DEPARTMENT OF
ECOLOGY
State of Washington

Preliminary Cost-Benefit Analysis and Least Burdensome Alternative Analysis

Chapter 173-219 WAC Reclaimed Water

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Preliminary Cost-Benefit and Least Burdensome Alternative Analyses

Chapter 173-219 WAC, Reclaimed Water

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Executive Summary

The Administrative Procedure Act (APA; chapter 34.05 RCW) requires that, before adopting a significant legislative rule, the Department of Ecology (Ecology) must, "Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented." [RCW 34.05.328(1)(c)]

For the proposed Reclaimed Water rule, chapter 173-219 Washington Administrative Code (WAC), this means Ecology must identify the impacts of the proposed rule on individuals, businesses, the public, and the environment. This includes changes in compliance costs and changes in the value of water uses and rights to use water. These impacts may be identified qualitatively and quantitatively, and Ecology develops quantitative estimates where it is possible to do so with a reasonable degree of certainty and meaning.

Estimated impacts are determined as compared to the current regulatory environment—the way reclaimed water would be permitted and regulated in the absence of the proposed rule. This is called the baseline.

Ecology evaluated the qualitative costs and benefits of the proposed rule and has concluded that the benefits of the proposed rule are greater than the costs. It is notable that the vast majority of the proposed rule's requirements exist under the baseline as well, and these elements of the proposed rule are unlikely to generate either costs or benefits. A great deal of reclaimed water permitting would continue as it currently does.

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Ecology's determination was based on:

- Cost: Water rights impairment analysis, ranging from simple to highly complex and requiring mitigation.
- Cost and Benefit: Use-based requirements in cases where anti-degradation requires facilities to meet more-stringent water quality requirements.
- Benefit: Consolidating and clarifying multiple existing regulations that are being applied to reclaimed water permitting under the baseline. This supports improvements in:
    - Public health and safety benefits due to consistent application of requirements for pathogen removal or inactivation wherever the public is exposed to reclaimed water.

    - Enhanced water quality for groundwater and surface waters of the state including Puget Sound and the Columbia River.
    - Wise management of water supplies for beneficial uses by providing alternative sources of water to replace the use of potable water where feasible.
    - Enhancing, restoring or creating wetlands habitat.
    - Contributions to restoration and protection of instream flows that are crucial to preservation of the state's salmonid fishery.
    - Promotion of strategies for reclaimed water use that will respond to population growth and climate change.
- Benefit: Creating a standard means to evaluate and mitigate impacts of reclaimed water rights on other water right holders and the environment. This includes weighing the estimated benefits of avoiding litigation versus completing impairment analysis for water right holders.
    - Creating a mechanism to allow the use of reclaimed water as mitigation for changes or new groundwater and surface water rights.
- Benefit: Simplifying public understanding of the reclaimed water process.
- Benefit: Facilitating permit compliance, application, and renewal.
- Benefit: Eliminating duplicitous requirements.
- Benefit: Delineating clear agency roles and relationships.
- Benefit: Cost mitigation arising from:
    - Flexible compliance deadlines.
    - Exemptions from reapplication for some facilities.
    - Exemptions from analysis of water right impairment.

Chapter 1: Introduction

The Administrative Procedure Act (APA; chapter 34.05 RCW) requires that, before adopting a significant legislative rule, the Department of Ecology (Ecology) must, "Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented." [RCW 34.05.328(1)(c)]

For the proposed Reclaimed Water rule, chapter 173-219 Washington Administrative Code (WAC), this means Ecology must identify the impacts of the proposed rule on individuals, businesses, the public, and the environment. This includes changes in compliance costs and changes in the value of water uses and rights to use water. These impacts may be identified qualitatively and quantitatively, and Ecology develops quantitative estimates where it is possible to do so with a reasonable degree of certainty and meaning.

Estimated impacts are determined as compared to the current regulatory environment—the way reclaimed water would be permitted and regulated in the absence of the proposed rule. This is called the baseline.

While the proposed reclaimed water rule is a new regulation, impacts to reclaimed water facilities are expected to be minimal because Ecology has been implementing guidance (primarily the 1997 Water Reclamation and Reuse Standards) through enforceable, Water Pollution Control Act (chapter 90.48 RCW) permits since 1994. The way facilities are allowed to legally reclaim water under the baseline is governed by existing laws and rules, as well as by how they are implemented.

This proposed rule provides a greater level of certainty for reclaimed water investments by codifying guidance and clarifying how the myriad relevant statutes and regulations apply to reclaimed water operations. The proposed rule will encourage the use of reclaimed water, clarifying and centralizing the requirements, while assuring the health and safety of all Washington citizens and the protection of its environment.

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This document provides the public with an overview of the methods Ecology used to perform its analysis and the most likely benefits and impacts found.

1.1 History and rule development

Reclaimed water is an important component of wise water management. Reclaimed water is derived from wastewater where a domestic wastewater component has been adequately and reliably treated, so that it can be used for beneficial purposes. Reclaimed water is not considered a wastewater. The process of reclaiming water, sometimes called water reuse, involves a highly engineered, multi-step treatment process that mimics nature's restoration of water quality. The process provides a high-level of disinfection and reliability to assure that only water meeting stringent water quality and public health requirements leaves the treatment facility for an approved use.

The State of Washington has had a reclaimed water program since the enactment of the Reclaimed Water Act (RWA; chapter 90.46 RCW) in 1992. There are 28 permitted reclaimed water facilities across Washington State. The first permit was issued in 1994. Nearly all of the existing facilities are owned by local government entities such as cities, counties, and sewer districts. There are three facilities owned by non-profit entities. One facility is owned by a large, private company.

The state regulatory program for reclaimed water currently consists of the RWA and several guidance documents developed by the Washington State Department of Health (DOH) and Ecology. The RWA directed Ecology and DOH to develop interim standards for reclaimed water production and use.

In 1997 the DOH and Ecology – with the assistance of a Water Reuse Advisory Committee, interested stakeholders, and a consultant team of nationally recognized water reuse experts – developed standards for most applications of reclaimed water. The standards were published in September 1997, but never codified into rule.

In 2006, the Legislature amended chapter 90.46 RCW, directing Ecology to work with DOH to adopt rules addressing all aspects of reclaimed water. This will greatly aid the reclaimed water program by establishing:

- A clear permitting process.
- Requirements for reclaimed water treatment facilities.
- Roles for DOH and Ecology.

As part of developing the proposed rule, the Legislature directed the agencies to convene a Rule Advisory Committee (RAC) to advise the agencies on all aspects of the proposed rule. The RAC began work in the fall of 2006.

In 2007, the Legislature directed the agencies to look at several specific aspects of the reclaimed water program (amending chapters 90.54, 90.46, and 90.82 RCW). This included considering a long-term, dedicated funding program to construct reclaimed water facilities and identifying barriers to reclaimed water, such as agency staffing levels. As part of that legislation, the Legislature adopted changes to state law, including changes to consideration of potential impairment of downstream water rights by reclaimed water facilities. The Governor vetoed that

section (while adopting the rest of the law) and directed Ecology to work with legislative leadership to address water rights impairment from water reuse projects.

In August 2007, Ecology convened the Reclaimed Water and Water Rights Advisory Committee (RW-WRAC) specifically to consider water right issues and advise the agency. While not mandated by law, Ecology asked tribes, state agencies, and various stakeholders to take part and provide input on the water right issues associated with reclaimed water. RW-WRAC has provided valuable insight to Ecology on a variety of issues and recommended preferred approaches. Members of the committee have varied over time.

In 2009, Ecology and DOH sponsored legislation to gain explicit statutory authority on certain aspects of reclaimed water needed to complete the rule. The Legislature passed an authorizing bill (Substitute Senate Bill 5504; Chapter 456, Laws of 2009) that also directed Ecology to review comments from the RAC and RW-WRAC and submit a recommendation to the Legislature on the impairment requirements and standards by November 30, 2009.

The Yakama Nation requested that the Governor veto the 2009 legislation because the bill did not clarify agency authority and responsibility to protect existing water rights, including instream flows, from impairment. The Governor did not veto the bill, but directed Ecology to develop a proposal for amendments to the impairment standard to ensure the State is protecting its water resources and complying with State agreements. The Governor's request was satisfied when Ecology published a report to the Legislature in December 2009 with recommendations for changes to chapter 90.46 RCW.

Due to an economic downturn in the state in 2010, the Governor issued two consecutive Executive Orders from 2010 through December 2012, suspending all non-essential rulemaking. This included rulemaking for reclaimed water. In 2011, the Legislature revised RCW 90.46.015 providing more time to Ecology to adopt rules after June 2013. In January 2014, Ecology reactivated the rulemaking and Advisory Committee process. The new rulemaking schedule anticipates implementation of the reclaimed water rule in early 2016.

1.2 Regulatory baseline

The regulatory baseline is the way reclaimed water permitting and regulation would be done if the proposed rule is not adopted – that is, the existing laws and rules at various jurisdictional levels that determine how reclaimed water is permitted and regulated now. The baseline does not include guidance and practices commonly used in reclaimed water permitting and production that are not legally required.

Under the current law (chapter 90.46 RCW) entities such as, but not limited to, businesses, individuals, governments, and other organizations must have a permit to operate a reclaimed water facility. While there has not been a single comprehensive rule implementing reclaimed water permitting and regulation, reclaimed water facilities have been permitted under a number of existing laws and rules and regulatory definitions. Existing laws and rules include, but are not limited to:

1.2.1 Laws

- RCW 34.05 – Administrative Procedures Act
- RCW 42.17 - Disclosure — campaign finances — lobbying
- RCW 43.20 - State board of health
- RCW 43.21B - Environmental hearings office — pollution control hearings board
- RCW 57.16 - Comprehensive plan — local improvement districts
- RCW 70.95B – Domestic waste treatment plants - operators RCW 70.116 - Public water system coordination act of 1977
- RCW 70.118B - Large on-site sewage disposal systems
- RCW 70.119 - Public water supply systems — operators
- RCW 90.03 - Water code
- RCW 90.44 - Regulation of public groundwaters
- RCW 90.46 - Reclaimed water use
- RCW 90.48 - Water pollution control
- RCW 90.54 - Water resources act of 1971
- RCW 90.58 - Shoreline management act of 1971
- RCW 90.74 - Aquatic Resources Mitigation

1.2.2 Rules

- WAC 173-157 - Underground Artificial Storage and Recovery
- WAC 173-201A - Water Quality Standards For Surface Waters Of The State Of Washington
- WAC 173-200 - Water Quality Standards For Groundwaters Of The State Of Washington
- WAC 173-220 - National pollutant discharge elimination system permit program
- WAC 173-221 - Discharge Standards And Effluent Limitations For Domestic Wastewater Facilities
- WAC 173-226 - Waste Discharge General Permit Program
- WAC 173-240 - Submission Of Plans And Reports For Construction Of Wastewater Facilities
- WAC 246-290 - Group A public water supplies
- WAC 246-291 - Group B public water systems

The DOH and Ecology – with the assistance of a Water Reuse Advisory Committee, interested stakeholders, and a consultant team of nationally recognized water reuse experts – developed standards for most applications of reclaimed water. The standards were published September 1997, but never codified.

The 1997 Water Reclamation and Reuse Standards emphasize public health protection and provide design, treatment, and use area criteria for the following reclaimed water categories:

- General requirements (e.g., land application, impoundments, commercial and industrial uses)
- Use in wetlands
- Groundwater recharge (direct and surface percolation)

While these water reclamation and reuse standards are not currently codified (and are not being codified as part of this proposed rulemaking) they are the standard reference used by Ecology and DOH for reclaimed water permitting. The standards were based on the laws and rules included in the list above.

1.3 The proposed rule

The proposed rule restates, or cites by reference, the various rules currently governing reclaimed water generation and reuse. In some cases, the proposed rule creates an additional requirement that does not exist in current regulation. Some of these new requirements or allowances in the proposed rule generate costs or benefits to businesses, the public, or the environment.

The impacts of the proposed rule are discussed in depth (along with qualitative discussion of their associated costs or benefits, *if any*) in Chapter 2.

1.4 Analytical format

The remainder of this analysis is organized into the following chapters:

- Benefits and Costs by Section of the Proposed Rule (Chapter 2): Description of the contents of the proposed rule, with relevant baseline identified. Impacts relative to the baseline are identified for each section of the proposed rule.
- Observations and Conclusions (Chapter 3)
- Least Burdensome Alternative Analysis (Chapter 4)

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Chapter 2: Costs and Benefits by Section of the Proposed Rule

The proposed rule frequently recodifies language from, or cites by reference, existing rules used to govern wastewater treatment and public water systems and supplies. These rules cover standards and practices, as well as permitting requirements that already exist. In some cases, Ecology is also proposing a new requirement or allowance that does not exist in current rules, but has basis in statute or guidance developed to implement statutory requirements. These new requirements or allowances result in possible costs and/or benefits to businesses, the public, and the environment.

This chapter summarizes sources of the proposed rule language, and for new requirements and allowances, discusses the likely impacts qualitatively.

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2.1 General qualitative benefits

The proposed rule brings together many existing laws and rules used to regulate reclaimed water generation, distribution, and use. The primary benefits of the proposed rule come from the creation of a single rule specific to reclaimed water permitting, and the addition of water rights provisions, thereby:

- Consolidating and incorporating by reference existing laws, rules, and standards related to reclaimed water permitting and protection of the state's waters, supporting:
    - Protecting public health and safety through consistent application of requirements for pathogen removal or inactivation wherever the public is exposed to reclaimed water.
    - Enhancing water quality for Washington's groundwater and surface waters, including Puget Sound and the Columbia River.
    - Promoting wise management of water supplies for beneficial uses by providing alternative sources of water to replace the use of potable water where feasible.
    - Enhancing, restoring or creating wetlands habitat.
    - Contributing to the restoration and protection of instream flows that are crucial to preservation of the state's salmonid fishery.
    - Promoting strategies for reclaimed water use that will respond to population growth and global warming.

- Creating a standard means to evaluate and mitigate impacts of reclaimed water rights on other water right holders and the environment.
- Simplifying and clarifying public understanding of reclaimed water regulation.
- Facilitating and adding certainty to permit application and renewal.
- Eliminating duplicitous requirements in documentation.
- Streamlining and clarifying agency roles and relationships.

2.1.1 Consolidate requirements to support: Protecting public health and safety by consistent application of requirements for pathogen removal or inactivation wherever the public is exposed to reclaimed water.

The proposed rule will codify existing standards found in guidance that provide for enhanced disinfection and in some cases filtration of reclaimed waters in order to remove pathogenic bacteria, viruses, and protozoa from the water produced. A facility cannot legally reclaim water without meeting these standards under the baseline, and therefore no change in compliance behavior is expected; only a change in the ease of accessing consistent, consolidated information on requirements.

2.1.2 Consolidate requirements to support: Enhancing water quality for Washington's groundwater and surface waters, including Puget Sound and the Columbia River.

The consistent application of both drinking water standards and water quality standards, along with technology standards for all known and available reasonable methods of prevention, control and treatment will provide greater protection of our groundwater resources. Surface waters are protected by applying the water quality limits of the current National Pollutant Discharge Elimination System and surface water rules. A facility cannot legally reclaim water without meeting these standards under the baseline, and therefore no change in compliance behavior is expected; only a change in the ease of accessing consistent, consolidated information on requirements.

2.1.3 Consolidate requirements to support: Promoting wise management of water supplies for beneficial uses by providing alternative sources of water to replace the use of potable water where feasible.

The proposed rule promotes this goal of the Reclaimed Water Act to save or reduce demands for potable water by using reclaimed water where feasible to replace potable water. Examples include agricultural and landscape irrigation, golf course watering, industrial, and commercial cooling and process water, and flushing of indoor plumbing. A facility cannot legally reclaim water without meeting these standards under the baseline, and therefore no change in compliance behavior is expected; only a change in the ease of accessing consistent, consolidated information on requirements.

2.1.4 Consolidate requirements to support: Enhancing, restoring or creating wetlands habitat.

The proposed rule promotes the use of reclaimed water to enhance or restore damaged wetlands and create new wetland habitat. Reclaimed water is treated to a higher level than wastewater treatment processes and also must reduce nutrient loading to a point where natural biological wetland parameters are sustained. A facility cannot legally reclaim water without meeting these standards under the baseline, and therefore no change in compliance behavior is expected; only a change in the ease of accessing consistent, consolidated information on requirements.

2.1.5 Consolidate requirements to support: Contributing to the restoration and protection of instream flows that are crucial to preservation of the state's salmonid fishery.

Reclaimed water used for surface augmentation of rivers, lakes and streams will help to restore instream flows and promote healthy habitat for fisheries. A facility cannot legally reclaim water without meeting these standards under the baseline, and therefore no change in compliance behavior is expected; only a change in the ease of accessing consistent, consolidated information on requirements.

2.1.6 Consolidate requirements to support: Promoting strategies for reclaimed water use that will respond to population growth and global warming.

The proposed rule promotes appropriate coordination of planning across multiple jurisdictions in order to meet future requirements for wise water use. The impact of projected population growth for Washington and the potential impacts of global warming (i.e. reduced snowpack) will likely have the cumulative effect of increasing water demands in water short areas. A facility cannot legally reclaim water without meeting these standards under the baseline, and therefore no change in compliance behavior is expected; only a change in the ease of accessing consistent, consolidated information on requirements.

2.1.7 Creating a standard means to evaluate and mitigate impacts of reclaimed water rights on other water right holders and the environment

Ecology believes the proposed rule's coverage of water right impairment analysis, and the available options for mitigating any impairment found, generate potential benefits to the public, business, tribes and other governments, and the environment. Individuals, businesses, and other entities benefit from the reduced likelihood of:

- Impairment of their existing water rights.
- Legal action – resulting in legal costs and project delay of reclaimed water projects due to water rights issues.

The proposed rule avoids these costs by including a comprehensive and inclusive process for water right impairment decisions and mitigation.

2.1.8 Simplifying public understanding of the reclaimed water process

The existing reclaimed water permitting and regulation process is based on many state and federal laws and rules, as well as existing permitting standards. The agencies who administer these rules also vary. The public's understanding of the sources and qualities of reclaimed water are complicated by this, limiting positive public opinion of reclaimed water uses – especially in agricultural or ground and surface water applications where the public could interact with the water.

The proposed rule requires the permitting agency to provide permittees a fact sheet, so they can clearly understand the legal or factual basis for their permit conditions. The proposed rule authorizes the use of different types of permits, individual, and master generator permits to better accommodate the needs of the permittee. Language for standard and specific conditions is included in the proposed rule to facilitate a "no surprises" permit.

2.1.9 Facilitating permit application and renewal

The existing reclaimed water permitting and regulation process is based on many state and federal laws and rules. The agencies who administer these rules also vary. All of these factors add some amount of time to the existing permitting process and compliance efforts. Streamlining the regulations and standards into one rule facilitates permit application and renewal, and overall compliance with requirements.

2.1.10 Eliminating duplicate requirements

The existing reclaimed water permitting and regulation process is based on many state and federal laws and rules. The agencies who administer these rules also vary. The proposed rule, as a single streamlined rule, eliminates possible duplication of requirements and efforts that come from complying with the many different existing rules that might apply to the same project. The regulatory roles and responsibilities are clearly defined between Ecology and DOH. This saves both time and labor effort in the reclaimed water project.

2.1.11 Streamlining and clarifying agency roles and relationships

At a minimum, government agencies involved in reclaimed water include Ecology and DOH. Other entities may also be involved, especially in cases of water right impairment. The proposed rule establishes agency responsibilities and clarifies agency relationships within the reclaimed water regulation context. This limits inter-agency duplication of tasks, facilitates compliance and timeliness on both sides of the permit process and eliminates the ambiguity of agency roles and relationships. The proposed rule also allows the non-lead agency to opt out or limit the scope of their review, thus saving the reclaimed water proponent the time and costs of dual agency reviews.

2.2 Part I – General Information (WAC 173-219-010 through -070)

2.2.1 Definitions

Ecology pulled definitions of relevant terms from many existing rules, the current reclaimed water use statute, and the Water Reclamation and Reuse standards of 1997, which are all currently used to regulate reclaimed water.

Ecology included several new definitions to provide clarity or to codify current use of terms in the proposed rule. New definitions for various terms have been added to this section. These definitions describe Ecology's intent for how these terms are used when evaluating whether a water right might be impaired by a reclaimed water operation or when reclaimed water is proposed as mitigation for new water rights. Thus, they provide more legal certainty to the way the terms are used.

Definitions are consistent with definitions in existing regulations governing reclaimed water under the baseline. No impact is expected.

2.2.2 Purpose and scope

The purpose and scope of the proposed rule were defined by the authorizing statute, chapter 90.46 RCW. This proposed rule will implement the Washington Legislature's goal of encouraging the use of reclaimed water while assuring the health and safety of all Washington citizens and the protection of its environment.

The purpose and scope of the proposed rule were dictated by authorizing statute, which are part of the baseline. No impact is expected.

2.2.3 Applicability

The applicability of the proposed rule, and the exclusions from applicability, were dictated by statute in chapters 90.46 and 90.48 RCW.

The applicability of the proposed rule was dictated by authorizing and existing statutes, which are part of the baseline. No impact is expected.

2.2.4 Compliance deadlines

The overall compliance deadline for the proposed rule is dictated by statute. Ecology also included cost-mitigating elements in the proposed rule, applicable to compliance deadlines for existing facilities. These include:

- Flexibility in compliance schedules
- Exemption from reapplication until the existing permit expires
- Exemption from analysis of water right impairment

The compliance deadline is dictated by statute and is part of the baseline, so no impact is expected as a result of it.

Allowances made for compliance schedules, and exemptions available to existing facilities are likely to reduce or eliminate impacts resulting from other requirements in the proposed rule. A benefit is likely for facilities that can use these cost-mitigating elements of the proposed rule.

2.2.5 Lead agency designation

Lead and non-lead agency responsibilities, as well as responsibilities specific to Ecology or DOH, are taken from the authorizing statutes. Additional responsibility in verifying operator certification was triggered by chapter 70.95B RCW.

Ecology does not typically include costs and benefits to the agency itself in Cost-Benefit analyses, as it believes the costs and benefits to the regulated community, public, and environment are the intended assessment context.

2.2.6 Regulatory action for noncompliance

The actions and standards for response to noncompliance are taken from various existing laws and rules.

The actions and standards for response to noncompliance exist in laws and rules that are part of the baseline. No impact is expected.

2.2.7 Appeals

Any decision made under the proposed rule, by Ecology or DOH, including water rights impairments, is appealable. The appeals process is governed by multiple existing laws and rules.

The appeals process exists under the baseline, in various existing laws and rules. No impact is expected.

2.3 Part II – Planning, Design and Construction

2.3.1 Impairment analysis

While the applicability and purpose of the planning, design, and construction process for reclaimed water facilities is dictated by the authorizing law, Ecology determined the necessary components of an application, including Ecology responsibilities regarding analysis and possible mitigation of water rights impairment. A final water right impairment decision needs to be made early on in the planning process, before investments in design and construction of a facility are made.

The applicant begins the water right impairment process by submitting an analysis as part of the engineering report that is considered complete by Ecology. Ecology within the 60-day review period consults with state fish and wildlife, and affected tribes before making a decision of the

potential for impairment. If there is a finding of impairment to existing water rights, the applicant may seek to mitigate the impact or compensate the affected water right holder.

The proposed rule improves coordination between Ecology, reclaimed water permit applicants, and water right holders. The legislature instructed Ecology to do rulemaking for reclaimed water facilities partly because of the benefit and efficiencies gained from this coordination and reduction or elimination of potential conflicts.

Cost impacts

Ecology expects the process of water right impairment analysis to generate compliance costs for permit applicants, and to generate costs to government entities overseeing the process. These costs will vary considerably across the spectrum of potential projects:

- The simplest decision would be when an existing wastewater discharge to marine waters is being converted to reclaimed water uses and therefore no impairment of water rights exists. Such a situation could incur relatively small administrative costs.
- The most complex analysis might take place in adjudicated basins with multiple water right holders who exercise state-certified rights, federal rights, and instream flow rights. Such a situation could incur significant administrative, legal, and mitigation costs.

Benefit impacts

It is also extremely difficult to quantify the benefits of conducting a water rights impairment analysis and protection of water right holders. However, it is expected that considerable benefit will be derived from:

- Avoided legal costs that may arise from proceeding with projects without an impairment analysis. By better managing the risk of curtailment to facilities contracting with new users, it is likely that economic benefits will occur. Without improved coordination, disclosure, and accountability, it is more likely that a water right user would file a lawsuit, seek to prevent new water uses and disrupt the certainty of supply for the users of the reclaimed water.
- A new provision in the proposed rule allows the final impairment decision to be put in a permit that can be issued with a 30-day appeal period prior to construction. This action reduces risk of lost investment to the reclaimed water proponent, and provides certainty for the decision once the appeal period is over.
- A new provisions giving the proponent more certainly for the investment of the reclaimed water proponent, due to the proposed requirement that a new impairment analysis is not required at the time of permit reissuance if there are no changes affecting existing water rights.

The water right impairment assessment is a new requirement in the proposed rule, over which Ecology has discretion, and that does not exist under the baseline. Both costs and benefits are likely to result from this requirement.

Due to the high degree of variability of both costs and benefits for water rights impairment analyses (see paragraphs above), Ecology could not quantify the costs and benefits of this section's requirements with a sufficient degree of certainty. The APA requires that Ecology include quantifiable and qualitative costs and benefits in this analysis, and the qualitative discussion above describes the types of costs and benefits that are likely to arise.

2.3.2 Use of reclaimed water for water right mitigation

The proposed rule allows for the use of reclaimed water for mitigation of new surface water or groundwater rights, or changes to them. Ecology believes this option will benefit generators of reclaimed water with a tradable water right, while adding minimal cost to the permit application and supporting documentation and analysis process.

This benefit is qualitative, and includes the benefits of a tradable right to water being used to mitigate other water rights impacts.

2.3.3 Construction of reclaimed water facilities

The proposed rule sets requirements for the construction of reclaimed water facilities, including:

- Document submission for review and approval
- Agency review standards
- Reclaimed water planning
- Private utility capacity assessment
- Engineering reports
- Construction plans and specifications
- Operations and Maintenance manuals
- Construction quality assurances

2.3.3.1 Document submission for review and approval

Document submission requirements follow the authorizing statute (chapter 90.46 RCW) or the current rules (including, but not limited to, WAC 173-220 and WAC 173-240) used to regulate document submissions for construction of National Pollutant Discharge Elimination System (NDPES) and wastewater facilities. Existing and likely future reclaimed water facilities would need to comply with these requirements whether the proposed rule is adopted or not.

Development of the operations and maintenance (O&M) manual is based on chapter 173-240 WAC.A draft O&M manual is submitted with the design documents and evolves to a final complete separate O&M document for lead agency approval before completing construction of the facility.

2.3.3.2 Agency review standards

The proposed rule recodifies requirements and standards for agency review from the authorizing law (chapter 90.46 RCW). These include meeting the applicable standards of other existing state and federal criteria protecting environmental and public health.

2.3.3.3 Planning documents for reclaimed water

The proposed rule restates, or incorporates by reference, the existing regulations that need to be met under the baseline, for each relevant possible reclaimed water facility. This includes requirements from RCW 90.48, WAC 173-240, and many other water system laws and regulations. Reclaimed water facilities already need to comply with these existing requirements under the baseline.

2.3.3.4 Private utility capacity assessment

The proposed rule allows private utilities to provide reclaimed water. It incorporates (by reference) the existing requirements for submission of plans and reports for wastewater as part of the private utility capacity assessment. This involves requirements from the authorizing statute (chapter 90.46 RCW) and WAC 173-240. Reclaimed water facilities also need to comply with these rules under the baseline.

2.3.3.5 Engineering reports

The proposed rule restates, or incorporates by reference, the existing requirements for engineering reports, which must be met under the baseline. This involves requirements from the authorizing law (chapter 90.46 RCW), WAC 173-240, and the relevant general sewer plan and water system plan rules. Reclaimed water facilities already need to comply with these rules under the baseline.

2.3.3.6 Construction plans and specifications

The proposed rule restates, or incorporates by reference, the existing requirements for construction plans and specifications, which must be met under the baseline. This involves requirements from the authorizing law (chapter 90.46 RCW) and requirements for construction of wastewater facilities. Reclaimed water facilities already need to comply with these requirements under the baseline.

2.3.3.7 Operation and maintenance manuals

The proposed rule restates, or incorporates by reference, the existing requirements of O&M manuals for various types of reclaimed water facilities. This includes requirements from the authorizing law (chapter 90.46 RCW), and requirements for wastewater facility construction, water system plans, and local improvement districts. Reclaimed water facilities also need to comply with these rules under the baseline.

2.3.3.8 Construction quality assurances

The proposed rule restates, or incorporates by reference, the existing requirements for construction quality assurance for various types of reclaimed water facilities. This includes requirements from the authorizing law (chapter 90.46 RCW), and from requirements for wastewater facility construction. Reclaimed water facilities also need to comply with these regulations under the baseline.

Planning, design, construction plan/ specification, and operation/maintenance manual costs and benefits for a reclaimed water facility are common to all options for treatment of wastewater. These impacts are imbedded costs applicable to any entity that generates or treats wastewater and are not a substantial change from the baseline for this proposed rule. No impact relative to the baseline is expected.

2.4 Part III – Reclaimed Water Permits

The proposed rule sets requirements for reclaimed water permits, including:

- Reclaimed water permit applications
- Eligibility
- Signatures, fact sheet, and the public process
- Transfer, renewal, modification, and revocation of a permit
- Standard and specific permit conditions

2.4.1 Reclaimed water permit application required

Reclaimed water permitting is authorized under chapter 90.46 RCW. Moreover, this process follows multiple existing regulations, including the National Pollutant Discharge Elimination System (NPDES) program and requirements for wastewater facilities. Reclaimed water facilities also need to comply with these rules under the baseline.

2.4.2 Eligibility

Reclaimed water permit eligibility is authorized under chapter 90.46 RCW. Reclaimed water facilities also need to comply with these rules under the baseline.

2.4.3 Signatures, fact sheet, and public process

The proposed rule follows signature requirements, and fact sheet and public process requirements of the authorizing law (chapter 90.46 RCW) and many other existing rules, including the NPDES program and requirements for wastewater facilities. Moreover, it is consistent with other Ecology permitting programs to mitigate information and notification costs. Reclaimed water facilities also need to comply with these rules under the baseline.

2.4.4 Transfer, renewal, modification, and revocation of a permit

The proposed rule follows requirements and processes for permit transfer, renewal, modification, and revocation as based on the authorizing law (chapter 90.46 RCW) and many other existing rules, including the NPDES program, and requirements for wastewater facilities. Moreover, it is consistent with other Ecology permitting programs to mitigate information and permitting costs. Reclaimed water facilities also need to comply with these rules under the baseline.

2.4.5 Standard and specific permit conditions

The proposed rule incorporates standard and specific permit conditions based on the authorizing law (chapter 90.46 RCW) and many other existing laws and rules, including the NPDES program, and requirements for wastewater facilities and waste discharge. Reclaimed water facilities also need to comply with these rules under the baseline.

Ecology modified some of the conditions specific to reclaimed water operations to provide a least burdensome alternative. Ecology will base permit conditions, including monitoring requirements, on:

- Available guidance or model permits.
- The quantity, quality and variability of the reclaimed water.
- Treatment methods.
- Significance of the pollutants.
- Availability of appropriate indicator or surrogate parameters.
- Cost of monitoring.
- Past compliance history.

Basing monitoring requirements on compliance history allows the lead agency to decrease monitoring parameters or the frequency they are monitored when warranted, decreasing these costs.

To save costs and eliminate redundancy, if the influent to the reclaimed water treatment plant is effluent from a wastewater treatment plant, the permittee may use monitoring data collected for the wastewater discharge permit to fulfill all or part of influent monitoring requirements.

The document submission requirements are modified slightly from chapter 173-220 WAC, which requires the planning, design and construction documents prior to construction of a new or modified facility. The proposed rule allows the submission of the O&M manual after constructing or modifying reclaimed water facilities but prior to operating the facility. This allows the permit, which includes the water right impairment decision, to be issued and appealed prior the investment of construction.

Unique to reclaimed water permits, the permit may include conditions authorizing the addition of certain types of new users or uses of the reclaimed water without reopening the permit, provided an agreement is approved by the lead agency before a new use or user is added. This provides a defined, simple and flexible way to add new users or uses for the permittee, avoiding the time lag and costs associated with reissuing a permit.

In addition, the reclaimed water permit may require the lead agency to review and approve individual agreements or may specify terms and conditions allowing the use of a standardized agreement or local ordinances for all or some distributors, uses, or users. This provision saves the

permittee the time and cost associated with having every individual agreement reviewed by the lead agency.

Permitting costs and benefits for a reclaimed water facility are common to all options for treatment of wastewater. These costs vary widely depending on the size, location, and complexity of the proposed facility. Ecology did not attempt to quantify these costs or benefits since they are imbedded costs applicable to any entity that generates or treats wastewater and are not a substantial change from the baseline for this proposed rule. No impacts relative to the baseline are expected.

2.5 Part IV – Technical Standards

The proposed rule sets technical standards for reclaimed water facilities, including:

- Source control and pretreatment
- Class A requirements
- Class B requirements
- Disinfection process standards, treatment reliability, operational storage, maintenance of chlorine residual, and distribution requirements
- Use-based requirements

2.5.1 Source control and pretreatment

The proposed rule follows requirements and processes for source control and pretreatment as based on the authorizing law (chapter 90.46 RCW) and many other existing rules, including:

- Federal water pollution rules
- State rules governing pretreatment of wastewater and dangerous wastes
- Discharge rules

Reclaimed water facilities already need to comply with these existing requirements under the baseline.

2.5.2 Class A requirements

The proposed rule follows requirements and processes for water releases classified as Class A, as based on many other existing regulations, including the:

- NPDES program
- Current applicable reclaimed water standards
- Discharge and construction standards for water and wastewater

Moreover, it is consistent with other Ecology permitting program requirements designed to mitigate information costs. Reclaimed water facilities also need to comply with these rules under the baseline.

2.5.3 Class B requirements

The proposed rule follows requirements and processes for water releases classified as Class B, as based on the authorizing law (chapter 90.46 RCW), and on existing applicable standards. Moreover, it is consistent with other Ecology permitting program requirements designed to mitigate information costs. Reclaimed water facilities seeking to release Class B water also need to comply with these rules under the baseline.

2.5.4 Disinfection process standards, treatment reliability, operational storage, maintenance of chlorine residual, distribution requirements

The proposed rule follows requirements and processes for technical practices and standards, as based on the authorizing law (chapter 90.46 RCW), and many other existing reclaimed water technical standards used in permitting and rules. Reclaimed water facilities also need to comply with these rules under the baseline.

2.5.5 Use-based requirements

The proposed rule describes requirements and processes for releases to various reclaimed water uses, including:

- Plant maintenance
- Commercial, industrial, and institutional uses
- Landscape irrigation
- Agricultural irrigation
- Wetland restoration or mitigation
- Streamflows and surface water
- Groundwater recharge
- Aquifer storage and recovery

These sections of the proposed rule collect and reference or restate the requirements and allowed uses and standards for using reclaimed water in various land, groundwater, and surface water applications. These are standards that are currently applied from various sections of laws and rules, including the authorizing statute, groundwater and surface water quality standards, public health standards, and standards for public water supplies and water systems.

The proposed rule language applies both drinking water standards and groundwater quality standards to groundwater recharge by surface percolation uses. Authorization for this practice is found in RCW 90.46.080 and chapter 90.48 RCW.

It is consistent with the goals of chapter 90.46 RCW to encourage the use of reclaimed water while assuring public health and safety, and protection of the environment. It is also consistent with the goals of chapter 90.48 RCW to prevent and control the pollution of waters of the state.

Under the baseline, Ecology has applied both laws to reclaimed water permits. Both laws are cited in existing reclaimed water permits. To protect the quality of the ground water, Ecology's reclaimed water permits include limitations on the quantity and quality of reclaimed water land applied or infiltrated to recharge groundwater via surface percolation. Water quality limits are primarily based upon the drinking water standards as required in chapter 90.46.080 RCW (chapter 246-290 WAC) The Water Quality Standards for Groundwater (chapter 173-200 WAC) are used for other contaminants not found in drinking water standards that require regulation. The proposed rule requires future water quality limits to be based on both chapters 246-290 and 173-200 WAC, consistent with the baseline.

RCW 90.48 requires that reclaimed water be adequately and reliably treated prior to distribution and beneficial use. State regulations require that limitations set forth in a permit issued under RCW 90.48 must either be technology or water quality-based limits. All permitted discharges must also be treated with all known, available, and reasonable treatment (AKART) and not pollute the waters of the state. The minimum criteria to demonstrate compliance with these criteria are derived from WAC 173-221 and the 1997 guidance *Water Reclamation and Reuse Standards*.

AKART has specific and separate cost tests for determining reasonable costs for conventional and toxic pollutants. If background water quality cannot be maintained, the groundwater regulation and guidance provides that a demonstration should be made of why groundwater should be allowed to be degraded. This demonstration is part of the overriding consideration of public interest process (WAC 173-200 and *Implementation Guidance for the Groundwater Quality Standards*, Publication no. 90-02, dated 1996, revised 2005). Ecology believes codifying the OCPI for reclaimed water purposes will benefit reclaimed water purveyors by mitigating the costs of compliance overall with groundwater quality standards.

The proposed rule may result in additional treatment costs to applicants if anti-degradation policy as specified in chapter 173-200 WAC requires the implementation of a water quality limit more stringent than the drinking water standard. The proposed rule will benefit applicants by harmonizing the application of two statutes and their respective regulations, thus eliminating ambiguity. In all circumstances, this harmonization will not result in additional monitoring or treatment costs greater than the baseline.

Due to the high degree of variability of impacts to facilities that may incorporate a multitude of end uses for reclaimed water, Ecology could not confidently quantify the benefits of this section. The APA requires that Ecology include all quantifiable and qualitative costs and benefits in this analysis. The qualitative discussion above describes the types of costs and benefits that are likely to arise.

2.5.6 Cost mitigation

The proposed rule includes cost-mitigation provisions. They reduce compliance burden on facilities that are already permitted, allowing them to avoid making sudden changes to their operations, or avoid retroactively evaluate water right impairment. These provisions include:

- Flexible compliance deadlines.
- Exemptions from reapplication for some facilities.
- Exemptions from analysis of water right impairment for existing facilities.

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Chapter 3: Summary and Conclusion

Ecology evaluated the qualitative costs and benefits of the proposed rule and has concluded that the benefits of the proposed rule are greater than the costs. It is notable that the vast majority of the proposed rule's requirements exist under the baseline as well, and these elements of the proposed rule are unlikely to generate either costs or benefits. A great deal of reclaimed water permitting would continue as it currently does.

This analysis makes frequent use of the annotated table of Rule Language with Citations, in which Ecology lists the context, sources, and new elements in the proposed rule. This document is available by request from Ecology, and is also part of the official rule file for this rulemaking, which is archived. This document will address the multiple citations and cross-references at a high level, for simplicity, and the underlying citations and sources can be found in the Rule Language with Citations table.

Ecology's determination was based on:

- Cost: Water rights impairment analysis, ranging from simple to highly complex and requiring mitigation.
- Cost and Benefit: Use-based requirements in cases where anti-degradation requires facilities to meet more-stringent water quality requirements.
- Benefit: Consolidating and clarifying multiple existing regulations that are being applied to reclaimed water permitting under the baseline. This supports improvements in:
    - Public health and safety benefits due to consistent application of requirements for pathogen removal or inactivation wherever the public is exposed to reclaimed water.
    - Enhanced water quality for groundwater and surface waters of the state including Puget Sound and the Columbia River.
    - Wise management of water supplies for beneficial uses by providing alternative sources of water to replace the use of potable water where feasible.
    - Enhancing, restoring or creating wetlands habitat.
    - Contributions to restoration and protection of instream flows that are crucial to preservation of the state's salmonid fishery.
    - Promotion of strategies for reclaimed water use that will respond to population growth and climate change.
- Benefit: Creating a standard means to evaluate and mitigate impacts of reclaimed water rights on other water right holders and the environment. This includes weighing the estimated benefits of avoiding litigation versus completing impairment analysis for water right holders.
    - Creating a mechanism to allow the use of reclaimed water as mitigation for changes or new groundwater and surface water rights.

- Benefit: Simplifying public understanding of the reclaimed water process.
- Benefit: Facilitating permit compliance, application, and renewal.
- Benefit: Eliminating duplicitous requirements.
- Benefit: Delineating clear agency roles and relationships.
- Benefit: Cost mitigation arising from:
    - Flexible compliance deadlines.
    - Exemptions from reapplication for some facilities.
    - Exemptions from analysis of water right impairment.

Chapter 4: Least Burdensome Alternative Analysis

RCW 34.05.328(1)(e) requires Ecology to "determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection."

4.1 Alternatives considered

Ecology considered alternatives to the proposed rule's content during the rule development process. These alternatives, and why they were not included, are listed below.

4.1.1 Impairment of water rights

To implement the provisions of RCW 90.46.130, the proposed rule outlines a process for the analysis of potential impairment of existing water rights whenever an applicant changes their discharge from a freshwater discharge to reclaimed water uses. Some reclaimed water proponents prefer that Ecology not perform or review a water rights impairment analysis. Ecology determined that completing a water rights impairment analysis as part of the permitting process provided greater certainty for the applicant and other interested parties. This will place less compliance burden overall on reclaimed water facilities and perhaps avoid extensive legal costs (WAC 173-219-100).

4.1.2 Use of reclaimed water for water right mitigation

The proposed rule allows for the use of reclaimed water for mitigation of new surface water or groundwater rights, or changes to them. Ecology was urged by a minority group of stakeholders to not allow the use of reclaimed water for mitigation of water right changes or new water rights. Ecology believes this option will benefit generators of reclaimed water with a tradable water right, while adding minimal cost to the permit application and supporting documentation and analysis process (WAC 173-219-110).

4.1.3 Impairment decision appealable prior to construction

Ecology typically issues permits for a reclaimed water facility after construction is completed. This has the potential to result in a permit appeal, after construction of a facility, which would prevent or delay the operation of the facility. As an alternative, Ecology added a new provision, allowing the final impairment decision as part of the approved Engineering Report open to a 30-day appeal period prior to design and construction. This action reduces risk to the reclaimed water proponent, providing certainty for the determination once the appeal period is over (WAC 173-219-200).

4.1.4 Permit renewal impairment decision limited to changes

Ecology considered performing an impairment analysis or re-analysis each time a permit is renewed. A new impairment analysis is not required at the time of permit reissuance if there are no changes affecting existing water rights. If changes are proposed, only the changes will be evaluated. This action also reduces risk to the reclaimed water proponent, providing certainty for the decision once the appeal period is over (WAC 173-219-100(8)).

4.1.5 Conveying reclaimed water through surface waters of the state.

Some stakeholders would choose to prohibit the conveyance of reclaimed water via waters of the state. Ecology evaluated this concept and based on existing water law (RCW 90.03.030) found it to be allowable. This proposed rule permits the use of state waters to convey reclaimed water from the point of generation to the point of diversion for a beneficial use provided surface water standards are met and additional water quantity and quality information acceptable to the agencies is provided (WAC 173-219-540).

4.1.6 Standard and specific permit conditions for reclaimed water permits

The proposed rule follows standard and specific permit conditions as based on the authorizing law (chapter 90.46 RCW) and many other existing rules, including the NPDES program, and requirements for wastewater facilities and waste discharge. Reclaimed water facilities also need to comply with these rules under the baseline.

Ecology modified some of the conditions specific to reclaimed water operations to provide a least burdensome alternative. Most rules do not specify a turnaround time for agency review. In addition to the appealable decision for water rights impairment prior to permit issuance as stated above, Ecology has specified a maximum review time for submittals of 90 days for most documents, including the water right impairment decisions (WAC 173-219-130(3)).

Often rules are prescriptive in specifying acceptable engineering criteria and practices. In this proposed rule, multiple sources of agency review standards are referenced, including guidelines developed by the agencies and nationally recognized design guidelines and standards (WAC 173-219-130(2)).

It is typical for a rule to specify a plan or planning document specific to the type of project proposed. This can result in additional costs to the applicant. In this proposed rule the applicant may use multiple existing planning documents to build a reclaimed water plan from. This maximizes the harmonizing of various plans required under other laws and rules with this proposed rule and saves the cost of duplicate planning exercises (WAC 173-219-140).

Engineering reports are comprehensive documents pertaining to an entire reclaimed water facility, including the collection, treatment, storage, distribution, and use areas. This proposed rule specifies that if existing portions of a facility are unchanged, the engineering report may reference and need not duplicate prior work (WAC 173-219-160).

Since adoption of the Reclaimed Water Act in 1992, only "individual" permits have been issued for reclaimed water systems. This proposed rule allows for "master generator" permits for an entity with management and operational responsibilities for multiple facilities, thus combining several small utilities under one permit umbrella. These permit types will streamline the permitting process and create greater overall efficiency (WAC 173-219-230 & 240).

Rules may be prescriptive in delineating technology-based requirements for a specific use of reclaimed water. However, in this proposed rule maximum flexibility was allowed by providing for alternative treatment methods to meet Class A standards including filtration and disinfection (WAC 173-219-430 &450).

In lieu of prescriptive requirements for distribution system disinfectant residuals, this proposed rule allows for flexibility in waiving disinfection residuals for impoundments or at the use site when applicable and satisfactory to the agencies.

4.1.7 Allowance for reduced monitoring

The reclaimed water law allows Ecology to adopt water quality standards that would be placed in permits which could include over two hundred contaminants listed in both the drinking water standards (WAC 246-290) and water quality standards (WAC 173-200). Instead of requiring monitoring of all potential contaminants, Ecology will generally base monitoring requirements on select indicator parameters. In addition, monitoring requirements can be based, in part, on past compliance history. Basing monitoring requirements on compliance history allows the lead agency to decrease monitoring parameters or the frequency they are monitored when warranted, decreasing these costs.

To save costs and eliminate redundancy, if the influent to the reclaimed water treatment plant is effluent from a wastewater treatment plant, the permittee may use monitoring data collected for the wastewater discharge permit to fulfill all or part of influent monitoring requirements (WAC 173-219-300 &310).

4.1.8 Operation and maintenance (O&M) manual submittal requirement modified

The plan review submission requirements are modified slightly from chapter 173-220 WAC, which requires the planning, design and construction documents prior to construction of a new or modified facility. The proposed rule allows the submission of the O&M manual after constructing or modifying reclaimed water facilities but prior to operating the facility. This allows the permit, which includes the water right impairment decision, to be issued and appealed prior to the investment of design and construction (WAC 173-219-130(1)).

4.1.9 Efficiencies added for new users of reclaimed water

Often any change in the use of a facility or system triggers the issuance of a new permit with public notification and appeal process. Unique to reclaimed water permits, the permit may include conditions authorizing the addition of certain types of new users or uses of the reclaimed water without reopening the permit provided a user agreement is approved by the lead agency before a new use is added. This provides a defined, simple and flexible way to add new users for

the permittee, avoiding the time lag and cost associated with reissuing a permit (WAC 173-219-310).

4.1.10 Standard agreement provision for users of reclaimed water

The reclaimed water permit may require the lead agency to review and approve individual agreements or may specify terms and conditions allowing the use of a standardized agreement or local ordinances for all or some distributors, uses, or users. This provision saves the permittee the time and cost associated with having every individual agreement reviewed by Ecology (WAC 173-219-310).

4.1.11 Application of groundwater quality standards

Setting more stringent and comprehensive groundwater quality standards for reclaimed water was suggested during the preliminary comment process during this rulemaking. While Ecology would have been within its statutory authority in setting more stringent standards for reclaimed water than for other sources, Ecology determined that additional cleanup technology requirements added compliance cost burden for permittees in excess of what is needed for adequate protection of public and environmental health.

Ecology clarifies the application of the groundwater quality standards to reclaimed water when used for groundwater recharge by surface percolation (WAC 173-219-620). This results in a more stringent standard being applied to these particular uses of reclaimed water. However, Ecology intends no change in the application of the groundwater quality standards. The groundwater quality implementation guidance clarifies that the permittee must complete an AKART (all known, available and reasonable methods of prevention, control and treatment) evaluation that involves listing treatment technologies, including treatment levels and the costs associated with each technology.

AKART has specific and separate cost tests for determining reasonable costs for conventional and toxic pollutants. If a determination of AKART is not protective of the background water quality, in some cases additional treatment for meeting the groundwater quality standards may be necessary—*if* it is cost-effective and justifiable. If background water quality cannot be maintained, the groundwater guidance and law provides that a demonstration should be made of why groundwater should be allowed to be degraded. This demonstration is part of the overriding consideration of public interest process (chapter 173-200-030 WAC and Implementation Guidance for the Groundwater Quality Standards, Publication no. 90-02, dated 1996, revised 2005)

4.1.12 Exempting reclaimed water used internally in industry

Setting an exemption for facilities reclaiming and reusing water internally in industrial processes was suggested during the preliminary comment process during this rulemaking. Ecology does not believe including this exemption would meet the goals and objectives of the authorizing statute to regulate all aspects of reclaimed water. If the reclaimed water has a domestic wastewater component it will be regulated under this proposed rule. If the source of reclaimed water is industrial or agricultural only, it will be regulated under chapter 90.48 RCW.

4.1.13 Exclude upstream water rights in impairment analysis

Ecology believes, in some cases, it would reduce the burden to mitigate the impacts of water rights if only downstream water rights were considered in the impairment evaluation. However, Ecology does not believe a complete understanding of all possible impacts on water rights, for reclaimed water, makes it possible to exclude upstream impacts, for example, due to instream flow requirements. Therefore, Ecology does not believe this alternative would meet the objective of the authorizing law to regulate all aspects of reclaimed water in the state, and did not include it in the proposed rule.

4.2 Conclusion

Based on research and analysis required by RCW 34.05.328(d)(e) the Department of Ecology determines:

There is sufficient evidence, discussed above, that the proposed rule is the least burdensome version of the rule, for those who are required to comply, given the goals and objectives of the law for Ecology to adopt the proposed rule.