundant efforts and duplication of work.

5) Identify standards and clear guidance information for industrial water reuse so businesses can make educated decisions on the potential benefits of reusing their treated effluent for land applications and offset surface and groundwater extraction.

Characterization of these projects, their purposes, functions, benefits, and the water-related challenges they could address will help state agencies and the public understand the importance of promoting and facilitating these efforts. By examining instances of both successful projects and those considered but not pursued or encountered prohibitive requirements, DEQ can identify areas where state regulations and processes unnecessarily impede the development of reuse projects. This evaluation will help identify potential revisions to rules and policies that may benefit the advancement of water reuse. Work on this element of HB 2010 is currently underway in partnership with Oregon ACWA, NW WateReuse, and individual facilities to collect and describe case examples among wastewater utilities.

Regulatory and other impediments to recycled water

DEQ, in consultation with other state agencies and stakeholders, has reviewed the priority projects identified to date and created preliminary findings of regulatory and other impediments to the expansion of water reuse. A preliminary and partial set of these findings are summarized below.

Agency Staffing

The administration of Oregon DEQ's recycled water program is currently conducted on a part-time basis by four individuals (one in each of the three regions and one in headquarters) within DEQ's water quality permitting program. Combined, this setup provides the equivalent of less than one fulltime employee (FTE) working in this area. Staff responsible for recycled water-related activities also interface with Oregon Water Resources Department (OWRD), Oregon Department of Fish and Wildlife (ODFW), and the Oregon Health Authority (OHA). The individuals in OWRD, ODFW, and OHA who work on recycled water are also tasked with several other responsibilities. The combined effort of all four state agencies working on recycled water accounts for approximately one FTE for the entire state. This level of staffing across all involved agencies does not provide sufficient resources to enable ongoing coordination and programmatic development. Rather, state agency staff are primarily relegated to reactive reviews of individual projects on a case-by-case basis.

Complicating this, Oregon has a significant backlog of administratively extended water quality permits. Wastewater facilities are not allowed to make modifications to their recycled water program when their permit is administratively extended. This includes water pollution control facility (WPCF) permits as well as the National Pollutant Discharge Elimination System (NPDES) permits. DEQ is currently focusing resources on the NPDES permit backlog, but the WPCF permit program continues to be understaffed with significant backlog. This situation hinders new reuse project development and expansion of existing programs.

Current regulations and policy

Regulations that govern DEQ's implementation of recycled water program are found in Oregon Administrative Rules (OAR) 340-055. DEQ staff experience and discussions with municipal wastewater utilities and other stakeholders have revealed some of the aspects of these regulations create significant challenges to reuse projects. Some elements of the current regulations either do not allow or lack clear pathways for utilities to develop or expand water reuse projects. Work is underway to evaluate these regulations, particularly with respect to the priority project types described above. Efforts at this time focus on pathways for successful project development, and how regulations would need to be modified to create clear and predictable permitting processes. Some of the problematic regulatory issues are identified below.

- Recycled water provided to irrigation canals require an NPDES permit that typically include restrictive discharge limits for parameters such as temperature and nutrients with very limited exceptions. These requirements often deter projects where recycled water could be used to augment flows in irrigation canals.
- The current regulations do not provide a framework for approval of projects that use recycled water for wetland restoration, or aquatic habitat development, which are priority project types identified above.
- If there is a potential direct nexus with an adjacent surface water body then the permitting structure can be complicated for recycled water projects.
- The current regulations do not articulate a pathway to conduct pilot studies to identify appropriate new uses or sources of reuse water. A clear path that enables facilities to develop a project with sufficient analysis and demonstrated performance under state agency oversight would enable development of the science-based data to expand approvable projects.
- There are no regulations specifically for administering industrial water reuse.
- There is no clear distinction of when recycled water or reused water becomes just water and no longer subject to additional regulation. This creates an uncertain path for projects with potential to have recycled water interface with groundwater or adjacent surface water.
- Different terms are used in different agencies for the same thing (recycled water, water reuse, reclaimed water, etc.) which can lead to inconsistent interpretations and actions by various state agencies.
- The current internal management directive was written in 2009 to prevent poor waste discharge practices rather than to provide a framework that both addresses necessary water quality protections while enabling beneficial reuse. In part due to limited resources this internal management directive has been implemented differently over time across projects, the state, and different staff.

Understanding of Oregon's recycled water program

The level of awareness and understanding of Oregon's recycled water program and its associated regulations varies greatly among facilities. It is difficult for local utilities to evaluate the feasibility and costs of recycled water strategies as part of their permit renewal processes

and facility planning process when the regulations do not create a clear path. Many do not know the role or authorities of the various state agencies involved, and there is the potential for inconsistent interpretations within each state agency. These challenges create significant uncertainty which deters efforts in developing recycled water strategies. Additionally, facilities often face challenges in understanding how and where to access funding opportunities and lack essential resources required for applying for and managing these funds.

The water quality program needs to enhance training for permit writers in both NPDES and WPCF to include recycled water and including points of contact as issues arise. While the NPDES permitting program has made notable improvements through designated subject matter experts, a similar system needs to be established within the WPCF program to ensure consistent administration of the recycled water program across the state. Additionally, it is crucial for DEQ to clearly delineate the distinctions between disposal and beneficial use.

Costs

The costs associated with developing, implementing and maintaining recycled water systems can be a barrier, especially for smaller communities that don't have the resources to pursue federal or state grant programs. Recycled water production requires monitoring, system redundancy and ongoing maintenance as well as a separate infrastructure to distribute the water after treatment which requires significant investment for reuse programs. In some cases, these investments can present a long-term cost savings when a facility reuses the water for a beneficial purpose instead of trying to meet current or future instream water quality standards, however reusing wastewater requires significant financial investment.

Recycled water programs in other states

HB 2010 section 22 (2)(c) requires an evaluation of regulatory approaches employed by other states that have successful recycled water programs. The intent of this effort is to identify approaches that create fewer regulatory impediments and streamline recycled water project approvals while ensuring the protection of public health and the environment. These programs can shed light on changes that could be made in Oregon's program without "reinventing the wheel." DEQ staff have conferred with representatives from other states to identify successfully employed water reuse programs. So far DEQ staff have discussed water reuse rules, regulations, programs, and guidance documents with individuals who administer their respective water reuse programs from the following states: Washington, Idaho, California, Arizona, Florida, Colorado, and New Mexico. DEQ's conversations with these programs continues at different intervals as new information is found and changes occur in these state programs. DEQ intends to expand these conversations to include other states as programs are identified and contacts are made.

DEQ is also reviewing information that is readily available from other countries such as Israel, England, Qatar, and Singapore.

Potential regulatory changes

HB 2010 section 22 (2)(d) directs DEQ to identify potential regulatory changes, including but not limited to changes to internal procedures, administrative rules or statutes needed to remove impediments, and propose an implementation schedule for enacting the proposed changes. This work is ongoing. To date, DEQ has identified the following examples of potential regulatory or policy changes that could enhance the reuse water program in Oregon. The final report that will be submitted in September 2024 will include the proposed actions, schedule and resources needed for implementation. Particular care must be taken to ensure the ultimate changes made to any policy, regulation or rule are protective of public health and the environment while still facilitating beneficial uses and avoiding creation of loopholes that allow unintended consequences.

Recycled water augmentation of irrigation canals

Municipalities are increasingly interested in working with irrigation districts to supply recycled water to irrigation canals to augment flows or to offset diversion or pumping of other surface or groundwater sources. This practice enables farmers to have reliable and predictable flows during critical irrigation months, which enables them to plan annual crops with reduced risks related to water availability. For wastewater utilities, the irrigation season often matches the timeframes when their discharge is limited to a receiving stream's biological criteria for temperature and need to find ways to reduce their effluent's temperature which can include constructed mechanical cooling facilities. Irrigation water can have a significantly higher temperature than would be necessary to protect fish (e.g. 13-18^{o} C for salmonid spawning and rearing vs. 20℃ for general crops). Irrigation using recycled water can be a good match for the level of treatment required where the crops can use the residual nutrients in the water that would otherwise need to be removed prior to discharge to a stream.

When treated to levels that are suitable for the crops irrigated along the system, this recycled water strategy can create win-win water solutions for farmers, wastewater utilities/ratepayers, surface and or ground water sources that are offset, and for minimizing temperature and nutrient inputs to receiving streams. Facilitating canal flows is in alignment with state and federal goals aiming to permit reuse projects without additional infrastructure, particularly DEQ's Built Environment goals and EPA's water reuse goals. Allowing projects to utilize existing infrastructure is a key piece of EPA's action plan for reuse, and canals can meet this objective.

The challenge

Recycled water currently cannot be discharged to irrigation canals without a National Pollutant Discharge Elimination System (NPDES) permit (or in very few cases a Water Pollution Control Facility (WPCF) Permit) with restrictive discharge limits. These limits stem from Oregon's current water quality criteria for irrigation canals. Many of these standards presume the canal is fish bearing and/or flows to a fish bearing stream. Many of the irrigation districts interested in recycled water pump fresh water into the canal (excluding fish). In some locations, there are fish screens in the diversion structures to keep fish out. For these locations, temperature and nutrient restrictions may not be necessary or could potentially be less restrictive.

Under the federal Clean Water Act, any revision to water quality standards must be supported by a Use Attainability Analysis (UAA) to demonstrate that the designated beneficial uses protected by the stringent water quality standards do not exist and are not attainable in the canal in question. This study is a significant undertaking and can be developed by DEQ or by the entity vested in the specific revision, such as the wastewater utility. If the UAA demonstrates that the beneficial uses are not present and are not attainable DEQ must undertake a rule making process to change the beneficial use designations and modify the applicable water quality standards, which then must be reviewed and approved by EPA prior to the revision becoming effective.

Potential direct nexus with surface water

The Supreme Court ruling on The County of Maui, Hawaii vs. Hawaii Wildlife Fund commonly referred to as the “Maui decision” has increased the level of uncertainty surrounding the permit structure for facilities in Oregon and raises questions in some cases regarding how water reuse projects would be permitted, and what requirements would be included. The Maui decision identifies seven factors in determining if there is a functional equivalent discharge to waters of the state. These include transit time, distance traveled, the medium through which the pollutant travels, the extent to which the pollutant is diluted or chemically changed as it travels, the pollutant concentration in the receiving water relative to the concentrations leaving the site, how the pollutant enters the receiving water, and the degree that the pollutant has maintained its specific identity. DEQ is developing an internal management directive to address this new ruling, including these factors, but this work is ongoing and has not been finalized.

Since the Maui decision there has been uncertainty surrounding the permit structure needed for recycled water projects that provide water to facilities adjacent to waters of the state. For example, several municipalities would like to provide recycled water for habitat restoration work and development of artificial wetlands. These projects could previously operate under a state issued WPCF permit with limits based on land application standards. Now they may need a NPDES permit with more stringent temperature and nutrient criteria. While these types of projects provide a long list of benefits such as wildlife habitat enhancement, bird watching and other recreational benefits they may no longer be cost effective because of the extra treatment needed to meet the new limits.

Pilot study guidelines/approvals

Current state regulations provide limited opportunity for authorizing pilot studies or pathways to test other innovative approaches to advance our understanding of potential benefits or issues associated with new uses of recycled water.

DEQ should establish a procedure enabling staff to evaluate potential water reuse projects from a broader perspective, extending beyond isolated water quality considerations, to assess their broader ecological effect. This approach would facilitate the advancement of projects with comprehensive environmental benefits, preventing their premature termination during the planning stages.

Industrial water reuse

The existing state regulations narrowly define "recycled water" as sourced solely from domestic origins or a combination of domestic and industrial sources. Consequently, there are no specific regulations addressing industrial water reuse, despite the potential for significant water resources that could address some of our current water demands. Numerous industries with water reuse initiatives generate substantial amounts of water, surpassing the output of most domestic facilities. Although DEQ doesn't regulate water reuse within industrial structures, permits are required for any usage or discharge outside their buildings, especially if there's a real or potential release to the environment.

Presently, DEQ includes monitoring and reporting requirements in the individual water quality permits for industries. However, these restrictions lack robust legal support, leading to inconsistencies across the state. This legal gap poses challenges for industries seeking to plan and implement water reuse practices at their facilities.

Policy, guidance, and process changes

Element four of HB 2010 requires DEQ to evaluate statutes and rules as well as its practices and approaches to implementation of those regulations. DEQ is currently evaluating various potential policy changes. As part of this work, DEQ identified a few errors that warrant attention and correction in the existing recycled water IMD. Additionally, there is a need for clearer explanations in several areas, including addressing risks associated with each water class, refining the definition of "beneficial use," providing explanations on appropriate sampling intervals and analytical methods. Furthermore, offering explicit information and procedures to evaluate agronomic rates and the calculation of irrigation schedules would contribute to increased clarity and greater consistency across different regions. To enhance decision-making processes, it is crucial to provide clearer guidance that will remove personal bias and develop transparent, scientifically based risk approaches.

Potential regulatory amendments or new rules

In addition to potential regulatory changes that can improve the state’s framework for encouraging and facilitating more reuse projects, DEQ has detected multiple errors, typos, and outdated references in OAR 340 Division 55 that require rectification. Additionally, there is noticeable inconsistency in vocabulary used by other agencies in their rules. The use of different terms for the same concepts among various agencies can create confusion and contribute to uncertainty regarding rule allowances.

Programmatic needs

The recycled water programs at each of the state agencies is understaffed. The individuals currently working on water reuse also have a wide range of other responsibilities demanding their attention which frequently take priority over the recycled water program.

Proposed technical resources

HB 2010 section 22 (2)(e) directs DEQ to develop technical assistance guidance, or other resources for local jurisdictions and industries to seek permitting and development of recycled water and other beneficial land applications programs. DEQ staff have engaged in discussions with Oregon ACWA to identify the types of resources that would be helpful to the local wastewater utilities contemplating recycled water projects. One resource that can be useful to provide broad public access to information on the state's recycled water programs, state agency contacts and resources is the DEQ website. DEQ's current website is outdated and cumbersome, providing limited information that is hard to find. Although staff contacts are available on the website, their time constraints may result in delayed responses to questions or information requests. To navigate the recycled water program, many facilities resort to using DEQ's IMD, which, while effective in providing information, is geared towards DEQ staff and may not be easily digestible for entities seeking to assess their options.

To address these issues, the program should consider developing an improved webpage and a user-friendly guidance manual specifically tailored for municipalities. This manual would serve as a comprehensive resource, offering a better understanding of the options associated with the recycled water program and providing a clear template for the development of a recycled water use plan.

Resources and incentives

In conversations with stakeholders, DEQ has initiated the exploration of potential incentives to encourage water reuse at more facilities. These incentives encompass water quality trading, allocated infrastructure funding, financial support for continuous monitoring and system maintenance, and reduced permit fees for recycled water programs, among others. The specific details of the implementation and the decision-making process surrounding these incentives are still undergoing internal discussion.

Next Steps

- Fill DEQ's Limited Duration water reuse position
- Coordinate with WRD on their position and process
- Continue reviewing of other states' water reuse programs
- Work with stakeholders to review identified priority project characteristics, refine regulatory challenges, identify other state approaches that could be applied in Oregon, and potential ORS, OAR, and IMD changes that could be recommended
- Coordinate findings and recommendations review with other state agencies
- Develop recommendations and final report to legislature
- Develop technical guidance assistance and resources

Conclusion

The Oregon Department of Environmental Quality (DEQ) is pleased to present this progress report to the interim committees of the legislative assembly concerning water affairs. This report outlines the initiatives established under HB 2010 (section 22) and the steps taken by state agencies thus far to advance water reuse in the state.

With funding allocated through the measure, DEQ has initiated efforts to recruit for and fill a full-time limited-duration position to evaluate existing program policies, regulations, and laws addressing water reuse. While awaiting approval from the Department of Administrative Services (DAS) to fill this role, existing DEQ staff have engaged in workgroups and meetings to leverage agency expertise.

Collaborative efforts to date have included discussions with various stakeholders, including representatives from the Oregon ACWA, the WateReuse Association, and municipalities in Oregon. Insights gathered from these engagements are being synthesized into this document to guide potential actions, proposed changes, and develop technical resources to enhance municipalities' capabilities in establishing recycled water programs. It's noteworthy that this document is still in its early stages.

Moreover, DEQ has undertaken a preliminary review of water reuse programs in other states, including California, Florida, Colorado, Arizona, Washington, and Idaho, seeking adaptable elements to address barriers in Oregon. Proactive engagement with representatives from other states with successful recycled water programs is also underway.

To ensure alignment with state priorities, DEQ staff has engaged with representatives from other state agencies, including Oregon Water Resources Department, Oregon Health Authority, Oregon Department of Fish and Wildlife, and Oregon Department of Agriculture. Furthermore, the Department of Justice will review the final plan to evaluate the proposed actions relative to DEQ’s statutory authority.

In conclusion, DEQ is committed to a thorough, collaborative, and forward-thinking approach in developing and enhancing Oregon's water reuse program, with a steadfast dedication to safeguarding public health, the environment, and promoting sustainable water practices. The ongoing efforts reflect a comprehensive strategy aimed at overcoming challenges and fostering innovation in water reuse across the state.