

**Chapter 173-219 WAC
RECLAIMED WATER**

NEW SECTION

WAC 173-219-010 Definitions, abbreviations, and acronyms. Unless the context clearly requires otherwise, the definitions in this section apply throughout this chapter.

"Agricultural water use" means the use of water for irrigation and other uses related to the production of agricultural products. These uses include, but are not limited to, construction, operation, and maintenance of agricultural facilities and livestock operations at farms, ranches, dairies, and nurseries. Examples of these uses include, but are not limited to, dust control, temperature control, and fire control.

"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.

"Approved air gap" means the physical separation between the free-flowing end of a water supply pipeline and the overflow rim of an open or nonpressurized receiving vessel that has the following minimum separations:

- Twice the diameter of the supply piping measured vertically from the overflow rim of the receiving vessel, and in no case be less than one inch, when unaffected by vertical surfaces (vertical side-walls); and
- Three times the diameter of the supply piping, if the horizontal distance between the supply pipe and the vertical surface (sidewall) is less than or equal to three times the diameter of the supply pipe, or if the horizontal distance between the supply pipe and the intersecting vertical surfaces (sidewalls) is less than or equal to four times the diameter of the supply pipe and in no case less than one and one-half inches.

"Approved backflow prevention assembly" means an RPBA, RPDA, DCVA, DCDA, PVBA, or SVBA used for protecting a potable or reclaimed water supply.

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

"ART" means adequate and reliable treatment as provided for in chapter 90.46 RCW.

"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" or **"BAT"** means a person meeting the requirements of chapter 246-292 WAC and certified under chapter 70.119 RCW to inspect, field test, maintain, and repair backflow prevention assemblies, devices, and air gaps that protect public water systems.

"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 waters of the state. Beneficial purpose or beneficial use of reclaimed water includes all uses authorized under chapter 90.46 RCW, and contained within WAC 173-219-390.

"BOD₅" means five-day biochemical oxygen demand.

"CBOD₅" means five-day carbonaceous biochemical oxygen demand.

"Certified operator" means a person who meets the requirements of WAC 173-219-250.

"Class A reclaimed water" means a water resource that meets the treatment requirements of this chapter, including, at a minimum, oxidation, coagulation, filtration, and disinfection.

"Class A+ reclaimed water" means a water resource that meets the treatment requirements of this chapter for Class A reclaimed water and any additional criteria determined necessary on a case-by-case basis by health for direct potable reuse.

"Class B reclaimed water" means a water resource that meets the treatment requirements of this chapter, including, at a minimum, oxidation and disinfection.

"Commercial, industrial, and institutional use" means nonpotable uses of water to produce products, provide goods and services, or for associated sanitary uses such as toilet flushing. The term does not include land application or reclaimed irrigation uses.

"Constructed beneficial wetlands" means those wetlands intentionally constructed on nonwetland sites to produce or create natural wetland functions and values.

"Cross-connection control specialist" or **"CCS"** means an individual meeting the requirements of chapter 246-292 WAC and certified under chapter 70.119 RCW to develop and implement a cross-connection control program.

"DCDA" means double check detector assembly.

"DCVA" means double check valve assembly.

"Depressional wetland" means a wetland that occurs in topographic depressions where the elevation of the surface within the wetland is lower than in the surrounding landscape, and the lowest point of elevation is within the boundary of the wetland.

"Direct potable reuse" means the process in which Class A+ reclaimed water is introduced into an existing water distribution, storage, or treatment system without an environmental buffer.

"Distributor" means the person authorized through a use agreement with a reclaimed water generator to distribute or supply reclaimed water to users. Users that distribute reclaimed water to use areas through a gravity conveyance system for agricultural water uses are not distributors.

"DO" means dissolved oxygen.

"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.

"Ecology" means the Washington state department of ecology.

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

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

"Generator" means any person that generates any type of reclaimed water for a use regulated 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:

- **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 commingling with groundwater of the state is not immediate.

- **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 use of reclaimed water as permitted under this chapter for the purpose of irrigation or watering of landscape vegetation. Land application in this chapter is **not** synonymous with land treatment or reference to a biosolids land application.

"Lead agency" means either the department of health or the department of ecology that has been designated by this chapter as the agency that will coordinate, review, issue, and enforce a reclaimed water permit issued under this chapter.

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

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

"Nonlead agency" means health or ecology when they are not the lead agency as defined in this chapter.

"Nonpotable" means water that is not approved by health or a local health jurisdiction as being safe for human consumption.

"Nonpotable reuse systems" means on-site treated nonpotable water systems as defined by WAC 51-56-1500.

"NPDES" means the National Pollutant Discharge Elimination System.

"Operator" means a person who operates a reclaimed water facility and/or distribution system, and if applicable, who meets the operator certification requirements in the permit.

"Owner" means a person with a security interest in a reclaimed water facility regulated under this chapter.

"Permittee" means any entity issued a reclaimed water permit under this chapter.

"Person" means any state, individual, public or private corporation, political subdivision, governmental subdivision, governmental agency, municipality, copartnership, association, firm, trust estate, or any other legal entity whatever.

"pH" means the negative logarithm of the hydrogen ion concentration, measured in standard units or s.u.

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

"Potable water" or **"drinking water"** means water safe for human consumption and approved under chapter 246-290 or 246-291 WAC.

"Potable water supply intake" means the works or structures at the head of a conduit through which water is diverted from a source (e.g., river or lake) into a treatment plant producing potable water. With or without treatment, it may also include a groundwater well and appurtenances, and any physical structures used for collecting spring and groundwater that is under the influence of surface water sources for potable supply.

"Private utility" means all utilities, both public and private, which provide sewerage and/or water service and that are not municipal corporations as defined by RCW 36.94.010. The ownership of a private utility may be in a corporation, nonprofit or for profit, in a cooperative association, in a mutual organization, or in individuals.

"PVBA" means pressure vacuum breaker assembly.

"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 facility" or **"facility"** means the treatment plant, equipment, storage, conveyance devices, and dedicated sites for reclaimed water generation.

"Reclaimed water permit" or **"permit"** means an operating permit identifying the terms and conditions, the required level of treatment, operating conditions, and use-based standards, issued to a generator of reclaimed water by the lead agency.

"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 both an evaluation performed and a 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.

"RPBA" means reduced pressure backflow assembly.

"RPDA" means reduced pressure detector assembly.

"Source water" means raw or treated wastewater with a domestic component that supplies a reclaimed water facility.

"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 the purpose of increasing volumes.

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

"SVBA" means spill resistant vacuum breaker assembly.

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

"TSS" means total suspended solids.

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

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

"Use agreement" means an agreement or contract between the generator and the distributor or user, 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 person who uses reclaimed water.

"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 upper surface of groundwater saturation.

"Wetland" or **"wetlands"** means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands regulated under chapter 90.46 RCW shall be delineated in accordance with the manual adopted by the department of ecology pursuant to RCW 90.58.380.

"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.

NEW SECTION

WAC 173-219-020 Purpose and scope. (1) Purpose. The purpose of this chapter is to encourage the use of reclaimed water to help meet the growing need for clean water across the state by establishing a regulatory framework for the generation, distribution, and use of reclaimed water for the beneficial uses established in chapter 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, and 246-274 WAC.

(2) Scope. This chapter implements chapter 90.46 RCW and establishes requirements for production, distribution, and use of reclaimed water as authorized by ecology and health. This chapter also establishes lead and nonlead 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.

NEW SECTION

WAC 173-219-030 Applicability. (1) Applicability. The requirements of 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.

(2) Exceptions to applicability.

(a) Nonpotable reuse systems meeting the requirements of WAC 51-56-1500.

(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 246-272, 246-272A, and 246-272B WAC.

(g) Reclaimed water facility maintenance. The capture and redirection of wastewater effluent or reclaimed water for facility and internal 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.

(3) Relationship to other applicable regulations. Nothing in this chapter shall be construed to exempt entities from complying with all other applicable local, state, or federal ordinances, codes, or statutes.

(4) Severability. The provisions of this chapter are separate and severable from one another. If any provision is stayed or determined to be invalid, the remaining provisions shall continue in full force and effect.

NEW SECTION

WAC 173-219-040 Direct enforceability. All persons 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. Persons 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 persons issued a permit before the effective date of this chapter to provide a reasonable timeline for compliance with this chapter.

(b) Persons issued a permit before the effective date of this chapter:

(i) Must request the extension for compliance in writing and provide good cause for the request.

(ii) Are 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.

(a) A generator may request in writing a waiver from specific requirements of this chapter. Waiver requests must:

(i) Identify the requirement requested to be waived.

(ii) State the reason for the waiver.

(iii) Provide information supporting the request and any additional information identified by the lead agency needed to make the waiver determination.

(b) The lead agency may grant a waiver, in consultation with the nonlead agency, if it:

(i) Is consistent with the purpose and intent of this chapter.

(ii) Does not lower the level of public health and environmental protection required within this chapter.

(c) The lead agency must provide:

(i) Twenty-one calendar days for the nonlead agency to review and comment on the waiver request before granting or denying a waiver.

(ii) Written notice to the generator within ninety calendar days granting or denying a waiver request, requesting additional information, or explaining any delay and stating an expected date for issuing a decision.

(d) The requirements of WAC 173-219-090 cannot be waived.

NEW SECTION

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 nonlead agency. On a case-by-case basis, ecology and health may agree to change the lead agency designation. If the lead agency changes, the new lead agency must notify the generator within ten calendar days of the change.

(1) Ecology as lead agency. Ecology is the lead agency and will issue permits when:

(a) The reclaimed water facility source water is wastewater effluent from a water pollution control facility permitted by, or requiring a permit from, ecology.

(b) Reclaimed water or inadequately treated water, is released to:

(i) Water bodies regulated under chapter 90.48 RCW and, if applicable, the Federal Water Pollution Control Act.

(ii) 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 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 chapter 246-272A or 246-272B WAC and there is no direct release of reclaimed water to the waters of the state.

(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.

(c) The only release of inadequately treated water, surplus source water, or surplus reclaimed water is to an on-site sewage system.

NEW SECTION

WAC 173-219-060 Agency requirements and responsibilities. (1)

Lead agency responsibilities.

(a) Coordinate with the nonlead agency, including:

(i) Preplanning meeting and scoping of project.

(ii) 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 nonlead 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 173-219-270.

(d) Notify nonlead agency of violations, compliance, and enforcement actions.

(e) Assess and collect fees as authorized.

(f) Respond to appeals brought pursuant to this chapter.

(2) Nonlead agency responsibilities.

(a) Participate in meetings convened by the lead agency.

(b) Determine scope for 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 days of receipt of documents.

(d) Assess and collect fees as authorized.

(e) Assist the lead agency with appeals brought pursuant to this chapter.

(3) Ecology responsibilities. As the lead agency or nonlead 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 to generate reclaimed water, except as exempted under RCW 90.48.110.

(b) Issue all regulatory decisions related to compliance with RCW 90.46.130.

(c) Incorporate health conditions required by health into the reclaimed water permits.

Ecology may issue a wastewater discharge permit that incorporates terms and conditions for the generation of reclaimed water into a permit issued under chapter 90.48 RCW, and if applicable, the Federal Wa-

ter Pollution Control Act, or issue these permits concurrently with a reclaimed water permit.

(4) Health responsibilities. As the lead agency or the nonlead 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, if applicable, deliver reclaimed water.

(b) Incorporate ecology permit conditions required by ecology for environmental protection of waters of the state into permits.

Health may issue a large on-site sewage system permit that incorporates terms and conditions for generation of reclaimed water or issue the permit concurrently with a reclaimed water permit.

NEW SECTION

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 chapter 90.46 RCW. Nothing in a reclaimed water permit excuses a person from complying with all applicable federal, state, or local statutes, ordinances, or regulations.

(1) Eligibility to apply for a reclaimed water permit. Any person proposing to generate any type of reclaimed water for a use regulated under this chapter shall obtain a permit from the lead agency prior to distribution or use of that water. A permit under this chapter may only be issued to:

(a) A municipal, quasi-municipal, or other governmental entity.

(b) A private utility, if the lead agency determines that the private utility meets the requirements in WAC 173-219-180.

(c) The holder of an active on-site sewage treatment permit under chapter 70.118B RCW or a permit or approval under chapter 70.118A RCW.

(d) The holder of an active waste discharge permit issued under chapter 90.48 RCW.

(2) Duration of reclaimed water permit. A reclaimed water permit shall be issued for a fixed term, not to exceed five years from the effective date.

(3) Reclaimed water permit transfer. A permittee may, subject to the lead agency's approval, transfer a reclaimed water permit if the permittee:

(a) Makes the request to the lead agency in writing at least thirty calendar days before the proposed date of transfer.

(b) Provides to the lead agency a written agreement between the existing permittee and the new permittee that demonstrates the feasibility of the new permittee as provided in WAC 173-219-180.

(c) Specifies the date for transfer of reclaimed water permit responsibility, coverage, and liability.

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.

(4) Reclaimed water permit renewal.

(a) At least one hundred eighty days before expiration of the reclaimed water permit, a permittee must submit a renewal application provided by the lead agency.

(b) 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 renewed permit.

(c) If a permittee fails to meet the deadline or application requirements for renewal, the permit expires on the expiration date provided for in the permit.

NEW SECTION

WAC 173-219-080 Applying for a reclaimed water permit. (1) Reclaimed water permit application.

(a) Applications for reclaimed water permits shall be submitted to the lead agency no later than one hundred eighty calendar days before planned distribution of reclaimed water for use.

(b) Upon receipt of the application or renewal application for a permit, the lead agency must assess the application for completeness within ninety calendar days.

(c) Prior to submitting an application, the permit applicant must receive lead agency approval on a feasibility analysis under WAC 173-219-180.

(d) Prior to, or in conjunction with, submitting an application, the permit applicant must complete the required engineering report and submit it to lead agency for approval.

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

(a) Any person permitted for Class B reclaimed water generation proposing 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 the existing or active reclaimed water permit.

(b) Prior to, or in conjunction with, submitting the new or supplemental application, the permit applicant must:

(i) Submit new or revised planning and construction documents required in this chapter as necessary to describe any modifications of the existing reclaimed water facility.

(ii) Submit a copy of the new use agreements per WAC 173-219-290, unless the agreement for the new use is consistent with a standard use agreement that the lead agency has previously approved.

NEW SECTION

WAC 173-219-090 Water rights protection. (1) Compliance with RCW 90.46.130. Any person 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.

(2) Determining compliance. Ecology 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 provi-

sions 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.

(3) Existing water rights. Existing water rights include any permits, claims, certificates, instream flows established by rule pursuant to chapters 90.22 and 90.54 RCW, and all federally reserved water rights in existence when ecology accepts a submitted water rights impairment analysis.

(4) Impairment analysis. The applicant must prepare and submit an impairment analysis of potentially impaired water rights as part of the feasibility analysis under WAC 173-219-180. 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. The generator must submit a detailed description of the compensation or mitigation plan as part of the engineering report submitted under WAC 173-219-210, if necessary to demonstrate compliance with RCW 90.46.130.

(5) Permit renewals or modifications. Permit renewals and modifications must demonstrate compliance with RCW 90.46.130.

(6) Notification and consultation. Ecology and the applicant will jointly notify and consult with affected tribes and the Washington state department of fish and wildlife (WDFW) before ecology makes its final determination of compliance with RCW 90.46.130.

(7) Final determination. Ecology will make the final determination of compliance with RCW 90.46.130 as part of the decision to issue or deny the reclaimed water permit.

(8) Cost reimbursement. 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 demonstrate compliance with RCW 90.46.130. Cost reimbursement agreements must meet the requirements of RCW 43.21A.690.

NEW SECTION

WAC 173-219-100 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. The lead agency may require a reasonable fee for copying of documents. Claims of confidentiality must be handled in accordance with the appropriate provisions of chapters 42.56 RCW and 173-03 WAC, and RCW 43.21A.160. 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.

NEW SECTION

WAC 173-219-110 Public notice. (1) Public notice of permit application when ecology is the lead agency. Ecology will provide notice of a complete reclaimed water permit application via electronic mail,

posting on ecology's web site, press release, or other appropriate means.

(2) Public notice of draft permitting decision when ecology is the lead agency. Ecology will publish via electronic mail, posting to ecology's web site, press release, or other appropriate means, 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 of the lead agency.

(b) The procedure for obtaining a copy 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.

(ii) How and by when to request a public hearing.

(3) Public notice when health is the lead agency. Health must require the applicant to provide the public notice details described in this section consistent with the requirements of WAC 246-272B-02200, 246-272B-02300, 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 under subsections (2) and (3) of this section, their final reclaimed water permitting decision per RCW 90.46.220. This notice must include:

(a) If issued, the lead agency must provide:

(i) The procedure for obtaining a copy of the final reclaimed water permit and fact sheet.

(ii) Effective date of the reclaimed water permit.

(iii) Expiration date of the reclaimed water permit.

(iv) Appeal procedures under WAC 173-219-160.

(b) If denied, the lead agency must provide:

(i) Basis for permit issuance denial.

(ii) Appeal procedures under WAC 173-219-160.

NEW SECTION

WAC 173-219-120 Public comment period. Public comment period required. A minimum of thirty 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 retain, consider, and respond to all comments received during the public comment period.

NEW SECTION

WAC 173-219-130 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. The lead agency will hold a public meeting and/or hearing if it determines there is sufficient public interest.

(1) Notice of a public meeting or hearing. Notice must be published at least thirty calendar days in advance of the meeting or hearing.

(a) When ecology is lead agency, it must publish notice of the event at least as widely as the notice of the draft permitting decision.

(b) When health is the lead agency, the generator must publish the notice and provide proof of publication to health.

(2) Content of public meeting or hearing notice. This notice must include the:

(a) Name, address, and phone number of the lead agency contact person.

(b) Date, time, and location for the meeting or hearing.

(c) Nature and purpose of the meeting or hearing.

(d) A reference to the public notice provided under this section including the method of notice and date of issuance.

(e) Contacts and locations where interested persons may obtain more information.

NEW SECTION

WAC 173-219-140 Relationship with other ecology and health permits. Ecology will streamline permit requirements under this chapter and chapters 173-216 and 173-220 WAC, and NPDES permit requirements under the Federal Water Pollution Control Act into a single permit document issued by ecology.

Health will streamline permit requirements under this chapter and chapter 173-216 WAC, and on-site sewage system permit requirements under RCW 70.118B.020 and 43.20.050 into a single permit document issued by health.

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

NEW SECTION

WAC 173-219-150 Regulatory action for noncompliance. The generation, distribution, and/or use of reclaimed water without a permit, or in a manner that violates the terms and conditions of a permit, order, or directive issued under this chapter, is prohibited.

(1) Immediate protection of public health or the environment. When it appears to the lead agency that immediate action is required to protect human health and safety or the environment, the lead agency may issue a written order or directive to the person or persons re-

sponsible without first issuing a notice of determination of violation pursuant to subsection (2) of this section. An order or directive issued pursuant to this subsection shall be served by registered mail or personally upon any person to whom it is directed, and shall inform the person or persons responsible of the process for requesting an adjudicative hearing.

(2) Notice of determination of violation. The notice of determination of violation is not an appealable order or directive. Upon determination of a violation or substantial potential to violate this chapter or chapter 90.46 RCW, and except as provided for in subsection (1) of this section, the lead agency must:

(a) Provide notice of the violation by registered mail to the responsible person or persons.

(b) Provide thirty calendar 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 determination of violation.

If the violation is not corrected or proposed actions or schedule are not sufficient, the lead agency may issue an order, directive, or other enforcement action to the responsible party after the expiration of thirty calendar days, or after the full report is filed in response to the notice of determination of violation, whichever is sooner.

(c) The lead agency must send the order, directive, or enforcement action by registered mail and shall inform the responsible party of the process for requesting an adjudicative hearing.

(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. 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. A compliance schedule must:

(a) Set the shortest, most reasonable time, to achieve the specified requirements.

(b) Contain interim requirements and establish dates for completion.

(c) The responsible person or persons must submit written notice to the lead agency within fourteen calendar days of:

(i) Completion of each compliance item.

(ii) Missed compliance requirements, including the following:

(A) Reason for missed compliance.

(B) Plan to achieve compliance.

(d) Should the responsible person or persons 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 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.

(b) Assess penalties and other civil relief as may be appropriate against any entity who:

(i) Generates any reclaimed water for a use regulated under this chapter and distributes or uses that water without a permit.

(ii) Violates any term or condition of a permit issued under this chapter.

(iii) Violates any of the provisions or requirements of this chapter.

(c) With the assistance of the attorney general, bring any appropriate action at law or in equity, including action for injunctive relief, as may be necessary to enforce the provisions of this chapter. The lead agency may bring the action in the superior court of the county in which the violation occurred, or in the superior court of Thurston County. The court may award reasonable attorneys' fees for the cost of the attorney general's office in representing the lead agency.

(d) Seek criminal sanctions against any person or entity who knowingly makes any false statement, representation, or certification in any notice, report, monitoring device, methodology, or data required by the terms and conditions of a reclaimed water permit.

(5) Penalties.

(a) Any entity who is found guilty of willfully violating chapter 90.46 RCW, or any written orders or directives of the lead agency or a court, is guilty of a gross misdemeanor, and upon conviction may be punished by a fine of up to ten thousand dollars and costs of prosecution, or by imprisonment, or both, at the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

(b) Any entity 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.

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.

NEW SECTION

WAC 173-219-160 Appeals. (1) Appealable actions. Any person aggrieved by a permitting 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 34.05, 43.21B, 43.70 RCW, and RCW 90.46.220(7), 90.46.250, and 90.46.270.

(2) Adjudicative proceedings. The request for an adjudicative proceeding must be made in the form and manner set forth in the lead agency's laws and regulations, where consistent with chapter 90.46 RCW.

(a) Health's procedural rules are set forth in chapter 246-10 WAC and Part 8 of chapter 246-272B WAC.

(b) Ecology's final agency actions are appealable through the pollution control hearings board (PCHB) in accordance with the PCHB's procedural rules.

NEW SECTION

WAC 173-219-170 Preplanning and project application. (1) Early consultation with lead and nonlead agencies. Potential generators must arrange and attend a preplanning meeting with the lead and nonlead

agency to determine the scope of the feasibility analysis, as well as other planning, permitting, or technical matters related to their intention to generate and distribute reclaimed water for use.

(2) Project application. When health is the lead agency, the generator 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.

NEW SECTION

WAC 173-219-180 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 feasibility analysis, including any of the relevant planning documents, must be submitted to the lead agency for review and approval. The purpose of the feasibility analysis is to ensure that resources are sufficient to provide public health and environmental protection for a planning period of twenty years. Guidance on developing the feasibility analysis is available in the *Reclaimed Water Facility Manual* (purple book).

(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) The feasibility analysis must include the following content along with any other relevant data required to fully demonstrate the feasibility of the proposed project and as may be required by the rules of the lead or nonlead agency:

(i) Explanation of who will own, operate, and maintain the reclaimed water facility.

(ii) For a planning period of twenty 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.

(iii) Estimate of the annual or seasonal volumes of wastewater required and available and proposed production rate of reclaimed water.

(iv) Description of the proposed level of reclaimed water quality the project will generate, along with general descriptions of the treatment systems and reliability features used by the proposed facility. The project proponent must demonstrate that the proposed facility concept is capable of meeting and ensuring the minimum requirements for water quality, treatment, and reliability for the proposed uses.

(v) Description of plans for alternative use, storage, or release of any reclaimed water or inadequately treated water.

(vi) Initial assessment of potential water quality and quantity impairments and potential strategies to prevent, compensate, and/or mitigate for such impairments.

(vii) List of all potable water suppliers, potable water sources, storage, and distribution facilities within one thousand feet of all potential reclaimed water generation, reclaimed water storage, and inadequately treated water storage facility areas, as well as any proposed use areas. At a minimum, water source protection and cross-connection control actions and concerns must be identified.

(viii) 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.

(ix) A brief description of the community outreach and public involvement conducted or planned to be conducted, as feasibility is determined, to demonstrate awareness of and community support for the reclaimed water project.

(x) Identification of existing or proposed interlocal or inter-agency agreements, if any, with local governments or local potable water suppliers within the area of existing or proposed distribution and use of reclaimed water.

(xi) Statement of compliance with the State Environmental Policy Act (SEPA) and the National Environmental Policy Act (NEPA), when applicable.

(2) Coordination under other state and local planning. The use of reclaimed water must be considered and coordinated under other planning requirements in state law, including RCW 90.46.120, as well as local codes and ordinances. Relevant planning documents produced under other planning requirements may be submitted to meet all or part of the submittal requirements of this section; however, documents approved for other purposes may require amendments, or the lead agency may require supplemental information to fulfill the requirements of this section. Relevant planning documents include, but are not limited to, the following:

(a) General sewer plans and engineering reports/facility plans for domestic wastewater facilities under RCW 90.48.110 and 90.48.112, or WAC 173-240-050 and 173-240-060.

(b) Coordinated 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 246-290, 246-291, 246-272A, or 246-272B WAC.

(c) Water supply plans under chapter 90.44 or 90.82 RCW.

(d) A regional water supply plan or plans addressing water supply service by multiple water purveyors under RCW 90.46.120.

(e) Groundwater and aquifer protection plans, under WAC 246-290-130, chapter 36.70A RCW, and WAC 365-190-100.

(f) Comprehensive reclaimed water plans under RCW 57.16.010.

(g) A stand-alone or supplemental reclaimed water plan.

(3) Demonstration of private utility capacity. In addition to subsections (1) and (2) of this section, the lead agency may require a private utility to submit adequate information to demonstrate that the private utility has capacity to design, construct, operate, and maintain the reclaimed water facility and that distribution and end uses are feasible. Such information includes, but is not limited to:

(a) A description of the proposed reclaimed water facility and its proposed customers similar to that required in subsection (2)(d) of this section.

(b) A description of the technical, managerial, administrative, operational, legal, and financial capacity of the entity to comply with chapter 90.46 RCW and this chapter.

(c) A description of other requirements, if a private utility is considered a private wastewater company under chapter 80.04 or 36.94 RCW.

(d) Demonstration of ability of the entity to hire and retain certified operators who will be directly responsible for achieving effective and reliable routine operations.

(e) A list of all subcontracted services such as engineering, legal, and accounting.

(f) With the consent of the lead agency, a private utility may establish adequate management capacity by entering into a management agreement with a municipal, quasi-municipal, or other governmental 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 generator, or until the private utility enters into a management agreement with another municipal, quasi-municipal, or other governmental entity.

NEW SECTION

WAC 173-219-190 Timing and signature requirements. (1) Timing. The generator 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) 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, and 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 requirements on other required submittals. All other required submittals must be signed either by the person in subsection (2) of this section or by their duly authorized representative.

(a) A person, for the purposes of this subsection, 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 chapter must make the following certification, unless a different certification is applicable under another related section of this chapter:

"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."

(d) 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.

(e) 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.

NEW SECTION

WAC 173-219-200 Plan review and review standards. (1) Plan review required. All feasibility, planning, design, and construction documents and, if applicable, associated fees, must be submitted 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/or construction within ninety calendar days of receipt. If circumstances prevent adequate review within a period of ninety days, 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 nonlead agency, if applicable, 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 chapter 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.

NEW SECTION

WAC 173-219-210 Engineering report. (1) Submission of engineering report to lead agency. The engineering report is the technical basis for the design of a proposed reclaimed water facility. A generator must comply with the requirements of WAC 173-219-180 (1)(b) and (c) and include a section or stand-alone engineering report meeting the requirements of WAC 173-240-060 for the wastewater treatment facility or chapter 246-272B WAC, Part 4, for the on-site sewage systems, that will provide source water for the proposed reclaimed water facility. This does not apply if the source water is raw sewage.

(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 nonlead 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) Name and contact information for the owner and the owner's authorized representative(s).

(c) A project description and location maps. The maps must include:

(i) 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 generator.

(ii) All additional facilities that may be under control of the generator, such as for storage and distribution of reclaimed water.

(iii) All potable water supply sources, wellhead protection areas for municipal water sources, and system 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.

(d) 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 Table 3 of WAC 173-219-390.

(e) Description of who will operate and maintain the reclaimed water facility.

(f) Documentation of contact with potable water systems and their concerns, if any, as required in WAC 173-219-180 (1)(c).

(g) If applicable, locate potable water supply intakes that are within one thousand feet of the reclaimed water use area, and discuss whether a two hundred foot minimum separation distance between them is sufficient to protect the potable water supply intake(s) from physical impairment potentially created from a reclaimed water use for surface water augmentation.

Reclaimed water quality and quantity must not cause the need for intake modifications or additional treatment requirements for the production of potable water.

(h) Applicable requirements of chapter 51-56 WAC, including pipe colors and labeling.

(i) Design information for the reclaimed water distribution system directly under the control of the generator to demonstrate compliance with the requirements of WAC 173-219-360, and consistent with pressurized distribution systems in the most recent edition of health's *Water System Design Manual*.

(j) The anticipated amount, characteristics, and strength of the source water to be treated, including BOD₅, DO, TSS, and nitrate levels, and the degree of treatment required to generate proposed reclaimed water quality, and other influencing factors.

(k) Descriptions of proposed treatment processes, including preliminary flow diagrams of critical reclaimed water unit processes, as well as anticipated reliability features and controls. The report must contain sufficient detail to verify that the proposed facility will comply with the water quality and reliability requirements of this chapter.

(l) Description of alternative design options considered.

(m) Hydraulic, organic, and influent loading rates to the reclaimed water treatment facility.

(n) Summary of preliminary engineering design criteria for reclaimed water treatment processes, if required, including:

(i) Aeration/anaerobic organic carbon reduction.

(ii) Nutrient reduction, if required.

(iii) Disinfection system selection meeting the requirements of WAC 173-219-340.

(iv) Contact time within the disinfectant reactor.

(v) Coagulation and filtration processes, if required.

(vi) Reverse osmosis or comparable technology process, if required.

(o) A description of compliance with treatment reliability standards in WAC 173-219-350.

(p) 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) RCW 90.46.130, including any compensation or mitigation plans.

(iv) Governor's Executive Order 05-05 Archaeological and Cultural Resources.

(q) 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 generator must include discussion and determination of the need for a pilot study in the engineering report and include the proposal for it, if required.

(r) Proposed pipeline separation distances, both horizontal and vertical, consistent with the most recent edition of ecology's and health's *Pipeline Separation Design and Installation Reference Guide*, in order to ensure trench stability and adequate access for repair and replacement, to minimize impacts to nearby utility pipes, and to protect public health.

(s) **Wetlands.** If a proposed beneficial use of the reclaimed water is for a wetland, or wetland restoration and/or enhancement, the reclaimed water engineering report must include the following:

(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 lev-

el 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 the use of reclaimed water:

(A) 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 existing, beneficial uses of the wetland.

(t) **Surface water augmentation.** If a proposed beneficial use of the reclaimed water is for surface water augmentation, the engineering report must also include the following:

(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 release.

(iii) Demonstration that reclaimed water quality and quantity will 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 chapter 90.22 RCW, a draft or final mitigation plan is required.

(u) **Groundwater/aquifer recharge.** If a proposed beneficial use of the reclaimed water is for aquifer recharge, the engineering report must also include the following:

(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.

(v) **Recovery of reclaimed water stored in an aquifer.** Aquifer recharge and recovery projects will be evaluated based on the information provided in the engineering report under (u) of this subsection 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.

(w) **On-site sewage treatment.** If the generator is or will be operating an on-site sewage treatment system, the generator may reference an approved engineering report, but the reclaimed water engineer-

ing report must also include the on-site sewage treatment system pre-design report, site and environmental review, and engineering report as required under chapter 246-272B WAC, Parts 3 and 4.

(x) **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.

NEW SECTION

WAC 173-219-220 Plans and specifications. (1) Approved construction plans and specifications. Construction plans and specifications must be submitted to the lead agency for review and approval prior to construction of the facility. The generator must submit:

(a) Two complete sets of paper plans and specifications, and one complete set in an electronic format for approval as allowed by the lead agency. The lead agency may waive the requirement for paper submittals.

(b) Construction plan and specifications meeting lead agency guidance and standards.

Once the lead agency determines that the final design documents are acceptable, it will stamp one of the paper copies of the final plans "approved" and return them to the generator for their records.

(2) Content of construction document. The construction document must:

(a) Include a list of the design criteria for each unit process and for the overall facility.

(b) 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 ecology's and health's *Reclaimed Water Facilities Manual* (purple book) and the review standards provided in WAC 173-219-200.

(c) Include a plan for interim operation of facilities during construction, if applicable.

(d) Comply with WAC 173-219-310 and identify all potential cross-connections, and the device or assembly to be installed to prevent them, as described in WAC 173-219-310. This information must also be included in the as-built drawings and final operations and maintenance manual under WAC 173-219-240.

(e) Follow applicable requirements in:

(i) WAC 173-240-070 for domestic wastewater facilities.

(ii) WAC 246-272B-04400 for on-site sewage systems.

NEW SECTION

WAC 173-219-230 Construction and declaration of construction.

(1) Construction of reclaimed water facilities.

(a) Reclaimed water facilities must be constructed in accordance with chapter 90.46 RCW, this chapter, and the construction plans and specifications approved by the lead agency prior to construction.

(b) When health is the lead agency, no construction is permitted until health issues a written approval to construct, under chapter 246-272B WAC. If construction does not begin within two years following the date of health's approval of the plans and specifications, the approval shall expire or be extended as directed in WAC 246-272B-02350.

(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 generator 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 ecology within thirty calendar days of acceptance by the owner of the constructed or modified reclaimed water facility. Health's requirements are provided in WAC 246-272B-02350 and Part 5 of chapter 246-272B WAC.

NEW SECTION

WAC 173-219-240 Operations and maintenance. The generator must at all times properly operate and maintain any facilities or systems of control installed by the generator to achieve compliance with the terms and conditions of the permit. Where design criteria have been established, the generator must not allow flows or waste loadings to exceed approved design criteria, or approved revisions thereto.

(1) Operations and maintenance manual requirements. An operation and maintenance manual must be submitted to the lead agency for review and approval prior to operation of the facility and must be included together with any other relevant data required by the lead agency.

(2) Content of operations and maintenance manual. The following content with detail commensurate with the size and complexity of the generation facility must be included:

(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 generator's cross-connection control plan, in conformance with WAC 173-219-310.

(f) A communication plan outlining notification of any potable water purveyors identified in WAC 173-219-180 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, if applicable.

(iii) List of persons to be alerted and their contact information 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, routine operations, less than design loading conditions, overload conditions, and if applicable, initial loading on a system designed for substantial growth.

(iv) 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.

(v) 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 recordkeeping procedures, including sample and chain of custody forms.

(j) Safety procedures.

(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 or use site.

(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, monitoring, and inspection.

NEW SECTION

WAC 173-219-250 Certified operators. (1) Certified operator requirements. 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 generator and distributor, if separate persons, em-

ploy one or more operators, or a contractor(s) employing operators, with certain operator certification classifications or levels.

(2) Allowable certifications.

(a) Health, under chapter 246-292 WAC, for waterworks treatment, distribution management, cross-connection control, and backflow prevention 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.

NEW SECTION

WAC 173-219-260 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, and, where appropriate, biological monitoring methods. The lead agency must establish monitoring, recording, and reporting requirements and include them in the required permit(s).

(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 lead agency may increase monitoring parameters or frequency for cause including, but not limited to, significant, recurrent reclaimed water permit violations, where determined necessary to protect public health or the environment, or for other cause. The lead agency may base parameters, sample types, locations, and frequencies 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.

(3) Source water monitoring. If the influent to the reclaimed water facility is effluent from a wastewater facility, the generator 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) BOD₅.

(c) TSS.

(d) pH.

(4) Representative sampling and analysis. In addition to the standard requirements, the lead or nonlead agency may establish specific conditions to assure that sampling and measurements accurately represent the volume and nature of the parameters monitored or their removal.

(5) Monitoring equipment maintenance and calibration. The lead and/or nonlead agency must establish maintenance and calibration 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 with this subsection, although the lead agency may require other sampling and analytical methods as needed and on a case-by-case basis.

(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* in effect at time of permit issuance or renewal.

(c) A laboratory accredited under the provisions of chapter 173-50 WAC must conduct the analysis of all monitored data required by the reclaimed water permit. Field measurements such as flow, temperature, settleable solids, conductivity, pH, turbidity, and internal process control parameters are exempt from this subsection, unless the laboratory is on-site and must obtain accreditation for other parameters.

(7) Recordkeeping and reporting. The lead agency may provide and require a reporting form for this requirement. The lead and/or nonlead 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 generator 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.

(8) Records retention. The generator must retain all monitoring records for at least three years. The lead and/or nonlead 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 to be retained by the generator. 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.

NEW SECTION

WAC 173-219-270 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. 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. Terms and conditions must include, but are not limited to:

(1) Regulatory entry and access. For assessing compliance, the generator must allow the lead and nonlead agencies the right to:

(a) Enter the premises where the generator keeps records and the permitted reclaimed water facilities.

(b) Inspect any records that the permit requires the generator to keep under the conditions of the reclaimed water permit.

(c) Inspect any facility, equipment, practice, or operation permitted or required by the reclaimed water permit.

(d) Sample or monitor any substance or any parameter at the reclaimed water facility.

(e) 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 generator 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 generator 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. In the event of an action that violates the terms and conditions of the permit, the generator must:

(a) Take immediate action to stop, contain, and remedy unauthorized generation, distribution, or use of reclaimed water.

(b) Immediately identify and report to the lead agency, no later than twenty-four hours from the time the generator becomes aware of the circumstances, any issue that threatens public health or the environment.

(c) Submit a written report to the lead agency within thirty 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 that:

(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 the generator exceeds 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 generator to maintain use agreements with distributors and users receiving reclaimed water and document the use-based site evaluation, per WAC 173-219-380. The reclaimed water permit may include conditions requiring the generator to obtain lead agency review and approval of use 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 in the permit or 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 include the recovery period of the reclaimed water based on the hydrogeologist report. Ecology may modify or ask health to modify the reclaimed water permit and the recovery period 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 use agreement to the lead agency or prior approval of a use or use agreement as prescribed in WAC 173-219-290.

(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 generator to meet the provisions of WAC 173-219-310 to protect higher quality 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.

NEW SECTION

WAC 173-219-280 Fact sheet. (1) Fact sheet required. The lead agency must prepare a fact sheet to support the reclaimed water permit.

(2) Content of the fact sheet. The fact sheet must include, but is not limited to, the following:

(a) Nature of the source water to the reclaimed water facility.

(b) Chemical, biological, and 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) Summary of:

(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.

NEW SECTION

WAC 173-219-290 Use agreements. (1) Review and approval of use agreements. Together with the use site evaluation under WAC 173-219-380, the generator must submit to the lead agency for review and approval all proposed or signed contracts or use agreements, if applicable, between:

(a) Generator and distributor of reclaimed water.

(b) Generator and end user of reclaimed water.

(c) Distributor and each end user of reclaimed water.

(2) Content of use agreements. The agreements must include sufficient detail to ensure compliance with requirements of the reclaimed

water permit in this chapter, and chapter 90.46 RCW, at the point of use, and must include at a minimum:

- (a) Cross-connection control measures.
- (b) Monitoring points, parameters, and sample times.
- (c) Identification of the use site's inclusion in a wellhead protection area or critical aquifer recharge area, if applicable.
- (d) A copy of the generator's notice to the potable water supplier(s) linked to any such area(s), of any treatment requirements and proposed use(s), and, if any, special protection measures proposed.
- (e) Best management practices to ensure permit compliance.
- (f) General use based requirements in WAC 173-219-380.

NEW SECTION

WAC 173-219-300 Source control and pretreatment requirements.

(1) Source water controls. Source water controls must prevent the presence of substances that may affect the reclaimed water quality or the ability to generate reclaimed water.

(2) Other applicable requirements. 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.

NEW SECTION

WAC 173-219-310 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 is to protect reclaimed water treatment and distribution systems from contamination via cross-connection with lower quality water.

(c) Group A water systems, as defined in WAC 246-290-020, are responsible for protecting their potable water distribution system from cross connections.

(d) Reclaimed water distributors must give the potable water purveyor written notification prior to providing reclaimed water service to any property within the purveyor's service area so the purveyor can ensure compliance with the cross-connection control requirements under WAC 246-290-490.

(e) Generators must notify their potable water purveyor of the proposed and ongoing reclaimed water treatment activity and facility location.

(f) Reclaimed water generators and distributors must not provide reclaimed water to any user before the user has installed the correct backflow prevention assembly on the potable supply line, and the potable water purveyor verifies the installation is correct and complete.

(g) The generator and distributor must protect reclaimed water from lower quality water via cross-connection control, starting in the generation facility, including all treatment stages, storage, and distribution facilities, and ending at the point of delivery to the user's reclaimed water meter at the property line of the use area.

(h) Under the provisions of this section, reclaimed water generators and distributors are not responsible for eliminating or controlling cross-connections on the end user's property.

(i) A 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 before documents are submitted to the lead agency for review.

(2) General program requirements. The reclaimed water generator and distributor must develop and implement a written cross-connection control program that meets the requirements of this section. They must:

(a) Ensure use of good engineering practices in the development and implementation of cross-connection control programs. Guidance publications and references such as, but not limited to, the most recent edition of the following, may be used for cross-connection program development and implementation:

(i) Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California, *Manual of Cross-Connection Control*.

(ii) Washington state department of ecology *Criteria for Sewage Works Design*.

(iii) Washington state department of ecology *Reclaimed Water Facilities Manual*.

(iv) Pacific Northwest Section of the American Water Works Association *Cross-Connection Control Manual, Accepted Procedure and Practice*.

(b) Work with the potable water purveyor to ensure elimination of cross-connections between the reclaimed water facility or reclaimed water distribution system and the potable water system.

(c) Document and describe coordination and delineation of responsibilities in the written cross-connection control program.

(d) Ensure that cross-connections between the reclaimed water and lower quality water are eliminated, or controlled by the installation of approved backflow prevention assemblies.

(e) Ensure that a CCS determines the appropriate method of backflow protection to eliminate or control cross-connections in the reclaimed water facility and distribution system.

(f) Take appropriate corrective action if a cross-connection or potential cross-connection exists that is not controlled by the installation of an approved backflow prevention assembly, consistent with the requirements in subsection (3) of this section. Corrective action may include, but is not limited to:

(i) Diverting potentially contaminated reclaimed water or taking other action to prevent it from leaving the reclaimed water facility and entering the distribution system until the hazard is controlled or eliminated.

(ii) Denying or discontinuing reclaimed water service to a user's property until the cross-connection hazard is eliminated or controlled.

(iii) Requiring the user to install, repair, or replace an approved backflow prevention assembly for premises isolation of the reclaimed water system.

(g) Prohibit the intentional return of used water to the distribution system. Such water includes reclaimed water used for any purpose within the user's property.

(3) Minimum elements of a cross-connection control program. The reclaimed water generator and distributor must:

(a) **Element 1:** Adopt a local ordinance, resolution, code, bylaw, or other written legal instrument that:

(i) Establishes the generator's or distributor's legal authority to implement a cross-connection control program.

(ii) Describes the operating policies and technical provisions of the cross-connection control program.

(iii) Describes corrective actions to be taken to ensure compliance with the cross-connection control requirements.

(b) **Element 2:** 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 prevention assemblies commensurate with the degree of hazard.

(iii) Approved backflow prevention assemblies are installed in the approved orientation and in accordance with industry standards.

(iv) New and existing points of use are assessed for compliance with the cross-connection control program.

(v) Approved backflow prevention assemblies are inspected as required.

(c) **Element 3:** Ensure that personnel, including at least one person certified as a CCS, are provided to develop and implement the cross-connection control program.

(d) **Element 4:** Develop and implement a backflow prevention assembly testing quality control assurance program including, but not limited to, documentation of BAT certification and test kit calibration, test report contents, and time frames for submitting completed test reports.

(e) **Element 5:** Develop and implement, when appropriate, procedures for responding to backflow incidents.

(f) **Element 6:** Develop and maintain cross-connection control records including, but not limited to, the following:

(i) Locations in the generation facility where cross-connections between higher quality and lower quality water have been identified.

(ii) Property locations where reclaimed water is provided.

(iii) Property locations where users are served by both reclaimed water and potable water, and identification of the potable purveyor.

(iv) Approved backflow assemblies and air gaps protecting the reclaimed water generation and distribution systems; including exact location, description of the 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.

(v) Cross-connection control program annual summary reports and backflow incident reports.

(4) Protecting the reclaimed water distribution system.

(a) If the reclaimed water use on a property poses a high likelihood of contaminating the reclaimed water distribution system, the reclaimed water distributor must ensure installation of an approved backflow prevention assembly at the meter or property line.

(b) Reclaimed water distributors may require backflow prevention assemblies 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 impractical 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 prevention assemblies. The reclaimed water generator and distributor must ensure that all installed backflow prevention assemblies relied upon to protect the reclaimed water facility and distribution system are models that appear on current *University of Southern California Foundation for Cross-Connection Control and Hydraulic Research* approved backflow prevention assemblies list.

(6) Approved backflow prevention assembly installation. The reclaimed water generator and distributor must ensure that:

(a) Approved backflow prevention assemblies are installed in a manner that:

(i) Facilitates their proper operation, maintenance, inspection, and/or in-line testing using standard procedures.

(ii) Ensures that the assembly will not become submerged due to weather-related conditions such as flooding.

(iii) Ensures compliance with all applicable safety regulations.

(b) Bypass piping installed around any approved backflow prevention assembly is equipped with an approved backflow prevention assembly that affords at least the same level of protection as the assembly that is being bypassed.

(7) Approved backflow prevention assembly inspection and testing. The reclaimed water generator and distributor must ensure that:

(a) Inspections and/or tests of approved air gaps and approved backflow prevention 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.

(iv) After an assembly is repaired, reinstalled, or relocated or replumbing of an air gap.

(b) Approved backflow prevention assemblies relied upon to protect the reclaimed water system are tested using standards approved for assemblies installed to protect potable water systems in accordance with subsection (3) of this section.

(8) Recordkeeping and reporting. Reclaimed water generators and distributors:

(a) Must keep cross-connection control records for the following time frames:

(i) Records pertaining to the list of properties using reclaimed water must be kept as long as reclaimed water is provided to the property.

(ii) Records regarding information required in subsection (3)(f) of this section must be kept for five years or for the life of the approved backflow prevention assembly, whichever is shorter.

(b) May maintain records or data in any media, such as paper, film, or electronic format.

(c) Must complete the cross-connection control program annual summary report and make all records and reports available as required in the permit conditions.

(d) 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 discovered by the reclaimed water generator or distributor to have contaminated the reclaimed water facility, distribution system, or the potable water system.

NEW SECTION

WAC 173-219-320 Class A and B reclaimed water. Reclaimed water must meet the minimum technology-based treatment methods and treatment reliability standards in WAC 173-219-350 before distribution and use. Reclaimed water must also meet the applicable performance standards established in Table 1 and Table 2 under WAC 173-219-330. Source water for the reclaimed water facility must meet or exceed minimum secondary treatment requirements in WAC 173-221-040 to satisfy the biological oxidation performance standards in this chapter. Raw source water must meet these standards through the reclaimed water treatment process.

(1) Allowable treatment methods for Class B reclaimed water. Class B reclaimed water must also meet the following treatment process train requirements: Biological oxidation followed by disinfection.

(2) Allowable treatment methods for Class A reclaimed water. Class A reclaimed water must also meet one of the following treatment process train requirements:

(a) Biological oxidation, followed by coagulation, filtration, and disinfection demonstrating at least a 4-log virus removal or inactivation.

(b) Biological oxidation followed by membrane filtration, and disinfection demonstrating at least a 4-log virus removal or inactivation.

(c) Combination of biological oxidation and membrane filtration via a membrane bioreactor followed by disinfection demonstrating at least a 4-log virus removal or inactivation.

(d) An alternative treatment method that demonstrates, to the satisfaction of the lead agency, that it provides for equivalent treatment and reliability.

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.

(3) Class A+ reclaimed water. Class A+ reclaimed water requirements must be established by health, on a case-by-case basis, and must have approval of the state board of health before it can be beneficially used for direct potable reuse.

NEW SECTION

WAC 173-219-330 Performance standards. Reclaimed water performance standards. All Class A and Class B reclaimed water at a minimum must meet the technology based performance standards listed in Table 1 and Table 2 for the class of reclaimed water generated at the facility. Compliance shall generally be measured at the end of treatment, however, the reclaimed water permit may specify alternative monitoring locations and water quality limits to ensure compliance with any additional use based requirements as listed in Table 3.

Table 1: Minimum Biological Oxidation Performance Standards

Biological Oxidation		
Parameter¹	Minimum Biological Oxidation Performance Standard	
<i>Dissolved Oxygen</i>	Must be measurably present	
<i>BOD₅</i>	Monthly Average	Weekly Average
	30 mg/L	45 mg/L
<i>CBOD₅</i>	25mg/L	40 mg/L
<i>TSS</i>	30 mg/L	45 mg/L
<i>pH</i>	Minimum	Maximum
	6 s.u.	9 s.u.
<i>pH</i> (Groundwater recharge)	6.5 s.u.	8.5 s.u.

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

Table 2: Class A and B Performance Standards

Coagulation/Filtration				
Parameter¹	Class A Reclaimed Water		Class B Reclaimed Water	
<i>Turbidity²</i>	Monthly Average	Sample Maximum	Monthly Average	Sample Maximum
	2 NTU	5 NTU	Not Applicable	Not Applicable
Membrane Filtration				
<i>Turbidity²</i>	Class A Reclaimed Water		Class B Reclaimed Water	
	Monthly Average	Sample Maximum	Monthly Average	Sample Maximum
	0.2 NTU	0.5 NTU	Not Applicable	Not Applicable
Disinfection				
<i>Total Coliform</i>	Class A Reclaimed Water		Class B Reclaimed Water	
	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 WAC 173-219-340		Not Applicable	Not Applicable
Denitrification³				
<i>Total Nitrogen</i>	Class A Reclaimed Water		Class B Reclaimed Water	
	Monthly Average	Weekly Average	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.

³ Not applicable for beneficial uses 1-15 listed on Table 3: Use-Based Requirements.

NEW SECTION

WAC 173-219-340 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 reclaimed water generation 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, after a t10 contact time of at least thirty minutes, is required.

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 generator 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) **Chemical disinfection.** Validation of chemical disinfection process must include a tracer study at the facility subject to specific project conditions. Additional validations include:

(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) **Ultraviolet disinfection.** Validation of ultraviolet disinfection processes by an acceptable bioassay study conforming to the most recent edition of *Ultraviolet Disinfection, Guidelines for Drinking Water and Water Reuse, published by the National Water Research Institute (NWRI).*

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 approved by the lead agency.

(c) Existing reclaimed water facilities are exempt from the validation requirement unless a disinfection system is modified, replaced, or the facility expects an increase in hydraulic capacity.

NEW SECTION

WAC 173-219-350 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 173-219-210, operate it as directed in approved operations and maintenance manual, per WAC 173-219-240 to meet the reliability requirements in this section.

(b) The generator 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 generator 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 water 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, 70.118, 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 water from the approved reclaimed water facility to the distribution system or to the point of use.

(3) Removed substances. The generator must not resuspend or reintroduce collected screenings, grit, solids, sludge, filter backwash, or other pollutants removed during treatment to the reclaimed water process or to the finished reclaimed water.

(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 uninterruptible 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.

NEW SECTION

WAC 173-219-360 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 173-219-370, unless waived by the lead agency, in consultation with health when health is the nonlead agency. Water that is of equal or better quality than reclaimed water may be used with reclaimed water in storage or distributions systems provided the water supply is protected by an approved air gap in accordance with WAC 51-56-1500.

(2) Notice of facility location(s). The entity must provide distribution system information as described in the operations and maintenance manual, per WAC 173-219-240.

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:

(a) One thousand feet; or

(b) Area determined by 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 173-219-210, 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 potable water supply intakes. The minimum horizontal distance between Class A and Class B reclaimed water storage and distribution and potable water supply intakes, including well-heads, springs, surface water, or designated groundwater under the in-

fluence of surface water, must be two hundred feet and identified in the reclaimed water engineering report prepared under WAC 173-219-210.

(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 173-219-310.

(7) Distribution or use by entities other than the generator. Unless expressly stated otherwise in enforceable ordinances or contracts, the generator is responsible for all reclaimed water facilities and activities inherent to the generation and delivery of the reclaimed water.

(a) The generator and the distributor must coordinate with all potable water system purveyors in those service areas the generator operates or owns facilities for treatment, storage and distribution, and/or reclaimed water uses as required under WAC 173-219-180.

(b) Coordination must include, but is not limited to, cross-connection control requirements under WAC 173-219-310, pipe installation, storage and other facility construction, reclaimed water uses, well-head 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 generator 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, this chapter, and chapter 90.46 RCW.

(8) Other design requirements. Reclaimed water distribution pipe material, valves, valve covers, hydrants, and associated components must meet the standards provided by the lead agency.

(9) Conversion of existing storage tanks or pipe systems for reclaimed water use. In addition to the requirements in this section, the generator must apply for and receive approval from the lead agency prior to converting existing potable water storage and pipe systems to reclaimed water storage and/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.

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 nonpotable reclaimed water, in conformance with chapter 51-56 WAC, 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:

(a) Vehicles are clearly identified with reclaimed water advisory signs such as "nonpotable water."

(b) Vehicles used for transporting hazardous or dangerous waste are never used to transport reclaimed water.

(c) Vehicles used for transporting potable water are never used to transport reclaimed water.

NEW SECTION

WAC 173-219-370 Maintenance of chlorine residual. The generator 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, and to protect public health.

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 generator 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, surface waters, or groundwaters of the state.

NEW SECTION

WAC 173-219-380 General use-based requirements. (1) Site evaluation. The lead agency may include reclaimed water permit conditions for additional use area requirements in sensitive or critical areas, or where deemed that additional measures are needed or the lead agency may determine use in a proposed area is infeasible, and not approve it. The generator, responsible person or persons must:

(a) Assure that any proposed use site is appropriate for reclaimed water use, is not prohibited by local codes or ordinances, and is protective of public health and the environment.

(b) Provide site evaluation information to the lead agency.

(2) Signage or advisory notification. The generator, 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 chapter 51-56 WAC 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 173-219-360 apply to all uses unless otherwise specified by the lead agency.

(3) Use confined to site. The generator, distributor, and user must confine Class B reclaimed water, including runoff and spray, to the use area in the permit and/or the use agreement.

(4) Restrict operation. The 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.

(5) Labeling and design. The labeling, pipeline separation, and other design requirements of WAC 173-219-360, apply to all uses unless otherwise specified by the lead agency.

NEW SECTION

WAC 173-219-390 Specific use-based requirements. The lead agency may consider and approve other uses not listed in Table 3 below on a case-by-case basis.

Table 3: Use-Based Performance Standards

Beneficial Use	Reclaimed Water Class Requirements	Additional Requirements
Indoor Use		
(1) Commercial or industrial facilities, buildings, apartments, condominiums, hotels, and motels (toilet/urinal flushing or laundry).	Class A	Residents must not have access to the plumbing system for repairs or modifications. Where the residents have access to the plumbing system for repairs or modifications no use of reclaimed water is permitted.
Commercial, Industrial and Institutional Uses⁴		
(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 (including public water features).	Class A	
Land Application or 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 or used at times of no, or very limited public access.
(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 reclaimed water use	

Beneficial Use	Reclaimed Water Class Requirements	Additional Requirements
(16) Category II wetlands with special characteristics.	No reclaimed water use	On a case-by-case basis, Class A reclaimed water may be used, if it can be demonstrated that no existing significant wetlands functions will be decreased and a net environmental benefit can be demonstrated as required in WAC 173-219-210 (2)(h)(vi).
(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 release of reclaimed water must not exceed on average annual basis: <ul style="list-style-type: none"> • 20 mg/L BOD, 20 mg/L TSS, 3 mg/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 release of reclaimed water must not exceed on average annual basis: <ul style="list-style-type: none"> • 20 mg/L BOD, 20 mg/L TSS, 3 mg/L N TKN, and 1 mg/L phosphorous. • Annual hydraulic load ≤ 3 cm/day.
(19) Depressional wetlands.	Class A	<ul style="list-style-type: none"> • Maximum increase of 10 cm above the natural average monthly water level. • This use excludes Category I and Category II with special characteristics as provided for in (1) and (2) of this section.
(20) Constructed beneficial wetlands with public access.	Class A	
(21) Constructed beneficial wetlands with no public access.	Class A or 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 B	Criteria established on a case-by-case basis to protect existing beneficial uses (recreational, environmental or other). Must meet applicable requirements of: <ul style="list-style-type: none"> • Chapter 173-201A WAC (surface water standards). • WAC 246-290-310 (drinking water maximum contaminant levels).
Groundwater Recharge		

Beneficial Use	Reclaimed Water Class Requirements	Additional Requirements
(23) Indirect groundwater recharge (surface percolation, subsurface percolation or vadose wells).	Class A or B	<p>Criteria established on a case-by-case basis.</p> <p>Must meet applicable requirements of:</p> <ul style="list-style-type: none"> • Chapter 173-200 WAC (groundwater standards). • Chapter 173-218 WAC when using a UIC well (underground injection control program). • WAC 246-290-310 (drinking water maximum contaminant levels in finished reclaimed water or at alternative point of compliance). • Minimum physical setback of 200 feet, and sanitary control area requirements, whichever is greater, around water supply wells as outlined in WAC 246-290-135.
(24) Direct groundwater recharge (aquifer recharge).	Class A	<p>Criteria established on a case-by-case basis.</p> <p>Must meet applicable requirements of:</p> <ul style="list-style-type: none"> • Chapter 173-200 WAC (groundwater standards). • Chapter 173-218 WAC (UIC program). • WAC 246-290-310 (drinking water maximum contaminant levels in finished reclaimed water product or at alternative point of compliance). • Minimum physical setback of 200 feet, and sanitary control zone area requirements, whichever is greater, around water supply wells as outlined in WAC 246-290-135.
(25) Recovery of reclaimed water stored in an aquifer (aquifer recovery).	Class A	<p>The effects of recovering stored reclaimed water from an aquifer must be demonstrated using the criteria presented in the engineering report. They must not negatively impact groundwater quality, the surrounding environment, or water rights holders.</p>
Direct Potable Reuse		
(26) Direct potable reuse.	Class A+	<p>Class A+ treatment criteria will be established on a case-by-case basis by health. Direct potable reuse is not a beneficial use of reclaimed water unless and until the group A potable water purveyor or reclaimed water generator has applied for and received a waiver from the state board of health under WAC 246-290-060(4).</p>

³ Not applicable for beneficial uses 1-15 listed on Table 3: Use-Based Requirements.

⁴ Class A reclaimed water may be used with no additional requirements.