WASHINGTON STATE DEPARTMENT OF HEALTH

Significant Legislative Rule Analysis

Chapter 246-275 WAC a Rule Concerning On-site Nonpotable Water Systems

July 2026

Washington State Department of HEALTH

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email doh.information@doh.wa.gov.

For more information or additional copies of this report:

Washington State Department of Health

Division of Environmental Public Health

Kseniya Efremova

PO Box 47820

Olympia, WA 98504-7820

360.236.3449

kseniya.efremova@doh.wa.gov

SECTION 1

A brief description of the proposed rule including the current situation/rule, followed by the history of the issue and why the proposed rule is needed.

In 2021, Engrossed Substitute House Bill 1184 (ESHB 1184)(chapter 156, Laws of 2021) was passed, requiring the Department of Health (department) to set standards and adopt rules for on-site nonpotable water systems (ONWS). ONWS are systems that collect, treat, and reuse non-drinking water from local sources. These systems are optional treatment systems. They are not required at any implementation scale, however, if implemented the systems must comply with the standards adopted in compliance with ESHB 1184 and rules imposed by the department.

The proposed rules establish risk-based and construction standards for the removal of pathogens, including enteric viruses, bacteria, and parasitic protozoa, from nonpotable source waters. Allowable source waters under this chapter include blackwater, greywater, stormwater, rooftop runoff, foundation drainage, and air conditioning (AC) condensate. Blackwater includes wastewater from toilets, urinals, kitchen sinks, and dishwashers. Greywater includes water from bathroom sinks, showers, bathtubs, clothes washers, and laundry sinks.

The nonpotable source waters can be collected and treated on-site or nearby so they can be put to beneficial use – where high-quality drinking water, also known as potable water, is not needed. Allowable end uses for the treated nonpotable water include toilet and urinal flushing, priming drain traps, clothes washing, irrigation, and dust suppression.

The proposed rules establish standards and requirements for design, operations, and maintenance of ONWS at the following implementation scales:

- Multifamily residential.
- Commercial.
- Mixed-use buildings.
- District-scale projects, which can include a mix of the aforementioned building types.

They do not include single-family residential scale because quantitative microbial risk assessments (QMRA) were not used to relate human health risk with exposure to microbial hazards in single-family residential dwellings.

The proposed rules also provide an implementation timeline for legacy ONWS that accounts for the longer than anticipated development of these rules. Legacy ONWS will be required to come into compliance with the proposed rules 18 months after the rules become effective, to align with the intent of ESHB 1184.

History

Centralized water and wastewater systems are one of the most significant public health advancements of our time. However, many of these centralized water and wastewater systems were built a century ago and for conditions vastly different than those cities currently

face. This leaves them inflexible when it comes to adapting to rapidly changing climatic conditions. They are simply insufficient to meet our 21st-century challenges.

Despite growing interest in incorporating ONWS to meet broader integrated water resource management goals, a lack of public health-based state or national standards, streamlined permitting processes, and regulatory guidance for ONWS has created barriers to implementation.

To address this, the U.S. Environmental Protection Agency (US EPA) conducted risk-based modeling to understand the human health risks associated with on-site nonpotable reuse. QMRA models were developed to characterize potential risks associated with ONWS and to define the levels of pathogen removal needed. These reduction targets, reported for each of the three major groups of pathogens (viruses, bacteria, and protozoans) across various combinations of water sources and end uses, have provided specific performance metrics for ONWS.

The National Blue Ribbon Commission for Onsite Non-Potable Water Systems (NBRC) is a nationwide group of utilities and state and local public health agencies that was tasked with advancing ONWS. The NRBC has produced several industry guidance documents that incorporate the results of US EPA research.

The majority of these proposed rules are based upon the framework provided by the NBRC guidance documents. Additionally, the water and wastewater technical expertise on this rulemaking has been provided by two Commissioners involved in the development of the NBRC models and guidance documents.

Why the proposed rule is needed

As water supplies become more strained, climate change persists, and populations grow, communities are looking for new ways to develop and manage local water supplies and increase the resiliency of water infrastructure. While the last several decades have witnessed significant investment in centralized municipal wastewater treatment plants to treat wastewater and generate reclaimed water, water rights, including instream flow rules, continue to be an insurmountable barrier to water reuse at the municipal scale. This is especially true in the Eastern portion of the state, where water reuse is needed the most.

As a result of these barriers to larger scale water reclamation, there is growing interest in the development of ONWS as an additional water reuse strategy to develop local, sustainable water supplies to address the impacts from climate change.

The adoption and implementation of the ONWS rule is another key development on a path the Washington State legislature began more than thirty years ago when it passed The Reclaimed Water Act of 1992. The legislature again affirmed its commitment to water reuse with the 2021 amendment to this law directing the department to adopt ONWS rules.

The decentralization of water treatment and water reuse are the cornerstones of climate resilient communities. Because ONWS are decentralized water treatment systems they can be used in all the places where:

- A reliable and renewable source of nonpotable water is needed in perpetuity.
- It is too costly to build a centralized distribution network.
- Existing wastewater collection and treatment infrastructure are at or near capacity.

Implemented strategically and at scale, ONWS could delay or eliminate expensive capital expenditures to increase the capacity at a centralized wastewater treatment plant. These are costs that are often passed on to water users, impacting low income and otherwise disadvantaged communities the hardest.

ONWS also helps diversify water supplies, an important need for many water systems across the state, especially in rural areas of Washington state. ONWS can improve stormwater management and enhance the resilience of urban water systems.

Population growth and a changing climate will increase pressures on our water and energy supplies. Buildings account for 40 percent of global greenhouse gas emissions today. By 2050, the built environment could be responsible for 80 percent of greenhouse gas emissions. By reducing the energy required to treat and transport wastewater, on-site water reuse can play a central role in mitigating climate change impacts and building local energy and water resiliency.

If the proposed ONWS rules are adopted and implemented, communities across Washington state can:

- Reduce the amount of wastewater treatment plant effluent, including nutrients, emptied into rivers and Puget Sound.
- Reduce potable water consumption by providing an alternative sustainable source of nonpotable water for nonpotable beneficial end uses.
- Bolster local water supplies by reducing the use of potable water for end uses that do not require drinking water quality water.
- Increase resilience to droughts by providing a backup source of water in times of water scarcity. If implemented in low-income affordable housing this could provide lower-cost nonpotable water in perpetuity.
- Help manage polluted stormwater runoff, combined sewer overflows, and flooding by capturing and treating rooftop runoff and stormwater and putting it to beneficial use on-site for things like toilets and urinals which do not need potable water.
- Reduce the energy intensive and costly need to pump drinking water and wastewater over miles and miles.

- Capture energy from wastewater for use on-site, further reducing energy costs.
- Protect water resources by:
    - Reducing the need to remove fresh water from natural habitats.
    - Reducing the nutrient load from centralized wastewater treatment plants discharging polluted effluent to waters of the state.

Using treated nonpotable water saves the highest quality water for drinking and reduces pressure on local drinking water supplies. According to the San Francisco Public Utilities Commission, "onsite water systems can reduce potable [drinking] water use up to 45% in residential buildings, and up to 75% in commercial buildings."[1]

Integrated across the water cycle and sector, this decentralized, fit for purpose, treated nonpotable water, together with nature-based solutions like low impact development, can create local, resilient, and sustainable water supplies to help Washington communities better manage shared water resources, as well as mitigate and prepare for emergencies and climate change impacts.

By creating a clear statewide regulatory pathway for these advanced water treatment systems the proposed rule is a central component of integrated water resource management and the sustainable use of shared water resources.

[1] San Francisco Public Utilities Commission (SFPUC), *Onsite Water Reuse System Projects Around the World*. 2021. Retrieved July 16, 2026 from https://www.sfpuc.gov/sites/default/files/construction-and-contracts/design-guidelines/3.%20Case%20Studies%20Around%20the%20World_2021.pdf

SECTION 2

Significant Analysis Requirement

As defined in RCW 34.05.328, portions of the rule require significant analysis because the rule adopts substantive provisions of law pursuant to delegated legislative authority, the violation of which subjects a violator of such rule to a penalty or sanction; establishes a standard for the issuance, suspension, or revocation of a permit; and adopts a new regulatory program.

The following SA Table 1. identifies rule sections or portions of rule sections that have been determined exempt from significant analysis based on the exemptions provided in RCW 34.05.328(5) (b) and (c).

SA Table 1. Summary of Sections not requiring Significant Analysis

WAC Section and Title	Description of Proposed Rule	Rationale for Exemption Determination
WAC 246-275-100, Purpose and scope.	• Describes the chapter's purpose. • Establishes the scope of the chapter.	This section of rule is exempt from analysis under RCW 34.05.328(5)(b)(iv) because it clarifies the purpose and scope of the chapter.
WAC 246-275-105, Applicability.	• Describes to whom the requirements of the chapter apply and for what activities.	This section of rule is exempt from analysis under RCW 34.05.328(5)(b)(iv) because it clarifies the applicability of the chapter.
WAC 246-275-110, Relationship to other applicable laws, rules, and regulations.	• Describes relationships with other applicable regulations.	This section of rule is exempt from analysis under RCW 34.05.328(5)(b)(iv) because it clarifies the relationship between the chapter and other applicable regulations.
WAC 246-275-115, Definitions.	• Definitions created where necessary.	This section of rule is exempt from analysis under RCW 34.05.328(5)(b)(iv) because terms defined in this section are intended to clarify the meaning of the terms used throughout the chapter and are not intended to set standards.
WAC 246-275-130, Allowed implementation scales.	• Lists the allowable implementation scales, as stated in RCW 90.46.290.	This section of rule is exempt from analysis under RCW 34.05.328(5)(b)(iv) because it

		clarifies the allowable implementation scales outlined in RCW 90.46.290.
WAC 246-275-200, New systems and major modifications to approved ONWS.	• Outlines the steps that must occur in the process of proposing an ONWS and points to the WAC sections that contain detailed requirements for each step.	This section of rule is exempt from analysis under RCW 34.05.328(5)(c)(i) because it is a procedural rule.
WAC 246-275-610, Appeals and adjudicative proceedings.	• Describes the process for requesting an adjudicative proceeding.	This section of rule is exempt from analysis under RCW 34.05.328(5)(b)(iii) and 34.05.328(5)(c)(i) because it incorporates by reference without material change Washington state statute that regulates the same subject matter and conduct. It is also a procedural rule.
WAC 246-275-990, Fees.	• Clarifies that a local health jurisdiction or local health officer may charge service fees and operating permit fees. • Sets the nonrefundable fees collected by the department.	This section of rule is exempt from analysis under RCW 34.05.328(5)(b)(vi) because it sets fees for this chapter.

SECTION 3

Goals and objectives of the statute that the rule implements.

The goal of chapter 90.46 RCW is the sustainable management of the state's water resources through water recycling and using it to replace potable (drinking) water for nonpotable uses. ESHB 1184 directed the department to adopt rules to protect and improve public health, protect and enhance the environment, and conserve potable water where nonpotable water can safely be used on-site or nearby. The proposed rules meet the intent of chapter 90.46 RCW by establishing comprehensive standards for a statewide ONWS program.

SECTION 4

Explanation of why the rule is needed to achieve the goals and objectives of the statute, including alternatives to rulemaking and consequences of not adopting the proposed rule.

The legislature's most recent amendments to RCW 90.46.290 specifically direct the department to adopt rules addressing risk-based water quality standards for the on-site treatment and use of nonpotable alternate water sources and construction standards to implement the adopted risk-based water quality standards. The statute does not provide an alternative to rulemaking.

The consequences of not adopting the proposed rules are the following:

- A lack of clear statewide standards may impede deployment of such systems, resulting in less effective and efficient management of our state's water resources.
- Systems that are not designed to minimum standards have a likely indeterminate level of public health protection.

SECTION 5

Analysis of the probable costs and benefits (both qualitative and quantitative) of the proposed rule being implemented, including the determination that the probable benefits are greater than the probable costs.

ONWS technology and the risk-based standards proposed in this chapter are based on a national model code that has only been implemented in a handful of places, mostly at the local level and with varying other requirements that may influence the cost of an ONWS project. Because the proposed rules establish standards for several implementation scales, nonpotable source waters, and end uses, there are a number of potential combinations of these factors that could make up a single project, resulting in a wide range of potential costs and cost savings.

A lack of data has prompted some of the jurisdictions that are implementing ONWS programs to begin looking at the cost of requiring ONWS at various implementation scales. In 2022, the San Francisco Public Utilities Commission (SFPUC) drafted a *District-Scale Water Reuse Memorandum* (memo)[2] evaluating the challenges and opportunities of requiring the construction, operation, and maintenance of district-scale non-potable water systems. This memo is based on recent ONWS data using comparable standards to those proposed in this chapter. The memo also includes multiple case studies and controls for different cost variables across the represented projects.

The SFPUC memo highlights the following components as representative of the "main cost elements"[3] of an onsite water reuse system:

- "**Initial Capital Cost** – The first costs, both soft and hard, related to the design and construction of the collection, treatment, and distribution components of the onsite reuse system.
- **Ongoing Operating Costs** – Significant over the life of the project, the annual operations & maintenance cost typically represent the majority of the life cycle cost for an onsite reuse system.
- **Ongoing Avoided Water and Sewer Fees** – An onsite reuse system will result in long term savings due to reduced potable water consumption and reduced wastewater discharge to the City sewer system.
- **Loss of Building Area** – Onsite reuse system[s] require space to house the treatment, storage, and pumping equipment, typically in a dedicated room within the ground floor or basement." [4]

[2] San Francisco Public Utilities Commission (SFPUC), *District-Scale Water Reuse Memorandum* (memo). 2022. Currently unavailable online.
[3] Ibid 2.
[4] Ibid 2

The department lacks the necessary resources to conduct an analysis comparable to that in the SFPUC memo. This has prompted the department to determine that the bulk of this cost analysis will be based on the cost estimates and assumptions in this memo. Most of the proposed rule sections (in SA section 5) described below have costs associated with either initial capital costs, ongoing operating costs, or both. For these rule sections, the department references the appropriate table that summarizes the relevant cost data from the SFPUC report, for both a building and district-scale project. Where possible, the department has also produced cost estimates based on experience and expertise reviewing Large On-Site Sewage projects, as well as knowledge of water and wastewater system operation.

Construction Costs

According to the SFPUC memo, "though projects have myriad differences in equipment and approach that can influence construction costs, it is reasonable to summarize the major capital cost components [as such]:

- **Graywater Collection Plumbing**

  Some reuse systems, particularly those within building-scale residential buildings, will include dual plumbing within the building to collect graywater supply (defined as wastewater from clothes washers, bathtubs, showers, and bathroom sinks) separate from the total combined wastewater (or blackwater defined as wastewater from toilets, dishwashers, kitchen sinks, and utility sinks).

- **Treatment/Storage/Pumping Equipment**

  All projects will include treatment, storage (often very large if rainwater is also being collected), and pumping equipment, either located within each building or centralized somewhere within the district.

- **Treated Nonpotable Water (TNW) Distribution Plumbing**

  All projects will include dual plumbing outside the building to distribute non-potable water to the end uses (e.g. toilets or irrigation).

- **TNW Distribution Pipes**

  Most district-scale projects will also need water piping outside of the buildings, within the parcel(s) and/or right-of-way, to distribute non-potable water from the district-scale treatment system to all buildings and end use." [5]

Operations and Maintenance (O&M) Costs

According to the SFPUC memo, "the ongoing operations and maintenance (O&M) costs include labor (operators, repair technicians, lab work), materials needed to repair and replace

[5] Ibid 2.

components, chemical inputs, solids disposal, and the cost of energy for pumping and treatment for both collection and distribution plumbing." [6]

Furthermore, "the labor involved in O&M, for regular monitoring and sampling, preparing reports, and routing maintenance, is a significant portion of the overall cost and typically larger than the initial capital cost as a component of the total life cycle cost." [7]

Ongoing Avoided Water and Sewer Fees

Even though an onsite reuse system adds initial and ongoing costs to a project, the reduction in potable water use will also result in ongoing savings through lower utility fees. The SFPUC memo found that "for building-scale projects, the savings will typically never surpass the costs over the life of a project, but as the amount of nonpotable water produced increases, the value of the associated savings outpace the increase in costs." [8]

Loss of Building Area

The SFPUC memo notes the challenges in quantifying the loss of building area as a component of the life cycle cost analysis but also notes the potential significance of these costs in the context of real estate values in San Francisco. This significance can likely be assumed for other high cost of living areas, like Seattle, but could have less of an impact in more rural areas or where real estate costs are not as high.

The memo provides some context of the scale and impact to building area loss costs, using the following example:

> "For a district-scale project serving 12 mid-rise buildings, the treatment and pumping equipment would require a space around 2,500 or 3,000 square feet. A single mid-rise building-scale reuse project would need a 600 to 900 square foot room for the reuse equipment. Comparing the two, 12 building-scale systems at 600 square feet each would require 7,200 square feet in total space. Per a recent industry real estate market report, the average annual rent for Class A commercial space in San Francisco during Q3 2021 was $77.03/square foot. Compared to a 3,000 square foot district-scale system, the additional space for the building-scale approach could "cost" over $300,000 per year in potential lost rent." [9]

WAC 246-275-120, Allowed source waters.

Description: The proposed rule establishes the allowable nonpotable source waters. RCW 90.46.290(2)(a) states that the department's rules must address risk-based log reduction targets (LRTs) for the removal of pathogens for alternative water sources, including wastewater from all

[6] Ibid 2.
[7] Ibid 2.
[8] Ibid 2.
[9] Ibid 2.Costs presented in 2022 US$.

domestic fixtures, greywater, rainwater, and stormwater. The statute provides a non-exhaustive list of types of source waters. The proposed rule further adds AC condensate, foundation drainage, and roof runoff as allowed source waters based on the National Blue Ribbon Commission's list.

Cost(s): The costs of processing and treating the allowed source waters are incorporated into both the construction and initial capital costs in SA Table 2 and the ongoing operations and maintenance (O&M) costs in SA Table 3.

SA Table 2. Construction and Initial Capital Costs. [10]

Building Scale	**Footprint (sq ft)**	**Building Area (gross sq ft)**			**Residential Occupants**	**Commercial Occupants**
		Total	Residential	Commercial		
	20,000	380,000	270,000	110,000	520	590
	Source Scenario	**Annual Supply (MG/yr)**	**Annual Demand (MG/yr)**	**Annual Reuse (MG/yr)**	**Daily Reuse (gpd)**	
	Greywater	5.7	6.5	4.3	12,000	
	Blackwater	9.1	6.5	4.9	14,000	
	Source Scenario	**Life Cycle Cost Analysis Building Scale Construction Cost***			**Avoided Utility Cost - NPV*, ****	
	Greywater	$2.3M			$(5.4) M	
	Blackwater	$1.8M			$(6.2) M	
District Scale	**Footprint (sq ft)**	**Building Area (gross sq ft)**			**Residential Occupants**	**Commercial Occupants**
		Total	Residential	Commercial		
	160,000	760,000	510,000	250,000	990	1,300
	Source Scenario	**Annual Supply (MG/yr)**	**Annual Demand (MG/yr)**	**Annual Reuse (MG/yr)**	**Daily Reuse (gpd)**	
	Greywater	11.0	13.1	8.3	23,000	
	Blackwater	18.0	13.1	9.8	27,000	

[10] Ibid 2.

	Source Scenario	Life Cycle Cost Analysis District-Scale Construction Cost*	Avoided Utility Cost - NPV*, **
	Greywater	$3.9M	$(10.4) M
	Blackwater	$2.8M	$(12.4) M

(MG/yr) = million gallons per year; (gpd) = gallons per day; M = million

*Adjusted for inflation from 2020 USD to 2026 USD using U.S. Bureau of Labor Statistics, CPI Inflation Calculator : U.S. Bureau of Labor Statistics. Costs were rounded up.

**Net Present Value (NPV) is "the discounted monetized value of expected net benefits (i.e., benefits minus costs). Net present value is computed by assigning monetary values to benefits and costs, discounting future benefits and costs using an appropriate discount rate, and subtracting the sum total of discounted costs from the sum total of discounted benefits."[11]

SA Table 3. Operations and Maintenance Costs.[12]

	Footprint (sq ft)	Building Area (gross sq ft)			Residential Occupants	Commercial Occupants
		Total	Residential	Commercial		
	20,000	380,000	270,000	110,000	520	590
Building Scale	**Source Scenario**	**Annual Supply (MG/yr)**	**Annual Demand (MG/yr)**	**Annual Reuse (MG/yr)**	**Daily Reuse (gpd)**	
	Greywater	5.7	6.5	4.3	12,000	
	Blackwater	9.1	6.5	4.9	14,000	
	Source Scenario	**Building Life Cycle Cost Analysis O&M Cost***			**Avoided Utility Cost - NPV*, ****	
	Greywater	$3.3M			$(5.4) M	
	Blackwater	$3.6M			$(6.2) M	
	Footprint (sq ft)	**Building Area (gross sq ft)**			**Residential Occupants**	**Commercial Occupants**
		Total	Residential	Commercial		

[11] The White House, *Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*. Circular A-94 (Accessed on July 16, 2026).
[12] Ibid 2.

District Scale	160,000	760,000	510,000	250,000	990	1,300
	Source Scenario	**Annual Supply (MG/yr)**	**Annual Demand (MG/yr)**	**Annual Reuse (MG/yr)**	**Daily Reuse (gpd)**	
	Greywater	11.0	13.1	8.3	23,000	
	Blackwater	18.0	13.1	9.8	27,000	
	Source Scenario	**District-Scale Life Cycle Cost Analysis O&M Cost***			**Avoided Utility Cost - NPV*, ****	
	Greywater	$4.1M			$(10.4) M	
	Blackwater	$4.5M			$(12.4) M	

(MG/yr) = million gallons per year; (gpd) = gallons per day; M = million

*Adjusted for inflation from 2020 USD to 2026 USD using U.S. Bureau of Labor Statistics, CPI Inflation Calculator : U.S. Bureau of Labor Statistics. Costs were rounded up.

**Net Present Value (NPV) is "the discounted monetized value of expected net benefits (i.e., benefits minus costs). Net present value is computed by assigning monetary values to benefits and costs, discounting future benefits and costs using an appropriate discount rate, and subtracting the sum total of discounted costs from the sum total of discounted benefits."[13]

Benefit(s): The proposed rule ensures alignment between RCW 90.46.290 and the National Blue Ribbon Commission framework.

WAC 246-275-125, Allowed end uses.

Description: The proposed rule establishes the allowable end uses. RCW 90.46.290(2)(a) states that the department's rules must address risk-based log reduction targets (LRTs) for the removal of pathogens for nonpotable end uses such as toilet and urinal supply water, clothes washing, irrigation, and dust suppression. The proposed rule lists these allowed end uses, adds the priming of drain traps, and clarifies which end uses are not allowed.

Cost(s): The department does not anticipate any additional cost for the proposed rule.

[13] The White House, *Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*. Circular A-94 (Accessed on July 16, 2026).

Benefit(s): The proposed rule ensures alignment between RCW 90.46.290 and the National Blue Ribbon Commission framework.

Additionally, the end uses established in the rule are likely to result in cost savings because of a reduction in potable water use, and subsequent lower utility costs.

WAC 246-275-135, General administration.

Description: The proposed rule establishes that the department can establish a joint plan of responsibility (JPR) with a local health jurisdiction (LHJ), local health officer (LHO), or designee to either partially or fully administer, enforce, and carry out the responsibilities under the chapter. RCW 90.46.290(3)(b) authorizes permitting local jurisdictions the ability to grant ONWS permittees waivers from the rules. The department's wastewater management team uses JPRs as the formal mechanism to outline the responsibilities of the department and LHJs.

The proposed rule also allows the LHJ, LHO, or designee to establish their own joint or cooperative action agreements with other LHJs, LHOs, or designees. The proposed rule requires the agreement to include a list of roles and responsibilities of each jurisdiction and agency necessary to fulfill the purposes of the chapter, including the required number and type of full-time equivalent positions to administer, enforce, and carry out the responsibilities of the chapter.

Finally, the proposed rule requires the LHJs to provide all required ONWS information and data annually to the department.

Cost(s):

The department anticipates costs to an LHJ to put together the joint or cooperative action agreement, but total costs are indeterminate and unable to be estimated because no LHJs have an ONWS program. The department has heard from LHJs that they do not currently have the capacity or resources to do this work.

The department anticipates that it would take 20-40 hours for a program lead or Deputy Environmental Health Director at an LHJ to comply with annual data reporting.

The department estimated a range from $1,668.60 to $3,337.20 for the annual data reporting requirement. [14]

Benefit(s): The proposed rule reduces the burden on LHJs that lack the capacity to stand up a new ONWS program. The allowance for a JPR to be established provides maximum flexibility for LHJs that are interested in either partially or fully administering the chapter, including the flexibility for this to change over time, as their capacity evolves.

[14] Average Hourly Wage of Management Occupations, $83.43. Occupational Employment and Wage Statistics (Accessed on June 9, 2026).

WAC 246-275-140, Engineering qualifications.

Description: The proposed rule requires work that is performed under the direction of a professional engineer to bear the seal, date, and signature of the engineer. This is a requirement under RCW 18.43.030. The proposed rule also requires the professional engineer to have experience commensurate with the complexity of the ONWS, which is an industry standard.

Cost(s): The department does not anticipate any additional cost for the proposed rule. Any professional engineer working on an ONWS will already meet these requirements under the standards set by chapter 18.43 RCW, as well as industry standards.

Benefit(s): The proposed rule will ensure that professional engineers working on an ONWS are qualified for these complex systems and are following applicable requirements set forth in statute for this profession.

WAC 246-275-145, Legacy ONWS.

Description: The proposed rule outlines requirements for a legacy ONWS. The purveyor of a legacy ONWS is required to submit an engineering report by the date specified in the rule, that describes the existing system and any required modifications that are necessary to comply with the proposed rule and RCW 90.46.290(3)(a) and, if applicable (b). Pursuant to RCW 90.46.290(3)(a), the proposed rule allows the purveyor of a legacy ONWS to apply for a waiver if compliance requiring engineering, repair, or replacement of the system is cost prohibitive. The proposed rule outlines the components of a waiver application and specifies that a waiver may not apply to greater than a three-year term.

If the waiver is granted, the purveyor is required to deliver annual, dated notice to all users via mail, email, or publicly posted notice, explaining the requirements for which the waiver has been granted, the costs associated with coming into compliance, and the expiration date of the waiver.

Cost(s):

The department anticipates costs to the purveyor and owner of a legacy ONWS to upgrade systems to comply with the rule, but total costs are indeterminate and unable to be estimated due to variability of design and complexity.

The department anticipates that it may take a purveyor 10-20 hours to put together a waiver request package and submit it to the department, assuming that the engineering has been completed.

The department estimated a range from $580.50 to $1,161.00 for a purveyor to put together a waiver request package. [15] In most situations, the department expects that if a subsequent

[15] Average Hourly Wage of Environmental Engineers, $58.05. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

waiver is needed after the initial three-year waiver period concludes, the recurrent cost every third year will be negligible because the purveyor will be resubmitting the package with minimal updates.

The department anticipates that it may take a purveyor 5 hours to deliver the annual, dated notice to users.

The department estimated an annual cost of $290.25 for a purveyor to deliver the annual, dated notice to users, for an active waiver. [16]

Benefit(s): The proposed rule aligns with the intent of the statute by giving legacy systems the time that they need to come into compliance with these rules. It will allow for continued operations while ensuring that public health and safety is protected.

WAC 246-275-150, Waivers.

Description: The proposed rule clarifies the waiver process as allowed in RCW 90.46.290. A purveyor of an ONWS may request a waiver from a specific requirement of the rule. The request is required to be in writing, identify the requirement being waived, state the reason for the waiver, and provide any supporting documentation. If the waiver is granted, the purveyor is required to deliver annual, dated notice to all users via mail, email, or publicly posted notice, explaining the requirements for which the waiver has been granted and the expiration date of the waiver.

Cost(s): The department anticipates that it may take a purveyor 10-20 hours to put together a waiver request package and submit it to the department, assuming that the engineering has been completed.

The department estimated a range from $580.50 to $1,161.00 for a purveyor to put together a waiver request package. [17] **The department sets the expiration date for standard waivers. Therefore, this could potentially be a recurring cost. The length of waivers can range from one year to the duration of the system being in operation.**

The department anticipates that it may take a purveyor 5 hours to deliver the annual, dated notice to users.

The department estimated an annual cost of $290.25 for a purveyor to deliver the annual, dated notice to users, for an active waiver. [18]

---

[16] Average Hourly Wage of Environmental Engineers, $58.05. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

[17] Average Hourly Wage of Environmental Engineers, $58.05. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

[18] Average Hourly Wage of Environmental Engineers, $58.05. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

Benefit(s): The proposed rule provides an opportunity for the purveyor to request a waiver for a specific aspect of the rule as long as they maintain a comparable protection to public health. This could be because a more cost-effective alternative is available or because it is physically impossible for the system to come into compliance with a requirement in the rule. The process proposed in the rule will enable the purveyor to explain what will be done instead and how it provides equal or better protection of public health.

WAC 246-275-155, Extensions.

Description: The proposed rule establishes that if construction of an ONWS does not begin within two years of the department approving the plans and specifications of the project, the plans and specifications and notice to construct will expire, and the purveyor will have to resubmit the project for approval.

The proposed rule allows the owner to request a single extension of up to two years of the plans and specifications approval prior to the two-year expiration date. The request must be in writing and include a status report and construction schedule.

If the extension is granted, the owner is required to deliver annual, dated notice to all users via mail, email, or publicly posted notice, explaining the reason for the extension and when construction is anticipated to be completed.

Cost(s): The department anticipates that it may take an owner up to or less than 5 hours to put together a construction extension request package and submit it to the department. This cost would only apply if a construction extension request is needed.

The department estimated a one-time cost of up to or less than $826.80 for an owner to put together a construction extension request package if a construction extension request is needed. [19]

The department anticipates that it may take an owner 5 hours to deliver the annual, dated notice to users.

The department estimated an annual cost of $826.80 for an owner to deliver the annual, dated notice to users. [20] **This notice would be delivered a maximum of two times. After the single, two-year extension, the purveyor will have to resubmit the project for approval.**

Benefit(s): The proposed rule provides an opportunity for an extended approval window in the event that the ONWS is not ready to be in compliance with the rules. This can happen due to budget and time constraints, failure to secure required permits, and other factors. A timeline for

[19] Average Hourly Wage of Chief Executives, $165.36. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

[20] Average Hourly Wage of Chief Executives, $165.36. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

construction is important to ensure that the approved design still meets the requirements of the rule and that the site and building conditions as approved in the permit have not become outdated.

WAC 246-275-160, Variances.

Description: The proposed rule establishes the process for applying for a variance. A purveyor of an ONWS may request a variance from a certain requirement of the rule. The request must be in writing, identify the requested variance, state the reason for the variance, and provide any supporting documentation.

Cost(s): The cost of applying for a variance is captured under the process of compiling the engineering report analyzed under WAC 246-275-210. Variances are a part of the design process. The engineering report will capture any variances from the design requested by the purveyor.

Benefit(s): The proposed rule provides project proponents with an opportunity to expand the options for how ONWS can be used and operated, while maintaining public health protections.

Additionally, the department anticipates that, if granted the variance, the purveyor may incur a cost savings because variances are typically requested for requirements that are cost-prohibitive to implement.

WAC 246-275-205, Feasibility study.

Description: The proposed rule requires the submission of a feasibility study for review and approval before submitting the engineering report or construction documents, and before the installation of any ONWS component. The study must include, at a minimum, contact information for the project, location of the ONWS, vicinity and site maps, expected operator qualifications, proposed source waters, treatment unit processes, end uses, consideration of financial and staffing requirements, and identification of all local permits affecting the project.

Cost(s): The department anticipates that the cost of completing and submitting the feasibility study will vary, depending on whether the owner or design engineer have previously worked on a project of a similar nature and scope, as opposed to never having completed a project before. The costs may be less if the owner or design engineer have that prior design experience.

The costs of this proposed rule are incorporated into the construction and initial capital costs in SA Table 2.

Benefit(s): The proposed rule allows for early project scoping and identification of a project's viability and feasibility, before more costly engineering and design work is done. The feasibility study may also be used to demonstrate that the project is up to code.

WAC 246-275-210, Engineering report submittal.

Description: The proposed rule outlines the requirements for engineering reports, which are required for a legacy ONWS, new ONWS, or for major modifications to any ONWS.

Cost(s): The department anticipates that it may take an engineer at least 100 hours to prepare and submit both the engineering report required under this section, and the construction documents required under WAC 246-275-215. The costs are described together because it is likely that the engineer will be compiling them simultaneously.

The department estimated a one-time cost of at least $5,805.00 for an engineer to prepare and submit the required engineering report and construction documents. [21]

The remaining costs of this proposed rule section are incorporated into the construction and initial capital costs in SA Table 2.

Benefit(s): The proposed rule will help ensure that a qualified professional engineer is overseeing the planning, design, and construction of all ONWS to protect public health and safety.

WAC 246-275-215, Construction documents submittal.

Description: The proposed rule requires the submission of all construction documents for review and approval before either beginning construction on major modifications or before requesting the notice to proceed to conditional startup mode. The construction documents must show how the project was or will be modified or constructed in accordance with the approved engineering report and include elements such as detailed construction specifications and assembly techniques, testing criteria, and disinfection procedures.

Cost(s): The costs of this proposed rule are captured under WAC 246-275-210.

Benefit(s): The proposed rule will enable the regulatory authority to review the construction documents and compare them to the engineering report, which serves as a narrative for the design of the system, before construction begins.

WAC 246-275-220, Construction completion report and facility inventory.

Description: The proposed rule requires the submission of a construction completion report and record drawings to the department after construction is completed. These documents must bear the seal, date, and signature of a professional engineer stating that the ONWS was constructed in accordance with the approved engineering report and construction documents. A facility inventory must be included with the construction completion report.

---

[21] Average Hourly Wage of Environmental Engineers, $58.05. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

Cost(s): The department anticipates that it may take an engineer 10 hours to prepare and submit the construction completion report, record drawings, and facility inventory.

The department estimated a one-time cost of $580.50 for the engineer to prepare and submit these documents. [22]

The remaining costs of this proposed rule section are incorporated into the construction and initial capital costs in SA Table 2.

Benefit(s): The proposed rule will allow the department to have records necessary to protect public health, such as the facility inventory. This document will describe all of the different components within the ONWS.

WAC 246-275-300, Pathogen log reduction targets (LRT).

Description: The proposed rule requires the ONWS to have a treatment process design that achieves the log reduction targets (LRTs) specified in this section, and to have inadequately treated nonpotable water that does not meet the LRTs automatically divert to sanitary or storm sewers.

The LRTs proposed in the rule are based on the National Blue Ribbon Commission model, which uses the Quantitative Microbial Risk Assessments (QMRA) to derive the LRTs. QMRA is a scientific approach to estimate the potential human health risks associated with exposure to microbial hazards such as human pathogenic viruses, bacteria, and protozoa.

Cost(s): The costs of this proposed rule are incorporated into both the construction and initial capital costs in SA Table 2 and the ongoing operations and maintenance cost in SA Table 3.

Benefit(s): The LRTs in the proposed rule are adopted from the Blue Ribbon Commission Model, which uses a peer-reviewed and scientific method for determining the public health risk associated with using these different sources of water for nonpotable uses.

WAC 246-275-305, Log reduction credits.

Description: The proposed rule states that log reduction credits (LRCs) are assigned by the department based on the ability of each treatment unit process to achieve an assigned or validated LRC. SA Table 2 of the proposed rule summarizes the LRCs assigned for each treatment unit process.

Additionally, the proposed rule allows for alternate treatment unit process LRC validation, if verifiable evidence is provided in an approved validation engineering report.

[22] Average Hourly Wage of Environmental Engineers, $58.05. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

Cost(s): The costs of this proposed rule are incorporated into the construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3.

Benefit(s): The log reduction credits in the proposed rule are assigned based on the ability of a treatment unit process to achieve the required log reduction based on established and peer-reviewed scientific standards.

WAC 246-275-310, Water quality limits.

Description: The proposed rule requires the ONWS to have a treatment process design that continuously achieves the water quality limits specified in this section, as well as the automatic diversion requirements specified in WAC 246-275-300 and 246-275-315. Limits are established for the following parameters beyond the LRTs:

- 5-day Biological Oxygen Demand (BOD_5)
- Free Chlorine Residual for secondary disinfection
- pH
- Total Suspended Solids (TSS)
- Turbidity

Cost(s): The costs of this proposed rule are incorporated into both the construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3, since there will be initial capital costs associated with designing and constructing the system in a way that meets the water quality limits and ongoing costs to continue meeting the limits throughout the life cycle of the project.

Benefit(s): The proposed limits are established to prevent illness. They are based on the ability of a treatment unit process to achieve the required log reduction based on scientific standards that are already established and peer reviewed, ensuring that they are protective of public health.

WAC 246-275-315, Design requirements for all ONWS.

Description: The proposed rule establishes design requirements for all ONWS, including provisions related to:

- Human contact
- Automatic shutdown
- Automatic diversion and overflow
- Signage
- Flow meters
- Water quality sample taps
- Free chlorine residual for secondary disinfection
- Seals
- Cross-connection control

- Air quality
- Screens
- Continuous monitoring
- Makeup water

Cost(s): The costs of this proposed rule are incorporated into both the construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3, since there will be initial capital costs associated with constructing the system to meet the design requirements and ongoing costs to continue meeting the requirements throughout the life cycle of the project. The cost of the proposed rule on a particular ONWS is deemed indeterminate by the department because the design requirements are system dependent.

Benefit(s): The design requirements in the proposed rule are necessary to ensure that the nonpotable water receives sufficient treatment and to identify when treatment has failed, so that diversion of the nonpotable water and delivery of makeup water can occur.

WAC 246-275-320, Design requirements based on source water.

Description: The proposed rule establishes design requirements based on the individual nature of the system's source water. The proposed rule requires:

- Any system treating blackwater or greywater must include biological treatment resulting in stabilized, nonputrescible nonpotable water that contains dissolved oxygen. The system must also include filtration and properly vented storage tanks.
- Any system treating roof runoff or stormwater must include a first flush diverter or debris excluder and address corrosivity of the treated nonpotable water on end use plumbing and fixtures.
- Any system treating AC condensate must address corrosivity of the treated nonpotable water on end use plumbing and fixtures.

Cost(s): The department anticipates that these design requirement costs would be incorporated into both the construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3, since there will be initial capital costs associated with constructing the system to meet the design requirements and ongoing costs to continue meeting the requirements throughout the life cycle of the project. The cost of the proposed rule on a particular ONWS is deemed indeterminate by the department because the design requirements are system dependent.

Benefit(s): The proposed rule is designed to protect the treatment and plumbing system, which will in turn reduce complaints and the need for costly repairs, maintenance and shutdowns with diversion.

WAC 246-275-325, Design requirements for irrigation end use.

Description: The proposed rule requires ONWS that treat nonpotable water for irrigation to include design features so that the treated nonpotable water does not:

- Leave the approved irrigation area as spray or surface flow or runoff, including when soils are saturated;
- Enter a dwelling or food handling facility; or
- Contact a drinking water fountain.

Cost(s): The department does not anticipate that the proposed rule will have any additional costs associated with it, as it simply describes design considerations for systems that treat nonpotable water for irrigation end use.

Benefit(s): The proposed rule protects public health and safety by limiting the runoff of treated nonpotable water and the chance of extended human contact.

WAC 246-275-330, Design requirements for district-scale implementation.

Description: The proposed rule requires ONWS collecting, treating, receiving, or distributing water for a district-scale project to include lockable valves which can be activated to control the flow of water from any source originating from another property and lockable valves which can be activated to control the flow of water to any property.

Cost(s): Several different types of lockable valves can be used for the purpose of controlling the flow of water. Ball valve lockout devices can range from $16.85 to $84.07 per unit[23]. Universal valve lockout devices can range from $49.29 to $168.90 per unit[24]. The department anticipates that an ONWS system ranges from needing at least 2 to up to 20 lockout devices for a district-scale project, depending on the complexity and size of the system.

The department estimated a range of $33.70-$1,681.40 for an ONWS needing ball valve lockout devices and $98.58-$3,378.00 for an ONWS needing universal lockout devices for a per system cost.

Benefit(s): The proposed rule enhances the security of an ONWS to limit access to qualified personnel.

WAC 246-275-400, Conditional startup mode operations.

Description: The proposed rule describes the process and requirements for conditional startup mode operations. Conditional startup mode is a testing period after construction or major modification but before final permitting. The ONWS is required to operate in conditional startup

[23] Ball Valve Lockout Devices - Grainger Industrial Supply
[24] Universal Valve Lockout Devices - Grainger Industrial Supply

mode for 12 months, unless a reduction of the duration of this period is granted by the regulatory authority.

Prior to distribution and use, the treated nonpotable water must be automatically diverted to the sewer and all fixtures must be operated using makeup water, until the LRTs and water quality limits are met continuously for 30 days. Once the requirements are continuously met for 30 days, the treated nonpotable water can be distributed and used for the remainder of the conditional use startup mode performance period. Anytime that the LRTs and water quality limits are not achieved, inadequately treated water must be diverted.

Once the performance period ends, the purveyor is required to submit a final report that summarizes compliance with the LRT and water quality limits.

Cost(s): The requirements for water quality sampling during conditional startup mode are described in WAC 246-272-500, and therefore, the costs associated with this activity are captured under that section.

The department anticipates that it may take a purveyor 10 hours to collect, organize, and report the required information in the final report.

The department estimated a one-time cost of $580.50 for a purveyor to put together the final report. [25]

The remaining costs of this proposed rule section are incorporated into the ongoing O&M costs in SA Table 3.

Benefit(s): Conditional startup mode is a key step in the performance of the ONWS. This period is designed to demonstrate via technology validation and field verification that the treatment unit processes can achieve a certain amount of pathogen removal and/or inactivation. This ensures that the system design and construction will function to provide safe water for users and that any deficiencies are identified prior to public exposure.

WAC 246-275-405, Operating permit.

Description: The proposed rule outlines the steps that an operator must take to get an operating permit, as well as lists the terms and conditions that the operating permit must contain. The proposed rule also contains information on how to renew an operating permit and requires the regulatory authority to issue, deny, or modify a renewal operating permit within 30 days of receiving the complete renewal form and other required items, or notify the owner of any delay in processing.

Cost(s): Under the proposed rule, the local health jurisdiction will incur costs associated with the requirement to issue the renewal operating permit within 30 days of receiving a complete

[25] Average Hourly Wage of Environmental Engineers, $58.05. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

application. The costs to the local health jurisdiction are indeterminate because no LHJs have an ONWS program. The department has heard from LHJs that they do not currently have the capacity or resources to do this work.

The additional costs for each of the steps in the proposed rule are outlined in their respective sections.

Benefit(s): The operating permit serves as the authorization to operate the ONWS. It lets system users know that the owner and operator have the authority to operate the system and that they are doing so in compliance with these rules.

WAC 246-275-410, Operator qualifications and duties.

Description: The proposed rule requires the owner or purveyor to directly employ or maintain a service contract with a qualified operator who has expertise commensurate with the complexity of the operation and provides a non-exhaustive list of the types of expertise that an operator may have, based on the source water that the system uses.

Under the proposed rule, the operator must also hold a valid department-issued certification as a cross-connection control specialist.

The proposed rule also establishes and describes the duties of the operator and requires the owner or purveyor to notify the regulatory authority in writing within 30 days of replacement of the operator.

Cost(s): The costs of this proposed rule are incorporated into the ongoing O&M costs in SA Table 3.

Additionally, the operator will incur a cost associated with obtaining the department-issued certification as a cross-connection control specialist.

The one-time application fee for the cross-connection specialist examination is $83, with an annual renewal fee of $68.[26]

Benefit(s): The proposed rule will help ensure the integrity of the operations and maintenance of these advanced water treatment systems. The department is aware of ongoing efforts to create a certification for ONWS operators, at the national level. The non-exhaustive list of expertise established in the proposed rule will help ensure that the rule is permissive of these future certifications.

The requirement for the operator to have a cross-connection certification will help ensure the highest level of protection in the event of a system failure. The point at which nonpotable, treated

[26] WAC 246-292-995, Certified operator and public water system certification fees. https://app.leg.wa.gov/WAC/default.aspx?cite=246-292-995

water comes into contact with wastewater is the most critical point in the system and is also the most likely point at which contamination may occur and make people sick.

WAC 246-275-415, Cross-connection control and makeup water supply.

Description: The proposed rule requires ONWS to prevent cross-connections. Cross-connection refers to any physical connection or arrangement between potable water and any source of contamination.

Cross-connection testing is required for ONWS under the Uniform Plumbing Code and this rule to ensure that there are no cross-connections between the potable and nonpotable water supplies.

The proposed rule also requires ONWS to include a source of makeup water, unless it is an irrigation-only system. When temporarily operating with makeup water, the ONWS is not required to maintain a chlorine residual.

Cost(s): The costs of this proposed rule are incorporated into both construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3, since cross-connection testing must occur within 60 calendar days of the completion of construction and continued cross-connection monitoring must occur throughout the life cycle of the project. The department anticipates that the majority of these costs will be capital costs.

Benefit(s): The proposed rule protects public health by ensuring that treated nonpotable water does not get into the potable water supplies. It is critical that no cross-connection exists between a potable and a nonpotable water system to protect the quality of drinking water and to ensure the protection of public health. The proposed rule removes the requirement for a chlorine residual when makeup water is being used because there is no additional public health protection from requiring it in these circumstances.

WAC 246-275-420, Operations and maintenance.

Description: The proposed rule requires the purveyor to operate and maintain the ONWS in a manner that maintains compliance with the rule and the terms and conditions of the operating permit. It also specifies that the purveyor is required to operate the system based on the site-specific O&M manual and requires the operator to conduct periodic inspections of all components to ensure that the system is in compliance with the conditions of the operating permit, the O&M manual, chapter 51-56 WAC, this chapter, and the district-scale agreement.

The proposed rule reiterates that treated nonpotable water must continuously achieve the LRTs and water quality standards and that the treatment, collection, storage, or distribution of source water, the diversion of inadequately treated water, or the use of the treated water, must not create a nuisance.

Cost(s): The proposed rule describes the core activities that the purveyor must do to keep the ONWS operating effectively. The cost of these activities is entirely dependent on the system and will scale with the scale of the project. The costs of this proposed rule are incorporated into the ongoing O&M costs in SA Table 3.

Benefit(s): The proposed rule clarifies the requirements for effectively operating and maintaining the system, which is a core component of the purveyor's responsibilities.

WAC 246-275-425, Change of ownership.

Description: The proposed rule establishes that ONWS permits are nontransferable and requires an owner of an ONWS to report any change in purveyor, to the regulatory authority, a minimum of 30 days prior to the change taking effect. The proposed rule also requires a new owner to submit a complete application for a new operating permit 30 days before assuming ownership.

The regulatory authority can either approve or deny the change of ownership and is required to communicate the decision in writing. If the change of ownership is approved, the regulatory authority must issue the new owner an operating permit within 30 days of receiving a complete application.

Finally, the proposed rule outlines options if the change of ownership is denied by the regulatory authority.

Cost(s): Under the proposed rule, the local health jurisdiction will incur costs associated with the requirement to issue the operating permit within 30 days of receiving a complete application. The costs to the local health jurisdiction are indeterminate because no LHJs have an ONWS program. The department has heard from LHJs that they do not currently have the capacity or resources to do this work.

Additionally, the owner of the ONWS will incur costs associated with notifying the regulatory authority whenever there is a change in the purveyor, as well as with the time that it takes to complete and submit a new application form, if applicable. The department anticipates that it may take a purveyor up to 5 hours to do this work on behalf of the owner.

The department estimated a one-time cost of up to $290.25 for a purveyor to notify the regulatory authority and complete and submit a new application form. [27]

Benefit(s): The proposed rule will help ensure that the owner and purveyor have the necessary qualifications to manage and operate the ONWS.

WAC 246-275-430, Abandonment.

[27] Average Hourly Wage of Environmental Engineers, $58.05. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

Description: The proposed rule requires the purveyor to submit an abandonment plan as an element of the operations and maintenance manual. The abandonment plan is required to contain a written notice of abandonment that is submitted to the regulatory authority, notification to users of system abandonment, removal and disposal of all sewage, removal of all mechanical and electrical equipment that is no longer in use, disconnection of all abandoned components, and removal or crushing of underground storage tanks.

Cost(s): The proposed rule requires the purveyor to compile a plan that identifies what will happen to the system when it is abandoned. Since this is a requirement of the Operations & Maintenance (O&M) manual, the cost of the proposed rule is captured under WAC 246-275-440.

Benefit(s): Requiring an abandonment plan as part of the approval process for the O&M manual will help ensure that the regulatory authority is aware of how the purveyor plans to address different components of the ONWS, such as electrical connections or sewage tanks, and the public health concerns associated with their abandonment.

WAC 246-275-435, District-scale agreement.

Description: The proposed rule requires a purveyor of a district-scale project to enter into an executed, enforceable legal agreement which defines the roles and responsibilities of each property owner or entity in relation to the maintenance and use of the system. The proposed rule clarifies that this agreement must require that only the purveyor and authorized qualified operators are allowed to alter or maintain the ONWS.

Cost(s): The cost of the proposed rule is that of drafting the agreement, likely with the oversight of an attorney. The department has determined that the cost of the proposed rule is indeterminate, as the scope of the agreement will determine the amount of hours spent by the purveyor of a district-scale project and the extent of legal representation (in hours).

Benefit(s): The proposed rule will help ensure that anyone who has a vested interest in a district-scale project, such as a property owner, a tenant of a building, or a system user, clearly understands their role and responsibility for the system.

WAC 246-275-440, Operations and maintenance manual (O&M manual).

Description: The proposed rule requires a purveyor to develop and implement a site-specific O&M manual that is consistent with the size, complexity, past performance, implementation scale, source waters, and end uses of the ONWS. The proposed rule outlines the information that must, at a minimum, be described in the O&M manual. It also grants the regulatory authority the discretion to require additional information or changes to the O&M manual as necessary to protect public health. Finally, the proposed rule requires the O&M manual to be reviewed annually and updated as appropriate.

Cost(s): The costs of this proposed rule reflect the time and effort needed for an engineer to create the O&M manual. The department anticipates that the purveyor will either already have contracted engineers or will sub-contract an engineer to do this work. The department also estimates that the flat-rate, one-time cost will be comparable to the cost for a Large On-site Sewage System O&M manual, which ranges from $5,000-$10,000. This estimate is based on the department's experience reviewing and approving hundreds of O&M manuals. The department anticipates that the recurrent cost of reviewing and updating the manual will be negligible.

Benefit(s): An O&M manual contains important information about the ONWS's design, legal status, operations, maintenance, water quality treatment requirements, performance, and repair. It provides the necessary information to:

- Communicate the importance of regular maintenance.
- Instruct employees on how to operate and maintain equipment safely and avoid malfunctions, minimize unplanned shutdowns, reduce maintenance costs, and extend asset life cycles.
- Promote streamlined operations and efficiency.
- Provide all the necessary and relevant information for the operation and maintenance of the ONWS.
- Identify qualified operators and all other parties responsible for O&M along with their contact information.
- Provide manufacturer operation and maintenance information for ONWS equipment.
- Reduces human error and informs everyone of what they need to do.

WAC 246-275-500, Monitoring and sampling.

Description: The proposed rule establishes the frequency and locations of LRT and water quality sampling along with several laboratory handling and quality assurance requirements.

The two tables in this section establish both the conditional startup mode and final use mode monitoring frequencies and locations by source water, for the following:

- Log Reduction Targets (LRTs)
- Secondary free chlorine residual
- Heterotrophic plate count
- pH
- Turbidity – media or membrane filter
- BOD_5 and total suspended solids
- Total source water treated/flow rates

Cost(s): The proposed rule requires the ongoing collection and analysis of water quality samples. The cost of this is variable depending on which lab the samples are sent to, what is being tested for, and how many samples the ONWS is sending every year. For example, while unlikely, shipping

the samples to a lab outside of the state of Washington would be more costly than doing the testing in-state. Additionally, the analysis of certain chemicals such as synthetic chemicals can cost hundreds of dollars per sample. **The department anticipates that a year's worth of analyses may cost an ONWS at least $10,000 with a top estimate being indeterminate due to the variability listed above.**

This estimate and all costs of this proposed rule section are incorporated into the ongoing O&M costs in SA Table 3.

Benefit(s): These monitoring frequencies establish the protocol and schedule for ensuring that regular water quality sampling is conducted, where applicable. This ensures that treatment is working as designed to protect public health.

WAC 246-275-505, Routine water quality reporting.

Description: The proposed rule requires the purveyor, on or before the 10th day of each month during conditional startup, to report all required water quality laboratory results and surrogate parameter instrumentation summaries from the previous month.

The data must be reported on a signed data and monitoring report (DMR) form and include descriptions of any component failures, treatment upsets or disruptions, bypasses, odors, complaints, or other system operation anomalies.

The proposed rule also requires the purveyor to submit, during final use mode, an annual report and a quarterly DMR, if blackwater is a source water for the ONWS.

Cost(s): The costs of the proposed rule reflect the time and effort needed for the purveyor to collect, organize, and report the required information. The costs of this proposed rule are incorporated into the ongoing O&M costs in SA Table 3.

Benefit(s): Documentation and the submittal of the required reports protects public health by providing the regulatory authority with the necessary information and data to ensure the ONWS is being operated and maintained properly to meet the standards established in the proposed rule.

WAC 246-275-510, Annual reporting.

Description: The proposed rule requires the purveyor to submit an annual report each calendar year. The annual report describes the terms and conditions established in the operating permit, summarizes any complaints received, lists any malfunctions, describes the population served by the ONWS, and provides data on annual volumes of potable water, treated nonpotable water, and makeup water.

Cost(s): The costs of the proposed rule reflect the time and effort needed for the purveyor and operator to collect, organize, and report the required information. The costs of this proposed rule are incorporated into the ongoing O&M costs in SA Table 3.

Benefit(s): The proposed rule protects public health by providing the regulatory authority with the necessary information and data to ensure that the ONWS is operating properly. Additionally, the annual report provides the regulatory authority with data that can allow for adaptive management when needed to further protect public health.

WAC 246-275-515, Malfunction notification and reporting.

Description: The proposed rule outlines several different requirements for the notification and reporting of system malfunctions. In the event that a source water or inadequately treated nonpotable water enters the treated nonpotable water distribution system, the purveyor is required to notify the regulatory authority within 24 hours. If this occurs, the purveyor is also required to notify all system users of what occurred, how it will impact them, and when service is expected to resume. This notification must take place within 15 business days of the notification to the regulatory authority. Notification can be distributed via mail, email, or posted notice.

Any time that there is a malfunction, the purveyor is required to notify the regulatory authority within 24 hours and must provide information such as a description of the malfunction, the components involved, suspected causes, mitigation steps, and estimated times for when the malfunction started, when it stopped or will be stopped, and when the system is expected to return to normal operations.

Cost(s): The department anticipates that it may take the purveyor of the ONWS 5-10 hours to both generate the report describing the malfunction and notify users. The proposed rule provides options for how the notification is distributed, allowing the purveyor to choose the most appropriate and cost-effective method for the situation. For example, the purveyor can send an email to all users or create a notice that is posted in a conspicuous place within the building.

The department estimated a range from $290.25 to $580.05 for a purveyor to both generate the required report, as well as notify users of the malfunction. [28]

The remaining costs of this proposed rule section are incorporated into the ongoing O&M costs SA Table 3.

Benefit(s): The proposed rule will protect system users by ensuring that they are aware of any potential issues with it. Additionally, the requirement for the purveyor to notify the regulatory authority when malfunctions occur will help the regulatory authority keep track of issues and be able to take action if there are multiple malfunctions of a similar nature.

WAC 246-275-520, Recordkeeping.

[28] Average Hourly Wage of Environmental Engineers, $58.05. Occupational Employment and Wage Statistics (Accessed on May 14, 2026).

Description: The proposed rule outlines the types of system records that must be kept on-site and requires the purveyor to retain engineering documents until the system is abandoned. Other ONWS records are required to be kept for at least five years. Finally, the proposed rule requires that records must be made available for inspection by the department and the local health jurisdiction under a joint plan of responsibility.

Cost(s): The department anticipates that any costs associated with one-time or recurrent recordkeeping, such as procuring a file cabinet or paying for digital storage of records, will be negligible, as the purveyor likely already has recordkeeping systems in place. The remaining costs of this proposed rule section are incorporated into the ongoing O&M costs in SA Table 3.

Benefit(s): The proposed rule ensures the continued ability to review design and construction documents that may be needed for maintenance and repair, or major modifications.

WAC 246-275-525, User communications.

Description: The proposed rule outlines several different requirements related to user communications. The proposed rule references signage requirements in chapter 51-56 WAC and the malfunction notifications outlined in WAC 246-275-515. All communication with users is required to use clear, concise, and simple language and be provided in languages commonly understood by the populations served. The proposed rule requires the purveyor to maintain a complete list of user complaints and responses, as well as address complaints in a timely manner. Finally, the purveyor is required to provide a copy of the most recent annual report to any user upon request.

Cost(s): The department anticipates costs to the purveyor associated with translating communications into the language(s) spoken by the populations served by the system, but total costs are indeterminate and unable to be estimated due to variability in building type, demographic makeup of the tenants/users and the languages spoken, and the number of notices being distributed.

The remaining costs of this proposed rule section are incorporated into the ongoing O&M costs in SA Table 3.

Benefit(s): The proposed rule will help ensure that users clearly understand that the water should not be consumed and that it may have certain characteristics that are different from potable water. For example, toilets that are flushed with nonpotable water may develop a film or have a different odor.

WAC 246-275-600, Modification, suspension, and revocation of operating permits.

Description: The proposed rule provides a list of causes that can lead the regulatory authority to modify, revoke, suspend, or deny an operating permit issued for an ONWS.

Cost(s): The department does not anticipate any additional cost for the proposed rule.

Benefit(s): The proposed rule provides clarity to the regulated entity and will help ensure that the ONWS is operated in a way that protects public health.

WAC 246-275-605, Notice of violations, enforcement actions, and penalties.

Description: The proposed rule provides a list of possible enforcement actions that the regulatory authority may initiate when an ONWS is out of compliance.

The proposed rule also requires that notices and orders issued under this section are in writing, name the person to whom the order is directed, briefly describe each action or inaction, specify any required corrective action, specify the effective date of the order and the timeframe required for coming into compliance and provide notice of the consequences of failure to comply. Enforcement orders are required to be served in the manner of service of a summons in a civil action or in another manner showing proof of receipt.

Cost(s): The department does not anticipate additional costs to the proposed rule to permit holders as long as they stay in compliance and do not violate the rules.

Benefit(s): The proposed rule provides clarity to the regulated entity and will help ensure that the ONWS is operated in a way that protects public health.

Summary of all Cost(s) and Benefit(s)

SA Table 4. Summary of Section 5 probable cost(s) and benefit(s)

WAC Section and Title	Probable Cost(s)	Probable Benefit(s)
WAC 246-275-120, Allowed source waters.	The costs of processing and treating the allowed source waters are incorporated into both the construction and initial capital costs in SA Table 2 and the ongoing operations and maintenance (O&M) costs in SA Table 3.	The proposed rule ensures alignment between RCW 90.46.290 and the National Blue Ribbon Commission framework.
WAC 246-275-125, Allowed end uses.	No anticipated additional cost for the proposed rule.	The proposed rule ensures alignment between RCW

		90.46.290 and the National Blue Ribbon Commission framework. Additionally, the end uses established in the rule are likely to result in cost savings because of a reduction in potable water use, and subsequent lower utility costs.
WAC 246-275-135, General Administration.	Indeterminate costs for an LHJ to put together a joint or cooperative action agreement. $1,668.60 to $3,337.20 to a LHJ for the annual data reporting requirement.	The proposed rule reduces the burden on LHJs that lack the capacity to stand up a new ONWS program. The allowance for a JPR to be established provides maximum flexibility for LHJs that are interested in either partially or fully administering the chapter, including the flexibility for this to change over time, as their capacity evolves.
WAC 246-275-140, Engineering qualifications.	No anticipated additional cost for the proposed rule.	The proposed rule will ensure that professional engineers working on an ONWS are qualified for these complex systems and are following applicable requirements set forth in statute for this profession.
WAC 246-275-145, Legacy ONWS.	Indeterminate costs for a purveyor and owner to upgrade the legacy system to come into compliance. $580.50 to $1,161.00 for a purveyor to put together a waiver request package. In most situations, the department expects that if a subsequent waiver is needed after the initial three-year waiver period concludes, the recurrent cost every third year will be negligible because the	The proposed rule aligns with the intent of the statute by giving legacy systems the time that they need to come into compliance with these rules. It will allow for continued operations while ensuring that public health and safety is protected.

	purveyor will be resubmitting the package with minimal updates. $290.25 for a purveyor to deliver the annual, dated notice to users, for an active waiver.	
WAC 246-275-150, Waivers.	$580.50 to $1,161.00 for a purveyor to put together a waiver request package. The department sets the expiration date for standard waivers. Therefore, this could potentially be a recurring cost. The length of waivers can range from one year to the duration of the system being in operation. $290.25 for a purveyor to deliver the annual, dated notice to users, for an active waiver.	The proposed rule provides an opportunity for the purveyor to request a waiver for a specific aspect of the rule as long as they maintain a comparable protection to public health. It will enable the purveyor to explain what will be done instead and how it provides an equal or better benefit.
WAC 246-275-155, Extensions.	Less than $826.80 one-time cost for an owner to put together a construction extension request package if a construction extension request is needed. $826.80 for an owner to deliver the annual, dated notice to users. This notice would be delivered a maximum of two times. After the single, two-year extension, the purveyor will have to resubmit the project for approval.	The proposed rule provides an opportunity for an extended approval window in the event that the ONWS is not ready to be in compliance with the rules.
WAC 246-275-160, Variances.	The cost of applying for a variance is captured under the process of compiling the	The proposed rule provides project proponents with an opportunity to expand the options for how ONWS

	engineering report analyzed under WAC 246-275-210.	can be used and operated, while maintaining public health protections. Additionally, the department anticipates that, if granted the variance, the purveyor will incur a cost savings because variances are typically requested for requirements that are cost-prohibitive to implement.
WAC 246-275-205, Feasibility study.	The costs of this proposed rule are incorporated into the construction and initial capital costs in SA Table 2.	The proposed rule allows for early project scoping and identification of a project's viability and feasibility, before more costly engineering and design work is done. The feasibility study may also be used to demonstrate that the project is up to code.
WAC 246-275-210, Engineering report submittal.	One-time cost of at least $5,805.00 for an engineer to prepare and submit the required engineering report and construction documents. The remaining costs of this proposed rule are incorporated into the construction and initial capital costs in SA Table 2.	The proposed rule will help ensure that a qualified professional engineer is overseeing the planning, design, and construction of all ONWS to protect public health and safety.
WAC 246-275-215, Construction documents submittal.	The costs of this proposed rule are captured under WAC 246-275-210.	The proposed rule will enable the regulatory authority to review the construction documents and compare them to the engineering report, which serves as a narrative for the design of the system, before construction begins.
WAC 246-275-220, Construction completion report and facility inventory.	One-time cost of $580.50 for the engineer to prepare and submit the required documents.	The proposed rule will allow the department to have records necessary to protect public health, such as the facility inventory. This document will describe all of the

	The remaining costs of this proposed rule section are incorporated into the construction and initial capital costs in SA Table 2.	different components within the ONWS.
WAC 246-275-300, Pathogen log reduction targets (LRT).	The costs of this proposed rule are incorporated into both the construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3.	The LRTs in the proposed rule are adopted from the Blue Ribbon Commission Model, which uses a peer-reviewed and scientific method for determining the public health risk associated with using these different sources of water for nonpotable uses.
WAC 246-275-305, Log reduction credits.	The costs of this proposed rule are incorporated into the construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3.	The log reduction credits in the proposed rule are assigned based on the ability of a treatment unit process to achieve the required log reduction based on established and peer-reviewed scientific standards.
WAC 246-275-310, Water quality limits.	The costs of this proposed rule are incorporated into the construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3.	The proposed limits are established to prevent illness. They are based on the ability of a treatment unit process to achieve the required log reduction based on scientific standards that are already established and peer reviewed, ensuring that they are protective of public health.
WAC 246-275-315, Design requirements for all ONWS.	The costs of this proposed rule are incorporated into the construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3. The cost of the proposed rule on a particular ONWS is deemed indeterminate because the design requirements are system dependent.	The design requirements in the proposed rule are necessary to ensure that the nonpotable water receives sufficient treatment and to identify when treatment has failed, so that diversion of the nonpotable water and delivery of makeup water can occur.

WAC 246-275-320, Design requirements based on source water.	The costs of this proposed rule are incorporated into the construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3. The cost of the proposed rule on a particular ONWS is deemed indeterminate because the design requirements are system dependent.	The proposed rule is designed to protect the treatment and plumbing system, which will in turn reduce complaints and the need for costly repairs, maintenance and shutdowns with diversion.
WAC 246-275-325, Design requirements for irrigation end use.	No new costs anticipated as the proposed rule describes design considerations for systems that treat nonpotable water for irrigation end use.	The proposed rule protects public health by limiting the runoff of treated nonpotable water and the chance of extended human contact.
WAC 246-275-330, Design requirements for district-scale implementation.	A district-scale project would need at least 2 to up to 20-lockout devices, with a per system cost ranging between $33.70-$1,681.40 for ball valve lockout devices and $98.58-$3,378.00 for universal lockout devices.	The proposed rule enhances the security of an ONWS to limit access to qualified personnel.
WAC 246-275-400, Conditional startup mode operations.	The requirements for water quality sampling during conditional startup mode are described in WAC 246-275-500, and therefore, the costs associated with this activity are captured under that section. One-time cost of $580.50 for a purveyor to put together the final report. The remaining costs of this proposed rule section are incorporated into the	Conditional startup mode is a key step in the performance of the ONWS. This period is designed to demonstrate via technology validation and field verification that the treatment unit processes can achieve a certain amount of pathogen removal and/or inactivation. This ensures that the system design and construction will function to provide safe water for users and that any deficiencies are identified prior to public exposure.

	ongoing O&M costs in SA Table 3.	
WAC 246-275-405, Operating permit.	Under the proposed rule, the local health jurisdiction will incur costs associated with the requirement to issue the renewal operating permit within 30 days of receiving a complete application. The costs to the local health jurisdiction are indeterminate. The additional costs for each of the steps in the proposed rule are outlined in their respective sections.	The operating permit serves as the authorization to operate the ONWS. It lets system users know that the owner and operator have the authority to operate the system and that they are doing so in compliance with these rules.
WAC 246-275-410, Operator qualifications and duties.	The costs of this proposed rule are incorporated into the ongoing O&M costs in SA Table 3. Additionally, the operator will incur a cost associated with obtaining the department-issued certification as a cross-connection control specialist. The one-time application fee for the cross-connection specialist examination is $83, with an annual renewal fee of $68.	The proposed rule will help ensure the integrity of the operations and maintenance of these advanced water treatment systems. The proposed rules' requirement for the operator to have a cross-connection certification will help ensure the highest level of protection in the event of a system failure.
WAC 246-275-415, Cross-connection control and makeup water supply.	The costs of this proposed rule are incorporated into the construction and initial capital costs in SA Table 2 and the ongoing O&M costs in SA Table 3.	The proposed rule protects public health by ensuring that treated nonpotable water does not get into the potable water supplies.
WAC 246-275-420, Operations and maintenance.	The costs of this proposed rule are incorporated into the ongoing O&M costs in SA Table 3.	The proposed rule clarifies the requirements for effectively operating and maintaining the system, which is a core

		component of the purveyor's responsibilities.
WAC 246-275-425, Change of ownership.	Under the proposed rule, the local health jurisdiction will incur costs associated with the requirement to issue the operating permit within 30 days of receiving a complete application. The costs to the local health jurisdiction are indeterminate. One-time cost of up to $290.25 for a purveyor to notify the regulatory authority and complete and submit a new application form.	The proposed rule will help ensure that the owner and purveyor have the necessary qualifications to manage and operate the ONWS.
WAC 246-275-430, Abandonment.	The proposed rule requires the purveyor to compile a plan that identifies what will happen to the system when it is abandoned. Since this is a requirement of the Operations & Maintenance (O&M) manual, the cost of the proposed rule is captured under WAC 246-275-440.	Requiring an abandonment plan as part of the approval process for the O&M manual will help ensure that the regulatory authority is aware of how the purveyor plans to address different components of the ONWS, such as electrical connections or sewage tanks, and the public health concerns associated with their abandonment.
WAC 246-275-435, District-scale agreement.	The cost of the proposed rule is that of drafting the agreement, likely with the oversight of an attorney. The cost of the proposed rule is indeterminate, as the scope of the agreement will determine the amount of hours spent by the purveyor of the district-scale project and the extent of legal representation (in hours).	The proposed rule will help ensure that anyone who has a vested interest in a district-scale project, such as a property owner, a tenant of a building, or a system user, clearly understands their role and responsibility for the system.
WAC 246-275-440, Operations and maintenance manual (O&M manual).	One-time cost of $5,000 to $10,000 for an engineer to create the O&M manual.	An O&M manual contains important information about the ONWS's design, legal status, operations, maintenance, water

	Estimated negligible recurrent costs for reviewing and updating the manual.	quality treatment requirements, performance, and repair.
WAC 246-275-500, Monitoring and sampling.	A year's worth of analyses may cost an ONWS at least $10,000 with a top estimate being indeterminate due to the variability associated with what is being tested for, and how many samples the ONWS is sending every year. This estimate and all costs of this proposed rule section are incorporated into the ongoing O&M costs in SA Table 3.	The monitoring frequencies establish the protocol and schedule for ensuring that regular water quality sampling is conducted, where applicable. This ensures that treatment is working as designed to protect public health.
WAC 246-275-505, Routine water quality reporting.	The costs of this proposed rule are incorporated into the ongoing O&M costs in SA Table 3.	Documentation and the submittal of the required reports protects public health by providing the regulatory authority with the necessary information and data to ensure the ONWS is being operated and maintained properly to meet the standards established in the proposed rule.
WAC 246-275-510, Annual reporting.	The costs of this proposed rule are incorporated into the ongoing O&M costs in SA Table 3.	The proposed rule protects public health by providing the regulatory authority with the necessary information and data to ensure that the ONWS is operating properly.
WAC 246-275-515, Malfunction notification and reporting.	$290.25 to $580.05 for a purveyor to both generate the required report, as well as notify users of the malfunction. The remaining costs of this proposed rule section are incorporated into the ongoing O&M costs in SA Table 3.	The proposed rule will protect system users by ensuring that they are aware of any potential issues with it. Additionally, the requirement for the purveyor to notify the regulatory authority when malfunctions occur will help the regulatory authority keep track of issues and be able to take action if there are multiple malfunctions of a similar nature.

WAC 246-275-520, Recordkeeping.	Negligible one-time and recurrent costs for recordkeeping and file storage. The remaining costs of this proposed rule are incorporated into the ongoing O&M costs in SA Table 3.	The proposed rule ensures the continued ability to review design and construction documents that may be needed for maintenance and repair, or major modifications.
WAC 246-275-525, User communications.	Anticipated costs to the purveyor associated with translating communications into the language(s) spoken by the populations served by the system. Total costs are indeterminate and unable to be estimated due to variability in building type, demographic makeup of the tenants/users and the languages spoken, and the number of notices being distributed. The remaining costs of this proposed rule are incorporated into the ongoing O&M costs in SA Table 3.	The proposed rule will help ensure that users clearly understand that the water should not be consumed and that it may have certain characteristics that are different from potable water.
WAC 246-275-600, Modification, suspension, and revocation of operating permits.	No anticipated additional cost for the proposed rule.	The proposed rule provides clarity to the regulated entity and will help ensure that the ONWS is operated in a way that protects public health.
WAC 246-275-605, Notice of violations, enforcement actions, and penalties.	No anticipated costs to permit holders as long as they stay in compliance and do not violate the rules.	The proposed rule provides clarity to the regulated entity and will help ensure that the ONWS is operated in a way that protects public health.

Determination

Probable Benefits greater than Probable Costs

It was determined that the probable benefits of the proposed rule are greater than the probable costs.

Costs

As noted previously, the cost of treating source waters using an ONWS is highly variable, depending on the source waters and the implementation scale of the project. Blackwater and greywater require the most advanced treatments, however, even these treatment and technology choices can vary, and this can impact the operation and maintenance costs. Additionally, the amount of demand for treated nonpotable water impacts the storage volume needed and this can have considerably varied costs.

The department acknowledges that costs of compliance with the proposed rules will likely impact legacy systems the most. To help mitigate these impacts, the department included several provisions in the proposed rules, while still requiring the necessary level of public health protection.

Additionally, it should be noted that this is an optional treatment system. It is not required at any implementation scale, and therefore the costs will impact only those who decide to construct and operate such a treatment system.

Benefits

Though an onsite reuse system adds initial and ongoing costs to a project, the reduction in potable water use also results in ongoing savings through lower utility fees, as noted in the SFPUC memo. It may be important to also consider that nationwide water rates have usually increased faster than the consumer price index, which will improve the return on investment as the cost effectiveness from ONWS is likely to increase over time.

The proposed rules provide statewide, scientifically peer-reviewed standards that better protect public health while reducing potable water use. If implemented at a large scale, ONWS can serve as a significant efficiency measure to saving potable water and the costs associated with that. The use of these systems, when part of an integrated water resource management approach, will help build more resilient, reliable, and sustainable communities. These benefits are innumerable, but difficult to quantify, especially given the newness of the technology and the lack of an implementation history for these systems.

At a time when water supplies are strained by droughts and persistent flooding fueled by climate change threatens our communities and endangers public health, creating a clear, statewide regulatory pathway for these advanced on-site water treatment technologies has never been more important or urgent.

SECTION 6

List of alternative versions of the rule that were considered including the reason why the proposed rule is the least burdensome alternative for those that are required to comply and that will achieve the goals and objectives of the proposed rule.

The department considered several alternative approaches to the rule. In considering each requirement, the department chose the version that is the least burdensome for those required to comply, while still protecting public health.

Implementation: At the onset of rulemaking, the proposed rule was drafted so that only local health jurisdictions (LHJs) would be implementing an ONWS program. However, after meeting with the Rules Advisory Committee, it became clear that LHJs currently lack the capacity to completely implement an ONWS program. Based on this feedback, the proposed rule was redesigned to allow for flexibility for the department to support the design, engineering, and permitting of the ONWS, while allowing LHJs the option to implement at the local level.

Application: The Department of Ecology has a policy that allows for certain rainwater harvesting and reuse at a variety of scales. The public health risk is low for the collection and beneficial use of rooftop runoff and stormwater, as defined in the proposed chapter, for outdoor uses. The requirements of this chapter would be excessively burdensome for this type of rainwater harvesting. Therefore, this chapter does not apply to these source waters for end uses outside of buildings.

Defining "cost prohibitive": RCW 90.46.290(3)(b) states that "If a permitting local jurisdiction finds that the permittee is unable to come into compliance with the rules adopted under subsection (1) of this section because the engineering, repair, or replacement of the system is cost-prohibitive, the local jurisdiction may grant the permittee a waiver of compliance with the rules."

The department considered providing a definition for "cost prohibitive" in the proposed rule. However, it was determined that there is too much variability in what might be considered "cost prohibitive." The size and complexity of the ONWS, the treatment train requirements, as well as the financial situation of the owner/purveyor at the time of the waiver request all factor into this determination. Additionally, these costs can and will change over time and the proposed rule takes this into account by limiting the duration of the waiver and requiring a new waiver request if necessary.

Operator qualifications: The department considered several different alternatives for the qualifications that are needed to operate an ONWS. One of these would be a national certification, however, this has not yet been developed. At the state level, an existing qualification that was considered is for operators of wastewater treatment plants. However, this certification is applicable only to wastewater treatment plants as defined in chapter 173-230 WAC and not to ONWS under this chapter.

Appointment of a site supervisor: The department considered a requirement for the owner or purveyor to appoint a site supervisor. The department concluded that reducing the burden on the owner or purveyor would have no impact on public health and therefore site supervisors are not required in the proposed rules.

SECTION 7

Determination that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

SECTION 8

Determination that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law.

The rule does not impose more stringent performance requirements on private entities than on public entities.

SECTION 9

Determination if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by an explicit state statute or by substantial evidence that the difference is necessary.

There is no applicable federal standard.

SECTION 10

Demonstration that the rule has been coordinated, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.

The proposed rule has been coordinated with the following entities and related standards:

- The National Blue Ribbon Commission.
- National and international technology validation processes.
- The Department of Ecology, as this proposed rule relates to stormwater management, waters of the state, water rights, and accredited labs.
- The International Association of Plumbing and Mechanical Officials.
- The State Plumbing Code.
- The State Building Code Commission.
- Department of Health regulations pertaining to cross-connection control, drinking water, and large on-site sewage systems.