

173-219 WAC Reclaimed Water
(AO #06-12)

Preliminary DRAFT

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5/3/2017

This is a preliminary draft of the Reclaimed Water rule language.

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WAC 173-219-010 Definitions

(1.) Definitions.

Unless the context clearly requires otherwise, the definitions in this section apply throughout this chapter.

"Agricultural irrigation" means the application of water to agricultural land with the intent of meeting the water needs for production of agricultural food or nonfood crops.

"Approved backflow prevention assembly" means an RPBA, RPDA, DCVA, DCDA, PVBA, or SVBA of make, model and size that appear on the current approved backflow prevention assemblies list developed by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research.

"ART" means adequate and reliable treatment as provided for in [90.46 RCW](#).

"Alarm" means an integrated system of sensor instruments, or devices that continuously monitors a specific function or process and automatically alerts operators to abnormal conditions by means of visual, or audible signals, or both.

"Applicant" means any entity applying for a reclaimed water permit.

"Approval" means written Ecology or Health approval by the lead agency.

"Aquifer" means a geologic formation, group of formations or part of a formation capable of yielding a significant amount of ground water to wells or springs.

"Augmentation" means the intentional addition of water to rivers and streams of the state or other surface water bodies through the zone of saturation or to the surface water.

"Backflow Assembly Tester" (BAT) means a person holding a valid BAT certificate issued by Health, in accordance with [chapter 246-292 WAC](#).

"Beneficial purpose" or "beneficial use" means the uses of reclaimed water for domestic, stock watering, industrial, commercial, agricultural, irrigation, hydroelectric power production, mining, fish, and wildlife maintenance and enhancement, recreational, and thermal power production purposes, and for preservation of environmental and aesthetic values, and for all other uses compatible with the enjoyment of the public waters of the state. Beneficial purpose or beneficial use of reclaimed water includes all uses authorized under chapter 90.46 RCW.

"BOD" means five-day biochemical oxygen demand.

"Certified operator" means a person certified as a wastewater treatment plant operator under chapter [173-230 WAC](#) for wastewater treatment; or, where applicable and required in the permit, under chapter [246-292 WAC](#) for potable waterworks treatment and distribution, cross-connection control, and testing back flow assemblies; or certified under a program for reclaimed water treatment, distribution, or operations.

"CBOD" means five-day carbonaceous biochemical oxygen demand.

"Class A reclaimed water" means a water resource that, at a minimum, is at all times an oxidized, coagulated, filtered, disinfected wastewater that meets the treatment requirements of this chapter.

"Class A+ reclaimed water" means a water resource that meets the treatment requirements of this chapter and any additional criteria determined necessary by the lead agency or Health and that the state board of health has approved for use.

"Class B reclaimed water," means a water resource that, at a minimum, is at all times an oxidized, disinfected wastewater that meets the treatment requirements of this chapter.

"Commercial, industrial, and institutional use" means non-potable uses of water to produce private sector or institutional products or provide goods and services and associated sanitary uses such as toilet flushing. The term does not include land application.

"Contaminants of emerging concern" or "CEC" means chemicals or compounds not regulated in drinking water, groundwater, surface water, or advanced treated water, some of which may be candidates for future regulation depending on their ecological toxicity, potential human health effects, public perception, and frequency of occurrence.

"Constructed beneficial wetlands" mean those wetlands intentionally constructed on non-wetland sites to produce or create natural wetland functions and values.

"Cross-connection control specialist" (CCS) means a person holding a valid CCS certificate issued by Health, in accordance with chapter 246-292 WAC.

"Distributor" means the entity authorized through a use agreement with the reclaimed water generator to distribute or supply reclaimed water to users.

"Domestic wastewater" means urine, feces, and the water carrying human wastes, including kitchen, bath, and laundry wastes from residences, nonresidential buildings such as churches and schools, commercial establishments, or other buildings, excluding industrial wastewater and stormwater. [WAC 246-272B-01100](#).

"Direct potable reuse" (DPR) means Class A+ reclaimed water is introduced into an existing water distribution, storage or treatment system without benefit of an environmental buffer. The Washington state board of health as defined under [WAC 246-290-060](#) must grant any and all waivers for any direct potable reuse project.

"Ecology" means the Washington State Department of Ecology.

"Engineering report" means a document that thoroughly examines the engineering and administrative aspects of a reclaimed water generation facility, as required under this chapter 173-240 WAC.

"Entity" means any person, public or private corporation, political subdivision, governmental subdivision, governmental agency, municipality, co-partnership, association, firm, trust estate, or any other legal entity.

"Food crops" means any crops intended for human consumption.

"Generator" means any public or private entity reclaiming or proposing to reclaim water who is eligible to apply for and receive a reclaimed water permit under this chapter.

"Groundwater" means water in a saturated zone or stratum beneath the surface of land or below a surface water body.

"Groundwater recharge" means introduction of reclaimed water to groundwater aquifers and includes the following:

(a.) Indirect recharge: where reclaimed water is introduced to groundwater through surface or subsurface infiltration or percolation, where the introduced water travels through an unsaturated vadose zone and the comingling with groundwater of the state is not immediate.

(b.) Direct recharge: where reclaimed water is released directly and immediately into groundwater of the state through direct injection or other means.

"Health" means the Washington State Department of Health.

"Inadequately treated water" means water treated by a reclaimed water treatment process that does not meet reclaimed water permit limits and standards.

"Land Application" means irrigation or watering of landscape vegetation using reclaimed water as permitted under [90.46 RCW](#) and this chapter. Land application in this chapter is **not** synonymous with land treatment or reference to a biosolids land application.

"Lead Agency" means the state agency with regulatory oversight for the wastewater treatment portion of the project, unless agreed otherwise by both Health and Ecology.

"Most recent edition" means that version of a specific guidance or reference documents in effect at the time lead agency begins the feasibility and design review process.

"Net environmental benefit" demonstrates that the environmental benefits of the reclaimed water generation project are greater than the environmental impacts associated with the project.

"Non-lead agency" means Health or Ecology when they are not the lead agency as defined in this chapter.

"Non-potable" means water that has not been examined, properly treated, and is not approved by Health as being safe for human consumption.

"NPDES" means the National Pollutant Discharge Elimination System.

"Operator" means a person who is responsible for operating the generation and/or distribution system and ensuring that it consistently and reliably treats and delivers reclaimed water according to the terms and conditions of the operating permit, and if applicable, who meets the operator certification requirements in the permit.

"Owner" means an entity responsible for the generation and/or delivery of reclaimed water and for complying with this chapter.

"pH" means the negative logarithm of the hydrogen ion concentration.

"Plans and specifications" means the detailed engineering drawings and specifications prepared by a professional engineer and used in the construction or modification of the reclaimed water generation and related facilities.

Potable water" or "drinking water" means water that has been examined, properly treated, and approved by Health under [Chapter 246-290 WAC](#) as being safe and suitable for human consumption.

"Private utility" means all utilities, both public and private, which provide sewerage and/or water service and which are not municipal corporations under [RCW 36.94.010](#). The owner of a private utility may be corporation, nonprofit or for profit, a cooperative association, a mutual organization, or an individual.

"Public entity" means a municipal, quasi-municipal, or other governmental entity or entities formed under the Interlocal Cooperation Act.

"Reclaimed irrigation" means the beneficial use of reclaimed water for agricultural crop or urban landscape irrigation. It includes spray, surface, and subsurface irrigation methods. It does not include wastewater applied to dedicated fields used for land treatment of wastewater.

"Reclaimed water" means water derived in any part from a wastewater with a domestic wastewater component that has been adequately and reliably treated to meet the requirements of this chapter, so that it can be used for beneficial purposes. Reclaimed water is not considered a wastewater.

"Reclaimed water permit, or "permit" means an operating permit identifying the conditions and required level of treatment and operating conditions issued to a generator of reclaimed water.

"Reclaimed water facility" or "facility" means the treatment plant, equipment, storage, conveyance devices, and dedicated sites for reclaimed water generation. Some reclaimed water facilities may be under the control of a distributor, who may not be directly permitted under this chapter.

"Reclaimed water use" means use of reclaimed water of required quality for a beneficial purpose.

"Recovery of reclaimed water stored in an aquifer" means the recovery of reclaimed water artificially stored in an underground geological formation for beneficial use.

"Reliability" means the ability of a system or component(s) thereof to perform a required function under permit stated conditions for a permit stated period.

"Reliability assessment" means an evaluation performed and report by a professional engineer on the reliability of facility components, equipment, and certified operators that are used or proposed to be used to generate and manage reclaimed water.

"Source water" means treated wastewater effluent or domestic wastewater, depending on facility configuration, that supplies a reclaimed water generation facility.

"Spray irrigation" means application of water in the form of finely divided water droplets to land using artificial means.

"Streamflow or surface water augmentation" means the intentional use of reclaimed water for rivers and streams of the state or other surface water bodies, for increasing volumes. [RCW 90.46.010\(17\)](#)

"Surface irrigation" means application of water to the land surface by means of spraying equipment or flood irrigation.

"Surface percolation" means the controlled application of water to the ground surface or to unsaturated soil for replenishing ground water.

"Third-party guarantor" means an entity approved by the lead agency to provide stand-by management services if a permittee fails to operate a reclaimed water facility in compliance with this chapter.

"TSS" means total suspended solids.

"Unit process" one or more defined grouped processes that performs an identified step in a process.

"Use" means an application of reclaimed water in a manner and for a purpose, as designated in a use agreement, and in compliance with all applicable lead agency and permit requirements.

"Use Agreement" means an agreement between the generator and the distributor, or between the distributor and user that identifies terms and conditions for reclaimed water distribution and use to ensure compliance with the reclaimed water permit conditions.

"Use area" means any facility, building, or land area, surface water, or groundwater identified in the use agreement.

"USEPA" means the United States Environmental Protection Agency

"User" means any entity that uses reclaimed water for a beneficial use, in accordance with the requirements of the use agreement.

"Vadose zone" means the unsaturated region of the soil which lies below the surface of the earth but above the saturated groundwater water table of the shallowest year-round aquifer.

"Waters of the state" means lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington, as defined in RCW 90.48.020.

"Water Table" means the surface of the saturated zone (groundwater). The elevation where, if a borehole were drilled into the very top of the shallowest aquifer, water would fill the hole to this height.

"Wetland enhancement" means intentional actions taken to improve the functions, processes, and values of existing wetlands.

"Wetland mitigation" means a sequence of intentional steps or actions taken to reduce impacts to wetlands. Unless the context refers to the entire mitigation sequence, or clearly indicates other steps, the term "wetland mitigation" means compensatory mitigation or the compensation stage of the wetland mitigation sequence, where impacts to wetland functions are offset through the creation, restoration, enhancement, or preservation of other wetlands.

"Wetland restoration" means intentional actions taken to return historic functions and processes to a former or degraded wetland site.

WAC 173-219-020 Purpose and scope

(1.) Purpose.

The purpose of this chapter is to enable the use of reclaimed water to help meet the growing need for clean water across the state by establishing a comprehensive regulatory framework for the generation, distribution, and use of reclaimed water for the beneficial uses established in [90.46 RCW](#) and this chapter.

Nothing in this chapter shall supersede or diminish the provisions of Chapters [173-200](#), [173-201A](#), [173-500](#), [246-290](#), [246-292](#), [246-272](#), [246-272A](#), [246-272B](#), [246-274](#) WAC.

(2.) Scope.

This chapter implements [90.46 RCW](#) and establishes requirements for production, distribution, and use of reclaimed water as authorized by the departments of ecology (Ecology) and health (Health). This chapter also establishes lead and non-lead agency designations, roles, and responsibilities over particular aspects of reclaimed water, as well as requirements for:

- (a.)** Planning, designing, constructing, operating, and maintaining reclaimed water facilities.
- (b.)** Permitting of reclaimed water facilities.
- (c.)** Technology based treatment, operational storage and distribution, treatment reliability, and use-based requirements.
- (d.)** Compliance with [RCW 90.46.130](#), preventing impairment of existing water rights.

WAC 173-219-030 Applicability requirements

(1.) Applicability.

The requirements in this chapter apply to all existing and proposed facilities that are or will be designed, constructed, operated, and maintained in the state of Washington to generate, distribute, and or use reclaimed water, and to the persons involved in these activities as defined in RCW [90.46.010](#) and this chapter.

(2.) Severability.

The provisions of this chapter are separate and severable from one another. If any provision is stayed or determined to be invalid, it is Ecology's intention that the remaining provisions shall continue in effect.

WAC 173-219-040 Direct enforceability

All entities and facilities subject to the requirements of this chapter must comply on the effective date of this chapter, except as allowed under subsection (1) of this section.

(1.) Exceptions.

Existing permittees—issued a permit before the effective date of this chapter—are subject to this chapter except as follows:

- (a.)** The lead agency may issue an extension for compliance to an existing permittee to provide a reasonable timeline for compliance with this chapter.
- (b.)** An existing permittee:
 - (i.)** Must request the extension for compliance in writing and provide good cause for the request.
 - (ii.)** Is not required to obtain a modification of the existing reclaimed water permit until the application for the permit renewal is due under [WAC 173-219-070](#).

(2.) Waiver Request.

The applicant or permittee may request in writing a waiver from specific requirements of this chapter. Waiver requests must:

- (a.) Identify the requirement requested be waived.
 - (i.) If the requested waiver is to a provision regulated by the state board of health, or Health the requester must apply directly to the state board of health, or Health.
 - (A.) The lead agency may only consider and approve a waiver that is first granted by the state board of health, or Health.
- (b.) State the reason for the waiver.
- (c.) Provide information supporting the request and any additional information identified by the lead agency needed to make the waiver determination.

The lead agency may grant a waiver, in consultation with the non-lead agency, if it:

- (d.) Is consistent with the applicable standards and the intent this chapter.
- (e.) Does **not** lower the level of public health and environmental protection provided prior to the waiver request, or that is provided within this chapter.

The lead agency must provide:

- (f.) Twenty-one business days for the non-lead agency to review and comment on the waiver request before granting or denying a waiver.
- (g.) Written notice to the permittee within 90 business days granting or denying a waiver request, requesting additional information, or explaining any delay and stating an expected date for issuing a decision.

WAC 173-219-050 Lead agency designation

When either Health or Ecology is the lead agency under this section, the other agency will be the non-lead agency. On a case by case basis, Ecology and Health may, in the pursuit of fulfilling the intent of this chapter and [90.46 RCW](#), agree to a lead agency designation other than provided for in (1.) and (2.) below. If such a situation arises, the new lead agency must notify the reclaimed water project applicant within 10 business days of the change.

(1.) Ecology as lead agency.

Ecology is the lead agency and will issue permits when:

- (a.) The reclaimed water generation facility source water is wastewater effluent from a water pollution control facility permitted by, or requiring a permit from Ecology, or:
- (b.) The primary use of reclaimed water, or the disposal of inadequately treated water, surplus source water, or surplus reclaimed water is:
 - (i.) Released to water bodies regulated under the [Federal Water Pollution Control Act](#) or chapter [90.48 RCW](#).
 - (ii.) Released to a water pollution control facility permitted by Ecology.

(2.) Health as lead agency.

Health is the lead agency and will issue permits when:

- (a.) The reclaimed water generation facility source water is wastewater effluent from an on-site sewage system with a design flow less than or equal to one hundred thousand gallons per day, regulated under chapters [246-272A](#) or [246-272B](#) WAC and there is no direct release of reclaimed water to the waters of the state, or
- (b.) The reclaimed water permit is dependent on or supplemental to an on-site sewage treatment system operating permit issued for required treatment and reliability, or
- (c.) The only discharge of inadequately treated water, surplus source water, or surplus reclaimed water is to an on-site sewage system.

WAC 173-219-060 Agency requirements and responsibilities

(1.) Lead agency responsibilities.

- (a.) Coordinate with the non-lead agency, including for the following:
 - (i.) Pre-planning meeting and scoping of project.

- (ii.) Schedule for review of required documents, including but not limited to all project or permit applications, reports, plans, specifications, and draft and final permits and fact sheets.
- (iii.) Incorporation of non-lead agency permit requirements as directed in this chapter.
- (b.) Monitor reclaimed water permit compliance, including conducting inspections of a permitted reclaimed water facility.
- (c.) Enforce reclaimed water permit terms and conditions as provided for in [WAC 173-219-280](#).
- (d.) Notify non-lead agency of violations, compliance, and enforcement actions.
- (e.) Assess and collect fees as authorized by that agency's regulations.
- (f.) Respond to appeals of reclaimed water permit decisions.

(2.) Non-lead agency responsibilities.

- (a.) Participate in meetings requested and convened by the lead agency.
- (b.) Determine scope for non-lead agency review of project or permit applications, reports, documents, and permit monitoring and renewal.
- (c.) Submit and review comments and provide any reclaimed water permit conditions to the lead agency within thirty (30) days of receipt of documents.
- (d.) Assess and collect any fees as authorized by that agency's regulations.
- (e.) Assist the lead agency with appeals of reclaimed water permit decisions and compliance and enforcement actions.

(3.) Ecology responsibilities.

As the lead agency or non-lead agency, Ecology will:

- (a.) Develop reclaimed water permit requirements necessary to protect waters of the state and to regulate facility upgrades, modifications, and operation of all sewer systems and associated water pollution control facilities that collect or treat wastewater generate, and deliver, if appropriate, reclaimed water, except as exempted under [RCW 90.48.110](#).
- (b.) Issue all regulatory decisions related to compliance with [Chapter 90.46.130 RCW](#).
- (c.) Incorporate Health-required public health conditions to reclaimed water permits it issues.

Ecology may:

- (d.) Issue a wastewater discharge permit that incorporates terms and conditions for the generation of reclaimed water into [Federal Water Pollution Control Act](#) and/or [90.48 RCW](#) permits or issue these permits concurrently with a reclaimed water permit.

(4.) Health responsibilities.

As the lead agency or the non-lead agency, Health will:

- (a.) Develop reclaimed water permit requirements as necessary to ensure adequate public health protection in the generation, storage, delivery, and use of reclaimed water and to regulate facility upgrades, modifications, and operation of all sewer systems and associated on-site sewage system facilities that collect or treat wastewater, generate, and deliver, if appropriate, reclaimed water.
- (b.) Incorporate Ecology-required permit conditions for environmental protection of waters of the state to permits it issues.

Health may:

- (c.) Issue a large on-site sewage system permit that incorporates terms and conditions for generation of reclaimed water or issue these permits concurrently with a reclaimed water permit.

WAC 173-219-070 Permit required

No reclaimed water may be distributed, or used without a reclaimed water permit issued pursuant to this chapter and [90.46 RCW](#). Nothing in a reclaimed water permit excuses the permittee from complying with any applicable federal, state, or local statutes, ordinances, or regulations.

(1.) Eligibility to apply for a reclaimed water permit.

Only the entity generating the reclaimed water is eligible to apply for a reclaimed water permit. A reclaimed water permit applicant must be one of the following:

- (a.) A public entity. Nothing in this chapter precludes a public entity from contracting for operation and maintenance of the reclaimed water facility with the consent of the lead agency.
- (b.) A private utility as defined in [RCW 36.94.010](#) if the lead agency determines that the private utility meets the requirements in [WAC 173-219-190](#).
- (c.) Any entity that meets (a) or (b), and currently holds an on-site sewage treatment permit under chapter [70.118B RCW](#) or a permit or approval under [Chapter 70.118A RCW](#).
- (d.) Any entity currently holding an active waste discharge permit issued under [chapter 90.48 RCW](#).

(2.) Requesting a reclaimed water permit transfer.

A permittee may make a request to the lead agency for, and the lead agency may grant, a transfer of a reclaimed water permit provided that the existing permittee:

- (a.) Make the request in writing at least thirty calendar days (30) before the proposed change takes place.
 - (i.) Failure to do so will result in a complete permit fee charge to the new permittee.
- (b.) Provide a written agreement between the existing permittee and the proposed permittee that demonstrates the feasibility of the new owner as provided for under WAC 173-219-190.
- (c.) Specify the date for transfer of reclaimed water permit responsibility, coverage, and liability.
 - (i.) A transfer is effective on the date specified in the written agreement unless the lead agency notifies the parties of their intent to modify or revoke and reissue the reclaimed water permit.

(3.) Reclaimed water permit renewal.

Reclaimed water permits are issued for fixed terms, not to exceed five (5) years from the effective date. One-hundred eighty (180) days before expiration of the reclaimed water permit, a permittee must submit a renewal application provided by the lead agency.

- (a.) As long as the permittee meets the renewal application requirements and deadlines for renewal, an expiring reclaimed water permit remains in effect and enforceable until the lead agency either denies the application or issues a replacement permit.
- (b.) If a permittee fails to meet the deadline or application requirements for renewal, coverage expires on the expiration date of the reclaimed water permit and reclaimed water must not be generated, delivered, or used until a valid permit is issued by the lead agency.

(4.) Penalties for failing to obtain a permit.

Any entity who generates any reclaimed water for a use regulated under this chapter and distributes or uses that reclaimed water without a permit is in violation of this chapter and incurs, in addition to any other penalty as provided by law, a civil penalty for up to ten thousand dollars for every such violation.

- (a.) Each such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is considered a separate and distinct violation.

WAC 173-219-080 Uses and discharges not subject to reclaimed water permits

(1.) Uses and discharges not subject to reclaimed water permits.

- (a.) The capture and redirection of wastewater effluent or reclaimed water for facility and internal reuse purposes provided those uses are:
 - (i.) In restricted areas
 - (ii.) Not subject to public exposure.
 - (iii.) Under the direct control of the generator's or user's authorized maintenance personnel.
 - (iv.) Described within an approved operations and maintenance manual.
- (b.) Greywater or treated greywater as defined in [RCW 90.46.140](#) and chapter [246-274 WAC](#).
- (c.) Agricultural industrial process water as defined in [RCW 90.46.010](#).

- (d.) Industrial reuse water as defined in [RCW 90.46.010](#).
- (e.) Land treatment systems of wastewater regulated under [chapter 90.48 RCW](#).
- (f.) On-site sewage treatment systems, with no reclaimed water generation, under [chapters 70.118](#) and [70.118B RCW](#) and chapters 246-272, 246-272A, 246-272B WAC.
- (g.) Non-potable reuse systems regulated under the most recent edition of the state plumbing code as adopted by the Washington State Building Code Council.
- (h.) Non-potable reuse systems regulated under a rule adopted by Health.

WAC 173-219-090 Applying for a reclaimed water permit

(1.) Reclaimed water permit application.

The applicant must:

- (a.) Complete and receive lead agency approval on the feasibility analysis.
- (b.) Submit the reclaimed water permit application, as prescribed by the lead agency, with the engineering report, or after approval, but no later than one hundred eighty (180) business days before distributing reclaimed water for use.

The lead agency must, upon receipt of the application or renewal application for a reclaimed water permit assess the applications for completeness within ninety (90) business days.

(2.) Changes requiring new or supplemental reclaimed water permit application.

- (a.) Any permittee permitted for Class B reclaimed water generation wishing to generate Class A reclaimed water must file a new or supplemental application for any Class A use of reclaimed water not specifically authorized in their existing reclaimed water permit. To do this, a permittee must:
 - (i.) Submit new or revised planning and construction documents described in this chapter as necessary to describe any modifications of the existing reclaimed water generation facility.
 - (A.) The lead agency may waive parts of the planning document requirements on a case-by-case basis for a facility modifications if they do not relate to the proposed upgrade
 - (ii.) Submit a copy of the new use agreements or templates per [WAC 173-219-300](#), unless the agreement for the new use is consistent with a standard agreement template that has been previously approved by the lead agency.

WAC 173-219-100 Water rights protection

(1.) Compliance with [RCW 90.46.130](#)

All entities applying to Ecology or Health for a reclaimed water permit, permit renewal, or permit modification under this chapter, must demonstrate compliance with [RCW 90.46.130](#). No waivers are allowed from this statutory requirement.

- (a.) Ecology's Water Resources Program is responsible for determining whether a proposed reclaimed water facility would comply with [RCW 90.46.130](#). Ecology's determination must be consistent with the provisions of [Chapter 90.03 RCW](#), the state water code, [Chapter 90.44 RCW](#), regulation of public groundwaters, [RCW 90.46.130](#), and applicable case law.
- (b.) Existing water rights include any permits, claims, and certificates in existence when Ecology accepts submitted water rights impairment analysis, instream flows established by rule pursuant to [chapters 90.22](#) and [90.54 RCW](#), and all federally reserved water rights.
- (c.) The applicant must prepare and submit an impairment analysis of potentially impaired water rights as part of the Feasibility Analysis, under [WAC 173-219-190](#). The impairment analysis must be stamped by an engineer or hydrogeologist licensed in Washington. A preliminary proposal for compensation or mitigation as allowed under [RCW 90.46.130](#) may be included with the Feasibility Analysis as provided for in [WAC 173-219-190](#). When the applicant submits the Engineering Report under [WAC 173-219-220](#), the impairment analysis must include proposed compensation or mitigation as allowed under [RCW 90.46.130](#), if necessary.

- (d.) Permit renewals that maintain the same amount of water being reclaimed are not required to resubmit an impairment analysis. Permit renewals or modifications that increase the amount of water being reclaimed must submit an updated impairment analysis for the new water reclaimed.
- (e.) Ecology and the applicant will notify and consult with affected tribes and the Washington State Department of Fish and Wildlife (WDFW) before making a final determination.
- (f.) Ecology will make the final determination of impairment and adequacy of compensation or mitigation as part of the decision on the reclaimed water permit.
- (g.) The applicant may request assistance from Ecology through a cost reimbursement agreement, based on resource availability, during any stage of scoping or conducting an analysis to determine compliance with [RCW 90.46.130](#). Cost reimbursement agreements must meet the requirements of [RCW 43.21A.690](#). Ecology must make the determination of agency resource adequacy.

WAC 173-219-110 Public access to information

The lead agency must make available for inspection and copying records relating to reclaimed water permits, in accordance with chapter 42.56 RCW.

- (a.) The lead agency may require a reasonable fee for copying of documents.
- (b.) Claims of confidentiality must be handled in accordance with the appropriate provisions of [Chapters 42.56 RCW, 173-03 WAC](#), and [RCW 43.21A.160](#).
- (c.) For reclaimed water permits that are also subject to NPDES permit requirements, Ecology must disclose any information accorded confidential to the USEPA regional administrator if the USEPA requests this information.

WAC 173-219-120 Public notice

(1.) Public notice of application.

The lead agency must publish a notice via electronic mail, posting on the lead agency's internet site, press release, or other appropriate means for any reclaimed water permit application when it is determined to be complete by the lead agency.

(2.) Public notice of draft permitting decision.

The lead agency must publish via electronic mail, posting on the lead agency's internet site, press release, or other appropriate means for any draft decision to issue a permit, including Ecology's findings on compliance with RCW 90.46.130. This public notice must state that a draft reclaimed water permit is available for review and comment and at a minimum, include the following:

- (a.) The name, address, email, and phone number to contact the lead agency.
- (b.) The procedure for obtaining copies of the fact sheet and the draft permit(s).
- (c.) The type and location of the reclaimed water facility.
- (d.) The procedures for finalizing the draft reclaimed water permit and the means by which interested persons may comment on the draft reclaimed water permit, including:
 - (i.) The length of the public comment period, consistent with [WAC 173-219-130](#).
 - (ii.) How and by when to request a public hearing.

(3.) Public notice when Health is lead agency.

If Health is the lead agency, it must require the applicant to provide the public notice details described in this section consistent with the requirements of [WAC 246-272B-02200](#) and [173-272B-2300](#) and [246-272B-02250](#), regardless of the size of the reclaimed water and on-site sewage system(s).

(4.) Public notice of final permitting decision.

The lead agency will publicize, at least as broadly as required for the draft permitting decision, their final reclaimed water permitting decision per [RCW 90.46.220](#).

WAC 173-219-130 Public comment period

(1.) Public comment period required.

A minimum of thirty (30) calendar days from the beginning of the public comment period must be provided for public input and comment on a draft permit. The lead agency must:

- (a.)** Retain, consider, and respond to all comments received during the public comment period.
- (b.)** Revise the draft reclaimed water permit as needed based on comments received.
- (c.)** Notify the applicant, the non-lead agency, and all who commented on the draft reclaimed water permit, and others that indicated interest in the reclaimed water permit, when a final permit has been issued or denied. This notice must include:
- (d.)** Response to the comments received and;
 - (i.)** If issued, the lead agency must provide:
 - (A.)** Final reclaimed water permit and fact sheet.
 - (B.)** Effective date of the reclaimed water permit.
 - (C.)** Expiration date of the reclaimed water permit.
 - (D.)** Procedures for appealing the reclaimed water permit.
 - (ii.)** If denied, the lead agency must provide:
 - (A.)** An explanation of why denying permit issuance was necessary to protect public health, the environment, or existing water rights as per [RCW 90.46.130](#).
 - (B.)** Procedures for appeal.

WAC 173-219-140 Public meeting and hearing request

During the public comment period, any person may request a public meeting and/or hearing to review the draft reclaimed water permit and fact sheet and for the lead agency to accept verbal comments on the drafts. Any such request for a public meeting or hearing must be filed with the lead agency before the end of the public comment period.

(1.) Notice of a public meeting or hearing.

- (a.)** Notice must be published at least thirty (30) days in advance of the meeting or hearing.
 - (i.)** When Ecology is lead agency, it must publish notice of the event at least as widely as the notice of the draft permitting decision.
 - (ii.)** When Health is the lead agency, the applicant must publish the notice and provide proof of publication to Health.
- (b.)** The notice must include the:
 - (i.)** Name, address, and phone number of the lead agency contact person.
 - (ii.)** Date, time, and location for the meeting and/or hearing.
 - (iii.)** Nature and purpose of the meeting and/or hearing.
 - (iv.)** Issues indicated by the person(s) requesting the meeting and/or hearing, or any appropriate issues thought to be of interest to the public.
 - (v.)** A reference to the public notice provided under this section including the method of notice and date of issuance.
 - (vi.)** Contacts and locations where interested persons may obtain more information.

WAC 173-219-150 Relationship with other Ecology and Health permits

Permit requirements under this chapter, [173-216 WAC](#), and NPDES permit requirements under the [Federal Water Pollution Control Act](#) will under normal circumstances; be contained in a single permit document issued by Ecology.

Permit requirements under this chapter, [173-216 WAC](#), and on-site sewage system permit requirements under [RCW 70.118B.020](#) and [RCW 43.20.050](#), shall under normal circumstances, be contained in a single permit document issued by Health.

The lead agency may issue a separate reclaimed water permit with an associated conventional wastewater permit on a case- by-case basis when determined by the lead agency to improve implementation of RCW 90.46 and this chapter.

WAC 173-219-160 Regulatory action for noncompliance

The generation, distribution, and/or use of reclaimed water in a manner not authorized by a reclaimed water permit or an approved use agreement, or that violates the terms and conditions of a permit is prohibited. A permittee must comply with all terms and conditions of this chapter, chapter 90.46 RCW, and the reclaimed water permit issued under this chapter.

(1.) Immediate protection of public health or the environment.

When the immediate need is to protect public health or the environment, the lead agency may issue an appropriate order without the notification or determination requirements in subsection (2) of this section. The lead agency must:

- (a.)** Serve an order or directive issued pursuant to this sub-section by registered mail or personally, upon any person to whom it is directed and in the manner required by the lead agency's rules.

(2.) Notice of Violation.

Upon determination of a substantial potential to violate this chapter or [90.46 RCW](#) and except as provided for in subsection (1) of this section, the lead agency must:

- (a.)** Provide notice of violation by registered mail to the responsible party.
- (b.)** Provide thirty (30) days from receipt of the notice for the responsible party to submit a full report containing the steps taken or to be taken to comply with the violation determination.
- (c.)** Issue an order, directive, or other enforcement action after the expiration of thirty days (30) days to the responsible party by registered mail or other appropriate method required by lead agency rules.

(3.) Compliance Schedules and Conditions.

The lead agency may establish schedules and conditions to achieve compliance through an administrative order or terms of a permit. A compliance schedule must:

- (a.)** Set the shortest, most reasonable time, to achieve the specified requirements.
- (b.)** Contain interim requirements and set dates for completion.
 - (i.)** If the schedule has more than one year between interim requirement completion dates, the reclaimed water permit or administrative order must require and specify due dates for progress reports towards completion.
- (c.)** The permittee must submit written notice to the lead agency within fourteen (14) calendar days of:
 - (i.)** Completion of each compliance item.
 - (ii.)** Missed compliance requirements.
 - (iii.)** Reason for missed compliance.
 - (iv.)** Plan to achieve compliance.
- (d.)** Should the permittee fail to comply with conditions or interim requirements in the compliance schedule of this subsection, the noncompliance is considered a continuing violation and the lead agency may modify or revoke the reclaimed water permit or take other direct enforcement actions as provided for in subsection (3.) of this section.

(4.) Enforcement authority.

The lead agency may:

- (a.)** Modify, suspend, or revoke a reclaimed water permit in whole or in part during its term for cause, including, but not limited to:
 - (i.)** Violation of any term or condition including, but not limited to, a repeated violation or event, such as inadequate performance, monitoring, and operation and maintenance, which threatens public health or the environment.
 - (ii.)** Discovery that the permittee obtained the reclaimed water permit by misrepresentation or failure to disclose fully all relevant facts.
 - (iii.)** A change in any condition that requires either a temporary or permanent reduction or cessation of generation, distribution, or use of the reclaimed water.

- (iv.) A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations.
 - (v.) Failure or refusal of the permittee to allow entry for reclaimed water permit compliance inspection.
 - (vi.) Nonpayment of assessed fees.
 - (vii.) An exceedance in the approved quantity or reduction in the quality or class of reclaimed water generated.
- (b.) Sue in court, with the assistance of the attorney general, if appropriate and necessary to order compliance of any substantial potential to violate, or continuing violations of reclaimed water permits—without first revoking the reclaimed water permit.
 - (c.) Assess, or sue to recover in court civil fines, penalties, and other civil relief as may be appropriate for the violations of any of the following:
 - (i.) Reclaimed water standard or limitation.
 - (ii.) Reclaimed water permit, term, or condition.
 - (iii.) Filing requirement.
 - (iv.) Duty to allow or carry out inspection, entry, or monitoring activities.
 - (v.) Rule, regulations, or orders issued by the lead agency.
 - (d.) Seek criminal sanctions against any person who knowingly makes any false statement, representation, or certification in any notice, report, or monitoring device, methodology, or data required by the terms and conditions of a reclaimed water permit.

(5.) Penalties for violating permit conditions.

Any entity who is found guilty of willfully violating the terms and conditions of a reclaimed water permit is guilty of a crime, and upon conviction may be punished by a fine of up to ten thousand dollars per day for every violation and costs of prosecution, or by imprisonment at the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

- (a.) Any person who violates the terms and conditions of a reclaimed water permit incurs, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars for every such violation.
 - (i.) Each such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is considered a separate and distinct violation.

WAC 173-219-170 Appeals.

(1.) Appealable actions.

Any entity aggrieved by a decision, made in accordance with provisions of this chapter, may appeal that decision as provided by law applicable to the agency issuing the decision. This includes, but is not limited to, chapters [43.21B](#), [43.70](#), [34.05 RCW](#), and RCW [90.46.220\(7\)](#), [90.46.250](#), and [90.46.270](#).

- (a.) The request for an adjudicative proceeding must be made in the form and manner set forth in the lead agency's laws and regulations.
 - (i.) Health's procedural rules are set forth in [chapter 246-10 WAC](#).
 - (ii.) Ecology's final agency actions are appealable through the pollution control hearings board (PCHB) in accordance with the PCHB's procedural rules under [WAC 371-08-335](#).

WAC 173-219-180 Pre-planning and project application

(1.) Early consultation with lead and non-lead agencies.

Potential reclaimed water project applicants must arrange and attend a pre-planning meeting with the lead and non-lead agency to determine the scope of the feasibility analysis, as well as other planning, permitting, or technical matters related to their intention to generate, distribute, and use of reclaimed water.

(2.) Project Application.

When Health is the lead agency the project applicant must submit a project application and fee prior to Health reviewing any document submittals required under this chapter, consistent with chapters [246-272B](#) and [246-272 WAC](#).

WAC 173-219-190 Feasibility analysis

(1.) Long-term feasibility of reclaimed water generation, distribution, and use.

A feasibility analysis must demonstrate that the generator has the long-term technical, management, legal, and financial capacity to design, construct, operate, and maintain the reclaimed water facility and that distribution and end uses are feasible. The purpose of the feasibility analysis is to ensure that resources are sufficient to provide public health and the environmental protection for a planning period of 20 years. Guidance is available in the Reclaimed Water Facility Manual (Purple Book) and in the review standards found in [173-219-210 WAC](#).

- (a.)** Entities proposing new reclaimed water projects must contact the lead agency early in the planning process to determine the scope of the required feasibility analysis.
- (b.)** Entities with existing reclaimed water permits, proposing to modify their facilities or operations, must consult with the lead agency to determine what, if any, additional feasibility information needs to be submitted and approved.
- (c.)** Since opportunities for reclaimed water must be considered or coordinated under other planning requirements in state law, those other relevant planning documents may be submitted to meet all or part of the submittal requirements of this section. Documents approved for other purposes may require amendments or additions to meet the requirements of this section. For purposes of meeting the feasibility analysis requirements under this section, relevant planning documents include, but are not limited to the following:
 - (i.)** General sewer plans and engineering reports/facility plan for domestic wastewater facilities under [RCW 90.48.110](#) and [90.48.112](#), or [WAC 173-240-050](#) and [173-240-060](#);
 - (ii.)** Water system plans, small water system management plans, sewage and sewage treatment works system plans or predesign reports under chapter [43.20](#), [70.116](#), or [70.118B](#) RCW or chapter 246-290, 246-291, 246-272A, or 246-272B WAC;
 - (iii.)** Water supply plans under chapter 90.44 or 90.82 RCW;
 - (iv.)** A regional water supply plan or plans addressing potable water supply service by multiple water purveyors under [RCW 90.46.120](#);
 - (v.)** Comprehensive reclaimed water plans under [RCW 57.16.010](#); and
 - (vi.)** A stand-alone or supplemental reclaimed water plan.
- (d.)** The feasibility analysis, including any of the above planning documents, must be submitted to the lead agency for review and approval.
 - (i.)** The lead agency may disapprove the feasibility analysis based on a determination of inadequate technical, management, legal, and financial capacity or lack of sufficient information on which to make a determination.

(2.) Content of feasibility analysis.

The feasibility analysis must include the following content and any other relevant data required by the rules of the lead or nonlead agency:

- (a.)** Explanation of who will own, operate, and maintain the reclaimed water facility.
- (b.)** For a planning period of 20 years, projected capital and operational costs, in terms of total annual cost and present worth, and projected revenues from user fees and other sources, if applicable.
- (c.)** Estimate of the annual or seasonal volumes of reclaimed water required, proposed, and available.
- (d.)** Description of the proposed level of water quality, treatment and reliability features and how existing and planned reclaimed water generation facilities will meet and assure the minimum requirements for water quality, treatment and reliability for the proposed uses, such as through backflow prevention.
- (e.)** Description of plans for alternative use, storage, or release of any excess reclaimed water or inadequately treated water.
- (f.)** Description of the contingency plan for both temporary and permanent reversion to domestic wastewater facilities and alternative water supply systems where applicable, if reclaimed water production is discontinued. Include the impact of increased demand to water purveyors.

- (g.) Initial assessment of potential water quality and quantity impairments and potential strategies to prevent, compensate, and/or mitigate for such impairments.
- (h.) List of all public water system sources, storage, and distribution facilities within one thousand feet of all identified potential reclaimed water generation, reclaimed water storage, and inadequately treated water storage facility areas and any proposed use areas. At a minimum, water source protection and cross-connection control actions and concerns must be identified. The entity must document efforts to communicate and collaborate with public water systems owning identified facilities and their concerns and support for inclusion in the engineering report in [WAC 173-219-220](#).
- (i.) A description of the community outreach and public involvement done and/or a plan for community outreach and involvement to demonstrate awareness of and community support for the water reclamation and reuse project.
- (j.) Identification of existing or proposed interlocal or interagency agreements, if any, with local governments or local potable water utilities within the area of existing or proposed distribution and use of reclaimed water.
- (k.) Statement of compliance with the State Environmental Policy Act (SEPA) and the National Environmental Policy Act (NEPA), where applicable.

(3.) Demonstration of private utility capacity.

In addition to (1.) and (2.) of this section, private utilities must submit adequate information to the lead agency to determine if the entity has the technical, managerial, administrative, operational, legal, and financial capacity to design, construct, operate, and maintain the reclaimed water facility and that distribution and end uses are feasible.

- (a.) A brief, nontechnical description of the proposed reclaimed water facility and its proposed customers.
- (b.) A description of the technical, managerial, administrative, operational, legal, and financial capacity of the entity to comply with [90.46 RCW](#) and this chapter.
- (c.) Demonstration of ability of the entity to hire and retain certified operators who will be directly responsible for achieving effective and reliable routine operations.
- (d.) A list of all subcontracted services such as engineering, legal, and accounting.
- (e.) With the consent of the lead agency, a private utility may establish adequate management capacity by entering into a management agreement with a qualified public entity acceptable to the lead agency to serve as the primary management entity or as a third-party guarantor. The management agreement must be binding on both parties and remain in force until the lead agency determines that the private utility has the technical, managerial, and financial capacity to act as the permittee, or until the private utility enters into a management agreement with another qualified public entity.

WAC 173-219-200 Document preparation, timing, and signature requirements

(1.) Timing.

The applicant is responsible for ensuring that there is sufficient time to meet funding, contractual, and other project deadlines.

- (a.) The lead agency may require an update to an approved engineering document to address changes in conditions, regulatory requirements, or engineering technology when three or more years have elapsed between agency approval of the documents and the construction of the reclaimed water facility.
- (b.) If submittals are part of a reclaimed water permit, conditions, or compliance schedule, the lead agency must receive the required submittals by the deadline established in the permit or compliance schedule.

(2.) Reclaimed water project and permit application signature requirements.

All reclaimed water project or permit applications, application renewals, or transfers must be signed as follows:

- (a.) Public agency: by either the principal executive officer or ranking elected official.
- (b.) Corporations: by a responsible corporate officer.
- (c.) Partnership: by a general partner.

- (d.) Sole proprietorship: by the proprietor.
- (e.) Private utility: by a responsible officer.

(3.) Signature requirement on other required submittals.

All other required submittals must be signed either by the person in subsection (1) of this section or by their duly authorized representative.

- (a.) A person is a duly authorized representative only if the person described in subsection (2) of this section submits written authorization to the lead agency and specifies an individual or a position with responsibility for the overall operation of the regulated facility or activity.
- (b.) If an authorization under (a) of this subsection is no longer accurate, the person in subsection (2) of this section must submit a new authorization before or with the signed submittal.
- (c.) Any person signing a document under this rule must make the following certification, unless a different certification is applicable under another related section of this chapter:
 - (i.) "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a facility designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for violations."
- (b.) Engineering submittals must be prepared, stamped, signed and dated by a professional engineer who is licensed in Washington state, as directed in [chapter 18.43 RCW](#).
- (c.) Geology and hydrogeology submittals must be prepared, stamped/sealed, signed, and dated by a geologist or hydrogeologist licensed in Washington state, as directed in [chapter 18.220 RCW](#).

WAC 173-219-210 Plan review and review standards

(1.) Plan review required.

The entity must submit all feasibility, planning, design, and construction documents to the lead agency for review and approval before constructing or significantly modifying reclaimed water facilities.

The lead agency will comment on, approve, or reject documents submitted for planning, design, and construction within ninety business days (90) of receipt. If circumstances prevent adequate review within a ninety-day (90) period, the lead agency must notify the entity of the reason for the delay and provide an estimated review completion date.

(2.) Review standards.

The lead agency and non-lead agency must review all applications, plans, analyses, engineering reports, and operations and maintenance manuals to ensure they are reasonably consistent with the appropriate sections of the most recent edition of Ecology's "Criteria for sewage works design (Orange Book)" and Ecology and Health's *Reclaimed Water Facilities Manual (Purple Book)*. Additional review references may include, but are not limited to, the documents listed in [WAC 173-240-040](#). The purpose of the review is to evaluate whether the proposed reclaimed water facilities meet:

- (a.) State standards and other requirements for the generation, distribution, and use of reclaimed water under this chapter and [90.46 RCW](#).
- (b.) Applicable requirements of chapters [90.48](#) and [90.54](#) RCW necessary to prevent and control pollution of waters of the state.
- (c.) Applicable requirements of chapter [70.118](#), [70.118A](#), [70.118B](#), [70.119](#), [70.119A](#), or [43.20](#) RCW with respect to on-site sewage systems or public water systems.
- (d.) All other applicable regulations and authorities.

WAC 173-219-220 Engineering report

(1.) Submission of engineering report to lead agency.

The engineering report is the technical basis for the proposed reclaimed water facility. An applicant for a reclaimed water permit under this chapter must:

- (a.)** Submit an engineering report as prescribed in subsection (2) of this section, before or with, the reclaimed water permit application.
- (b.)** Include a section or stand-alone engineering report meeting the requirements of [WAC 173-240-060](#) for the wastewater treatment facility that will provide source water for the proposed reclaimed water facility.

(2.) Engineering report contents.

All engineering reports required under this chapter must reflect acceptable engineering practices and demonstrate the capacity of the generator to protect public health and the environment. The lead and non-lead agencies will determine the scope of the engineering report. Reports must include:

- (a.)** Sufficient detail for a professional engineer to complete plans and specifications without substantial changes.
- (b.)** Include the following content together with any other relevant data required by other rules of the lead- and non-lead agency, as identified by the report reviewers as needed to protect public health and the environment:
 - (i.)** Name and contact information for the owner and the owner's authorized representative(s).
 - (ii.)** A project description and a location map. The map must include:
 - (A.)** Location of all wastewater treatment and reclaimed water generation facilities, as well as all reclaimed and inadequately treated water storage facilities under direct control of the applicant.
 - (B.)** All additional facilities that may be under control of the applicant, such as for storage and distribution of reclaimed water.
 - (C.)** All public water supply sources, wellhead protection areas for municipal water sources, and system facilities within the project area.
 - (iii.)** Proposed quantity and quality of the reclaimed water generated by the reclaimed water facility including an assessment that the proposed water quality meets the requirements for all proposed beneficial uses included in [WAC 173-219-400](#) on Table 2.
 - (iv.)** Description of who will operate and maintain the reclaimed water facility.
 - (v.)** If applicable, locate potable surface water intakes and provide separation distance between reclaimed water use area and intakes.
 - (vi.)** Applicable requirements of the Uniform Plumbing Code amended for state of Washington, including pipe colors and labeling.
 - (vii.)** Design information for the reclaimed water distribution system directly under the control of the generator including meeting the requirements of [WAC 173-219-370](#), and consistent with pressurized distribution systems in the most recent edition of the Health's Water System Design Manual.
 - (viii.)** The amount, characteristics, and strength of the source water to be treated, including BOD, DO, TSS, and nitrate levels, and the degree of treatment required to generate proposed reclaimed water quality, and other influencing factors.
 - (ix.)** Descriptions of proposed treatment processes including preliminary flow diagrams of critical reclaimed water unit processes along with anticipated reliability features, and controls.
 - (x.)** Hydraulic, organic, and influent loading rates to the reclaimed water treatment facility.
 - (xi.)** Reliability assessment of all major or otherwise significant equipment and components, individual unit processes, and complete treatment trains, meeting the requirements of this chapter.
 - (xii.)** Description of alternative design options considered.
- (c.)** Summary of engineering design criteria for reclaimed water treatment processes including:
 - (i.)** Aeration/anaerobic organic carbon reduction.
 - (ii.)** Nutrient reduction (if required).
 - (iii.)** Disinfection system selection meeting the requirements of [WAC 173-219-350](#).
 - (iv.)** Contact time with disinfectant reactor.
 - (v.)** Coagulation and filtration processes (if required).

- (vi.) Reverse osmosis or comparable technology process (if required).
- (d.) A description of compliance with treatment reliability standards in [WAC 173-219-360](#).
- (e.) A statement regarding or demonstration of compliance with:
 - (i.) State Environmental Protection Act (SEPA), State Environmental Review Process (SERP), or National Environmental Protection Act (NEPA).
 - (ii.) Any applicable state or local water quality management plan or any plan adopted under the Federal Water Pollution Control Act as amended.
 - (iii.) Chapter 90.46.130 RCW, including any compensation or mitigation plans.
- (f.) A pilot study proposal, if required. The lead agency may require a pilot reclaimed water facility study to evaluate the ability of the proposed facility to meet all reclaimed water quality requirements applicable to the project. The applicant must include discussion and determination of the need for a pilot study in the engineering report and include the proposal for it, if required.
- (g.) Proposed pipeline separation distances, both horizontal and vertical, consistent with the most recent edition of [Pipeline Separation Design and Installation Reference Guide](#) by Ecology and Health in order to assure adequate access for repair and replacement, trench stability, to minimize impacts to nearby utility pipes, and protect public health.
- (h.) Wetlands.** If the use of the reclaimed water's beneficial use is for a wetland, or wetland restoration and/or enhancement the following is also required as part of the reclaimed water engineering report, including:
 - (i.) The wetland-rating category, size, hydrogeomorphic class, and vegetation class of the existing and proposed wetlands.
 - (ii.) The beneficial uses of the existing and proposed wetland.
 - (iii.) The hydrologic regime of the existing and proposed wetland, including depth and duration of inundation, average monthly water level fluctuations, and annual loadings of reclaimed water to the wetlands.
 - (iv.) Demonstration that the proposed quality of reclaimed water meets the requirements for this beneficial use.
 - (v.) Any studies conducted or additional information applicable to the specific project or site.
 - (vi.) Information to support a claim of net environmental benefit, if proposed. At a minimum, a claim of net environmental benefit must demonstrate that:
 - (A.) The use of reclaimed water provides full and uninterrupted protection of all significant beneficial uses existing in the wetland prior to the use of reclaimed water.
 - (B.) Creates new, or enhances the existing beneficial uses of the wetland.
- (i.) **Surface water augmentation.** If the use of the reclaimed water is for surface water augmentation, the following is also required as part of the reclaimed water engineering report:
 - (i.) The location and proposed augmentation uses of the reclaimed water.
 - (ii.) Demonstration of how the reclaimed water meets water quality standards at the point of discharge.
 - (iii.) Determination of adequate time of travel and distance between the reclaimed water discharge point and any affected downstream potable water intakes, based on protecting public health. Reclaimed water quality must not cause need for intake modifications or additional treatment requirements for the production of potable water.
 - (iv.) If the intended beneficial use is for an instream flow per [90.22 RCW](#), a draft or final mitigation plan is required.
- (j.) Groundwater/aquifer recharge.** If the use of the reclaimed water is for aquifer recharge, the following is also required as part of the reclaimed water engineering report:
 - (i.) Information requested by the lead agency necessary to assess the specific treatment and use of reclaimed water for application to recharge groundwater.
 - (ii.) Site specific information presented in the following:
 - (A.) Project operation plan.
 - (B.) Conceptual model of the hydrogeologic system.
 - (C.) Description of the legal framework.

- (D.) Environmental assessment and analysis of any potential adverse conditions or potential impacts to the surrounding ecosystem.
- (E.) Project mitigation plan.
- (F.) Project monitoring plan.
- (G.) Pilot demonstration of project performance.
- (k.) Recovery of reclaimed water stored in an aquifer.** Aquifer recovery projects will be evaluated based on the information provided in the engineering report under (j) using the following criteria:
 - (i.) Aquifer vulnerability and hydraulic continuity.
 - (ii.) Aquifer boundaries and characteristics.
 - (iii.) Geotechnical impacts of project operation.
 - (iv.) Chemical compatibility of surface waters and groundwater.
 - (v.) Recharge and recovery treatment procedures.
 - (vi.) System operation.
 - (vii.) Potential impairment of existing water rights.
 - (viii.) Environmental impacts.
 - (ix.) Pilot demonstration project performance.
- (l.) On-site sewage treatment.** If the applicant is or will be operating an on-site sewage treatment system, the applicant may reference an approved engineering report, but the following is also required in the reclaimed water engineering report:
 - (i.) The on-site sewage treatment system predesign report, site and environmental review, and engineering report as required under WAC 246 272B, Parts 3 and 4.
- (m.) Conveyance in waters of state.** For projects, proposing conveyance in waters of the state, Ecology must approve the conveyance report portion of the engineering report.

WAC 173-219-230 Plans and specifications

(1.) Approved construction plans and specifications.

The applicant must submit:

- (a.)** Two complete sets of paper final plan drawings and specifications, and one complete set in an electronic format as allowed by the lead agency. The lead agency may waive the requirement for paper submittals.
 - (i.)** The lead agency will stamp one of the paper copies of the final plans “approved” and return them to the applicant for use in bidding and construction.

The construction document must:

- (b.)** Include a list of the design criteria.
- (c.)** Include a field-commissioning plan for new facilities, if applicable. The plan must include testing of all processes, equipment, and reactors used in the generation of reclaimed water and be consistent with the most recent edition of the Ecology and Health *Reclaimed Water Facilities Manual (Purple Book)* and the review standards provided in [173-219-210 WAC](#).
- (d.)** Include a plan for interim operation of facilities during construction, if applicable.
- (e.)** Identify all potential cross-connections and the device or assembly to be installed to prevent them as described in [173-219-320 WAC](#). This information must also be included in the as-built drawings and final operations and maintenance manual under [173-219-250 WAC](#).
- (f.)** Follow applicable requirements in:
 - (i.)** [WAC 173-240-070](#) for domestic wastewater facilities.
 - (ii.)** [WAC 246-272B-04400](#) for on-site sewage systems.

WAC 173-219-240 Construction and declaration of construction

(1.) Construction of reclaimed water facilities.

Reclaimed water facilities must be constructed in accordance with 90.46 RCW, this chapter, and the construction plans and specifications approved by the lead agency prior to construction. When Health is the lead agency, no construction is permitted until Health issues a written approval to construct, under chapter [246-272B WAC](#).

(2.) Revisions to approved construction plans and specifications.

If during construction, the engineer determines a substantial change to the approved plans and specifications is necessary and could affect the quality or quantity of the reclaimed water or has financial assistance implications, the applicant must submit revisions to the approved engineering plans and specifications to the lead agency for review and approval prior to continuing construction of the facility.

(3.) Declaration of construction.

The professional engineer responsible for the construction portion of the project must comply with [WAC 173-240-090](#) and submit a construction completion form provided for in [WAC 173-240-095](#) to the lead agency within thirty (30) calendar days of acceptance by the owner of the constructed or modified reclaimed water facility.

WAC 173-219-250 Operations and maintenance

The permittee must at all times properly operate and maintain any facilities or systems of control installed by the permittee to achieve compliance with the terms and conditions of the permit. Where design criteria have been established, the permittee must not allow flows or waste loadings to exceed approved design criteria, or approved revisions thereto.

(1.) Operations and maintenance manual requirements.

A operation and maintenance manual must be submitted to the lead agency for review and approval prior to operation of the facility and must include, together with any other relevant data required by the lead agency, the following content with detail commensurate with the size and complexity of the generation facility:

- (a.)** Sufficient detail to describe the operation and maintenance and treatment reliability of the entire reclaimed water facility, storage, and as applicable, the distribution system.
- (b.)** A copy of the reclaimed water permit.
- (c.)** Manufacturer's information on the reclaimed water facility equipment.
- (d.)** Technical guidance for both normal and emergency operating conditions.
- (e.)** A section containing the permittee's cross-connection control plan, in conformance with [173-219-320 WAC](#).
- (f.)** A communication plan outlining notification of any potable water purveyors identified in [WAC 173-219-190](#) and any other affected agencies.
- (g.)** Roles and responsibilities for managerial and operational staff.
 - (i.)** Include facility classification and the classification and certification requirements for treatment, distribution, and cross-connection control operators and personnel, if applicable.
 - (ii.)** A discussion of provisions to provide a sufficient number of qualified personnel to operate the facility, storage, and distribution system to achieve the required level of treatment at the facility and reclaimed water quality delivered for the approved use agreements at all times.
 - (iii.)** List of persons to be alerted in case of emergency.
- (h.)** Principal design criteria including:
 - (i.)** A process description of each facility unit, including function, relationship to other facility units, and schematic diagrams.
 - (ii.)** Details of each unit operations and various controls, recommended settings, fail-safe features, and other elements that ensure proper operation of equipment.
 - (iii.)** Operation instructions for anticipated maintenance procedures, less than design loading conditions, overload conditions, and if applicable, initial loading on a system designed for substantial growth.
 - (v.)** Information on any maintenance procedures that contribute to the generation of wastewater or residual solids and the proper handling of the wastewater and solids generated.
 - (vi.)** A maintenance log and schedule that incorporates manufacturer's recommendations, preventative maintenance, and housekeeping schedules, and special tools and equipment used to ensure that all unit processes and equipment are in reliable operating condition at all times.

- (i.) Laboratory procedures, including sampling techniques, monitoring requirements, sample analysis and record keeping procedures, including sample and chain of custody forms.
- (j.) Safety.
- (k.) Spare parts inventory, address of local suppliers, equipment warranties, and appropriate equipment catalogues.
- (l.) Emergency plans and procedures including, but not limited to:
 - (i.) Facility shutdown and cleanup of a treatment process upset or failure.
 - (ii.) Response plan to ensure that no inadequately treated water is delivered to a reclaimed water user.
- (m.) If the generator is the distributor, include a section on the distribution system including, but not limited to:
 - (i.) Responsibilities for operation and maintenance.
 - (ii.) Operational controls, maintenance requirements, monitoring, and inspection.
- (n.) If the generator is the user, include a section on the reclaimed water use areas including, but not limited to:
 - (i.) Responsibilities for operation and maintenance.
 - (ii.) Operational controls, maintenance requirements, and monitoring and inspection.

WAC 173-219-260 Certified operators

Certified operators are part of the permittee's management and reliability capacity for reclaimed water generation and distribution facilities. Their role is to ensure that reclaimed water is reliably treated and delivered to the user, to meet the reclaimed water permit conditions and to protect public health and the environment. Certified operators must perform certain functions for reclaimed water facilities, as identified in this chapter or the reclaimed water permit, and consistent with the certifications standards of the agency issuing the certificate. The reclaimed water permit **must** require that the permittee and distributor, if separate persons, employ one or more operators, or a contractor(s) employing operators, with certain operator certification classifications or levels.

(1.) Allowable certifications.

- (a.) Health, under chapter [246-292 WAC](#), for waterworks treatment, distribution management, cross-connection control, and backflow assembly testing.
- (b.) Ecology, under chapter [173-230 WAC](#), for wastewater treatment.
- (c.) Either Health or Ecology, for reclaimed water treatment, when one develops a reclaimed water operator certification program.

WAC 173-219-270 Monitoring, recording, and reporting

Any use, generation, distribution, or storage of reclaimed water, authorized by a permit may be subject to such monitoring requirements as may be reasonably required by the lead agency, including the installation, use and maintenance of monitoring equipment or methods, including, where appropriate, biological monitoring methods. The lead agency must establish monitoring, recording, and reporting requirements and include them in the required permit(s). These requirements typically include the following:

(1.) Monitoring schedules.

A detailed self-monitoring and testing schedule for water quality limits, other substances, or parameters, required to demonstrate that the reclaimed water is protective of human health and the environment.

(2.) Monitoring parameters.

The permit will set parameters, sample types, locations, and frequencies. The lead agency may base requirements on:

- (a.) Available guidance or model permits.
- (b.) Quantity, quality, and variability of the reclaimed water.
- (c.) Treatment methods.
- (d.) Significance of the pollutants.
- (e.) Availability of appropriate indicator or surrogate parameters.
- (f.) Cost of monitoring.
- (g.) Past compliance history.

- (h.) The lead agency may increase monitoring parameters or frequency for cause, including, but not limited to, significant, recurrent reclaimed water permit violations or where determined necessary to protect public health or the environment.

(3.) Source water monitoring.

If the influent to the reclaimed water facility is effluent from a wastewater facility, the permittee may use monitoring data collected for the wastewater discharge permit to fulfill all or part of influent monitoring requirements. Minimum requirements include:

- (a.) Flow.
- (b.) Five-day biochemical oxygen demand (BOD5).
- (c.) Total suspended solids.
- (d.) pH.

(4.) Representative sampling and analysis.

In addition to the standard requirements, the lead or non-lead agency may establish specific conditions to assure that sampling and measurements accurately represent the volume and nature of the parameters monitored.

(5.) Monitoring equipment maintenance and calibration.

The lead and/or non-lead agency must establish requirements based on manufacturer's requirements and accepted scientific field practices for the appropriate installation, use, calibration, and maintenance of monitoring equipment for flow, and continuous monitoring devices and methods.

(6.) Sampling and analytical procedures.

Sampling and analytical methods must conform to the following:

- (a.) The [Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 C.F.R. Part 136](#) or [Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 C.F.R. Part 141](#).
- (b.) [Standard Methods for the Examination of Water and Wastewater](#) (APHA) in effect at time of permit issuance or renewal.
- (c.) The lead agency may require other sampling and analytical methods as needed and on a case-by-case basis.
- (d.) A laboratory registered or accredited under the provisions of chapter [173-50 WAC](#) (Accreditation of environmental laboratories) must conduct the analysis of all monitored data required by the reclaimed water permit.
 - (i.) Field measurements such as flow, temperature, settleable solids, conductivity, pH, turbidity, and internal process control parameters are exempt from (d) above, unless the laboratory is on site and must obtain accreditation for other parameters.

(7.) Recordkeeping and reporting.

The lead and/or non-lead agency must:

- (a.) Specify the requirements for recordkeeping for each measurement or sample taken including, but not limited to:
 - (i.) The date, the exact place, and time of sampling, and the individual who performed the sampling or measurement.
 - (ii.) The dates the laboratory performed the analyses and the individual who performed the analyses.
 - (iii.) The analytical techniques or methods used and the results of all analyses.
- (b.) Specify the reporting requirements for routine compliance monitoring including the content and forms, reporting frequency (monthly, quarterly, annually), the beginning and ending of reporting periods and due dates, whether reporting is required when the permittee is not generating reclaimed water, and where and how to send reports to the lead agency.
- (c.) Establish requirements for recordkeeping and reporting of other operational records such as preventative maintenance activities and corrective actions.
- (d.) Require a reclaimed water summary report, containing, but not limited to the following information:
 - (i.) Frequency and date(s) of submission of a reclaimed water summary report.

- (ii.) Total volume of reclaimed water generated, distributed, and used since the last report.
- (iii.) The lead agency may provide and require a reporting form for this requirement.

(8.) Records retention.

The permittee must retain all monitoring records for at least three (3) years. The lead and/or non-lead agency may establish requirements that extend the period of retention for some or all records during the course of any unresolved litigation. The lead agency may specify other records retained by the permittee. These include but are not limited to the following:

- (a.) Calibration and maintenance records.
- (b.) Original recordings for continuous monitoring instrumentation.
- (c.) Copies of all reports required by the permit.
- (d.) Records of all data used to complete the application for the permit.

WAC 173-219-280 Reclaimed water permit terms and conditions

The reclaimed water permit must identify terms and conditions determined to be necessary by the lead agency, for the protection of public health, the environment, and to implement this chapter and chapters [90.46](#), [90.48](#), [70.118](#), and [70.118B RCW](#) as applicable. These conditions, include but are not limited to the following, and must assure compliance with the technical standards in this chapter and the approved engineering report(s). The reclaimed water permit may establish additional conditions on a case-by-case basis specific to the types of distribution systems and uses authorized through a use agreement.

(1.) Regulatory entry and access.

For assessing compliance, the permittee must allow the lead and non-lead agencies the right to:

- (a.) Enter the premises where the permittee keeps records and the permitted reclaimed water facilities.
- (b.) Inspect any records that the permit requires the permittee to keep under the conditions of the reclaimed water permit. Inspect any facility, equipment, practice, or operation permitted or required by the reclaimed water permit.
- (c.) Sample or monitor any substance or any parameter at the reclaimed water facility.
- (d.) Copy, at reasonable cost, any records required by the terms and conditions of the reclaimed water permit.

(2.) Duty to provide information.

The falsification of information submitted to the lead agency constitutes a violation of the terms and conditions of the reclaimed water permit. The permittee must submit:

- (a.) All the information requested to determine if cause exists for modifying, revoking, reissuing, or terminating the reclaimed water permit, or to determine compliance with the permit or this chapter.
- (b.) Copies of records required by this chapter.

(3.) Reporting planned changes.

The permittee must provide advance notice to the lead agency of any reclaimed water facility modifications, production increases, or other planned changes, such as maintenance activities or process modifications that may result in short-term noncompliance with permit limits or conditions.

(4.) Noncompliance action required.

The permittee must:

- (a.) Take immediate action to stop, contain, and clean up unauthorized generation, distribution, or use of reclaimed water.
- (b.) Immediately identify and report, no later than 24 hours from the time the permittee becomes aware of the circumstances, any issue that threatens public health or the environment to the lead agency.
- (c.) Correct the problem.
- (d.) Notify the lead agency of a failure to comply with reclaimed water permit requirements.

- (e.)** Submit a written report to the lead agency within thirty (30) days of any noncompliance that threatens public health or the environment that describes the following:
 - (i.)** The noncompliance and its cause, if known.
 - (ii.)** The period of noncompliance including times and dates, to the extent possible, and if the compliance has not been corrected, the anticipated date and time it is expected to be corrected.
 - (iii.)** The corrective actions taken.
 - (iv.)** Steps planned to reduce or eliminate recurrence.
 - (v.)** Any other pertinent information.

(5.) Reclaimed water quality limits.

The permit issued by the lead agency must:

- (a.)** Specify enforceable limits on the quality of reclaimed water distributed for use. The enforceable limits must:
 - (i.)** Verify that the required treatment processes at the reclaimed water facility are functioning correctly.
 - (ii.)** Verify that the facility is reliably achieving the required technology-based and use-based standards.
- (b.)** List:
 - (i.)** Each required parameter.
 - (ii.)** Regulatory limits.
 - (iii.)** Sample type, method, and point of compliance.
 - (iv.)** Establish action required when permittee is exceeding a limit.

(6.) Facility loading.

The permit must establish conditions to assure that the facility operates within the approved design capacity. The reclaimed water permit may specify design limits that the facility must not exceed, periodic assessments, reporting of flow and loadings, and warning levels that trigger requirements to maintain adequate capacity.

(7.) Authorized uses.

The permit must:

- (a.)** Require the permittee to maintain use agreements with distributors and users receiving reclaimed water and document the use-based site evaluation, per [WAC 173-219-390](#).
 - (i.)** The reclaimed water permit may include conditions requiring the permittee to obtain lead agency review and approval of individual agreements or may specify terms and conditions allowing the use of standardized agreement language or local ordinances for all or some distributors, uses, or users.
- (b.)** Limit the distribution and use of reclaimed water to those uses and locations established by a signed use agreement.
- (c.)** Establish water quality limits that qualify reclaimed water for distribution, and for shutoff in case of treatment system malfunction or failure.
- (d.)** Specify conditions that require distribution of reclaimed water to be terminated.
- (e.)** Prohibit the release or distribution of inadequately treated water.

For storage of reclaimed water in an aquifer and/or recovery of the water, the permit must:

- (f.)** Include the recovery period of the reclaimed water based on the hydrogeologist report.
- (g.)** Ecology may modify or ask Health to modify the reclaimed water permit and the recovery time based on later, supplemental documentation.

(8.) Adding new users or uses.

The lead agency may authorize the addition of new users or similar uses without reopening the permit based on submission and approval of the new use agreement to the lead agency or prior approval of a use agreement as prescribed in [WAC 173-219-300](#).

(9.) Use specific permit conditions.

The reclaimed water permit must include appropriate, specific conditions authorizing and controlling the storage, generation, distribution, recovery, and permitted uses of the reclaimed water in a manner that protects public health and the environment.

(10.) Cross-connection control

The permit must require the permittee to meet the provisions of [WAC 173-219-320](#) to protect higher quality water from lower quality water and reclaimed water from lower quality water.

(11.) Water rights impairment.

The permit must require proof of continuing compliance with RCW 90.46.130, including the Ecology final determination of impairment and adequacy of compensation or mitigation and, if necessary, enforceable provisions to ensure compensation or mitigation is implemented by the permittee.

WAC 173-219-290 Fact sheet

The lead agency must prepare a fact sheet to support the reclaimed water permit. The fact sheet establishes the basis for the terms and conditions in the reclaimed water permit including, but are not limited to the following:

- (a.) Nature of the source water to the reclaimed water facility.
- (b.) Chemical, biological, physical characteristics of the reclaimed water generated.
- (c.) Size of the reclaimed water facility, the approved facility design, reliability features, and methods of operation.
- (d.) Methods of distribution.
- (e.) Types of uses covered under the reclaimed water permit.
- (f.) For existing reclaimed water treatment facilities, the compliance history of the reclaimed water facility and the need for monitoring and recordkeeping to document compliance.
- (g.) Legal considerations relative to land use, water rights, local wellhead protection regulations, and the public interest.
- (h.) Requirements from other local, state, and federal agencies.
- (i.) The fact sheet must, at a minimum summarize the:
 - (i.) Type and location of all proposed reclaimed water facilities.
 - (ii.) Reclaimed water quality and purpose of the proposed uses.
 - (iii.) Legal and technical basis for the reclaimed water permit terms and conditions.
 - (iv.) Procedures for public review and comment.

WAC 173-219-300 Use agreements

The applicant must submit to the lead agency for review and approval all proposed agreements or contracts with distributors or templates for use agreements between the distributor and each end user of reclaimed water. The agreements must include sufficient detail to ensure compliance with requirements of the reclaimed water permit and this chapter at the point of use, and must include at a minimum required cross-connection control measures, applicable monitoring requirements, and best management practices to ensure permit compliance.

WAC 173-219-310 Source control and pretreatment requirements

Source water controls must prevent the presence of substances that may affect the reclaimed water quality or the ability to generate reclaimed water. Source water to reclaimed water facilities must comply with the applicable requirements for:

- (a.) Pretreatment of industrial wastewater under [40 C.F.R. Part 403, Sections 307\(b\) and 308 in the Federal Water Pollution Control Act](#), and [chapter 90.48 RCW](#).
- (b.) Discharge restrictions and prohibitions for dangerous waste under chapter [173-303 WAC](#) and [WAC 173-216-060](#).
- (c.) Restrictions and prohibitions of certain substances entering an on-site sewage system under [WAC 246-272B-06000](#), [246-272B-07050](#), and [246-272A-0270](#).

WAC 173-219-320 Cross-connection control

(1.) Applicability, purpose, and responsibility.

- (a.)** All reclaimed water generators and distributors must comply with the cross-connection control requirements specified in this section.
- (b.)** The purpose of cross-connection control for reclaimed water must be to protect potable water systems, as defined in [WAC 246-290-020](#), from contamination via cross-connections; and to protect reclaimed water systems from contamination via cross-connections with lower quality water.
- (c.)** The local potable water purveyor is responsible for protecting the potable water distribution system from cross connections. Reclaimed water distributors must provide the local water purveyor written notification prior to providing reclaimed water service to any property to ensure compliance with the Drinking Water Rules ([WAC 246-290-490](#)).
 - (i.)** Reclaimed water generators and distributors must not provide service to any user before the user has installed the correct backflow preventer on the potable supply line, and the potable water supplier verifies it.
- (d.)** The responsibility to protect reclaimed water from lower quality water via cross-connection control must begin at the generation facility, include all the treatment stages, storage, and distribution facilities, and end at the point of beneficial use.
- (e.)** Under the provisions of this section, reclaimed water distributors are not responsible for eliminating or controlling cross-connections on the end user's property.
- (f.)** A Health certified Cross Connection Control Specialist (CCS) must review all plans, engineering reports, and operation and maintenance manuals to ensure compliance with cross-connection control requirements.

(2.) General program requirements.

The reclaimed water distributor must develop and implement a written cross-connection control program that meets the requirements of this section.

- (a.)** Reclaimed water distributors must ensure that good engineering practices are used in the development and implementation of cross-connection control programs. Publications and references, such as, but not limited to those listed below, may be used as guidance for cross-connection program development and implementation:
 - (i.)** Manual of Cross-Connection Control published by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California (USC Manual); or
 - (ii.)** Criteria for Sewage Works Design published by the Washington State Department of Ecology,
 - (iii.)** Cross-Connection Control Manual, Accepted Procedure and Practice published by the Pacific Northwest Section of the American Water Works Association (PNWS-AWWA Manual).
- (b.)** The reclaimed water distributor must work with the potable water purveyor to ensure that cross-connections between the reclaimed water facility or reclaimed water distribution system and the potable water system are eliminated. The reclaimed water distributor must document and describe coordination and delineation of responsibilities in the written cross-connection control program.
- (c.)** The reclaimed water distributor must ensure that cross-connections between the reclaimed water and lower quality water are eliminated, or controlled, by the installation of an approved backflow preventer.
- (d.)** The reclaimed water distributor must take appropriate corrective action if a cross-connection or potential cross-connection exists that is not controlled by the installation of an approved backflow preventer.
- (e.)** The reclaimed water distributor's corrective action may include, but is not limited to:
 - (i.)** Denying or discontinuing reclaimed water service to a user's property until the cross-connection hazard is eliminated or controlled;
 - (ii.)** Requiring the user to install an approved backflow preventer for premises isolation of the reclaimed water system.
- (f.)** The reclaimed water distributor must prohibit the intentional return of used water to the distribution system. Such water would include reclaimed water used for any purposes within the user's property.

(3.) Minimum elements of a cross-connection control program.

The reclaimed water distributor's cross-connection control program must include the minimum elements provided for in (a.) – (f.) in this subsection.

- (a.) Element 1:** The reclaimed water distributor must adopt a written legal instrument that:
 - (i.)** Establishes the legal authority to implement a cross-connection control program;
 - (ii.)** Describes the operating policies and technical provisions of the cross-connection control program; and
 - (iii.)** Describes the corrective actions used to ensure compliance with the cross-connection control requirements.
- (b.) Element 2:** The reclaimed water distributor must ensure that personnel, including at least one person certified as a CCS, are provided to develop and implement the cross-connection control program.
- (c.) Element 3:** The reclaimed water distributor must develop and implement procedures and schedules for ensuring that:
 - (i.)** Cross-connections are eliminated whenever possible;
 - (ii.)** When cross-connections cannot be eliminated, they are controlled by installation of approved backflow preventers; and
 - (iii.)** Approved backflow preventers are installed in accordance with the industry standards.
 - (iv.)** New and existing points of use are assessed for compliance with the cross-connection control program.
 - (v.)** Approved backflow preventers are inspected as required.
- (d.) Element 4:** The reclaimed water distributor must develop and implement a backflow prevention assembly testing quality control assurance program including, but not limited to, documentation of tester certification and test kit calibration, test report contents, and timeframes for submitting completed test reports.
- (e.) Element 5:** The reclaimed water distributor must develop and implement (when appropriate) procedures for responding to backflow incidents.
- (f.) Element 6:** The reclaimed water distributor must develop and maintain cross-connection control records including, but not limited to, the following:
 - (i.)** A master list of properties where reclaimed water is provided and inventory information on the following:
 - (ii.)** Properties where both reclaimed water and potable water are provided.
 - (iii.)** Approved backflow assemblies and air gaps protecting the reclaimed water system; including exact location, description (type, manufacturer, model, size, and serial number), assessed degree of hazard, installation date, history of inspections, tests and repairs, test results, and person performing tests.
 - (iv.)** Cross-connection control program summary reports and backflow incident reports.

(4.) Approved backflow preventer selection.

- (a.)** The reclaimed water distributor must ensure that a CCS determines the appropriate method of backflow protection to protect the reclaimed water distribution system.
- (b.)** If the reclaimed water usage on a property poses a high likelihood of contaminating the reclaimed water distribution, the reclaimed water distributor must ensure that an approved backflow assembly is installed at the meter or property line.
- (c.)** Reclaimed water distributors may require backflow preventers to be installed at the meter or property line for properties with characteristics such as, but not limited to, the following:
 - (i.)** Complex piping arrangements or piping subject to frequent changes that make it impracticable to assess whether cross-connections exist;
 - (ii.)** A repeated history of cross-connections being established or reestablished; or
 - (iii.)** Cross-connections that are unavoidable or not correctable.

(5.) Approved backflow preventers.

The reclaimed water distributor must ensure that all backflow prevention assemblies relied upon to protect the reclaimed water distribution system are models that appear on the current approved backflow prevention assemblies list developed by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research.

(6.) Approved backflow preventer installation.

- (a.)** The reclaimed water distributor must ensure that approved backflow preventers are installed in the orientation for which they are approved.
- (b.)** The reclaimed water distributor must ensure that approved backflow preventers are installed in a manner that:
 - (i.)** Facilitates their proper operation, maintenance, inspection, and/or in-line testing using standard installation procedures;
 - (ii.)** Ensures that the assembly will not become submerged due to weather-related conditions such as flooding; and
 - (iii.)** Ensures compliance with all applicable safety regulations.
- (c.)** The reclaimed water distributor must ensure that bypass piping installed around any approved backflow preventer is equipped with an approved backflow preventer that affords at least the same level of protection as the approved backflow preventer that is being bypassed.

(7.) Approved backflow preventer inspection and testing.

- (a.)** The reclaimed water distributor must ensure that inspections and/or tests of approved air gaps and approved backflow assemblies relied upon to protect the reclaimed water system are conducted:
 - (i.)** At the time of installation;
 - (ii.)** Annually after installation, or more frequently, if required by the reclaimed water distributor for connections serving premises or systems that pose a high health cross-connection hazard or for assemblies that repeatedly fail;
 - (iii.)** After a backflow incident; and
 - (iv.)** After an assembly is repaired, reinstalled, or relocated or an air gap is replumbed.
- (b.)** The reclaimed water distributor must ensure that approved backflow prevention assemblies relied upon to protect the reclaimed water system are tested using procedures acceptable to Health.

(8.) Recordkeeping and reporting.

- (a.)** Reclaimed water distributors must keep cross-connection control records for the following timeframes:
 - (v.)** Records pertaining to the master list of reclaimed water users must be kept as long as reclaimed water is provided to the property;
 - (vi.)** Records regarding inventory information required in subsection (3)(g)(ii) of this section must be kept for five years or for the life of the approved backflow preventer whichever is shorter; and
 - (vii.)** Records regarding backflow incidents and annual summary reports must be kept for five years.
- (b.)** Reclaimed water distributors may maintain records or data in any media, such as paper, film, or electronic format.
- (c.)** The reclaimed water distributor must complete the cross-connection control program summary report and make all records and reports available to Health and Ecology or their representative upon request.
- (d.)** The reclaimed water distributor must notify the lead agency, potable water purveyor, and local health jurisdiction as soon as possible, but no later than the end of the next business day, when a backflow incident is known by the reclaimed water distributor to have contaminated the reclaimed water system or the potable water system.

WAC 173-219-330 Class A and B reclaimed water

Reclaimed water must meet the minimum technology-based treatment and reliability standards required for either Class A or Class B reclaimed water under this chapter before distribution and use.

(1.) Allowable treatment methods.

All reclaimed water must meet one of the minimum technology-based treatment methods and all applicable performance standards established in Table 1 of this section to meet the treatment requirements for either Class A or Class B reclaimed water.

- (e.)** Class B reclaimed water must also meet the following treatment process train requirements:
 - (i.)** Biological oxidation followed by disinfection.
- (f.)** Class A reclaimed water must also meet one of the following treatment process train requirements:
 - (i.)** Biological oxidation, followed by coagulation, filtration, and disinfection demonstrating at least a 4-log virus removal or inactivation
 - (ii.)** Biological oxidation followed by membrane filtration, and disinfection demonstrating at least a 4-log virus removal or inactivation
 - (iii.)** Combination of biological oxidation and membrane filtration via a membrane bioreactor followed by disinfection demonstrating at least a 4-log virus removal or inactivation, or
 - (A.)** A treatment facility may meet the biological oxidation performance standard provided the source water meets or exceeds the minimum secondary treatment requirements in [WAC 173-221-040](#).
- (g.)** Class A+ reclaimed water requirements must be established by the lead agency, on a case-by-case basis, and must have approval of the state board of health.
- (h.)** An alternative treatment method demonstrates, to the satisfaction of the lead agency, that it provides for equivalent treatment and reliability.
 - (i.)** Minimum performance standards for an equivalent process or treatment must demonstrate assurance that reclaimed water quality limits are consistently achieved through proper design, operation, and maintenance of each of the treatment units in the proposed alternative treatment process.

WAC 173-219-340 Performance standards

(1.) Reclaimed water performance standards.

All Class A and Class B reclaimed water at a minimum must meet the technology based performance standard listed in Table 1: Class A and B Technology Performance Standards for the class of reclaimed water generated at the facility. The reclaimed water permit may specify alternative monitoring locations and effluent limits to ensure compliance with any additional use based requirements as listed in Table 2: Use-Based Performance Standards.

Table 1. Class A and B Technology Performance Standards

Process	Parameter ¹	Class A		Class B	
Biological Oxidation	<i>Dissolved Oxygen</i>	Must be measurably present		Must be measurably present	
	<i>BOD</i> (CBOD may be used as an alternative to BOD)	Monthly Average	Weekly Average	Monthly Average	Weekly Average
		30 mg/L	45 mg/L	30 mg/L	45 mg/L
	<i>TSS</i>	30 mg/L	45 mg/L	30 mg/L	45 mg/L
	<i>pH</i>	Minimum	Maximum	Minimum	Maximum
		6 s.u.	9 s.u.	6 s.u.	9 s.u.
	<i>pH</i> (Groundwater recharge)	6.5 s.u.	8.5 s.u.	Not applicable	Not applicable
Coagulation/ Filtration	<i>Turbidity</i> ²	Monthly Average	Sample Maximum		
		2 NTU	5 NTU	Not Applicable	Not Applicable
Membrane Filtration	<i>Turbidity</i> ²	0.2 NTU	0.5 NTU	Not Applicable	Not Applicable
Disinfection	<i>Total Coliform</i>	7-Day Median	Sample Maximum	7-Day Median	Sample Maximum
		2.2 MPN/100 mL or CFU/100 mL	23 MPN/mL or CFU/mL	23 MPN/mL or CFU/mL	240 MPN/mL or CFU/mL
	<i>Virus Removal</i>	See disinfection process standards in 173-219-350 WAC		Not applicable	Not Applicable
Denitrification (Not applicable for beneficial uses ¹⁻¹⁴ listed on Table 2: Use-Based Requirements)	<i>Total Nitrogen</i>	Monthly Average	Weekly Average		
		10 mg/L	15 mg/L	Not Applicable	Not Applicable

¹ The parameter must be measured at the end of the unit process

² Sample maximum for turbidity is the highest value for the day that lasts longer than five minutes

WAC 173-219-350 Disinfection process standards

(1.) Disinfection process: Class A and Class B reclaimed water.

The engineering report must demonstrate, to the satisfaction of the lead agency that the proposed disinfection method consistently provides the required level of adequate and reliable disinfection to help preserve water quality delivered to the use site. All Class A disinfection processes must result in a minimum of 4-log virus removal or inactivation. The disinfection process may use any or all of the following:

- (a.) Chlorine.** Where chlorine is used as the disinfectant in the treatment process a minimum chlorine residual of at least 1 mg/L, **measured as free chlorine**, after a contact time of at least thirty (30) minutes is required.
 - (i.)** The lead agency may require additional protections including defined concentration (C), time (T), or chlorine concentration multiplied by (CT) values as needed to protect public health.
- (b.) Ultraviolet light.** The permittee must design and install ultraviolet light disinfection processes that conform to recognized standards and engineering practices developed for use in reclaimed water facilities. Acceptable methods include the criteria in the most recent edition of:
 - (i.)** [Ultraviolet Disinfection, Guidelines for Drinking Water and Water Reuse, published by the National Water Research Institute](#) (NWRI) in collaboration with the American Water Works Association Research Foundation.
 - (ii.)** Ecology's "Criteria for sewage works design (Orange Book)".
 - (iii.)** Water Environment Federation MOP-8 Design of Municipal Wastewater Treatment Plants.
- (c.) Other disinfection methods.** Any other disinfection process proposed to the lead agency to meet the performance standard in this section must:
 - (i.)** Be in accordance with the most recent edition of Ecology's "Criteria for sewage works design (Orange Book)".
 - (ii.)** Demonstrate that the proposed process is equivalent to or better than chlorination or ultraviolet light treatment in this section.

(2.) Validation of virus removal.

For Class A reclaimed water, virus inactivation performance of the proposed disinfection reactor must be documented during design, by using one of the following:

- (a.)** Validation of chemical disinfection processes by:
 - (i.)** A challenge study or pilot facility demonstration specific to the project conditions.
 - (ii.)** An acceptable third party challenge study or equipment verification study acceptable to the lead agency.
 - (iii.)** Design and operation limits from other regulatory programs applied to the production of reclaimed or recycled water equivalent to Class A reclaimed water as deemed acceptable by the lead agency.
- (b.)** Validation of ultraviolet disinfection processes by an acceptable bioassay study conforming to the most recent edition of the [NWRI/AWWARF Ultraviolet Disinfection - Guidelines for Drinking Water and Water Reuse](#). Third-party validation studies that have been performed in off-site qualified test facilities and in accordance with the NWRI/AWWARF Guidelines are allowed if acceptable to the lead agency.
- (c.)** Existing reclaimed water facilities are exempt from the validation requirement unless a disinfection system is modified or must be replaced.

WAC 173-219-360 Treatment reliability standards.

(1.) Operational reliability requirements.

- (a.)** Entities must design and construct all reclaimed water facilities to assure operational reliability at all times, consistent with the approved engineering report, per [WAC 173-219-220](#), operate it as directed in approved operations and maintenance manual, per [WAC 173-219-250](#) to meet the reliability requirements in this section.

- (b.) The permittee must demonstrate adequate capacity for failure of one or more treatment trains or standby replacement equipment acceptable to the lead agency such that treatment is maintained at all times with one or more treatment trains not in operation.

(2.) Bypassing prohibited.

The permittee must not bypass inadequately treated wastewater from the approved and permitted reclaimed water facility to the distribution system or to the point of use. Reclaimed water facilities must either store inadequately treated wastewater for additional treatment or have authorization to discharge the wastewater to an NPDES outfall, or another permitted disposal location in accordance with a wastewater discharge permit issued under [chapter 90.48 RCW](#), [70.118 RCW](#), or [70.118B RCW](#). The lead agency may:

- (a.) Require a reclaimed water generator to maintain either storage or disposal options for inadequately treated water sized to accommodate the full design flow
- (b.) Specify when and how the reclaimed water treatment facility must cease or otherwise control the generation, distribution, and use of reclaimed water including, but not limited to, the reduction, loss, failure, or bypass of any unit processes of the reclaimed water facility.
- (c.) Specify procedures to establish when the treatment processes are sufficiently restored to allow the generation, distribution, or use of the reclaimed water.
- (d.) Prohibit bypassing of inadequately treated wastewater from the approved reclaimed water facility to the distribution system or to the point of use.

(3.) Removed Substances.

The generator must not re-suspend or reintroduce collected screenings, grit, solids, sludge, filter backwash, or other pollutants removed during treatment to the reclaimed water process or to the effluent release.

(4.) Diversion requirements for inadequately treated water.

Design requirements for diversions of reclaimed water when performance standards are not met must:

- (a.) Include all the necessary diversion works, conduits, and pumping and pump back equipment.
- (b.) Provide a power supply independent of the primary power supply or a standby source for all diversion equipment. An uninterruptable power supply backup is acceptable.
- (c.) Automated diversions must be capable of autonomously diverting all flow to the approved storage or disposal location based on input from appropriate process sensors and alarms. The reset of the process must be manually monitored to confirm performance standards are being met.

(5.) Alarms required.

All reclaimed water systems must have and use alarm systems to assure reliability. Alarm systems must:

- (a.) Provide alarm warning of all of the following:
 - (i.) Loss of power from the primary power supply.
 - (ii.) Failure of required treatment units.
 - (iii.) Interruption of required chemical feeds.
 - (iv.) Other events as required by the lead agency.
- (b.) Be capable of continuous operations when there is a loss of primary power supply to the facility.
- (c.) Sound at an attended location or through an automated notification system that will alert the responsible operator in charge or designee available to take immediate corrective action.

WAC 173-219-370 Storage and distribution system requirements

This section applies only to the storage or distribution facilities for Class A and Class B reclaimed water.

(1.) Operational storage or distribution.

The stored reclaimed water must meet the provisions of [WAC 173-219-380](#), unless waived by the lead agency.

(2.) Notice of facility location(s).

The entity must provide distribution system information as described in the operations and maintenance manual, per [WAC 173-219-250](#).

- (a.)** The entity must locate, identify, and provide notice of proposed reclaimed water storage facilities to all owners of potable water supplies with sources located within:
 - (i.)** One thousand feet; or
 - (ii.)** An area determined by the lead agency, based on the hydrogeology and soil type of the storage facility area.

(3.) Labeling.

The generator, distributor, and user must label or use color coded purple (Pantone 512, 522 or other shade approved in the engineering report) for all new reclaimed water piping, valves, outlets, storage facilities and other appurtenances.

(4.) Pipe separation.

Reclaimed water distribution systems must, as determined in the reclaimed water engineering report prepared under [WAC 173-219-220](#), provide adequate separation between the underground-reclaimed water lines and sanitary sewer lines, storm sewer lines, potable water lines, and potable water wells, to protect water quality.

(5.) Distance to public water system wellhead, spring, surface water, or designated groundwater under the influence of surface water intake.

The minimum horizontal distance between reclaimed water operational storage and potable water supply intakes must be 200 feet and identified in the reclaimed water engineering report prepared under [WAC 173-219-220](#) and reclaimed water permit conditions must specify:

- (a.)** The distance and time interval between discharge and potable water diversion.
- (b.)** The distance and time interval between the reclaimed water discharge and any potentially affected potable supply intakes.
- (c.)** Requirements for an enforceable contract with each entity distributing or using the conveyed reclaimed water that protects human health and the environment.
- (d.)** Recordkeeping and reporting of requested data to the lead agency.
- (e.)** Circumstances requiring cessation of release, conveyance, or potable water diversion.

(6.) Cross-connection control.

Potential cross-connections between the reclaimed water and potable water and between the reclaimed water and wastewater, stormwater, or other systems of lower water quality must be managed as described in [WAC 173-219-320](#).

(7.) Distribution or use by entities other than the permittee.

Unless expressly stated otherwise in enforceable ordinances or contracts, the permittee is responsible for all reclaimed water facilities and activities inherent to the generation and delivery of the reclaimed water.

- (a.)** The permittee and the distributor must, and the user may, coordinate with all potable water system purveyors in those service areas the permittee operates or owns facilities for treatment, storage and distribution, and/or reclaimed water uses as required under [WAC 173-219-190](#).
- (b.)** Coordination must include, but is not limited to, cross-connection control requirements under [WAC 173-219-320](#), pipe installation, storage and other facility construction, reclaimed water uses, wellhead protection, emergency responses, and any changes to these to assure protection of public health. The reclaimed water permit may include conditions authorizing the distribution or use of reclaimed water by entities other than the permittee via the use agreement if enforceable provisions are in place ensuring construction, operation, maintenance, and use meet all the requirements of the reclaimed water permit and this chapter and 90.46 RCW.

(8.) Other design requirements.

Reclaimed water distribution pipe material, valves, valve covers, hydrants, and associated components must comply with the most recent edition of [Planning for the Distribution of Reclaimed Water - M24](#) American Water Works Association

manual or other recognized standard engineering practices for water distribution systems, such as the most recent edition of the [Department of Health Water System Design Manual](#), and the [Great Lakes – Upper Mississippi River Board \(10 States\) Recommended Standards for Water Works](#).

(9.) Conversion of existing storage tanks or pipe systems for reclaimed water use.

In addition to the requirements in this section, the permittee must apply for and receive approval from the lead agency prior to converting existing storage and pipe systems to reclaimed water storage or distribution. Prior to approval, the lead agency may require project specific design details for conversion of existing infrastructure (storage tanks and pipe systems) for storage and distribution of reclaimed water.

- (a.)** If the lead agency approves the conversion of existing storage and pipe systems for reclaimed water use the generator must identify the water conveyed as non-potable reclaimed water, and in conformance with the most recent version of the Uniform Plumbing Code as adopted by the Washington State Building Code Council, where applicable.

(10.) Distribution by transport vehicles.

The lead agency may allow distribution of reclaimed water using tank trucks or similar transport vehicles to distribute reclaimed water provided:

- (b.)** Vehicles are clearly identified with reclaimed water advisory signs such as “non-potable water”.
- (c.)** Vehicles used for transporting hazardous or dangerous waste are never used to transport reclaimed water.
- (d.)** Vehicles used for transporting potable water are never used to transport reclaimed water.

WAC 173-219-380 Maintenance of chlorine residual

The generator/permittee and distributor must maintain a chlorine residual as follows:

(1.) Chlorine residual in the distribution system.

A minimum chlorine residual of ≥ 0.2 mg/L free chlorine or ≥ 0.5 mg/L **total chlorine** is required in pipeline distribution systems conveying the reclaimed water from the facility to the point of use to prevent biological growth, prevent deterioration of reclaimed water quality, or to protect public health.

- (a.)** The lead agency may waive or modify the requirements for maintaining a chlorine residual during storage or conveyance to the point of use, if the applicant demonstrates a benefit from reducing or eliminating the chlorine residual. When Ecology is lead agency, it must notify Health of any such proposed or requested waiver or permit modification.

(2.) Chlorine residual for use areas.

A chlorine residual is **not** required in reclaimed water impoundments, storage ponds, and storage tanks at the point of use, or for conveyance along natural streams, lakes, or surface waters, or **groundwaters** of the state.

WAC 173-219-390 General use-based requirements

(1.) Signage or advisory notification

The Permittee, distributor, or user must notify the public and employees at the use site of the reclaimed water in all use areas by the posting of advisory signs, distribution of written advisory notices, or both.

- (a.)** Signage must be clearly visible, emphasize the color purple, and read "Reclaimed Water – Do Not drink," or other language acceptable to Health or required by the most recent edition of the Uniform Plumbing Code modified and adopted by the Washington State Building Code Council, when applicable.
- (b.)** Health may approve other methods of notification that provide equivalent public health protection. The labeling, pipeline separation, and other design requirements of [WAC 173-219-370](#) apply to all uses unless otherwise specified by the lead agency.

(2.) Site evaluation.

The permittee must assure that any proposed use site is appropriate for reclaimed water use before a use agreement is signed. Special discharge requirements may apply to sensitive or critical areas resulting in an infeasible project. Such areas include but are not limited to the following:

- (a.) Designated wellhead protection area ([WAC 246-290](#)).
- (b.) Aquifer protection area ([36.36 RCW](#)).
- (c.) Aquifer underlying a critical water ([70.116 RCW](#))
- (d.) Critical aquifer recharge area ([36.70a RCW](#); [365-190-100 WAC](#))
- (e.) Sole source aquifer ([90.54.140 RCW](#))
- (f.) Special groundwater protection area ([173-200-090 WAC](#)).
- (g.) Water resource inventory areas #1 and #2 ([173-201A-600 WAC](#))
- (h.) Water of higher quality ([173-201A-320WAC](#))
- (i.) Outstanding resource waters ([173-201A-330WAC](#))
- (j.) Wetlands classified as Category I or II with special characteristics ([173-22 WAC](#))
- (k.) The labeling, pipeline separation, cross-connection control, and other design requirements of [WAC 173-219-370](#) apply to all uses unless otherwise specified by the lead agency.

(3.) Confined to site.

Generator, distributor, and user must confine Class B reclaimed water, including runoff and spray, to the use area agreed to in the use agreement.

(4.) Restricted operation.

Generator, distributor, and user must limit operation of all reclaimed water valves and outlets to authorized personnel. They must control or restrict access to hose bibs on reclaimed water lines.

WAC 173-219-400 Specific Use-based requirements

The lead agency may consider and approve other uses not listed here on a case-by case basis.

Table 2: Use-Based Performance Standards

Beneficial Use	Reclaimed Water Class Requirements	Additional Requirements
(1.) Reclaimed Water Facility Maintenance	No reclaimed water permit required; use exempted by rule in section WAC 173-219-080 .	Must be under the operator’s direct control and be used on-site
Commercial, Industrial and Institutional Uses³		
(2.) Commercial, industrial and institutional uses with public contact	Class A	
(3.) Commercial, industrial and institutional uses with environmental contact	Class B	Must minimize adverse impacts to the environment and dependent beneficial uses
(4.) Commercial, industrial and institutional uses with restricted access	Class B	<ul style="list-style-type: none"> • Contact limited to qualified personnel • Little potential for health impacts
(5.) Public Contact (public water features)	Class A	
Irrigation³		
(6.) Landscape Irrigation with direct or indirect public access	Class A	
(7.) Landscape Irrigation with restricted access and contact	Class B	Contact limited to qualified personnel
(8.) Irrigation of food crops	Class A	
(9.) Frost protection of orchard crops	Class B	<ul style="list-style-type: none"> • Must not apply within 15 days of harvest • 50 foot setback from public access
(10.) Irrigation of nonfood crops	Class B	50 foot setback from public access
(11.) Irrigation of orchards or vineyards	Class B	50 foot setback from public access
(12.) Irrigation of process food crops	Class B	50 foot setback from public access
(13.) Irrigation of trees, fodder, fiber, or seed crops in pastures not accessed by milking animals	Class B	50 foot setback from public access
(14.) Irrigation of trees, fodder, fiber, or seed crops in pastures accessed by milking animals	Class A	
Release to Wetlands		
(15.) Category I wetlands	No use of reclaimed water	
(16.) Category II wetlands with special characteristics	No use of reclaimed water	
(17.) Category II wetlands without special characteristics	Class A	Unless it can be demonstrated that no existing significant wetlands functions will be decreased and overall net environmental benefits will result from the discharge it must not exceed on average annual basis: <ul style="list-style-type: none"> • 20mg/L BOD, 20 mg/L TSS, 3mg/L TKN, and 1 mg/l phosphorous • Annual Hydraulic load ≤ 2 cm/day
(18.) Category III or IV wetlands	Class A	Unless it can be demonstrated that no existing significant wetlands functions will be decreased and overall net environmental benefits will result from the discharge it must not exceed on average annual basis:

³ Class A reclaimed water may be used with no additional requirements.

		<ul style="list-style-type: none"> • 20mg/l BOD, 20 mg/l TSS, 3mg/l N TKN, and 1 mg/l phosphorous • Annual Hydraulic load ≤ 3 cm/day
(19.) Depressional wetlands	Class A	Maximum increase of 10 cm above the natural average monthly water level
(20.) Constructed beneficial wetlands with public access	Class A	
(21.) Constructed beneficial wetlands with no public access	Class A or Class B	
Surface Water Augmentation		
(22.) Surface water augmentation (including direct via impoundments, rivers, reservoirs or lakes and indirect via groundwater or bank infiltration)	Class A or Class B	<p>Criteria established on a case-by-case basis to protect existing beneficial uses (recreational, environmental or other). Must meet applicable requirements of:</p> <ul style="list-style-type: none"> • Chapter 173-201A WAC (Surface Water Standards) • Chapter 246-290-310 WAC (Drinking Water Maximum Contaminant Levels)
Groundwater Recharge		
(23.) Indirect groundwater recharge (surface percolation, subsurface percolation or vadose wells)	Class A or B	<p>Criteria established on a case-by-case basis. Must meet applicable requirements of:</p> <ul style="list-style-type: none"> • Chapter 173-200 WAC (Groundwater Standards) • Chapter 173-218 WAC (Underground Injection Control Program) when using a UIC well • Chapter 246-290-310 WAC (Drinking Water Maximum Contaminant Levels in finished reclaimed water product or at alternative point of compliance) • Physical setback and sanitary control zone requirements around water supply wells as outlined in Chapter 246-290-135 WAC.
(24.) Direct groundwater recharge (aquifer recharge)	Class A or B	<p>Criteria established on a case-by-case basis. Must meet applicable requirements of:</p> <ul style="list-style-type: none"> • Chapter 173-200 WAC (Groundwater Standards) • Chapter 173-218 WAC (UIC Program) • Chapter 246-290 -310 WAC: Primary MCLs in finished reclaimed water product or at alternative point of compliance • Physical setback and sanitary control zone requirements around water supply wells as outlined in Chapter 246-290- 135 WAC.
(25.) Recovery of reclaimed water stored in an aquifer (aquifer recovery)	Class A or B	The effects of recovering stored reclaimed water from an aquifer must be demonstrated using the criteria presented in the engineering report, not to negatively impact groundwater quality, the surrounding environment, or water rights holders.
Direct Potable Reuse		
(26.) Direct Potable Reuse	Class A+	<p>Criteria established on a case-by-case basis. All direct potable reuse project must:</p> <ul style="list-style-type: none"> • Meet the wavier criteria for Group A public water systems as defined in chapter 246-290-060 RCW • Be approved by the state board of health.