PROPOSED RULE MAKING

CR-102 (June 2024)
(Implements RCW 34.05.320)
Do **NOT** use for expedited rule making

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DATE: August 04, 2026
TIME: 1:34 PM

WSR 26-16-075

Agency: Department of Health

☒ **Original Notice**
☐ **Supplemental Notice to WSR**
☐ **Continuance of WSR**

☒ **Preproposal Statement of Inquiry was filed as WSR** 24-09-067 **; or**
☐ **Expedited Rule Making--Proposed notice was filed as WSR _____; or**
☐ **Proposal is exempt under RCW 34.05.310(4) or 34.05.330(1); or**
☐ **Proposal is exempt under RCW _____.**

Title of rule and other identifying information: Chapter 246-275 WAC, On-site nonpotable water systems (ONWS). The Department of Health (department) is proposing to adopt a new chapter in Title 246, Department of Health. The proposed rules establish general administrative procedures, treatment and performance requirements, allowable source water, end uses and implementation scales, design and construction standards, monitoring, reporting, and recordkeeping requirements, as well as operation and maintenance requirements for ONWS. The proposed rules also establish procedures for enforcement and violations, as well as set fees.

Hearing location(s):

Date:	**Time:**	**Location:** (be specific)	**Comment:**
September 22, 2026	11:00 am	Register in advance for this webinar: https://us02web.zoom.us/webinar/register/WN_QMgaoMC7R0y7YWVbCfDY9g After registering, you will receive a confirmation email containing information about joining the webinar.	This hearing will be virtual only.

Date of intended adoption: September 29, 2026 (Note: This is **NOT** the **effective** date)

Submit written comments to:	**Assistance for persons with disabilities:**
Name Kseniya Efremova	Contact Kseniya Efremova
Address PO Box 47820, Olympia, WA 98504-7820	Phone (360) 236-3449
Email kseniya.efremova@doh.wa.gov	Fax N/A
Fax N/A	TTY 711
Other https://fortress.wa.gov/doh/policyreview/	Email kseniya.efremova@doh.wa.gov
Beginning (date and time) Date and time of filing	Other N/A
By (date and time) September 22, 2026 at 11:59 pm	By (date) September 8, 2026

Purpose of the proposal and its anticipated effects, including any changes in existing rules: The proposed rules create a new chapter in Title 246 for the purpose of establishing regulations for ONWS. The chapter establishes risk-based standards, administrative, review, and approval processes for ONWS and use-based requirements for treated nonpotable water. Finally, the proposed rules 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 Engrossed Substitute House Bill 1184 (ESHB 1184) (chapter 156, Laws of 2021).

Reasons supporting proposal: ESHB 1184 directed the department to adopt rules to protect and improve public health, protect and enhance the environment, and conserve potable (drinking) water where nonpotable (not drinkable) water can safely be used on-site or nearby. The proposed rules are needed to establish comprehensive standards for a statewide ONWS program in Washington.

Statutory authority for adoption: Engrossed Substitute House Bill 1184 (chapter 156, Laws of 2021), codified as RCW 90.46.290, and RCW 43.70.250.

Statute being implemented: Engrossed Substitute House Bill 1184 (chapter 156, Laws of 2021), codified as RCW 90.46.290.

Is rule necessary because of a:

Federal Law?	☐ Yes	☒ No
Federal Court Decision?	☐ Yes	☒ No
State Court Decision?	☐ Yes	☒ No

If yes, CITATION:

Agency comments or recommendations, if any, as to statutory language, implementation, enforcement, and fiscal matters: None

Name of proponent: (person or organization) Washington State Department of Health
Type of proponent: ☐ Private. ☐ Public. ☒ Governmental.

Name of agency personnel responsible for:

	Name	Office Location	Phone
Drafting	Kseniya Efremova	111 Israel Road SE, Tumwater, WA, 98501	(360) 236-3449
Implementation	Andrew Jones	111 Israel Road SE, Tumwater, WA 98501	(360) 742-9233
Enforcement	Andrew Jones	111 Israel Road SE, Tumwater, WA 98501	(360) 742-9233

Is a school district fiscal impact statement required under RCW 28A.305.135? ☐ Yes ☒ No
If yes, insert statement here:

The public may obtain a copy of the school district fiscal impact statement by contacting:
Name
Address
Phone
Fax
TTY
Email
Other

Is a cost-benefit analysis required under RCW 34.05.328?

☒ Yes: A preliminary cost-benefit analysis may be obtained by contacting:
Name Kseniya Efremova
Address PO Box 47820, Olympia, WA 98504-7820
Phone (360) 236-3449
Fax N/A
TTY 711
Email kseniya.efremova@doh.wa.gov
Other None

☐ No: Please explain:

Regulatory Fairness Act and Small Business Economic Impact Statement
Note: The Governor's Office for Regulatory Innovation and Assistance (ORIA) provides support in completing this part.

(1) Identification of exemptions:
This rule proposal, or portions of the proposal, **may be exempt** from requirements of the Regulatory Fairness Act (see chapter 19.85 RCW). For additional information on exemptions, consult the exemption guide published by ORIA. Please check the box for any applicable exemption(s):

☐ This rule proposal, or portions of the proposal, is exempt under RCW 19.85.061 because this rule making is being adopted solely to conform and/or comply with federal statute or regulations. Please cite the specific federal statute or regulation this rule is being adopted to conform or comply with, and describe the consequences to the state if the rule is not adopted.
Citation and description:

☐ This rule proposal, or portions of the proposal, is exempt because the agency has completed the pilot rule process defined by RCW 34.05.313 before filing the notice of this proposed rule.

☐ This rule proposal, or portions of the proposal, is exempt under the provisions of RCW 15.65.570(2) because it was adopted by a referendum.

☒ This rule proposal, or portions of the proposal, is exempt under RCW 19.85.025(3). Check all that apply:

- ☐ RCW 34.05.310 (4)(b) (Internal government operations)
- ☒ RCW 34.05.310 (4)(c) (Incorporation by reference)
- ☒ RCW 34.05.310 (4)(d) (Correct or clarify language)
- ☐ RCW 34.05.310 (4)(e) (Dictated by statute)
- ☒ RCW 34.05.310 (4)(f) (Set or adjust fees)
- ☐ RCW 34.05.310 (4)(g) ((i) Relating to agency hearings; or (ii) process requirements for applying to an agency for a license or permit)

☒ This rule proposal, or portions of the proposal, is exempt under RCW 19.85.025(4). (Does not affect small businesses).

☐ This rule proposal, or portions of the proposal, is exempt under RCW _____.

Explanation of how the above exemption(s) applies to the proposed rule: WAC 246-275-100, 246-275-105, 246-275-110, 246-275-115, and 246-275-130 are exempt under RCW 34.05.310(4)(d), as they clarify certain aspects of the proposed rule. WAC 246-275-135 is exempt under RCW 19.85.025(4) because the proposed rule applies to local health jurisdictions, which are a governmental entity that does not meet the definition of "small business" in RCW 19.85.020. WAC 246-275-610 is exempt under RCW 34.05.310(4)(c), as the proposed rule incorporates by reference without material change Washington state statute that regulates the same subject matter and conduct. WAC 246-275-990 is exempt under RCW 34.05.310(4)(f), as the proposed rule sets fees for the chapter.

(2) Scope of exemptions: *Check one.*

☐ The rule proposal: Is fully exempt. *(Skip section 3.)* Exemptions identified above apply to all portions of the rule proposal.

☒ The rule proposal: Is partially exempt. *(Complete section 3.)* The exemptions identified above apply to portions of the rule proposal, but less than the entire rule proposal. Provide details here (consider using this template from ORIA): See exemptions above.

☐ The rule proposal: Is not exempt. *(Complete section 3.)* No exemptions were identified above.

(3) Small business economic impact statement: *Complete this section if any portion is not exempt.*

If any portion of the proposed rule is **not exempt**, does it impose more-than-minor costs (as defined by RCW 19.85.020(2)) on businesses?

☐ No Briefly summarize the agency's minor cost analysis and how the agency determined the proposed rule did not impose more-than-minor costs.

☒ Yes Calculations show the rule proposal likely imposes more-than-minor cost to businesses and a small business economic impact statement is required. Insert the required small business economic impact statement here:

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. A description of the probable compliance requirements and the kinds of professional services that a small business is likely to need in order to comply with the proposed rule.

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; and 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 Washington's 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 the pressure on local drinking water supplies. According to the San Francisco Public Utilities Commission, "on-site 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.

Compliance requirements and professional services
If a business or non-profit organization chooses to implement an ONWS, the compliance requirements will be the same whether it is a small business or a large business. To design and implement a system that meets the requirements of the proposed rule, businesses will have to hire purveyors, operators, professional engineers, designers, plumbers, water system operators, and other contractors as necessary. These individuals will be needed to provide the professional services and carry out the duties/responsibilities described in the significant analysis.

Identification and summary of which businesses are required to comply with the proposed rule using the North American Industry Classification System (NAICS).
ONWS 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. Any commercial or residential business, provided that it has sufficient investment, capital, and technical expertise, can choose to develop and implement an ONWS on its premises. The department anticipates that commercial, real estate holding, and hospitality companies will account for the majority of the types of businesses that will be installing an ONWS in the state. Non-profit organizations may also be interested in these systems.

In SBEIS Table 1 below, the department has included a NAICS code for a type of business that is already implementing an ONWS in the state, as an example. However, as noted above, ONWS can be implemented by a variety of industry types. Due to the uncertainty regarding the exact types of businesses likely to install an ONWS, the department is unable to assign specific NAICS codes for this analysis and has made the determination to complete the SBEIS to be most protective of small businesses.

SBEIS Table 1. Summary of Businesses Required to Comply with the Proposed Rule

NAICS Code (4, 5 or 6 digit)	NAICS Business Description	Number of businesses in Washington State	Minor Cost Threshold
236220	Commercial and Institutional Building Construction	817	$24,498.80

[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. Case Studies Around the World_2021.pdf

Analysis of probable costs of businesses in the industry to comply to the proposed rule and includes the cost of equipment, supplies, labor, professional services, and administrative costs. The analysis considers if compliance with the proposed rule will cause businesses in the industry to lose sales or revenue.

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]

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 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 components, chemical inputs, solids disposal, and the cost of

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

[3] Ibid 2.

[4] Ibid 2.

[5] Ibid 2.

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]

Portions of the proposed rule are exempt under RCW 19.85.025(3). The remaining sections of the proposed rule have probable costs for businesses in the industry. For the purpose of this analysis, the department anticipates that any costs described below that are attributed to individuals such as an ONWS owner, purveyor, or engineer, will be passed on to the business that is installing and operating the ONWS.

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 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 SBEIS Table 3 and the ongoing operations and maintenance (O&M) costs in SBEIS Table 4.

SBEIS Table 3. 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	
	Footprint	**Building Area (gross sq ft)**				

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

	(sq ft)	Total	Residential	Commercial	**Residential Occupants**	**Commercial Occupants**
	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)**	
District Scale	Greywater	11.0	13.1	8.3	23,000	
	Blackwater	18.0	13.1	9.8	27,000	
	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]

SBEIS Table 4. 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
	Source Scenario	**Annual Supply (MG/yr)**	**Annual Demand (MG/yr)**	**Annual Reuse (MG/yr)**	**Daily Reuse (gpd)**	
Building Scale	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	$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		
	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)**	
District Scale	Greywater	11.0	13.1	8.3	23,000	
	Blackwater	18.0	13.1	9.8	27,000	
	Source Scenario	**Life Cycle Cost Analysis District-Scale Construction 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.

[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.

**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]

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.

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.

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.[14] 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 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.[15]**

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.[16] 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.[17]**

[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).

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

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

[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).

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.**[18]

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.**[19] **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.**

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.

WAC 246-275-200, New systems and major modifications to approved ONWS.
Description: The proposed rule outlines the sequence of steps that an owner or purveyor must take when they propose either a new ONWS or major modifications to an already approved ONWS. This section does not contain any new requirements that are not already described in other sections.
Cost(s): There are no new costs for the proposed rule. The costs for each of the steps in the proposed rule are outlined in their respective sections.

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 SBEIS Table 3.

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.**[20]
The remaining costs of this proposed rule section are incorporated into the construction and initial capital costs in SBEIS Table 3.

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

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

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

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

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.

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.
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.**[21]
The remaining costs of this proposed rule section are incorporated into the construction and initial capital costs in SBEIS Table 3.

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 SBEIS Table 3 and the ongoing operations and maintenance cost in SBEIS Table 4.

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. SBEIS Table 3 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.
Cost(s): The costs of this proposed rule are incorporated into the construction and initial capital costs in SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4.

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 (BOD5); Free Chlorine Residual for secondary disinfection; pH; Total Suspended Solids (TSS); and Turbidity.
Cost(s): The costs of this proposed rule are incorporated into both the construction and initial capital costs in SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4, 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.

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; and Makeup water.
Cost(s): The costs of this proposed rule are incorporated into both the construction and initial capital costs in SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4, 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.

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.

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

- 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 SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4, 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.

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.

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.[22] Universal valve lockout devices can range from $49.29 to $168.90 per unit.[23] 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.**

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 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.**[24]
The remaining costs of this proposed rule section are incorporated into the ongoing O&M costs in SBEIS Table 4.

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 application. The department did not consider the costs for this requirement, because this section of rule is exempt from analysis under RCW 19.85.025 (4). LHJ's are a governmental entity that does not meet the definition of "small business" in RCW 19.85.020.
The additional costs for each of the steps in the proposed rule are outlined in their respective sections.

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.

[22] Ball Valve Lockout Devices - Grainger Industrial Supply

[23] Universal Valve Lockout Devices - Grainger Industrial Supply

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

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 SBEIS Table 4.
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.** [25]

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 SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4, 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.

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 SBEIS Table 4.

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 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, at most, 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.**[26]
Additionally, 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 department did not consider the costs for this requirement, because this section of rule is exempt from analysis under RCW 19.85.025 (4). LHJ's are a governmental entity that does not meet the definition of "small business" in RCW 19.85.020.

WAC 246-275-430, Abandonment.
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.

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

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

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

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).

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.

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; BOD5 and total suspended solids; and 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 SBEIS Table 4.

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 SBEIS Table 4.

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 SBEIS Table 4.

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**.[27]
The remaining costs of this proposed rule section are incorporated into the ongoing O&M costs in SBEIS Table 4.

WAC 246-275-520, Recordkeeping.
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 SBEIS Table 4.

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 SBEIS Table 4.

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.

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.

Summary of all Cost(s)

SBEIS Table 5. Summary of Section 3 probable cost(s)

WAC Section and Title	Probable Cost(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 SBEIS Table 3 and the ongoing operations and maintenance (O&M) costs in SBEIS Table 4.
WAC 246-275-125, Allowed end uses.	No anticipated additional cost for the proposed rule.
WAC 246-275-140, Engineering qualifications.	No anticipated additional cost for the proposed rule.
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.

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

	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 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.
WAC 246-275-155, Extensions.	Less than $826.80 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.
WAC 246-275-160, Variances.	The cost of applying for a variance is captured under the process of compiling the engineering report analyzed under WAC 246-275-210.
WAC 246-275-200, New systems and major modifications to approved ONWS.	There are no new costs for the proposed rule. The costs for each of the steps in the proposed rule are outlined in their respective sections.
WAC 246-275-205, Feasibility study.	The costs of this proposed rule are incorporated into the construction and initial capital costs in SBEIS Table 3.
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 SBEIS Table 3.
WAC 246-275-215, Construction documents submittal.	The costs of this proposed rule are captured under WAC 246-275-210.
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 remaining costs of this proposed rule section are incorporated into the construction and initial capital costs in SBEIS Table 3.
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 SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4.
WAC 246-275-305, Log reduction credits.	The costs of this proposed rule are incorporated into the construction and initial capital costs in SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4.
WAC 246-275-310, Water quality limits.	The costs of this proposed rule are incorporated into the construction and initial capital costs in SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4.
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 SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4. The cost of the proposed rule on a particular ONWS is deemed indeterminate because the design requirements are system dependent.
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 SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4. The cost of the proposed rule on a particular ONWS is deemed indeterminate because the design requirements are system dependent.
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.
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.
WAC 246-275-400, Conditional startup mode operations.	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. 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 ongoing O&M costs in SBEIS Table 4.

WAC 246-275-405, Operating permit.	The additional costs for each of the steps in the proposed rule are outlined in their respective sections.
WAC 246-275-410, Operator qualifications and duties.	The costs of this proposed rule are incorporated into the ongoing O&M costs in SBEIS Table 4. 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.
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 SBEIS Table 3 and the ongoing O&M costs in SBEIS Table 4.
WAC 246-275-420, Operations and maintenance.	The costs of this proposed rule are incorporated into the ongoing O&M costs in SBEIS Table 4.
WAC 246-275-425, Change of ownership.	One-time cost of up to $290.25 for a purveyor to notify the regulatory authority and complete and submit a new application form.
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.
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).
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. Estimated negligible recurrent costs for reviewing and updating the manual.
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 SBEIS Table 4.
WAC 246-275-505, Routine water quality reporting.	The costs of this proposed rule are incorporated into the ongoing O&M costs in SBEIS Table 4.
WAC 246-275-510, Annual reporting.	The costs of this proposed rule are incorporated into the ongoing O&M costs in SBEIS Table 4.
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 SBEIS Table 4.
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 SBEIS Table 4.
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 SBEIS Table 4.
WAC 246-275-600, Modification, suspension, and revocation of operating permits.	No anticipated additional cost for the proposed rule.
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 department does not anticipate that compliance with the proposed rule will cause businesses in the industry to lose sales or revenue.

Analysis on if the proposed rule may impose more than minor costs for businesses in the industry. Includes a summary of how the costs were calculated.

As described in section 2, the department is unable to assign NAICS codes, and therefore, establish a minor cost threshold for this analysis. Therefore, to be the most protective of businesses, the department has determined that the estimated costs of the proposed rule will exceed the minor cost threshold.

Determination on if the proposed rule may have a disproportionate impact on small businesses as compared to the 10 percent of businesses that are the largest businesses required to comply with the proposed rule.
The department does not currently have data to determine whether any existing ONWS or future ONWS will be installed within a building owned by a small business. Therefore, it is not possible to determine if any small businesses would be disproportionally affected by the proposed rule. However, the installation of an ONWS at any of the implementation scales described in the proposed rule is a business decision and the department anticipates that any costs incurred by a small business will be the same as the costs incurred by a large business, therefore, to be the most protective of business, the department has elected to complete the SBEIS in full as not enough is known to make a determination.

If the proposed rule has a disproportionate impact on small businesses, the following steps have been identified and taken to reduce the costs of the rule on small businesses.If costs cannot be reduced an explanation has been provided below about why the costs cannot be reduced.
The proposed rules have been written to be as least burdensome as possible, to encourage businesses to adopt these systems. The following are several examples of ways in which the department incorporated less burdensome alternatives for the regulatory requirements.

- The water quality monitoring requirements in the proposed rules allow the operator and purveyor to conduct their own sampling, as opposed to requiring it to be done by an independent, third-party. Additionally, the department could have required direct sampling, instead of relying on the LRTs and secondary parameter sampling. Direct sampling would have entailed constantly taking samples of the finished water to verify that the final effluent is safe and meets all requirements, which is a more burdensome and staff-intensive alternative.
- The LRTs in the proposed rule are in direct alignment with the latest industry science and are designed to be as minimal as possible while still meeting public health goals.
- The proposed rules set different requirements based on source waters, rather than requiring the highest standard of treatment regardless of the source waters.
- The proposed rules include a robust permitting process for legacy systems, so that these systems do not have to immediately come up to code. This approach will enable these systems to take the time that they need to make all necessary updates.
- The proposed rules are an alternative to what has been required by the Plumbing Code, which prescribes certain treatment processes that are not as protective of public health.
- The reporting requirements in the proposed rules are based on the National Blue Ribbon Commission reporting standards. Rather than requiring monthly reporting and the reporting of additional parameters, the department's proposed rules require that the annual reporting for permit renewals be based on conditions established in the operating permit. The other reporting requirements, such as for conditional start-up mode operations and basic water quality sampling, are the baseline reports that would be standard for any ONWS program.
- The proposed rGreaules reduce the frequency of inspections by having minimal allowances for inspections, as needed. The proposed rules eliminate duplicative inspections with plumbing inspectors, and require the operator to conduct periodic inspections.

Description of how small businesses were involved in the development of the proposed rule.
At the onset of this rulemaking project in August 2021, the department convened a Rules Advisory Committee (RAC) to serve as subject matter experts for the development of the rule. The RAC was comprised of individuals representing a diverse group of trade associations, private companies, local health jurisdictions, and public utilities. Several of the private companies that design proprietary treatment products and provide consulting and education services provided a small business perspective during the rulemaking process. Additionally, the department held three informal comment periods, during which a broader array of interested parties, including small businesses, were invited to give feedback on the draft rules.

The estimated number of jobs that will be created or lost in result of the compliance with the proposed rule.
The department does not anticipate that compliance with the proposed rule will result in either jobs created or lost.

The public may obtain a copy of the small business economic impact statement or the detailed cost calculations by contacting:

Name Kseniya Efremova
Address PO Box 47820, Olympia, WA 98504-7820
Phone (360) 236-3449
Fax N/A
TTY 711
Email kseniya.efremova@doh.wa.gov
Other None

Date: 8/4/2026 **Name:** Kristin Peterson, JD for Dennis E. Worsham **Title:** Chief of Policy for Secretary of Health	**Signature:**

Chapter 246-275 WAC
ON-SITE NONPOTABLE WATER SYSTEMS

PART 1 GENERAL PROVISIONS

NEW SECTION

WAC 246-275-001 Purpose and scope. (1) The purpose of this chapter is to set standards and requirements for the use of treated nonpotable water from on-site nonpotable water systems (ONWS).

(2) This chapter establishes risk-based standards, administrative, review, and approval processes for ONWS and use-based requirements for treated nonpotable water. This chapter establishes requirements for:

(a) General provisions including, but not limited to, those for applicability, waivers and extensions of compliance, variances, professional engineer requirements, and inspections;

(b) Treatment and performance, including risk-based log reduction targets for the removal of pathogens;

(c) Allowable source water, end uses, and implementation scales;

(d) Design and construction standards;

(e) Cross-connection control;

(f) Permitting;

(g) Water quality standards;

(h) Operation and maintenance;

(i) Malfunction notification and user confidence;

(j) Enforcement procedures;

(k) Monitoring, reporting, and recordkeeping; and

(l) Fees.

NEW SECTION

WAC 246-275-005 Applicability. (1) The requirements of this chapter apply to ONWS designed, constructed, operated, and maintained to collect and treat source waters for distribution and use as treated nonpotable water, and to a person, owner, and purveyor involved in these activities, including legacy ONWS as defined in this chapter.

(2) This chapter does not apply to:

(a) Single-family residences;

(b) Industrial reuse water;

(c) Closed loop water reuse, such as closed loop laundry recycling;

(d) Roof runoff and stormwater source water with no end uses inside a building;

(e) Reclaimed water facilities permitted or eligible for permitting under chapter 173-219 WAC; or

(f) Greywater facilities regulated under chapter 246-274 WAC.

NEW SECTION

WAC 246-275-007 Relationship to other applicable laws, rules, and regulations. (1) A purveyor shall obtain all applicable local building, plumbing, or other required permits from the local authority having jurisdiction.

(2) A person designing, constructing, altering, repairing, or operating and maintaining an ONWS shall comply with all applicable local ordinances and codes, federal and state statutes, rules, and regulations including, but not limited to, this chapter, chapters 90.46 and 19.27 RCW, and chapter 51-56 WAC.

NEW SECTION

WAC 246-275-010 Definitions. The definitions in this section apply throughout this chapter unless the context clearly indicates otherwise.

(1) "Accredited laboratory" means an environmental laboratory accredited under chapter 173-50 WAC and operating within its scope of accreditation.

(2) "Air conditioning condensate (AC condensate)" means water extracted from atmospheric water vapor due to the operation of air conditioning or refrigeration.

(3) "ANSI" means the American National Standards Institute.

(4) "Annual report" means a department-supplied form summarizing the annual operational conditions and service population of an on-site nonpotable water system.

(5) "Approved air gap" means the same as in chapter 246-290 WAC.

(6) "Authority having jurisdiction" means local, state, or federal entities having regulatory authority over a specific aspect of the ONWS project.

(7) "BOD_5" means the five-day biochemical oxygen demand, typically expressed in mg/L.

(8) "Blackwater" means water-carried domestic human waste from toilets or urinals and includes liquid effluent from kitchen sinks or dishwashers.

(9) "Commercial building" means a structure with either or both of the following:

(a) Five or more residential units, also called a commercial multifamily building.

(b) A single occupancy classification and constructed under chapter 19.27 RCW, as implemented by chapter 51-50 WAC or local ordinance.

(10) "Conditional startup mode" means a period after the construction of the ONWS during which the treatment and distribution system's operations and performance are monitored and evaluated to validate design and performance assumptions.

(11) "CT" means the disinfectant residual concentration multiplied by contact time.

(12) "Continuous monitoring" means ongoing confirmation of system performance with the use of sensors, analyzers, meters, and other instrumentation, at least once every 15 minutes for the continuous observation of selected parameters, including surrogate parameters correlated with pathogen log reduction targets.

(13) "Data and monitoring report (DMR)" means a document containing the operation and water quality results of an ONWS permitted under this chapter.

(14) "Department" means the Washington state department of health.

(15) "Disability adjusted life years (DALYs)" means the measure of the health burden of a disease, calculated as the sum of years of life lost (YLL) due to premature death and years of life lived with disability (YLD) from illness (DALY=YLL+YLD).

(16) "Disinfection" means a physical or chemical process including, but not limited to, ultraviolet irradiation, ozonation, and chlorination used for the inactivation of pathogenic microorganisms.

(17) "District-scale agreement" means a written document required for a district-scale project that defines the roles and responsibilities of a property owner or entity acting as a purveyor or user of an ONWS, or both.

(18) "District-scale project" means a single project at the time of design consisting of two or more commercial, multifamily residential, or mixed-use buildings on one or more parcels near the point of treatment or use and sharing an ONWS.

(19) "Engineering report" means a technical document prepared under the direction, and bearing the seal, date, and signature of a professional engineer, describing the ONWS.

(20) "Facility inventory" means a document summarizing the characteristics of an ONWS.

(21) "First flush diverter" means a device operated by a mechanical float valve or other type of automatic control which redirects a quantity of roof runoff or stormwater collected from a surface following the onset of a rain event.

(22) "Foundation drainage" means shallow groundwater collected from the drainage around building foundations or sumps. Foundation drainage does not include nonpotable groundwater extracted for beneficial use.

(23) "Greywater" means liquid effluent collected from nonblackwater sources, such as bathroom sinks, showers, bathtubs, clothes washers, and laundry sinks. Greywater does not include flow from toilets or urinals and does not include liquid effluent from kitchen sinks or dishwashers.

(24) "HPC" means heterotrophic plate count.

(25) "Implementation scale" means the size of the ONWS in terms of the number and type of buildings it serves.

(26) "Inadequately treated nonpotable water" means a source water put through all or part of the ONWS's treatment process that does not satisfy the requirements of this chapter.

(27) "Industrial reuse water" means the same as in RCW 90.46.010.

(28) "Joint plan of responsibility" means a written agreement between the department and a local health jurisdiction, local health officer, or designee, as needed, to either partially or fully administer, enforce, and carry out the responsibilities under this chapter.

(29) "Legacy ONWS" means an on-site nonpotable water treatment system or alternate water source system under WAC 51-56-1500 or nonpotable rainwater catchment system under WAC 51-56-1600 that either was:

(a) In operation prior to January 1, 2022, and required to comply with this chapter under RCW 90.46.290 (3)(a); or

(b) Designed, constructed, permitted, or in operation prior to the effective date of this chapter and required to comply with this chapter.

(30) "Local health jurisdiction" means a local health department as defined in chapter 70.05 RCW, city-county health department as defined in chapter 70.08 RCW, or a health district as defined in chapter 70.05 RCW.

(31) "Local health officer" means the same as in RCW 70.05.010.

(32) "Log reduction" means the reduction in the concentration of infective pathogens or surrogate parameters through a treatment process expressed in $\log_{10}$ units. For example, a 1-log reduction equates to 90-percent removal, 2-log reduction to 99-percent removal, and 3-log reduction to 99.9-percent removal.

(33) "Log reduction credit (LRC)" means the $\log_{10}$ reduction value approved by the department or a local health jurisdiction under a joint plan of responsibility for a treatment technology based on the capability of the technology to remove or inactivate pathogens and proposed surrogate parameters for continuous monitoring.

(34) "Log reduction target (LRT)" means the required degree of pathogen reduction needed to achieve a risk of 10^{-6} DALYs per person per year (PPY) through exposure to treated nonpotable water.

(35) "Major modification" means changes from existing source waters, treatment unit processes, or implementation scales.

(36) "MBR" means membrane biological reactor.

(37) "Mixed-use building" means a structure containing two or more occupancy classifications and constructed under chapter 19.27 RCW, as implemented by chapter 51-50 WAC, or local ordinance.

(38) "Multifamily residential building" means the same as defined in chapter 19.27 RCW.

(39) "NWRI" means National Water Research Institute.

(40) "NTU" means nephelometric turbidity unit.

(41) "On-site nonpotable water system (ONWS)" means a system in which water from local sources is collected, treated, and used for nonpotable uses at the building to district/neighborhood-scale, generally at a location near the point of generation. ONWS includes "nonpotable reuse system" under chapter 173-219 WAC, "alternate water source system" under WAC 51-56-1500, and "nonpotable rainwater catchment system" under WAC 51-56-1600.

(42) "Operating permit" means a legally enforceable written document designed to improve compliance by clarifying the compliance obligations of this chapter for each ONWS.

(43) "Operations and maintenance manual (O&M manual)" means a document providing comprehensive information including, but not limited to, the ONWS's design, legal status, operation, maintenance, performance, and repair.

(44) "Operator" means a qualified individual or entity with routine duties that affect the treatment performance or water quality of the treated nonpotable water.

(45) "Owner" means one or more persons, jointly or severally, in whom is vested all or any part of the legal title to the ONWS.

(46) "Person" means any individual, government agency, political subdivision of the state, public or private corporation, firm, company, mutual or cooperative association, institution, partnership, or other legal entity.

(47) "Premises isolation" means a method of protecting a public water system by installation of approved air gaps or approved backflow prevention assemblies at or near the service connection to isolate the consumer's water system from the purveyor's distribution system.

(48) "Professional engineer" means a person licensed in the state of Washington under chapter 18.43 RCW or exempt under RCW 18.43.130, and having specific expertise appropriate to ONWS design, operation, and maintenance.

(49) "Purveyor" means a person, partnership, or other entity operating an ONWS. Purveyor also means the authorized agents of these entities.

(50) "Reclaimed water" means the same as defined in chapter 90.46 RCW.

(51) "Record drawing" means an accurate graphic and written record of the location and features that are needed to properly monitor, operate, and maintain the ONWS that bears the stamp and signature of a professional engineer.

(52) "RPBA" means reduced pressure backflow assembly.

(53) "RPDA" means reduced pressure detector assembly.

(54) "Regulatory authority" means the primary entity responsible for administering, enforcing, and carrying out the responsibilities under this chapter. The regulatory authority is either the department or a local health jurisdiction, local health officer, or designee as identified in a joint plan of responsibility under WAC 246-275-135.

(55) "Roof runoff" means precipitation from rain or snowmelt events collected directly from a rooftop not subject to frequent public access.

(56) "Rooftop" means a part of a fixed structure above the ground with a primary purpose other than the collection of roof runoff for beneficial use.

(57) "Source water" means blackwater, greywater, roof runoff, stormwater, foundation drainage, AC condensate, or other untreated, nonpotable water approved under WAC 246-275-210 that is captured for treatment and nonpotable end uses on-site or nearby.

(58) "Spray irrigation" means a method of applying water for use by plants where the water emits from a fixture or device into the air before contacting the soil, ground, or plant surface.

(59) "Stormwater" means precipitation runoff from rain or snowmelt events that flows over land or impervious surfaces, for example streets and parking lots, and does not soak into the ground. Stormwater also includes precipitation from rain or snowmelt events collected directly from a rooftop subject to frequent public access.

(60) "Subsurface irrigation" means a method of applying water for use by plants where the water is delivered beneath the soil surface.

(61) "Surface nonspray irrigation" means a method of applying water for use by plants where the water is delivered directly at the ground plane via hardware such as drip emitters or soaker hoses.

(62) "Surrogate parameter" means a measurable physical or chemical parameter that can assess the performance of a treatment unit process in the control of a specific group or groups of pathogens or chemicals.

(63) "TSS" means total suspended solids.

(64) "Treated nonpotable water" means the water generated by an ONWS that meets the log reduction targets and water quality limits established in this chapter which make it suitable for approved end uses and is an alternative water source identified as "on-site treated nonpotable water" under chapter 51-56 WAC.

(65) "Treatment process" means a combination of treatment unit processes and is also known as a treatment train.

(66) "Treatment unit process" means a physical, chemical, or biological system intended to improve water quality. Examples include filtration, oxidation, adsorption, disinfection, and membrane separation.

(67) "User" means people who use or otherwise interact with fixtures, appliances, or landscaping using treated nonpotable water from an ONWS including, but not limited to, property owners, residents, commercial tenants, employees, and visitors.

(68) "Validation engineering report" means a technical document prepared under the direction, and bearing the seal, date, and signature, of a professional engineer providing a detailed treatment technology evaluation study conducted by challenging the treatment technology over a wide range of operational conditions.

NEW SECTION

WAC 246-275-120 Allowed source water. This chapter applies to ONWS that collect, store, and treat the following source waters:

(1) AC condensate;
(2) Blackwater;
(3) Foundation drainage;
(4) Greywater;
(5) Roof runoff;
(6) Stormwater; and
(7) Other sources approved by a variance under WAC 246-275-160.

NEW SECTION

WAC 246-275-125 Allowed end uses. (1) This chapter applies to the following end uses:

(a) Clothes washing;
(b) Dust control and street cleaning;
(c) Priming drain traps;
(d) Subsurface irrigation, surface nonspray irrigation, and spray irrigation of nonfood plants;
(e) Toilet and urinal flushing; and
(f) Other end uses approved by a variance under WAC 246-275-160.

(2) End uses not allowed under this chapter or eligible for a variance under WAC 246-275-160 include, but are not limited to:

(a) Drinking;
(b) Food preparation and cooking;
(c) Patio misting systems for temperature and humidity control;
(d) Showering and bathing; and
(e) Handwashing or other sanitary uses, including bidets.

NEW SECTION

WAC 246-275-130 Allowed implementation scales. This chapter applies to the following implementation scales:

(1) Commercial building;
(2) District-scale project;
(3) Mixed-use building;
(4) Multi-family residential building; and
(5) Variance approved under WAC 246-275-160.

NEW SECTION

WAC 246-275-135 General administration. (1) The department shall administer, enforce, and carry out the responsibilities under this chapter.

(2) The department may establish a joint plan of responsibility with a local health jurisdiction, local health officer, or designee, to either partially or fully administer, enforce, and carry out the responsibilities under this chapter. A joint plan or responsibility must:

(a) List the roles and responsibilities of each jurisdiction and agency necessary to fulfill the purposes of this chapter including, but not limited to, the required number and type of full-time equivalent positions to administer, enforce, and carry out the responsibilities under this chapter;

(b) Specifically designate types or categories of ONWS for which the department and the local health jurisdiction, or local health officer, have primary responsibility;

(c) Establish an agreed-to level of ONWS oversight that fulfills the roles and responsibilities necessary to administer, enforce, and carry out the responsibilities under this chapter;

(d) Be signed by both parties; and

(e) Be reviewed at least once every five years and updated as needed.

(3) If permitted by the department and outlined in the joint plan of responsibility established under subsection (2) of this section and in accordance with RCW 39.34.030, a local health jurisdiction, local health officer, or designee may establish joint or cooperative action agreements with other local health jurisdictions, local health officers, or designees, to either partially or fully administer, enforce, and carry out the responsibilities under this chapter. The agreement must include, but is not limited to, a list of the roles and responsibilities of each jurisdiction and agency necessary to fulfill the purposes of this chapter, including the required number and type of full-time equivalent positions to administer, enforce, and carry out the responsibilities under this chapter.

(4) The local health jurisdiction, local health officer, or designee may use forms provided by the department or create their own forms to administer this chapter.

(5) Local health jurisdictions implementing all or part of this chapter shall provide required ONWS information and data annually to the department in a format specified by the department.

NEW SECTION

WAC 246-275-140 Engineering qualifications. All work required to be prepared under the direction of a professional engineer including, but not limited to, feasibility studies, engineering reports, validation engineering reports, construction documents, and construction completion reports must bear the seal, date, and signature of the professional engineer. The professional engineer shall have expertise commensurate with the complexity of the design, operation, and maintenance of the ONWS.

NEW SECTION

WAC 246-275-145 Legacy ONWS. The following requirements apply to legacy ONWS:

(1) A purveyor of a legacy ONWS shall submit the required engineering report under WAC 246-275-210 by June 1, 2028.

(2) A purveyor of a legacy ONWS shall submit to the regulatory authority the requirements under WAC 246-275-210(2) and include in the engineering report a description of the existing ONWS and the required modifications necessary to comply with this chapter and RCW 90.46.290 (3)(a) and, if applicable, (b).

(3) A purveyor of a legacy ONWS may apply for a waiver if compliance requiring engineering, repair, or replacement of the system is cost prohibitive under RCW 90.46.290. The applicant shall:

(a) Identify the specific requirements proposed to be waived;

(b) Identify and describe the cost prohibitive engineering, repair, or replacement necessary to achieve compliance;

(c) Attest that no major modifications have been made to the ONWS after the effective date of this chapter;

(d) Provide any additional information requested by the regulatory authority including, but not limited to, the anticipated cost for the engineering, repair, or replacement necessary to comply with the requirement for which the waiver is sought; and

(e) Pay a review fee in accordance with WAC 246-275-990.

(4) A waiver may not apply to greater than a three-year term. Upon expiration, a purveyor shall comply with this chapter or reapply for a waiver of compliance under subsection (3) of this section.

(5) A purveyor granted a waiver of compliance under subsection (3) of this section shall deliver annual, dated notice to all users via mail, email, or publicly posted notice. The notice must:

(a) Identify the requirements for which the legacy ONWS has received the waiver;

(b) The costs associated with coming into compliance; and

(c) The expiration date of the waiver.

NEW SECTION

WAC 246-275-150 Waivers. (1) The purveyor of an ONWS may request a waiver from a specific requirement of this chapter. The request must:

(a) Be in writing;

(b) Identify the requirement requested to be waived;

(c) State the reason for the waiver; and

(d) Provide supporting information.

(2) The department may grant a waiver request if it:

(a) Is consistent with the applicable standards and the intent of this chapter; and

(b) Provides a comparable level of public health and environmental protection to the requirement being waived.

(3) If the department approves a waiver request, the department shall notify the requestor of the decision in writing.

(4) If the department denies a waiver request, the department shall notify the requestor of the decision in writing stating the reasons for the denial.

(5) A purveyor granted a waiver of compliance under this section shall deliver annual, dated notice to all users via mail, email, or publicly posted notice. The notice must identify:

(a) The requirements for which the ONWS has received the waiver of compliance; and

(b) The expiration date of the waiver.

NEW SECTION

WAC 246-275-155 Extensions. (1) The owner or purveyor may not begin construction until receiving the department's written approval to construct.

(2) If construction does not begin within two years following the date of the department's approval of the plans and specifications, the approval for plans and specifications, and notice to construct, expire and become null and void. If these approvals expire, the purveyor shall resubmit the project for approval, following the requirements in WAC 246-275-200(2).

(3) The owner may request a single extension of up to two years of the plans and specifications approval and all subsequent approvals prior to the two-year expiration date by submitting a written request including a status report and construction schedule with the anticipated completion date.

(4) The department may impose additional terms and conditions consistent with the purpose of this chapter and necessary to protect public health if it grants an extension.

(5) An owner granted an extension under this section shall deliver annual, dated notice to all users via mail, email, or publicly posted notice. The notice must identify:

(a) The reason for the extension; and

(b) When construction is anticipated to be completed.

NEW SECTION

WAC 246-275-160 Variances. (1) A purveyor may apply to the department for a variance from certain requirements of this chapter. The request must:

(a) Be in writing;

(b) Identify the requested variance;

(c) State the reason for the variance; and

(d) Provide supporting information.

(2) Except for the end uses listed under WAC 246-275-125(2), the department may grant a variance for:

(a) Additional water sources and end uses under WAC 246-275-120 and 246-275-125;

(b) End uses established under WAC 51-56-1500 or 51-56-1600 with no established risk-based water quality standards under this chapter, if:

(i) Analogous system performance data is provided;

(ii) The purveyor submits a quantitative microbial risk assessment (QMRA) that determines the LRT for the proposed end use;

(iii) The department determines that proposed water quality standards are protective of public health and the environment; and

(iv) Ongoing monitoring results demonstrate that the water meets the expected water quality for source waters and treatment; and

(c) Additional implementation scales under WAC 246-275-130, if:

(i) The proposed implementation scale is consistent with the purpose of this chapter;

(ii) The purveyor provides a copy of the feasibility study required under WAC 246-275-205 to the department of ecology to evaluate the need for a water right impairment review under RCW 90.46.290 (2)(i);

(iii) The purveyor provides other relevant documents requested by the regulatory authority, or the department of ecology; and

(iv) The engineering report under WAC 246-275-210 satisfies all relevant requirements from the regulatory authority including, if applicable, department of ecology requirements to mitigate, compensate, or otherwise address a water right impairment.

(3) The department may approve alternative sampling requirements and reporting frequencies.

(4) If the department approves a variance request, the department shall notify the requestor of the decision in writing.

(5) If the department denies a variance request, the department shall notify the requestor of the decision in writing, stating the reasons for the denial.

NEW SECTION

WAC 246-275-165 Inspection—Site and document access. An owner, purveyor, and user shall allow the department or local health jurisdiction under a joint plan of responsibility to enter and inspect any ONWS governed by this chapter.

(1) A property served by an ONWS, including a property that provides source waters or is served treated nonpotable water, are subject to inspection.

(2) The department or local health jurisdiction under a joint plan of responsibility may enter and inspect any ONWS governed by this chapter to determine compliance with this chapter:

(a) On any weekday that is not a legal holiday between the hours of 8:00 a.m. and 5:00 p.m.; and

(b) At any time with the consent of the owner or purveyor.

(3) The department or local health jurisdiction under a joint plan of responsibility may inspect:

(a) All records, including records of O&M;

(b) All data submitted;

(c) All permits; and

(d) The ONWS, all ONWS components, and all ONWS performance equipment.

(4) During an inspection, the department or local health jurisdiction under a joint plan of responsibility shall have free and unimpeded access to all:

(a) Buildings, warehouses, storage facilities, and other places reasonably considered to be or to have been part of the ONWS;

(b) Ledgers, books, accounts, memorandums, or records required to be compiled or maintained in this chapter; and

(c) Products, components, maintenance supplies, or other material used in connection with the ONWS.

(5) During an inspection, the department or local health jurisdiction under a joint plan of responsibility may take such samples as may be reasonably necessary to verify compliance.

(6) The purveyor shall take preventative or corrective action as directed by the department or local health jurisdiction under a joint plan of responsibility when results of an inspection indicate conditions which may harm or are harming ONWS operation or which are in violation of any requirements of this chapter.

PART 2 PLANNING, REVIEW, APPROVAL, AND PERMITTING PROCESS

NEW SECTION

WAC 246-275-200 New systems and major modifications to approved ONWS. (1) An owner and purveyor proposing a new ONWS or major modifications to an approved ONWS shall follow the sequence provided in this section unless the regulatory authority determines a different order is necessary to satisfy the requirements of this chapter. The owner or purveyor must receive notice of approval from the regulatory authority prior to proceeding to each step in this sequence.

(2) Before construction of an ONWS, a purveyor shall pay applicable fees required by WAC 246-275-990 and submit to the regulatory authority for review and approval the following:

(a) A feasibility study under WAC 246-275-205;
(b) An engineering report under WAC 246-275-210;
(c) Construction documents under WAC 246-275-215; and
(d) All applicable permits issued by authorities having jurisdiction including, but not limited to, all construction and plumbing permits.

(3) During construction, a purveyor shall make the site available for inspection by the regulatory authority, or an authority having jurisdiction, as required under WAC 246-275-165.

(4) Within 60 calendar days of the completion of construction, a purveyor shall provide to the regulatory authority:
(a) A construction completion report under WAC 246-275-220;
(b) Record drawings under WAC 246-275-220; and
(c) A facility inventory under WAC 246-275-220.

(5) A purveyor shall:
(a) Test, in the presence of the authority having jurisdiction, to confirm that no cross-connections exist under WAC 246-275-415; and
(b) Request and receive notice to proceed to conditional startup mode from the regulatory authority under WAC 246-275-400(3).

(6) While operating in conditional startup mode, a purveyor shall:
(a) Operate, monitor, and report pursuant to the conditional startup mode requirements of this chapter, including WAC 246-275-400 and 246-275-500; and
(b) If required, submit the validation engineering reports to the regulatory authority for review and approval under WAC 246-275-305(2).

(7) To complete the conditional startup mode performance period, a purveyor shall comply with the requirements under WAC 246-275-400 including, but not limited to, the following submittals to the regulatory authority for review and approval:
(a) A conditional startup mode final report; and
(b) The O&M manual.

(8) A purveyor shall, after the conditional startup mode performance period is complete:
(a) Submit an operating permit application under WAC 246-275-405 and the documentation required under WAC 246-275-405 (3)(a) through (e) to the regulatory authority; and
(b) Pay applicable fees required by WAC 246-275-990.

(9) A purveyor shall operate, maintain, monitor, keep records, and report on the ONWS pursuant to the following:
(a) The final use mode requirements in this chapter;
(b) The approved O&M manual; and
(c) The operating permit issue by the regulatory authority.

(10) An owner shall renew the operating permit annually under WAC 246-275-405 and pay applicable fees required by WAC 246-275-990.

NEW SECTION

WAC 246-275-205 Feasibility study. An owner or their designee may request a preproject meeting with the regulatory authority to discuss the scope of the project and the feasibility study required in this section.

(1) An owner or their designee shall submit a feasibility study to the regulatory authority for review and approval before submitting

the engineering report or construction documents, or the installation of any ONWS component.

(2) The feasibility study must include, but is not limited to, a description of the proposed new ONWS project, including:

(a) Contact information for the owner, purveyor, and design engineer, if applicable;

(b) Site address, legal description, and name of the county where the project is located;

(c) Vicinity map showing:

(i) The project site;

(ii) Project property boundaries; and

(iii) Parcels surrounding and adjoining the project property boundaries;

(d) Site map scaled to clearly show project boundaries;

(e) The expected operator qualifications, skills, and experience needed to operate and maintain the ONWS in compliance with this chapter;

(f) Proposed source water;

(g) Proposed treatment unit processes with corresponding proposed log reduction credit values that demonstrate compliance with the appropriate risk-based and water quality standards under WAC 246-275-300;

(h) Proposed end uses;

(i) Consideration of financial and staffing requirements for the proposed ONWS;

(j) Identification of all local permits and requirements affecting the project; and

(k) Other data and information deemed necessary by the regulatory authority to show the feasibility of the proposed project.

NEW SECTION

WAC 246-275-210 Engineering report submittal. (1) A purveyor shall submit engineering reports consistent with the standards in WAC 246-275-300, 246-275-305, 246-275-310, 246-275-315, 246-275-320, 246-275-325, and 246-275-330 compatible with component replacement, long-term operation and maintenance, and potential abandonment of the ONWS. Engineering reports are required for a legacy ONWS, new ONWS, or major modification to any ONWS.

(2) Engineering reports must specify necessary operating conditions and identify surrogate parameters requiring continuous monitoring. Engineering reports must show required log reduction credits are achieved by treatment processes and are consistent with WAC 246-275-305, Table 2. The engineering report must include, but is not limited to:

(a) Contact information for the owner, purveyor, and design engineer, if applicable;

(b) Site address, legal description, and name of the county where the project is located;

(c) Vicinity map showing:

(i) The project site;

(ii) Project property boundaries; and

(iii) Parcels surrounding and adjoining the project property boundaries;

(d) Site map scaled to clearly show project boundaries;
(e) Basis of design for ONWS including:
(i) Estimated 24-hour minimum, peak, and average source water flow rate;
(ii) Estimated treated nonpotable demand;
(iii) Source water quality; and
(iv) Treated nonpotable water quality;
(f) Treatment process design criteria, including:
(i) Process flow diagram;
(ii) Contingency plan for treatment of source water during partial occupancy periods or when environmental conditions or other limiting factors would impact treatment performance;
(iii) Pathogen log reduction credit under WAC 246-275-305;
(iv) Treatment process flow summary;
(v) Treatment unit process design criteria;
(vi) Secondary disinfection;
(vii) Chemical use and handling; and
(viii) Solids handling and disposal.
(g) Operations and maintenance details including, but not limited to:
(i) Wastewater source control for biological treatment systems including prevention of hazardous waste disposal that kills treatment microbes;
(ii) Treatment prescreening to capture and remove hair, sanitary wipes, including those that are marked as flushable, and similar nondegradable contaminants that is easy and safe to access;
(iii) Consideration for treatment equipment maintenance, repair, and replacement access including full access to storage tank hatches;
(iv) Workspace odor control and air quality safety;
(v) Reliability features;
(vi) Workplace safety equipment including, but not limited to, chemical showers, eye wash stations, spill, and first-aid kits; and
(vii) O&M training program and employee notification procedures;
(h) System control strategy for monitoring and alarms including, but not limited to:
(i) Alarms and automatic diversions;
(ii) Remote monitoring;
(iii) Grab sampling with safe and easy access to sampling ports; and
(iv) Providing full access to critical equipment components and control points;
(i) Supplemental water supply and cross-connection control under WAC 246-275-415;
(j) Description of pathways for potential exposure and impacts to the public;
(k) Detailed conditional startup mode operations testing and monitoring plan in accordance with WAC 246-275-400 and 246-275-500, including Table 5. These plans must demonstrate that the ONWS will function as intended, reliably and consistently achieve the LRTs and water quality limits established in this chapter, and must include:
(i) Hydraulic load during the test;
(ii) Location and schedule for all sampling or measurements;
(iii) Methods used to analyze samples or make measurements;
(iv) Persons responsible for conducting the test and processing samples;
(v) Indicators of steady-state operation;

(vi) Method used to verify required pathogen log reduction targets are achieved;

(vii) Test plan for the monitoring, alarm, alarm response, and control systems;

(viii) If required under WAC 246-275-305, a validation engineering report for log reduction targets, including the surrogate parameters for field verification to determine log reduction performance and a process for accounting for variability in the ONWS during field verification. Field verification must consist of at least three test runs during which the water quality, influent flow rate to the treatment process, or both, is the most difficult for treatment process efficacy or for the subsequent treatment unit process; and

(ix) Consideration of partial occupancy periods and environmental or other limitations that will impact the quantity of available source water or otherwise impact the timing and the duration of the performance period;

(l) Environmental documentation including, but not limited to, a final environmental impact statement, determination of nonsignificance, or mitigated determination of nonsignificance under chapters 43.21C RCW and 197-11 WAC or water right impairment documentation if required under WAC 246-275-155; and

(m) Other data and information deemed necessary to show a complete engineering report.

NEW SECTION

WAC 246-275-215 Construction documents submittal. An owner or purveyor shall submit to the regulatory authority all construction documents for review and approval before beginning construction on ONWS major modifications or requesting a notice to proceed to conditional startup mode under WAC 246-275-400(3).

(1) ONWS construction documents must show how the project was or will be modified or constructed in accordance with the approved engineering report. Construction documents must be consistent with the design requirements in WAC 246-275-300, 246-275-305, 246-275-310, 246-275-315, 246-275-320, 246-275-325, and 246-275-330 and must include, but are not limited to:

(a) Detailed drawings of each project component;

(b) Detailed material specifications for each project component;

(c) Detailed construction specifications and assembly techniques for conducting the project;

(d) Testing criteria and procedures for each applicable portion of the project;

(e) Disinfection procedures that conform with the American Water Works Association (AWWA) standards or other standards acceptable to the department; and

(f) Provisions for inspection of the installation of each project component.

NEW SECTION

WAC 246-275-220 Construction completion report and facility inventory. A purveyor shall submit a construction completion report and record drawings to the department after construction is completed. The construction completion report and record drawings 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 purveyor shall submit a facility inventory with the construction completion report.

PART 3 DESIGN, LOG_{10} REDUCTION TARGETS AND CREDITS, AND WATER QUALITY LIMITS

NEW SECTION

WAC 246-275-300 Pathogen log reduction targets (LRT). (1) ONWS must have a treatment process design to achieve the log reduction targets in Table 1 of this section.

(2) Inadequately treated nonpotable water not meeting log reduction targets in Table 1 of this section must automatically divert to sanitary or storm sewer appropriate for the source of inadequately treated water as described under WAC 246-275-315(4).

Table 1: Pathogen Log_{10} Reduction Targets (LRT)

Source Water	Virus	Protozoa	Bacteria
Blackwater (wastewater)	10.0	6.5	5.5
Greywater	7.5	4.0	3.5
Stormwater (10% wastewater)	8.0	6.0	5.5
Stormwater (0.01% wastewater)	5.0	3.0	2.5
Roof runoff	N/A	1.0	3.5
Foundation	5.0	3.0	2.5
AC condensate	N/A	N/A	3.5

NEW SECTION

WAC 246-275-305 Log reduction credits. (1) Log reduction credits (LRC) are assigned by the department based on the ability of each treatment unit process to achieve an assigned or validated log reduction credit. Table 2 of this section summarizes the log reduction

credits assigned for each treatment unit process. Projects may seek, and the department may approve, higher log reduction credits than Table 2 with site-specific validation, surrogate parameters, or other approved methods.

(2) Other treatment unit processes not included in Table 2 of this section may receive LRC if verifiable evidence is provided in an approved validation engineering report. The validation engineering report must characterize and quantify ONWS treatment performance under low flow, high flow, and treatment upset conditions, include evidence the treatment unit process can reliably and consistently achieve a specific LRT, and provide information on the required operating conditions and surrogate parameters that require continuous monitoring.

(3) UV log reduction credits are reactor-specific and dose dependent. The UV validation report must document results. Validation testing must be based on one of the following:

(a) United States Environmental Protection Agency (US EPA) UV Disinfection Guidance Manual (US EPA 2006);

(b) NWRI UV Disinfection: Guidelines for Drinking Water and Water Reuse, third edition (NWRI 2012);

(c) NSF/ANSI 55 Standard for UV Water Treatment Systems (NSF/ANSI 2022);

(d) DVGW W294 (Deutsche Vereinigung des Gas und Wasserfaches);

(e) ÖNORM M5873-1 or ÖNORM M5873-2 protocol (Österreichisches Normungsinstitut - Austrian Standards Institute); or

(f) A published protocol submitted to the regulatory authority for approval.

(4) The following treatment-specific information must be included in the engineering report for each of the following treatment unit processes used:

(a) Microfiltration or ultrafiltration:

(i) Description and calculation of how the system defines an acceptable pressure decay test value per the US EPA's Membrane Filtration Guidance Manual (US EPA 815-R-06-009);

(b) Membrane biological reactor (MBR):

(i) Full description of the operating envelope including operation with the Tier 1 operating envelope as defined in the *Membrane Bioreactor Validation Protocols for Water Reuse* (*WRF project 4997*);

(c) Reverse osmosis:

(i) Full description of the log removal credits as described in the US EPA RO pathogen crediting framework; and

(ii) Rationale for surrogate parameter used to calculate log removal credits;

(d) UV light disinfection:

(i) Full description of LRCs as described in the selected framework under this subsection; and

(ii) Documentation describing the validated operating envelope and how the UV system will be designed and operated to stay within the acceptable limits for flow, UVT, and other relevant parameters;

(e) Chlorine disinfection:

(i) Full descriptions of LRCs as described in US EPA free chlorine CT tables or Australian WaterVal Validation Protocol; and

(ii) Specifics on how concentration and contact time will be determined;

(f) Ozone disinfection:

(i) Full description of LRCs based on contact time framework as described in EPA Disinfection Profiling and Benchmarking Guidance Manual (1999).

Table 2: Treatment Unit Process Log_{10} Reduction Credits

Treatment Unit Process	Log_{10} Reduction Credits Virus/Protozoa/ Bacteria	Crediting Framework	Example Continuous Monitoring Methods
Microfiltration or ultrafiltration	0.0/4.0/0.0	US EPA Membrane Filtration Guidance Manual	Daily pressure decay test to detect breach of 3 µm or larger Effluent turbidity
MBR	1.5/2.0/4.0	Membrane Bioreactor Validation Protocols for Water Reuse (WRF project 4997)	Effluent turbidity equal to or less than 0.2 NTU 95% of the time and always below 0.5 NTU
Reverse osmosis	Up to 2.0/2.0/2.0 (Surrogate parameter dependent)	US EPA RO pathogen crediting framework	Influent and effluent total organic carbon Influent and effluent electrical conductivity
UV light disinfection	Up to 6.0/6.0/6.0 (Dose dependent)	US EPA UV Disinfection Guidance Manual or NSF 55 Class A validation	UV intensity Flow rate UV dose
Chlorine disinfection	Up to 5.0/0/5.0 (CT dependent)	US EPA free chlorine CT tables Australian WaterVal Validation Protocol	Chlorine residual Flow rate
Ozone disinfection	Up to 4.0/3.0/4.0 (CT dependent)	EPA Disinfection Profiling and Benchmarking Guidance Manual (1999)	Ozone residual Flow rate

NEW SECTION

WAC 246-275-310 Water quality limits. ONWS must have a treatment process design to continuously achieve the water quality limits in Table 3 of this section and the automatic diversion requirements in WAC 246-275-300(2) and 246-275-315(4).

Table 3: Water Quality Limits

Parameter	Limit	Automatic Diversion
Log_{10} reduction targets (LRT)	See WAC 246-275-300, Table 1	Yes
Free Chlorine Residual for secondary disinfection minimum, when required by WAC 246-275-315(7)	0.5 mg/L (at entry to distribution) 0.2 mg/L (at a representative location at end of distribution)	No
pH	6.0-9.0	No
Turbidity (95% maximum)	0.2 NTU	No
Turbidity (absolute maximum)	0.5 NTU	Yes
5-day Biological Oxygen Demand (BOD_5)	30 mg/L	No
Total Suspended Solids (TSS)	30 mg/L	No

NEW SECTION

WAC 246-275-315 Design requirements for all ONWS. An ONWS must:

(1) Be designed to prevent unintentional contact with humans;

(2) Be designed and equipped with features that result in a controlled and nonhazardous automatic shutdown of the treatment process in case of a treatment or physical malfunction or failure;

(3) Use a licensed plumber to install all distribution piping, fixtures, equipment, appliances, and appurtenances according to project type: Commercial or multifamily residential;

(4) Include automatic diversion and overflow connections to the sanitary or stormwater system, when appropriate, with an approved air gap or other approved backflow prevention assembly. ONWS that treat blackwater or greywater must automatically divert to sanitary sewers. If allowed by the local stormwater authority, an ONWS that only treats roof runoff, stormwater, or both, may divert to stormwater systems. The ONWS must always be capable of automatically diverting when:

(a) Operating during conditional startup mode;

(b) The required log reduction targets under WAC 246-275-300, Table 1, or applicable water quality limits in WAC 246-275-310, Table 3, are not met; or

(c) There is an ONWS malfunction or failure;

(5) Provide and maintain signage as required by chapter 51-56 WAC. Signage must be included on a property collecting, treating, receiving, or distributing water from an ONWS. Signage must be in a language that is understood by the populations served, maintained in good condition, and free from damage;

(6) Be designed with and have:

(a) Appropriate flow meters to verify and control flow rates and contact times required to meet the LRTs; and

(b) Totalizing flow meters to separately measure the volume of:

(i) Treated water for permitted end uses; and

(ii) Makeup water for permitted end uses;

(7) Have sample taps installed before and after each treatment unit process and at critical points in the distribution system, as approved by the regulatory authority;

(8) Except for ONWS permitted solely for subsurface irrigation as an end use or when using makeup water, include a treatment unit process to achieve a free chlorine concentration in the treated nonpotable water. The free chlorine concentration must be a minimum of:

(a) 0.5 mg/L at the entry to the distribution system; and

(b) 0.2 mg/L at a representative location at the end of the distribution system;

(9) Be designed and operated to control odors and comply with applicable federal, state, and local indoor air quality standards;

(10) Be designed so that all air vents for ONWS water tanks or collection tanks are screened with a durable, noncorrosive, fine mesh screen;

(11) Include seals for all gaps around pipes feeding the water tank with a durable, waterproof, nonporous material. A durable gasket with no gaps must be installed around the door openings to the tank;

(12) Prevent cross-connections with potable and reclaimed water supplies as required by WAC 246-275-415;

(13) Be designed to continuously monitor:

(a) LRT surrogate parameters at locations identified in the approved engineering report;

(b) Free chlorine residual at entry to the distribution system when a free chlorine residual is required under subsection (8) of this section, unless a reduced monitoring frequency using a grab sample is approved in the engineering report under WAC 246-275-210;

(c) pH at entry to distribution; and

(d) Turbidity in filter output;

(14) Excluding irrigation-only systems, include a source of make-up water. Makeup water must be provided via an approved air gap. The makeup water source must be either:

(a) A public water system approved by the department under chapter 246-290 or 246-291 WAC; or

(b) A reclaimed water facility permitted under chapter 173-219 WAC for the end uses supplied by the ONWS.

NEW SECTION

WAC 246-275-320 Design requirements based on source water. ONWS must include design features specific to each approved source water as described in this section.

(1) ONWS treating blackwater or greywater must be designed to include, at a minimum, the following treatment unit processes:

(a) Biological treatment resulting in stabilized, nonputrescible nonpotable water that contains dissolved oxygen;

(b) Filtration; and

(c) Properly vented storage tanks as required under chapter 51-56 WAC.

(2) ONWS treating roof runoff or stormwater must:

(a) Include a first flush diverter or debris excluder as required under chapter 51-56 WAC; and

(b) Address corrosivity of the treated nonpotable water on end use plumbing and fixtures.

(3) ONWS treating AC condensate must address corrosivity of the treated nonpotable water on end use plumbing and fixtures.

NEW SECTION

WAC 246-275-325 Design requirements for irrigation end use. ONWS supplying treated nonpotable water for irrigation must include design features so the treated nonpotable water does not:

(1) Leave the approved irrigation area as spray or surface flow or runoff, including when soils are saturated;

(2) Enter a dwelling or food handling facility; or

(3) Contact a drinking water fountain.

NEW SECTION

WAC 246-275-330 Design requirements for district-scale implementation. ONWS collecting, treating, receiving, or distributing water

for a district-scale project must 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.

PART 4 OPERATIONS

NEW SECTION

WAC 246-275-400 Conditional startup mode operations. (1) Conditional startup mode must begin after construction or major modification is completed but before obtaining an operating permit.

(a) The ONWS must operate in conditional startup mode for 12 months.

(b) A purveyor may request, and the regulatory authority may allow, a reduction of the duration of the required conditional startup mode performance period in this subsection on a case-by-case basis.

(2) Before conditionally operating the ONWS, cross-connection testing must confirm the ONWS is not cross-connected in any manner with the potable water system under WAC 246-275-415.

(3) All new ONWS and all ONWS having completed major modifications must operate in a conditional startup mode during which the system's operation and performance must be verified in accordance with WAC 246-275-210 (2)(k).

(4) After satisfactory completion of subsection (2) of this section and upon request by the purveyor, the regulatory authority may issue a notice to proceed to conditional startup mode.

(5) Prior to distribution and use, all treated nonpotable water must be automatically diverted, as described in WAC 246-275-315(4), and all fixtures must be operated using makeup water until the LRTs in WAC 246-275-300, Table 1, and water quality limits in WAC 246-275-310, Table 3, are met, continuously for 30 days.

(6) After 30 days of continuously meeting the requirements, the purveyor may distribute and use the treated nonpotable water for the remainder of the conditional use startup mode performance period.

(7) For the remainder of the conditional use startup mode performance period, inadequately treated nonpotable water must be diverted when not achieving the LRTs in WAC 246-247-300, Table 1, and water quality limits in WAC 246-275-310, Table 3.

(a) A purveyor may request, and the regulatory authority may allow, a reduction of the duration of the required diversion in this subsection on a case-by-case basis. The request must be in writing and demonstrate that the system is capable of meeting the LRTs in WAC 246-275-300, Table 1, and water quality limits in WAC 246-275-310, Table 3.

(8) A purveyor must meet the conditional startup mode requirements in this section within two years of the issuance of the notice

to proceed to conditional startup mode unless the regulatory authority approves an extension.

(9) Once conditional startup mode requirements approved under WAC 246-275-210 (2)(k) are met, a purveyor must submit a conditional startup mode final report to the regulatory authority for review and approval. The report must:

(a) Summarize the LRT and water quality compliance required under WAC 246-275-300, Table 1, and WAC 246-275-310, Table 3;

(b) Be signed and stamped by the project's professional engineer under WAC 246-275-140; and

(c) Be submitted with the finalized O&M manual in compliance with the requirements under WAC 246-275-440.

(10) If the conditional startup mode requirements are not met, the purveyor must submit to the regulatory authority for review and approval the necessary changes to fully address LRT, water quality, and other performance deficiencies.

(11) An operating permit will not be issued until the requirements of this section are met.

(12) The regulatory authority may extend the duration of the required diversion, the conditional startup mode performance period, or both, if necessary to fulfill the purpose of this section.

NEW SECTION

WAC 246-275-405 Operating permit. (1) The regulatory authority may issue an operating permit in accordance with this section and chapter.

(2) The purveyor shall obtain an operating permit before operating an ONWS, unless authorized by the regulatory authority to operate in conditional startup mode.

(3) To get an operating permit, the purveyor shall:

(a) Submit a complete affidavit of qualifications signed by the purveyor stating the operator's expertise is commensurate for the complexity of the operation and maintenance of the permitted ONWS, in accordance with WAC 246-275-410;

(b) Submit a current facility inventory signed by the purveyor;

(c) Provide an approved conditional startup mode final report under WAC 246-275-400(9) and finalized O&M manual satisfying the requirements of WAC 246-275-440;

(d) For ONWS granted a waiver of compliance under WAC 246-275-150 or an extension of compliance under WAC 246-275-155, provide a copy of the notice sent to all users satisfying the requirements of WAC 246-275-150(5) or 246-275-155(5) and dated within the previous 12 months; and

(e) Pay the applicable fee required by WAC 246-275-990.

(4) The operating permit must, at a minimum, contain the following terms and conditions:

(a) Issue date and expiration date;

(b) Approved design capacity;

(c) The owner shall employ a purveyor at all times and notify the regulatory authority of any change in the purveyor;

(d) The purveyor shall employ one or more operators meeting the requirements of WAC 246-275-410 at all times and shall notify the regulatory authority of any change in the operator;

(e) A purveyor shall notify the regulatory authority by email and phone within 24 hours when a source water or inadequately treated nonpotable water enters the treated nonpotable water distribution system, whether in conditional startup or final use mode;

(f) With appropriate notice to the owner or purveyor, the regulatory authority may enter in or onto the ONWS site or ONWS facility at reasonable times during normal business hours as necessary to verify compliance with permit conditions or to investigate public health or environmental concerns;

(g) The purveyor shall maintain at least five years of accurate records of all monitoring and maintenance-related activities and provide them to the regulatory authority upon request;

(h) Water quality limits, including sample type, method, and point of compliance;

(i) Limit the distribution and use of treated nonpotable water to approved end uses and locations;

(j) Prohibit the release or distribution of inadequately treated nonpotable water, including water quality limits that qualify treated nonpotable water for diversion or shutoff in case of ONWS malfunction or failure; and

(k) Follow cross-connection control requirements.

(5) The operating permit may include use-specific conditions including, but not limited to, specific conditions authorizing and controlling the storage, treatment, distribution, and permitted end uses of treated nonpotable water in accordance with this chapter and in a manner that protects public health and the environment.

(6) Operating permit conditions may include, but are not limited to, requiring:

(a) Monitoring information;

(b) Annual reports;

(c) New or modified documents such as O&M manual, engineering report, engineering inspection and evaluation of the ONWS, plans and specifications, record drawings, or other information to the regulatory authority; and

(d) ONWS component repairs or replacement.

(7) A purveyor, including a purveyor with ONWS in conditional startup mode due to major modifications, shall renew the ONWS operating permit annually and comply with subsection (3) of this section. If the purveyor fails to renew the operating permit or pay the required fees, the operating permit is no longer valid, and the purveyor shall:

(a) Cease operations; and

(b) Notify the regulatory authority.

(8) To renew an operating permit, the purveyor shall:

(a) Submit a completed operating permit renewal application, annual report, and all other permit requirements to the regulatory authority at least 30 days prior to the expiration date of the current operating permit; and

(b) Pay the applicable fee required by WAC 246-275-990.

(9) Upon receiving the completed renewal packet, the regulatory authority shall:

(a) Review the completed renewal application, submitted information, the existing permit, and other relevant information to determine compliance with this chapter and existing operating permit conditions and requirements;

(b) 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 within 30 days; and

(c) Impose conditions or requirements it determines are necessary to demonstrate the ONWS is properly operated and maintained to protect public health and the environment.

(10) During the regulatory authority's review of the completed renewal application and other materials, the current ONWS operating permit shall remain in full force and effect until the owner is notified of the regulatory authority's decision.

(11) For an operating permit to remain valid, the owner shall continuously meet the permit terms and conditions required by this section.

NEW SECTION

WAC 246-275-410 Operator qualifications and duties. (1) The owner or purveyor shall directly employ or maintain a service contract with a qualified operator who will be in charge of the daily and ongoing operations and maintenance of the ONWS.

(2) The owner or purveyor shall notify the regulatory authority in writing within 30 days of replacement of the operator.

(3) The operator must be duly qualified to conduct the operations, maintenance, and monitoring required to ensure continuous compliance with the requirements of this chapter.

(4) The operator must have expertise commensurate with the complexity of the operation and maintenance of the ONWS and hold a valid department-issued certification as a cross-connection control specialist. Expertise may include, but is not limited to:

(a) For ONWS that use blackwater or greywater as a source water, any of the following:

(i) Relevant experience with each treatment unit process of the ONWS;

(ii) A wastewater, reclaimed water, or on-site nonpotable reuse system certification issued by a U.S. state agency; or

(iii) National ONWS operator certification for blackwater and greywater systems;

(b) For ONWS that do not use blackwater or greywater as a source water, any of the following:

(i) Relevant experience with each treatment unit process of the ONWS;

(ii) A wastewater, reclaimed water, or on-site nonpotable reuse system certification issued by a U.S. state agency; or

(iii) National ONWS operator certification.

(5) An operator shall:

(a) Operate the ONWS according to acceptable public health practices, industry standards, and with due care and diligence to protect public health and the environment in compliance with this chapter, the operating permit, approved O&M manual, any applicable local ordinances and codes, and federal and state laws, rules, or regulations;

(b) Only perform the duties consistent with the operator's experience, skills, abilities, or level of certification;

(c) Inform the purveyor if a required action or correction is inconsistent with the operator's experience, skills, abilities, or level of certification;

(d) Be available either on-site or able to be contacted by telephone or other electronic communication 24 hours per day and able to

initiate appropriate action within two hours. Appropriate action may include, but is not limited to:

(i) Making necessary repairs or resolving problems; or

(ii) Directing staff or contractors to make necessary repairs or resolve problems;

(e) Conduct water quality monitoring as required by the O&M manual and WAC 246-275-500, maintain adequate water quality records as required by WAC 246-275-520, and take follow-up action, if necessary, to comply with permit requirements and federal, state, and local ONWS laws and regulations;

(f) Implement preventive maintenance programs, inspect treatment, collection, and distribution systems, and other ONWS components for malfunctions as required by the O&M manual, maintain adequate maintenance and inspection records as required by WAC 246-275-520, and make needed repairs;

(g) Analyze, review, and maintain records of instrument readings and laboratory test results as required by the O&M manual and WAC 246-275-520, determine the location and causes of any malfunctions, and adjust various treatment unit processes or other components as needed;

(h) Implement a cross-connection control program, under WAC 246-275-415;

(i) Determine and implement remedial actions in an emergency and, if applicable, follow directives from the regulatory authority;

(j) Provide free and unimpeded access during an inspection under WAC 246-275-165;

(k) Maintain and provide required records and reports to the regulatory authority or its representative as required by WAC 246-272-520 and upon request;

(l) Report system issues, nonfunctioning ONWS components, and any other condition that jeopardizes public health, the environment, or operating permit compliance to the purveyor or regulatory authority as required by this chapter; and

(m) Provide written notification to the regulatory authority within 30 calendar days of either:

(i) Starting operations of an ONWS; or

(ii) Ending operations of an ONWS in accordance with WAC 246-275-430.

(6) The duties of an operator required in this chapter do not relieve the owner or purveyor of the responsibility to comply with the requirements of this chapter.

NEW SECTION

WAC 246-275-415 Cross-connection control and makeup water supply. (1) All potable water connections to potable drinking water systems serving premises with treated nonpotable water must have either an:

(a) Approved air gap installed for premises isolation; or

(b) Approved reduced pressure backflow assembly or reduced pressure detector assembly installed for premises isolation in combination with an approved air gap at any nonpotable water storage tanks.

(2) Cross-connection testing must be completed in accordance with WAC 51-56-1500 and 51-56-1600.

(3) Excluding irrigation-only systems, ONWS must include a source of makeup water. Makeup water must be provided via an approved air gap. When temporarily operating with makeup water, the ONWS is not required to maintain a chlorine residual.

NEW SECTION

WAC 246-275-420 Operations and maintenance. (1) The purveyor shall operate and maintain ONWS, distribution systems, and other systems of control installed by the purveyor to achieve compliance with this chapter and the terms and conditions of the operating permit.

(2) The treatment, collection, storage, or distribution of source water, the diversion of inadequately treated nonpotable water, or the use of treated nonpotable water must not create a nuisance. For the purposes of this chapter, a nuisance is water that is undesirable in odor or appearance.

(3) Treated nonpotable water must continuously achieve the log reduction targets under WAC 246-275-300, Table 1, and meet water quality standards under WAC 246-275-310, Table 3. Inadequately treated nonpotable water that does not meet log reduction targets or water quality standards must be diverted as specified in WAC 246-275-315(4).

(4) A purveyor shall operate the system based on the site-specific O&M manual for the ONWS under WAC 246-275-440.

(5) The operator shall conduct periodic inspections of all facilities to monitor and ensure compliance with conditions of the operating permit, the O&M manual, chapter 51-56 WAC, this chapter, and, for district-scale projects, the district-scale agreement.

NEW SECTION

WAC 246-275-425 Change of ownership. (1) ONWS permits are nontransferable and any change in owner must meet the following requirements:

(a) ONWS owners shall report any change in purveyor to the regulatory authority a minimum of 30 days prior to the change taking effect; and

(b) Any new owner shall submit a complete application for a new operating permit that includes the permit fee and a facility inventory 30 days prior to assuming ownership.

(2) The regulatory authority may approve or deny the change in ownership, notifying the owner of the decision in writing.

(3) If the regulatory authority approves the change in ownership, it shall issue the new owner an operating permit within 30 days of receiving a complete application.

(4) If the regulatory authority denies the change in ownership, the notice of the decision must include the reasons for the decision.

(5) If the change in ownership is denied:

(a) The owner to whom the operating permit is issued may continue to operate the ONWS;

(b) The regulatory authority may allow another person to operate the ONWS under a compliance agreement or order; or

(c) The regulatory authority may direct the person operating the ONWS without a valid operating permit to discontinue operating the ONWS.

NEW SECTION

WAC 246-275-430 Abandonment. A purveyor shall have an abandonment plan to be reviewed and approved as an element of the O&M manual under WAC 246-275-440. The abandonment plan must include the following:

(1) Written notice of the abandonment to the regulatory authority;

(2) Notification to users of system abandonment. The notification must:

(a) Describe the components being abandoned;

(b) Describe expected impacts to the user, such as change in service or water quality;

(c) Provide a timeline for abandonment; and

(d) Be made available to all users via mail, email, or publicly posted notice;

(3) Removal and disposal of all sewage according to local requirements;

(4) Removal of all mechanical and electrical equipment no longer in use;

(5) Disconnection of all abandoned components from remaining systems, draining, plugging, and capping in an approved manner;

(6) Removal or crushing in place of underground storage tanks that have been abandoned or otherwise discontinued from use in the system. Remaining voids must be filled with earth, sand, gravel, concrete, or other approved materials.

NEW SECTION

WAC 246-275-435 District-scale agreement. A purveyor of a district-scale project shall enter an executed, enforceable, legal agreement defining the roles and responsibilities of each property owner or entity in relation to the maintenance and use of the system. The district-scale agreement must require that only the purveyor and authorized qualified operators are allowed to alter or maintain the ONWS. The purveyor shall include the district-scale agreement in the O&M manual under WAC 246-275-440.

NEW SECTION

WAC 246-275-440 Operations and maintenance manual (O&M manual). (1) The regulatory authority may approve the O&M manual in accordance with this section.

(2) A purveyor shall develop and implement a site-specific O&M manual for the ONWS. The O&M manual must be:

(a) Submitted for review and approval before beginning final use mode and following any revision;

(b) Reviewed annually and updated as appropriate and upon request by the regulatory authority; and

(c) Kept on the premises in one or more locations specified in the O&M manual.

(3) O&M manual content and details must be consistent with the size, complexity, past performance, implementation scale, source waters, and end uses of the ONWS and include:

(a) A detailed diagram of the entire system and the location of the ONWS components including, but not limited to:

(i) General facility information including, but not limited to:

(A) Location of approved air gaps, other approved backflow prevention assemblies, flow meters, treatment components, sample ports, and diversion location(s); and

(B) Exact locations where the O&M manual and copies will be kept;

(ii) Makeup water source under WAC 246-275-415; and

(iii) Public access restrictions in place to minimize human contact with treated nonpotable water;

(b) Instructions for operating and maintaining the system including, but not limited to:

(i) ONWS operations, including treatment process operations, instruments and alarms, and any chemicals used;

(ii) Equipment and instrument product manufacturer literature that specifically addresses product installation, recommendations, and maintenance; and

(iii) End use water management plan;

(c) Details on maintaining the required water quality as determined by the regulatory authority including, but not limited to:

(i) Conditional startup mode final report;

(ii) Compliance monitoring plan including treatment system monitoring, pathogen reduction compliance, and water quality sampling; and

(iii) Provisions for monitoring and managing failure of treatment unit processes;

(d) Details on deactivating the system for maintenance, repair, or other purposes including, at a minimum, an abandonment plan in compliance with WAC 246-275-430;

(e) Applicable testing, inspection, and maintenance frequencies for treatment and monitoring equipment, approved air gaps, and approved backflow prevention assemblies;

(f) Names, contact information and contact methods for key personnel, qualified operator(s), installer, engineer, and manufacturer of the primary treatment system;

(g) A record of completion or certification of training; and

(h) System records including, but not limited to:

(i) Current and signed facility inventory;

(ii) Operating permit;

(iii) Annual reports from the past five years;

(iv) Current and signed affidavit of qualification form;

(v) Manufacturer cut sheets for all components requiring routine or periodic maintenance;

(vi) For ONWS that serve district-scale projects, the legal agreement under WAC 246-275-435; and

(vii) For systems granted a waiver of compliance under WAC 246-275-150 or an extension of compliance under WAC 246-275-155, a

copy of the waiver and the most recent notice satisfying WAC 246-275-150 and 246-275-155.

(4) The regulatory authority may require additional information or changes to an O&M manual or its components as necessary to protect public health and the environment.

PART 5 MONITORING, REPORTING, NOTIFICATION, AND RECORDKEEPING

NEW SECTION

WAC 246-275-500 Monitoring and sampling. (1) An operator shall monitor water quality parameters at the locations and frequencies in Table 4 of this section during the conditional startup mode performance period and in Table 5 of this section during final use mode.

(2) Sample collection, transportation, and analysis must meet quality assurance and quality control procedures of an accredited laboratory, including maintenance of required hold times and temperatures. The purveyor shall allow the regulatory authority to be present during required water quality sample collections.

(3) Equipment and instruments used to comply with the treatment and monitoring requirements under this chapter must be calibrated, maintained, and operated consistent with manufacturer's installation, operating and maintenance instructions, and recommendations.

(4) Microbial, BOD_5, TSS, and any other parameters that require laboratory capability must be analyzed by an accredited laboratory in accordance with an approved standard method or through continuous monitoring devices as detailed in the engineering report required under WAC 246-275-210.

Table 4: Conditional Startup Mode Monitoring Frequencies and Locations

Parameter	Roof runoff, stormwater, foundation drainage, AC condensate	Greywater	Blackwater	Other
LRTs	Continuously using surrogate parameters at locations identified in the approved engineering report.[1]			
Secondary Free Chlorine Residual[2]	Daily or continuously prior to entry to distribution system, and; Weekly at a representative location at the end of distribution system, described in engineering report.			
HPC	One sample monthly, for 12 months, prior to entry to distribution system, and; One sample monthly, for 12 months, at a representative location at the end of distribution system, described in engineering report.[3]			As determined by the regulatory authority.
pH	Continuously prior to entry to distribution system.			
Turbidity - Media or membrane filter	Continuously in filter outlet.			
BOD_5 and TSS	N/A	Weekly prior to entry to distribution system.		As determined by the regulatory authority.

Parameter	Roof runoff, stormwater, foundation drainage, AC condensate	Greywater	Blackwater	Other
Total source water treated/flow rates	As described in the engineering report under WAC 246-275-210.			

1 Refer to WAC 246-275-305
2 If required by WAC 246-275-315(8)
3 Same location as secondary chlorine residual if WAC 246-275-315(8) requires a residual

Table 5: Final Use Mode Monitoring Frequencies and Locations

Parameter	Roof runoff, stormwater, foundation drainage, AC condensate	Greywater	Blackwater	Other
LRTs	Continuously using surrogate parameters at locations identified in the approved engineering report.[1]			
Secondary Disinfection - Free Chlorine Residual[2]	Daily or continuously prior to entry to distribution system, and; Weekly at a representative location at the end of distribution system, described in engineering report.			
HPC	One sample monthly, for 12 months, prior to entry to distribution system, and; One sample monthly, for 12 months, at a representative location at the end of distribution system, described in engineering report.[3]			
pH	Continuously prior to entry to distribution system.			
Turbidity - Media or membrane filter	Continuously in filter outlet.			
BOD_5 and TSS	N/A	Monthly prior to entry to distribution system.		
Total source water treated/flow rates	As described in the engineering report under WAC 246-275-210.			

1 Refer to WAC 246-275-305
2 If required by WAC 246-275-315(8)
3 Same location as secondary chlorine residual if WAC 246-275-315(8) requires a residual

NEW SECTION

WAC 246-275-505 Routine water quality reporting. (1) By the 10th day of each month during conditional startup, the purveyor shall report to the regulatory authority all required water quality laboratory results and surrogate parameters instrumentation summaries from the previous month on a signed data and monitoring report (DMR) form. The form must include descriptions of any component failures, treatment upsets or disruptions, bypasses, odors, complaints, or other system operation anomalies.

(2) During final use mode, a purveyor shall submit the following:

(a) An annual report to the regulatory authority under WAC 246-275-510 in addition to notification requirements in WAC 246-275-515; and

(b) A quarterly DMR to the regulatory authority, if blackwater is a source water for the ONWS.

NEW SECTION

WAC 246-275-510 Annual reporting. A purveyor shall submit an annual report each calendar year to the regulatory authority by a date specified by the regulatory authority. The annual report must contain, at a minimum:

(1) A description of compliance with this chapter and the terms and conditions established in the operating permit;

(2) A summary of complaints received from users and responses;

(3) A complete list of malfunctions requiring diversion, including:

(a) The date of each malfunction;

(b) A description of the malfunction;

(c) Actions taken to resolve the malfunction; and

(d) Whether the malfunction has been resolved and the date;

(4) A water quality summary, including:

(a) Required HPC, BOD_5, and TSS sample results;

(b) Monthly maximum and minimum values from LRT surrogate parameters, free chlorine residual, pH, and turbidity monitoring;

(c) Period of time that treatment operations were diverted;

(d) Monitoring results outside of applicable water quality limits in WAC 246-275-310, Table 3, that did not require automatic diversion and what corrections were made; and

(e) HPC results compared to conditional startup mode HPC results;

(5) Population served including, but not limited to:

(a) Number of occupied, full-time domestic units;

(b) Approximate daily employee population; and

(c) Approximate daily transient population;

(6) Annual volume of:

(a) Potable water from the public water systems;

(b) Treated nonpotable water for approved end uses; and

(c) Makeup water for approved end uses; and

(7) Signature of the purveyor.

NEW SECTION

WAC 246-275-515 Malfunction notification and reporting. (1) The purveyor shall notify the regulatory authority within 24 hours when a source water or inadequately treated nonpotable water enters the treated nonpotable water distribution system, whether in conditional startup or final use mode.

(2) The purveyor shall provide initial notification to the regulatory authority within 24 hours of becoming aware of a malfunction and include, as applicable:

(a) A description of the malfunction, including a location description;

(b) A description of any component involved in the malfunction;

(c) A description of the suspected causes;

(d) Planned diagnostic and mitigation steps;

(e) The estimated date and time when the malfunction started;

(f) The estimated date and time when the malfunction was stopped or will be stopped; and

(g) The estimated date and time when the system returned to normal operations or will return to normal operations.

(3) The purveyor shall notify the regulatory authority within 10 business days of any corrective action, violation, penalty, or a failure to obtain required permits from any authority having jurisdiction other than the regulatory authority.

(4) A purveyor shall notify all users by mail, email, and posted notices within 15 business days of notifying the regulatory authority and upon request of the regulatory authority when a source water or inadequately treated nonpotable water enters the treated nonpotable water distribution system. The notification must:

(a) Describe in an accurate and understandable manner the circumstances in which a source water or inadequately treated nonpotable water entered the treated nonpotable water distribution system;

(b) Comply with WAC 246-275-525(2); and

(c) Include, at a minimum:

(i) A description of what occurred;

(ii) The location of where it occurred;

(iii) The impact to the user; and

(iv) When service is expected to resume.

(5) Malfunctions must be reported in data and monitoring report (DMR) and annual report submittals.

NEW SECTION

WAC 246-275-520 Recordkeeping. (1) The purveyor shall keep system records on-site including, but not limited to:

(a) Current ONWS operating permit;

(b) Signed results delivered by the accredited laboratory and evidence of chain of custody;

(c) Data and monitoring report (DMR);

(d) Annual report;

(e) Notifications as described in WAC 246-275-515;

(f) A log of all calibrations, maintenance, and major changes in operation;

(g) A log of all system auto-generated alarms, causes, and corrective actions; and

(h) A complete list of user complaints and responses, as required in WAC 246-275-525.

(2) A purveyor must retain engineering documents describing any part of the ONWS, including the O&M manual, record drawings, engineering reports, construction documents, validation engineering reports, and conditional startup mode final reports until the system is abandoned. Other ONWS records must be kept for at least five years.

(3) ONWS records must be made available for inspection by the department and the local health jurisdiction under a JPR.

NEW SECTION

WAC 246-275-525 User communications. (1) Signage must be provided and maintained as required by chapter 51-56 WAC.

(2) All communication with users must use clear, concise, and simple language, and be provided in languages commonly understood by the population served.

(3) User notification of a malfunction must be provided under WAC 246-275-515(4).

(4) The purveyor shall maintain a complete list of user complaints and responses. The purveyor shall address user complaints in a timely manner and provide a written response to the user if user contact information is provided.

(5) A purveyor shall provide a copy of the most recent annual report satisfying WAC 246-275-510 to any ONWS user upon request.

PART 6 COMPLIANCE AND ENFORCEMENT

NEW SECTION

WAC 246-275-600 Modification, suspension, and revocation of operating permits. (1) The generation, distribution, or use of treated nonpotable water from an ONWS without an operating permit, or in a manner that violates this chapter, the terms and conditions of an operating permit, order, or directive issued under this chapter, is prohibited.

(2) The regulatory authority may immediately revoke or suspend an operating permit issued under this chapter if there is an immediate and unacceptable risk to public health.

(3) The regulatory authority may modify, revoke, suspend, or deny an operating permit issued for an ONWS, as authorized by RCW 43.70.115, for good cause including, but not limited to, when:

(a) There is a change in any condition that requires the ONWS to temporarily or permanently limit or stop operating;

(b) An ONWS fails or there is need for repair or replacement of any ONWS component that is the result of neglect or poor management practices;

(c) The operating permit was obtained by fraud or with any material misrepresentation;

(d) The ONWS was built without applicable building and plumbing permits issued by the local authorities within its jurisdiction. This includes permits issued by local authorities having jurisdiction for systems that serve district-scale projects with collection or distribution pipes within the public right-of-way;

(e) It is necessary or becomes necessary to comply with applicable water quality standards under chapter 90.48 RCW;

(f) The owner has not paid the operating permit fee under WAC 246-275-990;

(g) A purveyor or any employee of a purveyor has violated any federal or state laws, regulations, or rules, or local ordinances or codes while operating ONWS and the purveyor had, or should have had, actual or constructive knowledge the illegal conduct was occurring;

(h) The ONWS is being managed, conducted, or maintained in any way that does not protect public health or the environment; or

(i) The purveyor, any employee of the purveyor, or any entity identified in a legal agreement with the purveyor refused to allow the department or the local health jurisdiction under a joint plan of responsibility to inspect the premises or the operations of the ONWS.

NEW SECTION

WAC 246-275-605 Notice of violations, enforcement actions, and penalties. (1) When an ONWS is out of compliance with any rule or law regulating the ONWS and administered by the regulatory authority, the regulatory authority may initiate enforcement action. Enforcement action may include, but is not limited to:

(a) A notice of correction describing the condition that is not in compliance and the text of the specific section or subsection of the applicable state or federal law or rule, a statement of what is required to achieve compliance, and the date by which compliance is to be achieved;

(b) A notice of violation with or without a civil penalty;

(c) An order requiring specific actions or ceasing unacceptable activities within a designated time period;

(d) Modification, revocation, suspension, or denial of permits under WAC 246-275-600; and

(e) Civil or criminal penalties authorized under chapter 70.05 RCW and RCW 43.70.190.

(2) An informal conference may be held at the request of any party to resolve disputes arising from enforcement of this chapter.

(3) Notices and orders issued under this section must:

(a) Be in writing;

(b) Name the person or persons to whom the order is directed;

(c) Briefly describe each action or inaction constituting a violation of the rules of this chapter, or applicable local rules;

(d) Specify any required corrective action, if applicable;

(e) Specify the effective date of the order, with the date or time frame required for coming into compliance; and

(f) Provide notice of the consequences of failure to comply or repeated violation, as appropriate.

(4) Enforcement orders must be served in the manner of service of a summons in a civil action or in another manner showing proof of receipt.

NEW SECTION

WAC 246-275-610 Appeals and adjudicative proceedings. The owner of an ONWS that has had an approval or permit modified, revoked, suspended, or denied by the department may request an adjudicative proceeding under chapters 34.05 RCW and 246-10 WAC. A request for an adjudicative proceeding must be filed with the department within 28 calendar days of service of the department's notice of decision.

PART 9 FEES

NEW SECTION

WAC 246-275-990 Fees. (1) A local health jurisdiction or local health officer may charge service fees and operating permit fees as authorized under RCW 70.05.060 or 70.46.120 to either partially or fully administer, enforce, and carry out the responsibilities under this chapter when:

(a) A joint plan of responsibility has been established between the department and a local health jurisdiction or local health officer under WAC 246-275-135(2) to either partially or fully administer, enforce, and carry out the responsibilities under this chapter; or

(b) A joint or shared services agreement is established between local health jurisdictions or local health officers, or both, under WAC 246-275-135(3) to either partially or fully administer, enforce, and carry out the responsibilities under this chapter on behalf of other local health jurisdictions or local health officers, or both.

(2) The department shall collect the following nonrefundable fees:

(a) $1,548 for initial design review for a minor project. This includes four hours of engineer review. Additional time will be billed at the hourly rate listed in (c) of this subsection.

(b) $3,096 for initial design review for a major project. This includes eight hours of engineer review. Additional time will be billed at the hourly rate listed in (c) of this subsection.

(c) $387 per hour for engineer review.

(d) $2,572 for an annual operating permit.

(e) $466 for a late permit fee for applications submitted after the renewal application due date.

(f) $1,280 for an expired permit fee for applications submitted after the operating permit has expired. This fee consists of a late fee and abbreviated design review to repermit an expired ONWS. This fee is in addition to the annual operating permit fee.