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Chapter 173-219 WAC RECLAIMED WATER

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Chapter 173-219 WAC RECLAIMED WATER

PART I GENERAL INFORMATION
Subpart A Definitions

NEW SECTION

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

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

"Agronomic rate" refers to a specific rate of hydraulic loading and nutrient loading that meets the agricultural crop or landscape plant requirements while avoiding over application.

"AKART" is an acronym for all known, available, and reasonable methods of prevention, control, and treatment.

"Alarm" means an instrument, or device, that continuously monitors a specific function or process and automatically gives warning of an unsafe condition by means of visual, or audible signals, or both.

"Applicant" means any person applying for an operating permit or submitting a document for approval of ecology or DOH.

"Approval" of plans and specifications means written Ecology approval of the certified copy filed by the applicant in conformance with RCW 39.04.020. Written approval may include electronic approval employing technology that legally ensures the integrity of the electronic document and signature.

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

"Certified Operator" means a person certified under chapter 173-230 or chapter 246-292 WAC.

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

"Contaminant" means any chemical, physical, biological, or radiological substance or matter that does not occur naturally in ground water or that occurs at concentrations greater than those in the natural levels.

"Distributor" means the permittee or a person authorized by the permittee to distribute or supply reclaimed water to users.

"DOH" means the Washington state department of health.

"Ecology" means the Washington state department of ecology.
"Emerging contaminants" means substances detected in water that require further study to determine potential impacts to human health and the environment. Emerging contaminants include, but are not limited to, pharmaceutical products, endocrine disrupting compounds, personal care products, and household cleaning products.
"Engineering report" means a document that thoroughly 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 reclaiming or proposing to reclaim water who is eligible to apply for a reclaimed water permit under this chapter.
"Ground water" means water in a saturated zone or stratum beneath the surface of land or below a surface water body.
"Instream flow" means either a stream flow level set in rule that is needed to protect and preserve fish, wildlife, scenic, aesthetic, recreational, water quality, and other environmental values, and navigational values, or a federally reserved water right for a stream flow. The term instream flow means a base flow under chapter 90.54 RCW, a minimum flow under chapter 90.03 or 90.22 RCW, or a minimum instream flow under chapter 90.82 RCW, or a federally reserved water right for a stream flow.
"Master generator" means a generator that owns or otherwise provides overall management and operational responsibilities for multiple plants reclaiming water under one operating permit.
"Mitigation" see "wetland mitigation" and "water right mitigation."
"Most recent edition" means that version of a specific guidance or reference document in effect at the time the initial reclaimed water project documents are submitted to the lead agency.
"NPDES" means the National Pollution Discharge Elimination System.
"Peak hourly flow" means the greatest volume of water passing through the system during any one hour in a day.
"Permittee" means any person who is issued a reclaimed water permit.
"Person" means any individual, corporation, company, association, society, firm, partnership, joint stock company, or any governmental agency, or the authorized agents of these entities.
"Plans and specifications" means the detailed drawings and specifications used in the construction or modification of reclaimed water generating plants and reclaimed water facilities. Except as otherwise allowed, plans and specifications are preceded by an approved engineering report.
"Potable water" or **"drinking water"** means water suitable for human consumption.
"Primary contact recreation" means activities where a person would have direct contact with water to the point of complete submergence.

"Public entity" means a municipal, quasi-municipal, or other governmental entity.
"Reclaimed water facility" means the plant, equipment, storage, conveyance devices, and dedicated sites for reclaimed water generation and management. It may include wastewater collection systems and reclaimed water distribution or use sites.
"Reclaimed Water" means water derived in any part from a wastewater with a domestic wastewater component that has been adequately and reliably treated, so that it can be used for beneficial purposes. Reclaimed water is not considered a wastewater.
"Reclaimed water permit" means an operating permit issued to a generator of reclaimed water under Part III of this chapter.
"Reclaimed water plant" or **"generating plant"** means an arrangement of devices, structures, equipment, processes, and controls that treat wastewater or wastewater effluent to generate reclaimed water.
"Reclaimed water use" means the deliberate use of reclaimed water for a beneficial purpose.
"Reliability" means the ability of a system or component(s) thereof to perform a required function under stated conditions for a stated period.
"Reliability assessment" means a formal determination and review of the reliability of reclaimed water facility components and equipment.
"Secondary contact recreation" means activities where a person's water contact would be limited to the extent that bacterial infections would normally be avoided.
"Spray irrigation" means application of water from finely divided water droplets to land using artificial means.
"Surface irrigation" means application of water to the land as a broad stream or down furrows by means other than spraying.
"Third-party guarantor" means an entity approved by the lead agency to provide stand-by management services if a permittee fails to operate a reclaimed water facility in compliance with this chapter.
"Unit process" means an individual stage in the wastewater treatment or reclaimed water generating sequence that performs a major single treatment operation.
"Use area" means any facility, building, or area approved for reclaimed water use and permitted by the lead agency.
"Vadose zone" means the unsaturated zone of aeration between the land surface and the regional water table. It does not include localized perched ground water or the base of the capillary fringe where pores are filled with water due to tension saturation.
"Water right impairment" means an interruption or interference in the availability of water, or degradation of the quality of water, caused by decreasing or ceasing a wastewater discharge in order to reclaim the water, that would:

(a) Prevent an existing water right holder from partially or fully beneficially using the water right; or
(b) Require an existing water right holder to make significant modifications in order to beneficially use the water right; or
(c) For an instream flow water right established by rule or otherwise, cause the flow of the stream to fall below the instream flow more frequently, for a longer duration, or by a greater amount than was previously the case.

"Water right mitigation" means the use of reclaimed water for avoiding, minimizing, or compensating for any impairment to new surface or ground water rights or changes to existing water rights.

"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. Term used is the same as defined in RCW 90.48.020.

"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.

Subpart B General Information

NEW SECTION

WAC 173-219-020 Purpose and scope. (1) The purpose of this chapter is to provide consistent, predictable, and efficient regulatory reviews, permitting processes and technical standards that encourage the generation and beneficial use of reclaimed water while preserving and protecting public health, the environment, and existing water rights.

(2) The requirements in this chapter apply to all aspects of the use of reclaimed water in the state of Washington, including the authority to generate, store, and distribute reclaimed water, and the sanctions for failing to comply with state requirements in statute or rule.

NEW SECTION

WAC 173-219-030 Applicability. (1) This rule applies only to the use of reclaimed water as defined in RCW 90.46.010 and in this chapter.

(2) This rule does not apply to the following:

(a) The capture and redirection of wastewater effluent for treatment plant purposes when under the direct control of the operator in responsible charge of the facility.
(b) The capture and redirection of used process water back to process uses within the bounds of an industrial facility.
(c) The use of greywater as defined in RCW 90.46.010.
(d) The use of agricultural industrial process water as defined in RCW 90.46.010.
(e) The use of industrial reuse water as defined in RCW 90.46.010.
(f) Land treatment of wastewater under chapter 90.48 RCW.
(g) Wastewater effluent discharges under chapter 90.48 RCW.
(h) On-site sewage disposal systems under chapters 70.118 and 70.118B RCW.

(3) **Severability.** If any provision of this chapter or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this chapter that can be given effect without the invalid provision or application.

NEW SECTION
WAC 173-219-040 Compliance deadlines. (1) **Direct enforceability.** Except as allowed under subsection (2) of this section, all persons and facilities subject to the requirements of this chapter must comply on the effective date of this chapter.

(2) **Facilities existing before the effective date of this rule.** Any reclaimed water facility authorized by an existing reclaimed water permit that was issued before the effective date of this rule is subject to this chapter except as follows:
(a) For good cause shown and at the request of an existing permittee, the lead agency may issue an extension for compliance to provide a reasonable period of time for an existing facility to meet the new requirements under this chapter;
(b) An existing permittee is not required to modify or amend the existing reclaimed water permit until the application for the permit renewal is due under WAC 173-219-290; and
(c) An existing permittee is not required to submit an evaluation for water right impairment under this chapter or otherwise meet the requirements under WAC 173-219-100.

NEW SECTION
WAC 173-219-050 Lead agency designation - Regulatory agency responsibilities.
(1) **Designation of lead agency.** (a) Ecology shall be designated as the lead agency for projects where any of the following apply:
(i) The reclaimed water generator is a water pollution control facility permitted by ecology;
(ii) The uses of reclaimed water include discharge to water bodies that are regulated under the Federal Water Pollution Control Act or under chapter 90.48 RCW;
(iii) The primary use of reclaimed water is for land application; or

(iv) Both DOH and ecology agree that, for environmental protection or water right administration reasons, ecology should be the lead agency for a specific project or use.
(b) DOH shall serve as the lead agency for projects where any of the following apply:
(i) There is no discharge of reclaimed water to waters of the state except as authorized under (b)(ii) of this subsection.
(ii) The only discharge of wastewater or surplus reclaimed water to an on-site sewage system with a design flow less than or equal to one hundred thousand gallons per day, regulated under chapters 246-272A or 246-272B or to a sanitary sewer.
(iii) When a reclaimed water permit is dependent on a large on-site sewage operating permit or an on-site sewage system approval or permit for required treatment, reliability, or use, DOH shall be the lead agency and issues the individual reclaimed water permit. DOH shall review, approve, and permit an on-site sewage system designed as part of a reclaimed water project.
(iv) Both DOH and ecology agree that for public health protection reasons, DOH should be the lead agency for a specific project or use.
(c) When either DOH or ecology is designated as a lead agency under (a) and (b) of this subsection, the other agency shall be designated by default as the nonlead agency.

(2) **Lead agency responsibilities.** (a) The lead agency for a reclaimed water permit is responsible for the coordination, review, issuance, and enforcement of a permit under RCW 90.46, and shall be responsible for actions as directed in this chapter and as follows:
(i) Coordinating application review for completeness, and evaluating applications pursuant to WAC 173-219-200 through WAC 173-219-310;
(ii) Notifying the nonlead agency of receipt of required construction review documents, coordinating the review with the nonlead agency as needed, and reviewing applications and submittals pursuant to WAC 173-219-200 through WAC 173-219-310;
(iii) Issuing or denying reclaimed water permits;
(iv) Assessing and collecting fees as authorized by that agency's regulations;
(v) Monitoring compliance with the reclaimed water permit, conducting inspections, and taking corrective actions as needed;
(vi) Notifying the nonlead agency of violations and coordinate reclaimed water permit compliance as agreed upon by ecology and DOH;
(vii) Responding to appeals of reclaimed water permit decisions, and conducting compliance and enforcement actions as needed; and
(viii) Any other responsibilities and obligations.
(b) Notwithstanding subsection (2)(a) above, enforcement of a permit issued under this chapter shall be at the sole discretion of the lead agency issuing the permit.

(3) **Nonlead agency responsibilities.** The nonlead agency shall be responsible for actions as directed in this chapter and as follows:
(a) Participating in meetings convened by the lead agency as requested by the lead agency.
(b) Determining the scope of its nonlead review of the reclaimed water permit documents and notify the lead agency of that determination.
(c) Submitting comments and recommend reclaimed water permit conditions to the lead agency if appropriate.
(d) Assessing and collecting any fees as authorized by that agency's regulations.
(e) Assisting the lead agency, as agreed upon under subsection (2)(a)(vi) above, with appeals of reclaimed water permit decisions and compliance and enforcement actions.

(4) **Ecology responsibilities.** In either its role as the lead agency under subsection (2) or non-lead agency under subsection (3) ecology shall:
(a) Develop reclaimed water permit requirements as necessary to ensure adequate:
(i) Design, construction, and operation of all sewerage systems and associated water pollution control facilities that collect or treat wastewater and generate reclaimed water, except as exempted under RCW 90.48.110; and
(ii) Protection of waters of the state;
(b) Certify operators for facilities generating reclaimed water, when operator certification under chapter 173-230 WAC is required in a reclaimed water permit;
(c) Add public health permit conditions to permits it issues as recommended by DOH; and
(d) Issue all regulatory decisions related to water rights as provided under WAC 173-219-100.

(5) **DOH responsibilities.** In either its role as the lead agency under subsection (2) or non-lead agency under subsection (3)DOH shall:
(a) Develop reclaimed water permit requirements as necessary to ensure adequate public health protection in the use of reclaimed water;
(b) Assure that the public health-related treatment, reliability, and exposure provisions provided for reclaimed water production, storage, distribution, and use are adequate to protect public health, including but not limited to requirements for a person(s) certified by DOH under WAC 246-292; and
(c) Add environmental protection and water right-related conditions to permits it issues as recommended by ecology.

NEW SECTION
WAC 173-219-060 Regulatory action for noncompliance. (1)Whenever the lead agency determines that any person violates or creates a substantial potential to violate the provisions of this chapter or chapter 90.46 RCW, the lead agency shall notify such person of its determination by registered mail. Such determination shall

not constitute a directive, enforcement action order, or appealable agency action. Within thirty days from the receipt of notice of such determination, such person shall file with the lead agency a full report stating what steps have been and are being taken to control such waste or pollution or to otherwise comply with the determination of the lead agency.

(2) After the expiration of thirty days, the lead agency shall issue an order, directive, or take such other enforcement actions it deems appropriate under the circumstances and shall notify such person thereof by registered mail and any other method of service required by the lead agency's rules.

(3) Nothwithstanding subsection (1) and (2) above, whenever the lead agency deems immediate action is necessary to protect public health or the environment, it may immediately issue such order or directive, as appropriate under the circumstances, without first issuing a notice or determination pursuant to subsection (1) 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 in the manner required by the lead agency's rules.

(4) The lead agency may establish schedules and conditions to achieve compliance as follows:
(a) Schedules of compliance must set forth the shortest, most reasonable time, to achieve the specified requirements.
(b) When schedules for compliance exceed one year, the schedule must be specified within a permit, and provide interim requirements and the dates for their achievement, with no more than one year between interim dates. If the time necessary for completion of the interim requirement (such as construction of a treatment facility) is more than one year and not readily divided into stages of completion, the permit must specify interim dates for the submission of progress reports toward completion of the interim requirement.
(c) Within fourteen days following each date to achieve compliance within the schedule, the person to whom the compliance schedule was issued must provide the lead agency with written notice of their compliance or noncompliance with the requirement.
(d) If the person fails or refuses to comply with an interim or final requirement in the compliance schedule, the noncompliance constitutes a continuing violation and the lead agency may modify or revoke the reclaimed water permit or take other direct enforcement action.

(5) **Enforcement authority.** (a) The lead agency, with the assistance of the attorney general, may sue in courts of competent jurisdiction to enjoin any threatened or continuing violations of any reclaimed water permits or conditions thereof without the necessity of a prior revocation of the permit.
(b) The lead agency may assess, or with the assistance of the attorney general, sue to recover in court, such civil fines,

penalties, and other civil relief as may be appropriate for the violation by any person of any:
(i) Reclaimed water standard or limitation;
(ii) Reclaimed water permit or term or condition thereof;
(iii) Filing requirement;
(iv) Duty to allow or carry out inspection, entry, or monitoring activities; or
(v) Rules, regulations, or orders issued by the lead agency.
(c) The lead agency, with the assistance of the attorney general, may seek criminal sanctions for the willful violation by such persons of any:
(i) Water quality standards.
(ii) Reclaimed water permit or term or condition thereof.
(iii) Filing requirements.
(d) The lead agency, with the assistance of the attorney general, may seek criminal sanctions against any person who knowingly makes any false statement, representation, or certification in any form or any notice or report required by the terms and conditions of any issued permit or knowingly renders inaccurate any required monitoring device or method.

(6) The lead agency shall notify the nonlead agency of any compliance actions taken under this section.

NEW SECTION
WAC 173-219-070 Appeals. (1) Appealable actions include agency decisions to issue a reclaimed water permit, a final impairment determination under WAC 173-219-100(b)(iv), a directive, an order, or an imposition of a civil penalty. Any person aggrieved by a decision, made in accordance with provisions of this chapter, may appeal that decision as provided by law applicable to the agency issuing the decision including, but not limited to RCW 43.21B, 43.70, 34.05, and 90.46.220(7), 90.46.250, and 90.46.270. When issuing a decision, the agency must inform the person(s) of the process for requesting an adjudicative hearing or an appeal. The request for an adjudicative proceeding must be made in the form and manner set forth in the lead agency's laws and regulations. DOH's procedural rules are set forth in WAC 246-10; ecology's final agency actions are appealable by the Pollution Control Board in accordance with the PCHB's procedural rules under WAC 371-08-335

PART II PLANNING, DESIGN, AND CONSTRUCTION
Subpart A Water Right Considerations

NEW SECTION
WAC 173-219-100 Evaluation of potential impairment of existing water rights.
(1) **Purpose.** This section describes the requirement to address the potential for water right impairment. Under RCW 90.46.130, reclaimed water facilities shall not impair any existing water

right downstream from any freshwater discharge points of the reclaimed water facility unless compensation or mitigation for such impairment is agreed to by the affected water right holder.

(2) **Applicability.** This section applies to any person applying for a reclaimed water permit under this chapter where there are water rights downstream of any freshwater discharge point of those facilities.

(3) **Existing water rights.** Existing water rights include any permits, claims, and certificates in existence when a submitted water rights impairment evaluation is accepted by ecology. Existing water rights include instream flows established by rule. Existing water rights need not be adjudicated by a superior court.

(4) **Cost reimbursement agreements.** At the request of the applicant, ecology may enter into a cost-reimbursement agreement with the applicant at any stage of the impairment scoping and evaluation process under RCW 43.21A.690.

(5) **Evaluation process.** (a) Applicant responsibilities:
(i) The applicant must meet with ecology to develop the list of information and considerations needed for an evaluation of the site. When complete, the proponent must submit a preliminary water rights impairment evaluation to ecology. The applicant may submit a separate water right impairment evaluation report or incorporate required water rights impairment evaluation information described below into the engineering report as described in WAC 173-219-160. Hydrogeologic considerations critical to the impairment analyses must be conducted by a licensed hydrogeologist in the state of Washington.
(ii) The preliminary evaluation must include the following:
(A) The person who will own, operate, and maintain the reclaimed water facilities.
(B) Existing and proposed uses of the reclaimed water. Uses not considered upon initial application may require a separate evaluation and impairment determination as described in subsection (6) of this section.
(C) An estimate of the annual and seasonal volumes of both the reclaimed water generated and the projected use. If new modifications are made affecting facility volumes not considered upon initial application it may require a separate evaluation and impairment determination as described in subsection (6) of this section.
(D) A description of the areas where reclaimed water is or may be distributed and used.
(E) Identification of individual water right permits, certificates, and claims potentially impaired.
(F) Other relevant data requested by ecology.
(G) Possible recommendations in regard to ecology's pending final decision of impairment issued under (b)(iv) below.
(iii) In addition to completing the preliminary evaluation under subsection (i) above, when an applicant or ecology identifies

water right impairments, the applicant must also submit to ecology sufficient documentation that shows that for all water rights that are impaired, as determined under (b)(iv) below, there is a valid agreement in place between the applicant and third party water right holder that provides adequate compensation or mitigation, as required under RCW 90.46.130. Such agreements must contain the signature of both the applicant and the third party water right holder.

(b) **Ecology responsibilities:** (i) At the request of the applicant, ecology must provide technical assistance as to the appropriate scope of the preliminary impairment evaluation being conducted by the applicant and the adequacy of applicant analysis or the applicant may request ecology to conduct the evaluation through a cost reimbursement agreement identified above in section (4).
(ii) Ecology shall notify affected tribes and the WDFW within fifteen working days of receipt of a completed preliminary evaluation under consideration by ecology.
(iii) Ecology shall consult with WDFW and any affected tribe, before making a final determination on the potential for impairment of existing water rights.
(iv) Ecology shall issue a final impairment determination within one hundred eighty days of receipt of the completed preliminary impairment evaluation or when an ecology evaluation under cost reimbursement contract is signed. If additional time to review a preliminary evaluation is required, ecology must notify the applicant of the reason for the delay and an estimated decision time. Ecology may consider any recommendations provided in a preliminary evaluation; however, ecology's final determination under this subsection is at the sole discretion of ecology.
(v) Where ecology accepts mitigation for an impaired instream flow right, ecology may condition the reclaimed water permit as appropriate to ensure that mitigation is in place for the life of the reclaimed water project.

(6) **Reclaimed water permit modification and renewals.** A supplemental impairment evaluation and determination of impairment are required if the permittee elects to modify the project in such a way that may affect existing rights. The permittee must submit a written request to ecology to determine if a supplemental impairment evaluation is required if a modification is submitted for approval under WAC 173-219-120. The supplemental evaluation and determination apply only to the proposed changes.

NEW SECTION

WAC 173-219-110 Use of reclaimed water for water right mitigation.

(1) **Applicability.**
(a) This section applies to the use of reclaimed water for mitigation of new surface or ground water rights and changes to existing surface or ground water rights.
(b) The generator may use or supply reclaimed water in its control for mitigation for a new water right or for a change to

an existing water right conditioned on delivery of permitted reclaimed water at the time of water right withdrawal.

(2) **Minimum requirements.** (a) The water right mitigation use must be described in an approved plan and engineering report.
(b) The water right mitigation use must have been included in an approved impairment evaluation and determination under WAC 173-219-100.
(c) If the use is approved by ecology, the use must be included in a reclaimed water permit under RCW 90.46.
(d) To use reclaimed water for mitigation of a new water right or a change to an existing water right, the water right applicant must prepare a mitigation plan and submit it in support of an application for a new water right or an application to change an existing water right.
(e) Ecology must approve the mitigation plan and permit the new water right or water right change under chapter 90.03 or 90.44 RCW. Ecology must condition the new water right or water right change to ensure the availability of mitigation water for the life of the water right.
(f) Any changes to a water right so mitigated, or to the mitigation plan, must be approved by ecology in accordance with RCW 90.03 or RCW 90.44

Subpart B Construction of Reclaimed Water Facilities

NEW SECTION

WAC 173-219-120 Submission of documents for review and approval required.

(1) **Submission required.**
(a) Before constructing or modifying reclaimed water facilities, the applicant must submit reclaimed water plans, engineering reports, construction plans and specifications, applicable to the project to the lead agency for review and approval.
(b) Before operating the facility, the applicant must submit an operation and maintenance manual as described in WAC 173-240-080, and a declaration of construction as described in WAC 173-240-090.
(c) Two copies of each document must be submitted to the lead agency and one copy to the nonlead agency for review. The nonlead agency may limit the scope of their review or waive the requirement for submission of documents.

(2) **Required signatures and stamps of approval on submittals.**
(a) The applicant must sign all documents or a transmittal letter accompanying the submittal in accordance with the signatory requirements under WAC 173-219-250(2).
(b) A professional engineer, licensed in accordance with RCW 18.43, must supervise preparation of all technical documents related to the construction or modification of facilities regulated under this chapter. All copies of these documents submitted to the lead and nonlead agencies for review must include the signed and dated seal/stamp of the professional engineer under whose supervision they were prepared.

(c) Supplemental technical documents such as hydrogeological reports may be prepared, approved, and stamped by other appropriately licensed professionals.

(3) **Project development schedule.**
(a) The applicant is responsible for ensuring that there is sufficient time to meet funding, contractual and other project deadlines. Agency standards for submittal review are included under WAC 173-219-130.
(b) If submittals are part of a reclaimed water permit or compliance schedule, the lead agency must receive the required submittals by the deadline established in the permit or compliance schedule.
(c) Where two or more years have elapsed since approval of the engineering report or construction plans and specifications and construction has not begun, the lead agency may require updates to address changes in water quality conditions, regulatory requirements, or engineering technology.

NEW SECTION
WAC 173-219-130 Agency review standards. (1) The lead agency coordinates regulatory reviews with the nonlead agency in accordance with WAC 173-219-050.

(2) The purpose of the review is to evaluate whether the proposed reclaimed water facilities:
(a) Meet state standards and other requirements for the generation, distribution, and use of reclaimed water under this chapter and chapter 90.46 RCW.
(b) Meet applicable requirements of RCW 90.48 and RCW 90.54 necessary to prevent and control pollution of waters of the state.
(c) Meet applicable requirements of RCW 70.118, 70.118A, 70.118B, 70.119, 70.119A, or 43.20 with respect to on-site sewage systems or public water systems.
(d) Meet standard engineering criteria and practices used in the planning, design and construction of all reclaimed water facilities,
(e) And all other applicable regulations and authorities.

(3) **Review period.** Both lead and nonlead agencies must promptly take action to comment on, approve, or reject a submittal as follows:
(a) The lead agency must take action regarding documents submitted for planning, design and construction within ninety days of receipt. If appropriate, the lead agency forwards the documents to the nonlead agency and sets a schedule for receipt of comments and proposed conditions from the nonlead agency. The nonlead will have a minimum of twenty business days from receipt of documents to review it and submit responses to the lead agency. If circumstances prevent adequate review within a ninety-day period, the lead agency must notify the applicant of the reason for the delay and provide an estimated review time.

(b) The provisions of WAC 173-219-100 apply to the review periods for evaluation of potential impairment of existing water rights.
(c) The provisions of chapter 173-219 WAC, Part III, Reclaimed Water Permit Application and Procedures, WAC 173-219-200 through 173-219-310 apply to review periods for all reclaimed water permitting decisions.

NEW SECTION

WAC 173-219-140 Reclaimed water planning. (1) **Planning documents.** Reclaimed water planning is the basic planning required for the entire reclaimed water facility. Planning may be conducted at multiple levels depending on the scale and scope of the proposal. Since opportunities for reclaimed water must be considered or coordinated under other planning requirements in state law, relevant planning documents may be submitted to meet all or part of the submittal requirements of this section. Documents approved for other purposes may require amendments or additions to meet these requirements. For purposes of meeting the planning requirements under WAC 173-219-120, acceptable planning documents include, but are not limited to, any combination of the following:
(a) General sewer plans and engineering reports/facility plan for domestic wastewater facilities under RCW 90.48.110, 90.48.112, or WAC 173-240-050 and WAC 173-240-060;
(b) Water system plans, small water system management plans, sewage and sewage treatment works system plans or pre-design reports under RCW 43.20, 70.116, 70.118B or WAC 246-290, 246-291, 246-272A, or 246-272B;
(c) Water supply plans under chapter 90.44 or 90.82 RCW;
(d) A regional water supply plan or plans addressing potable water supply service by multiple water purveyors under RCW 90.46.120;
(e) Comprehensive reclaimed water plans under RCW 57.16.010; and
(f) A stand alone or supplemental reclaimed water plan.

(2) **Content.** Reclaimed water planning documents must provide sufficient detail for a professional engineer to complete the design engineering report consistent with the information in the approved planning document(s). The plan(s) must include the following content and any other relevant data required by the rules of the lead or nonlead agency:
(a) Explain who will own, operate, and maintain the reclaimed water facility.
(b) For private utilities, provide a capacity assessment under WAC 173-219-150.
(c) Identify existing and proposed uses of the reclaimed water.
(d) Describe the proposed level of water quality, treatment and reliability and how existing and planned reclaimed water facilities intend to meet and assure the minimum requirements for water quality, treatment and reliability for the proposed uses, such as through backflow prevention.

(e) Estimate the annual or seasonal volumes of reclaimed water required, proposed and available. Describe plans for storage or discharge of the excess reclaimed water.
(f) Describe the contingency plan for reversion to domestic wastewater facilities and alternative water supply systems where applicable, if reclaimed water production is discontinued.
(g) Describe the existing, if any, and proposed storage and distribution system areas of reclaimed water use. Provide a map showing proposed routes for pipelines to provide reclaimed water to the identified uses.
(h) Identify existing or proposed interlocal or interagency agreements, if any, with local governments or local potable water utilities within the area of existing or proposed distribution and use of reclaimed water.
(i) Provide a planning level estimate of capital and operational costs for the treatment, storage and distribution of the reclaimed water. Include any use areas under the direct control of the generator.
(j) Demonstrate compliance with the State Environmental Policy Act (SEPA) and the National Environmental Policy Act (NEPA), where applicable.

NEW SECTION
WAC 173-219-150 Private utility capacity assessment. (1) An applicant that qualifies as a private utility, as defined under RCW 36.94.010, must submit adequate information to the lead agency to determine if the entity has the technical, managerial, administrative, operational, and financial capacity upon issuance of a reclaimed water permit.

(2) The lead agency may require the private utility to make changes, such as managerial or financial changes, before issuance of a reclaimed water permit.

(3) **Content.** The lead agency may require the following information together with any other relevant data required by the lead or nonlead agency:
(a) A brief, nontechnical description of the proposed reclaimed water facility and its customers. Include the major components, treatment type, startup volume, maximum treatment capacity, and the planned uses of reclaimed water.
(b) A description of the administrative, managerial, operational, and technical capabilities of the private utility that includes:
(i) Type of ownership.
(ii) Responsible managerial officials, such as board members or corporate officers, and the individual(s) in charge of long-term capital planning, repair, and maintenance and a brief description of their qualifications.
(iii) The certified primary operator and any other individual(s) directly responsible for achieving effective and reliable routine operations.
(iv) A list of all subcontracted services such as engineering, legal, and accounting.

(c) A description of the financial capabilities of the private utility that includes:
(i) A summary of past income and expenses.
(ii) A five-year balanced operational budget.
(iii) A twenty-year projected operational budget in which revenues meet or exceed expenses.
(iv) A twenty-year capital improvements plan.
(v) An explanation of the sources of revenue and the method that will be implemented to ensure collection of the revenue necessary to maintain cash flow stability.
(vi) An explanation of funding method that will be implemented for maintaining an operating cash reserve.
(vii) An explanation of the funding for the capital improvement program and emergency repairs.
(viii) An explanation of user fees that includes evaluation of affordability and the procedure and frequency for review to ensure adequate revenue.
(ix) A summary of the state of Washington utilities and trade commission rates and rate setting process, as applicable.

(4) The lead agency may decline to issue a reclaimed water permit based on a determination of inadequate technical, managerial, or financial capacity, or lack of sufficient information on which to make a determination. With the consent of the lead agency, the private utility may establish adequate capacity by entering into an agreement with a qualified public entity acceptable to the lead agency to serve as the primary management entity or as a third-party guarantor. The management agreement must be binding on both parties to remain in force until the lead agency determines that the private utility has the technical, managerial, and financial capacity to qualify for a reclaimed water permit, or until the private utility enters into an agreement with another qualified public entity.

NEW SECTION
WAC 173-219-160 Engineering report. (1) An applicant for a reclaimed water permit under this chapter must submit an engineering report as part of its application consistent with the rules of the lead agency, sufficient to meet the provisions of this subsection and WAC 173-219-100, Evaluation of potential impairment of existing water rights. The engineering report is the basis for the design for the entire reclaimed water facility including the treatment, storage, distribution, and use areas, and shall reflect good engineering and public health protection practices.

(2) The engineering report must provide sufficient detail for a professional engineer to complete plans and specifications consistent with the information within the approved engineering report.

(3) The engineering report must include the following content together with any other relevant data required by rules of the lead-reviewing agency:

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(a) The name, address, and telephone number of the owner of the existing and proposed reclaimed water facilities and the owner's authorized representative.
(b) A project description that includes a location map and a map of the present and proposed areas for reclaimed water distribution and use. On the reclaimed water distribution and use map, the following must be located and identified: public water supply sources and public water system facilities that are within the proposed treatment, storage, distribution, and use areas.
(c) The proposed quantity, quality, and uses of the reclaimed water generated by the reclaimed water facility.
(d) A description of who will operate and maintain the reclaimed water facility, the proposed methods of operation and maintenance, staffing levels, qualifications, experience, certifications, responsibilities, and testing requirements.
(e) The specific responsibilities of the reclaimed water generator, distributors, and users, if different. Describe how the generator will provide information to existing or proposed distributors or users regarding:
(i) Responsibilities of the distributor and users of the reclaimed water generated.
(ii) Best management practices.
(iii) The quality of the reclaimed water provided.
(iv) Any limitations on availability or suitability of the reclaimed water for the proposed use.
(v) Any training provided or required for distribution or use of the reclaimed water.
(vi) Provisions included in ordinances and user agreements relevant to the collection, treatment, storage, distribution, and use of the reclaimed water.
(f) A list of the locations of nearby, as defined in sections 500 and 520, public water supply sources and facilities in the proposed reclaimed water treatment, storage, distribution, and use areas. Describe how the generator will notify and coordinate with their owners on topics such as cross-connection control plans and actual backflow incidents.
(g) An analysis of potential physical and water quality impacts from the reclaimed water treatment, storage, distribution and use areas to nearby public water system(s) facilities and source water, including when using surface water to convey reclaimed water to users. Facilities include, but are not limited to wellheads, surface water intakes, treatment works, and piping.
(h) Calculate and identify, if applicable, a public health-protective minimum horizontal distance between any surface water and groundwater under the influence of surface water intakes and proposed reclaimed water facilities.
(i) Describe how and when potable water purveyors will be notified of the proposed reclamation project facilities and proposed uses of the reclaimed water in conformance with WAC 173-219-500 and -520.
(j) Identify applicable requirements of the Uniform Plumbing Code amended for Washington state, including pipe colors and labeling; and

(k) Reclaimed water distribution system design, including meeting the requirements of WAC 173-290-520, and consistent with the most current version of the *DOH Water System Design Manual*.
(l) The degree of treatment required to generate reclaimed water for the proposed uses based upon applicable technical standards in this chapter, the amount, characteristics and strength of the wastewater to be treated, and other influencing factors.
(m) Processes and diagrams of all reclaimed water unit processes, reliability features and controls.
(n) The basis for design. Reference requirements within this chapter, published design standards, pilot plant results, and site-specific data.
(o) The reliability assessment of all major or otherwise significant equipment and components, individual unit processes, and complete treatment trains must meet the requirements of WAC 173-219-440 and include, but are not limited to:
(i) Flexibility of design.
(ii) Power supply.
(iii) Unit processes.
(iv) Alarms.
(v) Automated diversions.
(vi) Storage.
(vii) Provisions for disposal of reclaimed water or alternative uses.
(p) The engineering design calculations for reclaimed water processes include:
(i) Aeration/organic carbon reduction.
(ii) Nutrient reduction (if required).
(iii) Disinfection system selection meeting the requirements of WAC 173-219-440.
(iv) Disinfectant reactor contact time.
(v) Coagulation and filtration processes (if required).
(vi) Reverse osmosis process (if required).
(vii) Pumping, piping and control valve systems.
(q) A description of the contingency plan assuring that untreated or inadequately treated wastewater will not be delivered to the use area.
(r) An estimate of the costs and expenses of the proposed facility and the method of assessing costs and expenses. The total amount must include capital and operational costs for the life of the project, in terms of total annual cost and present worth.
(s) The applicable information required in the following. An approved engineering report may be referenced.
(i) WAC 173-240-060, for an engineering report for domestic wastewater facilities;
(ii) WAC 246-272B, Parts 3 and 4, if applicable, for a site and environmental review, pre-design report, and engineering report for large on-site sewage systems;
(iii) WAC 246-271-170, for an engineering report; and
(iv) WAC 246-290-110, for a project report for public water systems.
(t) A statement regarding compliance with SEPA and, where required, NEPA.

(u) A statement regarding compliance with any applicable state or local water quality management plan or any plan adopted under the Federal Water Pollution Control Act as amended.
(v) If the reclaimed water will be used for a constructed wetland, the information required in WAC 173-219-600 (7) and (9)(c).
(w) If the reclaimed water will be used for streamflow and surface water augmentation, the information required in WAC 173-219-610(8).
(x) If the reclaimed water will be used for ground water recharge, the information required in WAC 173-219-620(8).
(y) If the reclaimed water will be used for aquifer storage and recovery, the information required in WAC 173-219-630(2).

(4) **Use management plan.** The engineering report or a supplement thereof must include a plan for management of the use site(s) included or proposed to be included in the reclaimed water permit. The use management plan must be sufficiently complete regarding the water quality, location, rate and purpose of use for the lead agency to determine the uses and users that may be covered under the reclaimed water permit without reopening the permit. The use management plan must:
(a) Include or reference any supplemental reports by qualified soil scientists, professional geologists, professional engineers, or other qualified individuals used as a basis for site management.
(b) Include the following content, if applicable to the use, together with any other relevant information required by the lead or nonlead agency:
(i) The types of uses proposed and whether the reclaimed water provides essential services such as fire protection that cannot be disrupted.
(ii) Any proposed modification of existing pipes or related infrastructure to convey reclaimed water.
(iii) Identification and location of nearby, as defined in sections 500 and 520, public water supply sources and facilities, and plans to notify and coordinate with their owners in advance of proposed modifications to use, treatment, storage, and distribution facilities at the use site and in the case of an actual backflow, spill or exposure incident.
(iv) Any treatment, controls or storage facilities at a use site.
(v) The percentage of reclaimed water in the nonpotable water supply and the procedures for blending with other water supplies, if any.
(vi) Reliability features and other site controls used to minimize the potential for human contact or improper use of the reclaimed water, such as hours of use, methods of use, protection of any drinking fountains, picnic tables, food establishments or other eating areas, and training of personnel.
(vii) Measures, such as a use site cross-connection control plan, to reduce risk to human health from cross-connections of reclaimed water to potable and to incompletely-treated reclaimed water or improper use of the reclaimed water.

(viii) Measures to reduce the risk of environmental impact.
(ix) Procedures for notification of employees and the public.
(c) For proposed irrigation uses, address the following items. If not known at the time of submittal, they can be included in a supplemental report:
(i) The types of crops or vegetation irrigated.
(ii) The types of irrigation system(s).
(iii) Procedures used to calculate and assure application is limited to agronomic rates.
(iv) Parameters to be monitored in the reclaimed water prior to distribution to assure that the reclaimed water quality is within acceptable limits for irrigation use.
(v) Reliability features and other controls used to confine the reclaimed water to the use area and minimize the potential for runoff, ponding, overspray or excessive application.
(vi) Reliability features and other controls used to minimize the potential for movement of contaminants to the ground water and to avoid ground water degradation.
(vii) Methods to maximize reclaimed water efficiency such as metering, soil moisture sensors, irrigation schedules and other controls.

(5) **Pilot plant study.**
(a) A pilot plant study may be required to evaluate the ability of the proposed facility to reliably meet all reclaimed water quality requirements applicable to the project.
(b) When required, a study protocol must be submitted for agency review and approval before the pilot plant startup. The protocol must provide a description of the:
(i) Equipment and facilities to be used during the study.
(ii) Treatment capacity of the pilot plant.
(iii) Operation and maintenance procedures.
(iv) Parameters monitored, monitoring frequency, sampling techniques, and analytical methods.
(v) Length of the pilot plant study.
(vi) Steps taken to protect both public health and the environment if any discharge of reclaimed water is anticipated during the pilot plant study.

NEW SECTION
WAC 173-219-170 Construction plans and specifications. (1) The approved plans and specifications for a reclaimed water facility are part of the detailed construction documents by which the owner or the owner's contractor bid and construct the facility approved in the engineering report.

(2) The content and format of the plans and specifications must follow applicable requirements in the following:
(a) WAC 173-240-070, for plans and specifications for domestic wastewater facilities; or
(b) WAC 246-272B-04400, for plans and specifications for large on-site sewage systems; and

(3) Plans and specifications must include or reference a list of the design criteria and a plan for interim operation of facilities during construction, where required.

NEW SECTION

WAC 173-219-180 Operation and maintenance manual. (1) The operation and maintenance manual must provide sufficient detail to describe the operation and maintenance of the entire reclaimed water treatment facility, storage, and distribution system.

(2) The operation and maintenance manual must include the following content together with any other relevant data required by the reviewing agencies:

(a) A copy of the reclaimed water permit.

(b) Manufacturer's information on the reclaimed water facility equipment.

(c) Technical guidance for both normal and emergency operating conditions.

(d) The following information:

(i) The assignment of managerial and operational responsibilities, including plant classification and classification of required operators, such as for treatment, distribution, or cross-connection control.

(ii) A description of plant type, flow pattern, operation, and efficiency expected.

(iii) The principal design criteria.

(iv) A process description of each plant unit, including function, relationship to other plant units, and schematic diagrams.

(v) A discussion of the detailed operation of each unit and description of various controls, recommended settings, fail-safe features, and other elements that ensure proper operation of equipment.

(vi) A discussion of how the generating plant is to be operated during anticipated maintenance procedures, and under less than design loading conditions, and overload conditions, if applicable, such as initial loading on a system designed for substantial growth.

(vii) Information on any maintenance procedures that contribute to the generation of wastewater or residual solids and the proper handling of the wastewater or solids generated.

(viii) A discussion of provisions to provide a sufficient number of qualified personnel to operate the plant, storage and distribution system effectively to achieve the required level of treatment at the plant and reclaimed water quality delivered to the use site(s) at all times.

(ix) A section on laboratory procedures, including sampling techniques, monitoring requirements, and sample analysis.

(x) Recordkeeping procedures and sample forms to be used.

(xi) A maintenance program and schedule that incorporates manufacturer's recommendations, preventative maintenance and housekeeping schedules, and special tools and equipment usage to ensure that all unit processes and equipment are kept in reliable operating condition.

(xii) A section on safety.
(xiii) A section that lists the spare parts inventory, address of local suppliers, equipment warranties, and appropriate equipment catalogues.
(xiv) A section containing the generator's cross-connection control and backflow protection plan using applicable parts of WAC 246-290-490, and that includes the following information:
(A)Identify all potential cross-connection control issues with higher and lower quality waters in the reclaimed water treatment, distribution, storage, and use areas under the control of the reclaimed water generator;
(B) Explain how cross-connections will be eliminated or controlled, including in the use areas;
(C) List all installed backflow preventers, their locations, and their inspection and testing dates;
(D) Identify the person(s) responsible for coordination, compliance, inspection, testing, reporting, maintenance, repair and replacement of backflow preventers used by the permittee;
(E) Include a list of any public potable water purveyors with facilities within the reclaimed water treatment, storage, distribution and use areas, and relevant contact information for each purveyor;
(F) Describe how and when potable water purveyors will be notified of the reclamation project, modifications, proposed and actual uses, and known or suspected backflow, spill, or exposure incidents that could affect the public potable water system.
(xv) Emergency plans and procedures including, but not limited to:
(A) Reclaimed water plant shutdown and cleanup in the event of a treatment process upset or failure.
(B) An alarm condition response plan to ensure that no untreated or inadequately treated wastewater will be delivered to reclaimed water use areas.
(xvi) A section on the distribution system including, but not limited to:
(A) Responsibilities for operation and maintenance.
(B) Operational controls, maintenance requirements, monitoring and inspection.
(xvii) A section on the reclaimed water use areas including, but not limited to:
(A) Responsibilities for operation and maintenance.
(B) Operational controls, maintenance requirements, monitoring and inspection.
(3) For those projects funded by the U.S. Environmental Protection Agency, the operation and maintenance manual must also follow the requirements of the most recent edition of the EPA publication, *Considerations for Preparation of Operation and Maintenance Manuals*.

NEW SECTION
WAC 173-219-190 Construction quality assurances. (1) All reclaimed water facilities subject to the provisions of this chapter must be

constructed in accordance with the plans and specifications approved by the lead agency.

(2) If during construction, the applicant determines a substantial change to the approved plans and specifications is necessary, the applicant shall submit revisions to the approved engineering plans and specifications to the lead agency for review and approval.

(3) Within thirty days after acceptance by the owner of the construction or modification of a reclaimed water facility, the professional engineer responsible for inspection of the project must submit a declaration of construction to the lead agency. The declaration of construction must include:
(a) Name and brief description of project.
(b) Name and address of the owner of the reclaimed water facility.
(c) Date completed.
(d) Date of approval of plans and specifications.
(e) One complete set of record drawings.
(f) The following statement:
"I hereby declare that I am the project engineer of the above identified project and that the project was reviewed and observed by me or my authorized agent. I further declare that the project was, to the best of my knowledge and information, constructed and completed in accordance with the plans and specifications and major change orders approved by the lead agency and as shown on the owner's record drawings."
(g) Signature, date and seal/stamp of a professional engineer.

PART III RECLAIMED WATER PERMITS
Subpart A Reclaimed Water Permit Application and Procedures

NEW SECTION
WAC 173-219-200 Reclaimed water permit and application required. (1) Any person proposing to generate reclaimed water for distribution or use must apply to the lead agency for and obtain one of the following types of reclaimed water permits before generating, distributing or using the reclaimed water:
(a) An individual reclaimed water permit under WAC 173-219-220.
(b) A master generator reclaimed water permit, if eligible, under WAC 173-219-230.

(2) The lead agency develops and provides the required permit application forms. The application forms must include provisions for sufficient information about the reclaimed water quality, volume generated, purposes of use, locations and other relevant factors for the lead agency to make a draft determination to issue or deny the reclaimed water permit.

(3) Any person permitted to generate reclaimed water must file a new or supplemental application for any use of reclaimed water not specifically authorized in the reclaimed water permit.

(4) **Exceptions.**
(a) The capture and redirection of wastewater effluent for treatment plant and wastewater conveyance purposes does not require a reclaimed water permit under this chapter, provided those uses are in restricted areas, are not subject to public exposure, are under the direct control of the generator's or user's authorized maintenance personnel, and are described within an approved operations and maintenance manual.
(b) Facilities existing on the effective date of this chapter to the extent provided under WAC 173-219-040.

NEW SECTION
WAC 173-219-210 Eligibility to apply for a reclaimed water permit--Permittee. (1) Only the person generating the reclaimed water is eligible for a reclaimed water permit.

(2) A permittee must be one of the following:
(a) A public entity. Nothing in this chapter precludes a public entity from contracting for operation and maintenance of the reclaimed water facility with the consent of the lead agency.
(b) A private utility as defined in RCW 36.94.010 provided the lead agency determines that the private utility meets the requirements for financial and other resources to ensure the reliability, continuity, and supervision of the reclaimed water facility as specified in WAC 173-219-150.
(c) Any person currently holding an active waste discharge permit issued under chapter 90.48 RCW, a large on-site sewage system permit under Chapter 70.118B, or a permit or approval under Chapter 70.118A.
(3) For new facilities, ecology may issue the wastewater discharge permit under chapter 90.48 RCW concurrently with the reclaimed water permit and DOH may issue a reclaimed water permit concurrently with a large on-site sewage permit or an on-site sewage permit or approval by a local health jurisdiction.
(4) The lead agency may require the information specified in WAC 173-219-150 to assure that a private utility has sufficient capacity to provide reliability, continuity, and supervision of the reclaimed water facility.

NEW SECTION
WAC 173-219-220 Individual reclaimed water permit application. (1) Any reclaimed water generator eligible for a reclaimed water permit may apply for an individual permit on the forms provided by the lead agency.

(2) Upon receipt and review of a complete and accurate application, the lead agency makes a draft determination to issue or deny the reclaimed water permit and prepares a fact sheet consistent with WAC 173-219-260.

NEW SECTION

WAC 173-219-230 Master generator reclaimed water permit application. (1) The lead agency may issue a master generator reclaimed water permit to a person that meets all of the following qualifications to the satisfaction of the lead agency:
(a) Provides overall management and operational responsibilities for multiple facilities generating reclaimed water.
(b) Owns or otherwise demonstrates direct control over all facilities included under one reclaimed water permit. The facilities do not have to be physically connected with each other.
(c) Upon receipt and review of a complete and accurate application, the lead agency makes a draft determination to issue or deny a reclaimed water permit and prepares a fact sheet.
(d) Satisfies all other permitting requirements under this chapter.

NEW SECTION
WAC 173-219-250 Signature requirements.
(1) **Signature on reclaimed water permit application.** All reclaimed water permit application forms 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.

(2) **Signature on other required submittals.**
(a) All other required submittals must be signed by either the person in subsection (1) of this section or by their duly authorized representative.
(b) A person is a duly authorized representative only if the person described in subsection (1) 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.
(c) If an authorization under (b) of this subsection is no longer accurate, the person in subsection (1) of this section must submit a new authorization before or with the signed submittal.

(3) **Certification.** Any person signing a document under this rule must make the following certification, unless a different certification is applicable under another related section of this chapter:
"I 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."

NEW SECTION

WAC 173-219-270 Notifications, comments and procedures.

(1) **Prenotice review.** Before notifying the public of a draft determination to issue a reclaimed water permit, the lead agency must:

(a) Allow the nonlead agency at least ten working days to review and submit written comments on or objections to the proposed reclaimed water draft permit and fact sheet; and

(b) Upon request, provide the applicant with a copy of the proposed draft reclaimed water permit and fact sheet in a form completed after any comments from the nonlead agency are incorporated, and allow at least ten working days for the applicant to make factual corrections to the information contained therein.

(2) **Public notice.** When ecology is the lead agency it must notify the public of the draft determination to issue or deny a reclaimed water permit under this chapter by electronic mail, posting on the lead agency's internet site, publication in a local newspaper, press releases or other appropriate means that:

(a) Conveys the lead agency's draft determination to issue or deny a reclaimed water permit under this chapter.

(b) Informs interested and potentially affected persons of the proposed reclaimed water quality, location, rate and purpose of use.

(c) Informs the public living within the geographical boundaries of the proposed project or service area.

(d) Notifies other affected federal, state, county or local government agencies and Indian tribes of the draft determination. For permits subject to NPDES requirements, notifies all government agencies as required under WAC 173-220-070.

(e) Notifies any other parties that requested notification.

(f) If DOH is the lead agency it may require the applicant to provide the public notice details described in this section, consistent with the requirements of WAC 246-272B-2200-2300, regardless of the size of the reclaimed water and on-site sewage system(s).

(3) **Contents of public notice.** The public notice must, at a minimum, include:

(a) The name, address, and phone number to contact the lead agency

(b) The procedure for obtaining copies of the fact sheet and the draft reclaimed water permit(s).

(c) The types and locations of facilities, activities and uses covered under the reclaimed water permit.

(d) The geographical area covered by the reclaimed water permit.

(e) The draft determination to issue or deny the reclaimed water permit.

(f) The procedures for the formulation of final decisions, including the thirty-day public notice and comment period and any other means by which interested persons may comment upon those decisions.
(g) The address and phone number of the state premises at which interested persons may obtain further information.
(h) For individual and master generator reclaimed water permits, include the following additional information:
(i) The name and address of each applicant, and if different, of the reclaimed water facility or activity to be regulated.
(ii) Whether this is a new or existing reclaimed water facility, activity or use.
(iii) The actual or proposed reclaimed water quality.
(iv) The actual or proposed locations, uses, and quantity of reclaimed water required.
(v) The potential for impairment of existing downstream water rights and any compensation or mitigation proposed for such impairment.
(vi) The criteria and process to add new reclaimed water facilities, users, or uses under the reclaimed water permit.

(4) **Comment period.** The lead agency must:
(a) Provide a period of not less than thirty days following the date of the public notice during which time interested persons may submit their written comments on a draft determination.
(b) Retain and consider all written comments submitted during the comment period in the formulation of the lead agency's final decision with respect to the reclaimed water permit. The period for comment may be extended at the discretion of the lead agency.

(5) **Public access to information.**
(a) In accordance with chapter 42.17 RCW, the lead agency must make records relating to reclaimed water permits available to the public for inspection and copying. The lead agency may require a reasonable fee for copying of documents.
(b) Claims of confidentiality must be handled in accordance with the appropriate provisions of chapters RCW 42.56, WAC 173-03, and RCW 43.21A.160.
(c) For reclaimed water permits that are also subject to NPDES permit requirements, any information accorded confidential status must be disclosed to the USEPA regional administrator if the USEPA requests this information.

(6) **Public workshops or hearings.** The applicant or any interested agency or person may request a public workshop or hearing with respect to a draft determination.
(a) Any such request for a public workshop or hearing must:
(i) Be filed with the lead agency within the public comment period.
(ii) Indicate the interest of the party filing such request.
(iii) Indicate the reasons why a workshop or hearing is needed.
(b) The lead agency may hold a workshop or hearing in its sole discretion.

(c) The lead agency determines the time and place to hold the workshop or hearing.
(d) At least thirty days in advance of the workshop or hearing, the lead agency must publish notice of the event at least as widely as the public notice of the draft determination. The notice must include the:
(i) Name, address, and phone number of the lead agency contact person.
(ii) Time and location for the workshop or hearing.
(iii) Nature and purpose of the workshop or hearing.
(iv) Issues indicated by the persons requesting the workshop or hearing, and any other appropriate issues thought to be of interest to the public.
(v) A reference to the public notice provided under this section including the method of notice and date of issuance.
(vi) Contacts and locations where interested persons may obtain more information.

(7) **Notification of final permit decision.** The lead agency must notify the applicant, the nonlead agency, and all persons who have submitted written comments or requested notice of the final permit decision. This notice must include a response to comments received, the final decision, a copy of any permit issued and the procedures for appealing the decision.

NEW SECTION

WAC 173-219-280 Permit Transfers. A reclaimed water permit may be automatically transferred provided a written agreement between the old and new owners of the reclaimed water generation plant and the permittees, if different, is submitted to the lead agency at least thirty days before the proposed change takes place. The agreement must specify the date for transfer of reclaimed water permit responsibility, coverage and liability.
(1) An automatic 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.
(2) Reclaimed water permits that are not automatically transferred under subsection (1) of this section may be transferred only if modified or revoked and reissued by the lead agency.

NEW SECTION

WAC 173-219-290 Renewal of a permit or of coverage under a reclaimed water permit.
(1) An individual or master generator reclaimed water permits is issued for a fixed term, not to exceed five years from the effective date, and to avoid expiration renewal must be accomplished as follows:
(a) The permittee must file an application for renewal of their reclaimed water permit at least one hundred eighty days before the permit expiration date on a form provided by the lead agency.

(b) The lead agency must review the renewal application sufficiently to determine whether:
(i) The permittee is in substantial compliance with all of the terms, conditions, requirements and schedules of compliance of the expiring reclaimed water permit.
(ii) The application information is up-to-date.
(iii) The reclaimed water quality is consistent with the applicable water quality standards, and limitations and other legally acceptable requirements.
(c) As long as the permittee meets the application requirements and deadlines for renewal, an expiring reclaimed water permit remains in effect and enforceable until the lead agency either denies the application or issues a replacement permit. If a permittee fails to meet the deadline or application requirements for renewal, coverage expires on the expiration date of the reclaimed water permit.
(d) For each draft replacement reclaimed water permit, adequate public notice and opportunity for public review and comment must be given in accordance with the process established under WAC 173-219-270.

NEW SECTION
WAC 173-219-295 Reclaimed water permit modification or revocation. (1) The lead agency may modify or revoke a reclaimed water permit in whole or in part during its term for cause including, but not limited to:
(a) Violation of any term or condition of the reclaimed water permit.
(b) A reclaimed water permit was obtained by misrepresentation or failure to disclose fully all relevant facts.
(c) A change in any condition that requires either a temporary or permanent reduction or cessation of generation, distribution or use of the reclaimed water.
(d) A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations.
(e) Failure or refusal of the permittee to allow entry for reclaimed water permit compliance inspection.
(f) Nonpayment of assessed fees.
(2) Public notice and an opportunity for public comment must be provided in the manner directed in WAC 173-219-270 in those instances where changes are proposed which lessen the stringency of enforceable limits. In all other instances, the lead agency determines the form of public notice and public participation, if any, on a case-by-case basis according to the significance of the proposed action. Modification may also require a supplemental impairment evaluation and determination of impairment to the extent required under WAC 173-219-100(6).

Subpart B Permit Terms and Conditions

NEW SECTION
WAC 173-219-300 Standard reclaimed water permit conditions.

The following standard conditions apply to and must be included in all reclaimed water permits issued under this chapter:

(1) **Compliance required.** The permittee must comply with all terms and conditions of the reclaimed water permit. The generation, distribution or use of reclaimed water in a manner not authorized by a permit, or that violates the terms and conditions of a permit is prohibited.

(2) **Signatory requirements.** All applications, reports, or information submitted to the lead agency must be signed as required under WAC 173-219-250.

(3) **Removed substances.** Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment must not be resuspended or reintroduced to the reclaimed water or to an effluent stream discharging to state waters.

(4) **Sampling and analytical procedures.** Sampling and analytical methods must conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136 or to the most recent edition of *Standard Methods for the Examination of Water and Wastewater* (APHA), unless otherwise specified in the reclaimed water permit.

(5) **Accreditation of environmental laboratories.** A laboratory registered or accredited under the provisions of WAC 173-50 (Accreditation of environmental laboratories) must prepare all monitoring data required by the reclaimed water permit. Flow, temperature, settleable solids, conductivity, pH, turbidity, emerging contaminants and internal process control parameters are exempt from this requirement unless the following applies. If a laboratory must obtain accreditation for other parameters and if the reclaimed water permit requires the permittee to sample for conductivity, turbidity, pH, or emerging contaminants, then the laboratory must also obtain accreditation for conductivity, turbidity, pH, or emerging contaminants as applicable.

(6) **Plan review required.** Before constructing or significantly modifying reclaimed water facilities, the permittee must submit planning, design, and construction documents for approval and receive approval from the lead agency to proceed to construction, as required under WAC 173-219-140. Prior to operation, the permittee must submit an operation and maintenance manual for approval. Reclaimed water facilities must be constructed and operated in accordance with the approved plans.

(7) **Regulatory entry and access.** For assessing compliance, the permittee must allow the lead and nonlead agencies the right to: (a) Enter the permitted reclaimed water facilities and premises where records are kept.

(b) Inspect any records that must be kept 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 to be kept under the terms and conditions of the reclaimed water permit.

(8) **Duty to provide information.** If the permittee has failed to submit any relevant facts in a reclaimed water permit application, or has submitted incorrect information in a reclaimed water permit application, or in any report to the lead agency, the permittee must promptly submit such facts or information. The permittee must furnish to the lead agency within a reasonable time as specified by the lead agency, any information including copies of records, construction submittals or new reclaimed water permit applications, which may be requested by the lead agency to determine whether cause exists for modifying, revoking, reissuing, or terminating the reclaimed water permit, or to determine compliance with the permit or this chapter. The falsification of information submitted to the lead agency constitutes a violation of the terms and conditions of the reclaimed water permit.

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

(10) **Noncompliance action required.** The permittee must take immediate action to stop, contain, and clean up unauthorized generation, distribution, or use of reclaimed water, including any unauthorized discharges or otherwise stop the violation, and correct the problem and to notify the lead agency of a failure to comply with reclaimed water permit requirements. Unless requested earlier, the permittee must submit a written report to the lead agency within thirty days of the violation that describes the following:
(a) The noncompliance and its cause, if known;
(b) The period of noncompliance including to the extent possible, times and dates to the extent possible and, if the compliance has not been corrected, the anticipated time it is expected to continue;
(c) The corrective actions taken;
(d) Steps planned to reduce or eliminate recurrence; and
(e) Any other pertinent information.

(11) **Notification requirements.** In the event of any change in control or ownership of reclaimed water facilities from which the authorized reclaimed water production emanates, the permittee must notify the succeeding owner or controller of the existence

of this permit by letter, a copy of which must be forwarded to the lead agency.

(12) **Renewal responsibilities.** If the permittee intends to continue operation of the permitted reclaimed water facility after the expiration of an existing reclaimed water permit, the permittee must apply for a new reclaimed water permit in accordance with WAC 173-219-290.

(13) **Cause for modification, suspension or termination.** The reclaimed water permit is subject to modification, suspension, or termination, in whole or in part by the lead agency for:
(a) Violation of any permit term or condition, including but not limited to a repeated violation or event, such as inadequate monitoring and maintenance, which threatens public health or the environment.
(b) Obtaining a reclaimed water permit by misrepresentation of failure to disclose all relevant facts.
(c) A material change in the quantity or type of reclaimed water generated.
(d) A material change in the condition of the waters of the state.
(e) Nonpayment of authorized fees.

(14) **Other reasons for a reclaimed water permit modification.** The lead agency may also modify a reclaimed water permit, including the schedule of compliance or other conditions, if it determines good cause exists, such as promulgation or revisions of regulations or new information.

(15) **Penalties for violating permit conditions or failing to obtain a permit.**
(a) Any person who is found guilty of willfully violating the terms and conditions of a reclaimed water permit is guilty of a crime, and upon conviction thereof may be punished by a fine of up to ten thousand dollars per day for every violation and costs of prosecution, or by imprisonment at the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.
(b) Any person who violates the terms and conditions of a reclaimed water permit incurs, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars for every such violation. Each and every 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.
(c) Any person who generates any reclaimed water for a use regulated under this chapter and distributes or uses that reclaimed water without a permit is in violation of this chapter and incurs, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars for every such violation. Each and every 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.

(16) **Compliance with other laws and statutes required.** Nothing in the reclaimed water permit excuses the permittee from being in compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

NEW SECTION

WAC 173-219-310 Specific reclaimed water permit conditions. The reclaimed water permit must include specific conditions necessary for the protection of public health and the environment that may differ from facility to facility because of characteristics specific to the permitted reclaimed water facilities.

(1) **Basis for specific conditions.** Characteristics specific to the permitted reclaimed water facilities include, but are not limited to the:

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

(b) Chemical, biological, physical characteristics of the reclaimed water generated.

(c) Size of the reclaimed water facility, the approved facility design, reliability features and methods of operation.

(d) Methods of distribution.

(e) Types of uses covered under the reclaimed water permit.

(f) Location including geology, climate, land use, population, and sensitivity of waters of the state.

(g) Compliance history of the reclaimed water facility and the need for monitoring and recordkeeping to document compliance.

(h) Legal considerations relative to land use, water rights, and the public interest.

(i) Requirements from other state and federal agencies.

(2) **Reclaimed water permit duration.** A reclaimed water permit may be valid for up to five years. The reclaimed water permit must specify the issue date, effective date, and expiration date.

(3) **Compliance schedules.** The reclaimed water permit may allow a compliance schedule establishing specific steps or actions the permittee must take and the deadlines for compliance with the required steps or actions.

(4) **Source control and pretreatment.** The reclaimed water permit must specify conditions for source control and pretreatment appropriate to the type and size of the reclaimed water plant. Conditions may include specific prohibitions, pretreatment requirements, industrial user surveys, establishment of local ordinances, inspections, public education requirements or other source control measures such as pollution prevention plans.

(5) **Water quality limits.** The reclaimed water permit must specify enforceable water quality limits verifying that the required

treatment processes at the reclaimed water plant are functioning correctly and that the reclaimed water facility is reliably achieving the required technology- and use-based standards. Enforceable limits must include the minimum requirements established in the technical standards. The reclaimed water permit must list each required parameter, the regulatory limits, the sample type, method, and point of compliance. The reclaimed water permit must establish the action required when exceeding a limit is a permit violation.

(6) **Monitoring schedules.** The reclaimed water permit must establish a detailed self-monitoring and testing schedule for water quality limits and other substances or parameters to be monitored in the reclaimed water or in waters of the state. Specified monitoring parameters, sample types, locations, and frequencies must include any minimum requirements established in the technical standards in this chapter for the permitted use(s). Permit conditions should base requirements on available guidance or model permits, the quantity, quality and variability of the reclaimed water, the treatment methods, significance of the pollutants, the availability of appropriate indicator or surrogate parameters, the cost of monitoring, and past compliance history. The lead agency may increase monitoring parameters or frequency for cause including, but not limited to significant, recurrent reclaimed water permit violations or where determined necessary to protect public health or the environment.

(7) **Influent monitoring.** The reclaimed water permit must specify the requirements for the monitoring of influent to the reclaimed water plant. Minimum requirements include flow, five day biochemical oxygen demand (BOD5), total suspended solids and pH. Reclaimed water plants required to reduce nitrogen concentrations across the treatment processes must monitor influent nitrogen levels. If the influent to the reclaimed water treatment plant is effluent from a wastewater treatment plant, the permittee may use monitoring data collected for the wastewater discharge permit to fulfill all or part of influent monitoring requirements.

(8) **Assessment of emerging contaminants.** The lead agency may include in the reclaimed water permit monitoring for emerging contaminants in the reclaimed water, the receiving environment, or both, for the purpose of evaluating or estimating the nature, extent, and significance of detected compounds for the protection of public health and the environment. When setting such conditions, the agency must consider relevant scientific studies about potential risk to human health and the environment, whether there are reliable and established laboratory methods for detecting minute quantities of the constituent(s), and what is already known about the fate and transport of the constituent(s) in the environment and through the proposed or approved beneficial uses.

(9) **Representative sampling and analysis.** In addition to the standard requirements, the reclaimed water permit may establish specific conditions to assure that sampling and measurements accurately represent the volume and nature of the parameters monitored.

(10) **Field instrumentation measurement, accuracy, and calibration.** The reclaimed water permit must establish requirements based on manufacturer's requirements and accepted scientific practices for the appropriate installation, use, calibration, and maintenance of monitoring equipment for flow, field measurements, and continuous monitoring devices and methods.

(11) **Recordkeeping and reporting.**
(a) Reclaimed water permit conditions must specify the requirements for recordkeeping for each measurement or sample taken including:
(i) The date, the exact place, and time of sampling, and the individual who performed the sampling or measurement.
(ii) The dates the analyses were performed and the individual who performed the analyses.
(iii) The analytical techniques or methods used and the results of all analyses.
(b) Reclaimed water permit conditions must specify the reporting requirements for routine compliance monitoring including the content and forms, reporting frequency (monthly, quarterly, annually), the beginning and ending of reporting periods and due dates, whether reporting is required when the permittee is not generating reclaimed water, and where to send reports.
(c) The reclaimed water permit may establish requirements for recordkeeping and reporting of other operational records such as preventative maintenance activities and corrective actions.

(12) **Records retention.** The reclaimed water permit must specify the retention period of all monitoring records at specified locations for a minimum period of three years. Reclaimed water permit conditions may specify other records that must be retained such as calibration and maintenance records, original recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for this permit. The reclaimed water permit may establish requirements that extend the period of retention for some or all records during the course of any unresolved litigation or when requested by the lead agency.

(13) **Facility loading.** The reclaimed water 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 may not exceed, periodic assessments, reporting of flow and loadings, and warning levels that trigger requirements to maintain adequate capacity.

(14) **Operational reliability.**

(a) The reclaimed water permit must establish appropriate conditions to assure operational reliability at all times. Permit conditions must specify requirements for the following:
(i) Proper operation and maintenance of the reclaimed water facility, based on the technical standards established in this chapter, the approved engineering report(s) and the approved operation and maintenance manual(s).
(ii) Site presence and the required level(s) of operator certification for all reclaimed water facilities covered under the reclaimed water permit. Required levels of operator certification are established under WAC 173-230 for operators of reclaimed water plants.
(b) The permit may include a requirement for other certified operators, such as provided under WAC 246-290 and 246-292 to protect public health.
(c) The reclaimed water permit may require submission to the lead agency of any proposed contract for the operation of any reclaimed water facility covered by this permit.

(15) **Actions to avoid bypass of treatment.** The reclaimed water permit must prohibit the generation, distribution, or use of reclaimed water under certain conditions. Reclaimed water permit conditions must specify when and how the reclaimed water 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 plant. Permit conditions may specify procedures to establish when the treatment processes are sufficiently restored to allow the generation, distribution, or use of the reclaimed water. Bypassing of untreated or partially treated wastewater from the approved reclaimed water plant to the distribution system or to the point of use is prohibited.

(16) **Authorized uses and locations.** The reclaimed water permit must include conditions specifying the authorized uses of reclaimed water and the water quality, quantities, and locations of use authorized under the permit. The reclaimed water permit must include conditions addressing requirements for management of the use area or areas. The reclaimed water permit may list specific authorizations, require a summary plan, or reference the approved engineering report and use management plan. The distribution or use of reclaimed water not authorized by the reclaimed water permit is prohibited.

(17) **Summary plan.** The reclaimed water permit must specify the frequency, at least annually, and date(s) of submission of a summary plan. The lead agency must specify content and may provide a reporting form for the summary plan. The summary plan must summarize the total volume of reclaimed water generated, distributed and used since the last report. The permit may require the summary plan to include:
(a) A description of the reclaimed water distribution system;

(b) Identification of all distributors, users, purposes, and locations of use;
(c) A description of the method(s) used to measure the rate and volume of reclaimed water for each use;
(d) Identification of any specific requirements for management of use areas;
(e) Additional monitoring requirements; or
(f) Results of inspections for cross connections, annual inspections of air gaps, and annual inspection and testing of backflow prevention assemblies under the control of the permittee.

(18) **Adding new users or uses.** The reclaimed water permit may include conditions authorizing the addition of certain types of new users or uses without reopening the permit, provided a user agreement is approved by the lead agency before a new use is added. The additional or amended user agreement(s) must specify the:
(a) Types of uses authorized;
(b) Locations or areas of authorized uses;
(c) Required reclaimed water quality;
(d) Requirements for evaluation of suitability of proposed uses such as application rates, water balances, and proximity to waters of the state;
(e) Methods and frequency for reporting to the lead agency;
(f) Authority of the lead agency to revoke an authorization for cause; and
(g) Identification of any specific requirements for monitoring.

(19) **Distribution or use by persons other than the permittee.** Unless expressly stated otherwise in enforceable ordinances or contracts, the permittee is responsible for all reclaimed water facilities and activities inherent to the generation, distribution, and use of the reclaimed water.
(a) The permittee must coordinate with all potable water system purveyors in whose service areas the permittee operates or owns facilities for treatment, storage and distribution, and is responsible for use(s).
(b) Coordination shall include but is not limited to cross connection control, pipe installation, facility construction, reclaimed water uses, and any changes to these in order to assure that public health is protected.
(b) The reclaimed water permit may include conditions authorizing the distribution or use of reclaimed water by persons other than the permittee provided that enforceable provisions are in place that ensures construction, operation, maintenance, and use meets all requirements of the reclaimed water permit and this chapter.
(c) The reclaimed water permit may require the lead agency to review and approve individual contracts or may specify terms and conditions allowing the use of a standardized contract or local ordinances for all or some distributors, uses, or users.

(20) **Water right considerations.** The reclaimed water permit must include conditions necessary to address any water right

considerations regulated under the reclaimed water permit, such as mitigation plans as required under RCW 90.46.130.

(21) **Additional permit conditions.** The reclaimed water permit may establish additional conditions specific to the types of distribution systems and uses authorized within the permit. The reclaimed water permit conditions must assure compliance with the technical standards in this chapter and the approved engineering report.

PART IV TECHNICAL STANDARDS
Subpart A Technology-Based Treatment Requirements

NEW SECTION

WAC 173-219-400 Minimum requirements. Reclaimed water must meet the minimum technology-based treatment and reliability standards required for the use authorized under this chapter.

NEW SECTION

WAC 173-219-410 Source control and pretreatment requirements. Source water controls must prevent the presence of substances that may affect the reclaimed water quality or the ability to generate reclaimed water. Source water to reclaimed water generating plants must comply with the applicable requirements for:

(1) Pretreatment of industrial wastewater under 40 CFR Part 403, sections 307(b) and 308 in the Federal Water Pollution Control Act, and chapter 90.48 RCW.

(2) Discharge restrictions and prohibitions for dangerous waste under chapter 173-303 WAC and WAC 173-216-060.

(3) Restrictions and prohibitions of certain substances entering an on-site sewage system under WAC 246-272B-06000, WAC 246-272B-07050, and WAC 246-272A-0270.

NEW SECTION

WAC 173-219-420 Class A reclaimed water. Reclaimed water must meet one of the minimum technology-based treatment methods and all applicable performance standards established in this section to meet the treatment requirements for Class A.

(1) **Allowable treatment methods.**

(a) The traditional treatment method consists of unit processes for biological oxidation, followed by coagulation, filtration, and disinfection.

(b) Membrane filtration methods consist of biological oxidation, followed by membrane filtration and disinfection or a membrane bioreactor combining the biological oxidation and membrane filtration processes followed by disinfection.

(c) Alternative treatment methods must demonstrate an equivalent treatment process in a reclaimed water engineering report. Minimum performance standards for an equivalent process must demonstrate that reclaimed water quality limits are consistently

achieved through proper design, operation and maintenance of each of the treatment units in that process.

(2) **Biological oxidation performance standards.**
(a) A reclaimed water plant receiving effluent from a domestic wastewater treatment plant is considered to meet the biological oxidation performance standard provided the effluent received meets or exceeds the minimum secondary treatment requirements in WAC 173-221-040.
(b) A reclaimed water plant receiving untreated or partially treated wastewater must meet the following performance standards for biological oxidation at a sampling point prior to filtration:
(i) Dissolved oxygen must be measured within the biological oxidation process and must be present in all samples.
(ii) Five-day biochemical oxygen demand (BOD5) must be measured as a twenty-four-hour composite sample in the effluent from the biological oxidation process. BOD5 must not exceed a monthly average of 30 milligrams per liter (mg/L) BOD or a weekly average of 45 mg/L.
(iii) Total suspended solids (TSS) must be measured as a twenty-four-hour composite sample in the effluent from the biological oxidation process. TSS must not exceed a monthly average of 30 mg/L or a weekly average of 45 mg/L TSS.
(iv) pH must be measured in the effluent from the biological oxidation process. The pH must be between 6.0 and 9.0 standard units unless:
(A) Inorganic chemicals are not added to the waste stream as part of the treatment process; and
(B) Contributions from industrial sources are not the cause of the pH less than 6.0 or greater than 9.0.

(3) **Coagulation/filtration performance standards.**
(a) Turbidity must be continuously measured following filtration and must not exceed a monthly average of 2 NTU or exceed 5 NTU at any time.
(b) The lead agency may waive the requirement in subsection (2)(b) of this section to measure TSS and BOD5 prior to filtration. If BOD5 is not measured before filtration, it must be measured as a twenty-four-hour composite sample after the filtration process, and BOD5 at that point must not exceed a monthly average of 10 mg/L.

(4) **Membrane filtration performance standards.**
(a) Turbidity must be continuously measured following filtration and must not exceed a monthly average of 0.2 NTU or exceed 0.5 NTU at any time.
(b) The lead agency may waive the requirement in subsection (2)(b) of this section to measure TSS and BOD5 prior to filtration. If BOD5 is not measured before filtration, it must be measured as a twenty-four-hour composite sample after the filtration process, and BOD5 at that point must not exceed a monthly average of 10 mg/L.

(5) **Total coliform bacteria performance standards.** Total coliform bacteria must be measured in the final, disinfected reclaimed water at the entry point to the distribution system. Grab samples must not exceed a seven-day median reported as 2.2 MPN/100mL or a sample maximum of 23. The lead agency may approve other standard methods and criteria that are equivalent to these MPN values.

(6) **Virus study.** The virus study must demonstrate that the disinfection treatment component(s) is able to remove or inactivate viruses in the reclaimed water.
(a) The engineering design of the virus study must assure that the proposed reclaimed water disinfection method will reliably achieve minimum disinfection performance criteria including:
(i) 5-log virus removal or inactivation following filtration; or
(ii) 4-log virus removal or inactivation following filtration if preceded by coagulation, flocculation and sedimentation unit processes; or
(iii) 4-log removal or inactivation following MF or UF membrane processes.
(b) The disinfection method design shall assure conformance with:
(i) Accepted empirical design standards and practices; or
(ii) A challenge study or pilot plant demonstration specific to the project conditions; or
(iii) An acceptable third-party challenge study or equipment verification study acceptable to the lead agency; or
(iv) 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.

NEW SECTION
WAC 173-219-430 Class B reclaimed water. Reclaimed water must meet the minimum technology-based treatment methods and all applicable performance standards established in this section to meet the treatment requirements for Class B.

(1) Class B reclaimed water requires biological oxidation followed by disinfection.

(2) Biological oxidation performance standards are the same as in WAC 173-219-420 except that the performance standard may be measured in the final Class B reclaimed water.

(3) Total coliform bacteria must be measured in the final, disinfected reclaimed water before distribution. Grab samples must not exceed a seven-day median reported as 23 MPN/100mL or a sample maximum of 240. The lead agency may approve other standard methods and criteria on a case-by-case basis.

NEW SECTION
WAC 173-219-440 Disinfection process standards. (1) The disinfection process for Classes A and B may use chlorination, ultraviolet light, or any other system approved by the lead agency in

accordance with the most recent edition of the state of Washington *Reclaimed Water Facilities Manual* or other accepted standard engineering practices for reclaimed water disinfection. The engineering report must demonstrate, to the satisfaction of the lead agency, that the proposed method consistently provides the required level of adequate and reliable disinfection.

(2) **Chlorine.** Chlorination disinfection processes must at a minimum meet a disinfectant concentration (C) of 1.0 mg/L measured as free chlorine, a disinfectant contact time (T) of thirty minutes measured, as "t10" at peak hourly flow, and a combined CT value of 30 mg/min per liter.
(a) The lead agency may specify a higher minimum C, T, or CT value where needed to assure adequate pathogen reduction.
(b) The lead agency may approve an alternative CT measurement and disinfection process including, but not limited to, C values based on total chlorine residual at peak hourly flow and T values determined through an acceptable residence time distribution analysis of the contact chamber. The alternative must demonstrate, to the satisfaction of the lead agency, that it consistently provides an equivalent degree of public health and environmental protection.
(c) The proposed CT and method of measurement must be addressed within the engineering report.
(d) Pipelines or other facilities proposed or used to meet a minimum required T value must be considered as part of the reclaimed water plant's disinfection unit process. Reliability requirements must be included in the engineering report.

(3) **Ultraviolet light.** Ultraviolet light disinfection processes must be designed and installed to conform to recognized standards and engineering practices developed for use in reclaimed water plants. Acceptable methods include the criteria in the most recent edition of:
(a) *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; and
(b) State of Washington, department of ecology *Reclaimed Water Facilities Manual*.

(4) **Other disinfection methods.** A disinfection process demonstrated as equivalent to chlorination or ultraviolet light must be documented in an engineering report that is approved by the lead agency.

(5) **Field commission tests.** Disinfection processes and facilities shall be tested and verified prior to producing and using reclaimed water. The field commissioning test shall include all processes, equipment, and reactors used in the production of reclaimed water. Adequate procedures and acceptable field commissioning tests shall be addressed during the design of the disinfection facilities. Field commission tests shall be

conducted in conformance with a field commissioning test plan approved by the lead agency prior to beginning the test and should be consistent with the most recent edition of the state of Washington *Reclaimed Water Facilities Manual.*

NEW SECTION

WAC 173-219-450 Treatment reliability. (1) All reclaimed water plants must be designed and operated to meet the reliability requirements in this section. The methods and criteria must be approved by the lead agency as part of the engineering report and the operation and maintenance manual.

(2) **Bypassing prohibited.** Bypassing of untreated or partially treated wastewater from the approved reclaimed water plant to the distribution system or to the point of use is prohibited. Reclaimed water plants must either store inadequately treated wastewater for additional treatment; or have authorization to discharge the wastewater to another permitted site, or both, if required by the lead agency.

(3) **Storage.** Storage used for treatment reliability must:
(a) Be reserved for the intended purposes.
(b) Include all the necessary diversion works, conduits, and pumping and pump back equipment.
(c) Provide a power supply independent of the primary power supply or a standby source for all diversion equipment.
(d) Provide adequate capacity that may include multiple treatment trains or standby replacement equipment acceptable to the lead agency.

(4) **Discharge.** Discharge locations used for treatment reliability must:
(a) Have all required authorization and permits for the discharge location.
(b) Include all the necessary diversion works, conduits, and pumping and pump back equipment.
(c) Provide a power supply independent of the primary power supply or a standby power source for all diversion equipment.

(5) **Automated diversions.** Automated diversions used for treatment reliability must have all necessary sensors, instruments, valves, and other devices to enable fully automatic diversion to the approved location. The reset process must be manually operated to prevent automatic restart.

(6) **Alarms required.** Alarm systems are required reliability features at all reclaimed water plants. Alarm systems used as treatment reliability features must:
(a) Provide alarm systems 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 features as required in the approved engineering report.
(b) Be independent of the primary power supply of the reclaimed water plant.
(c) Sound at an attended location that will alert the responsible operator in charge or designee available to take immediate corrective action.

Subpart B Operational Storage and Distribution

NEW SECTION

WAC 173-219-500 Operational storage of reclaimed water. (1) **Applicability.** This section applies only to the storage of reclaimed water for the purpose of adequate and reliable operation. These requirements are in addition to all other applicable requirements in this rule. This section does not apply to either storage for treatment reliability in WAC 173-219-450 or aquifer storage in WAC 173-219-630.

(2) **Operational storage or diversion.** Whenever reclaimed water is generated that cannot be used as permitted, the permittee or person maintaining control must store the reclaimed water until it can be used, or divert it to a different approved use, or discharge it to a permitted wastewater discharge location. The provisions of WAC 173-219-510 and 173-219-520 apply, unless waived by the lead agency.

(3) **Storage design.** Storage capacity design calculations must be reasonably consistent with methods provided in the most recent edition of the state of Washington *Reclaimed Water Facilities Manual*, and consider the following:
(a) Types of use;
(b) Supply, demand and operating requirements and agreements;
(c) Potential for impact to human health and the environment;
(d) Frequency and duration of adverse weather conditions such as precipitation or frozen ground that would preclude use;
(e) Shut down for system maintenance and repair; and
(f) Other factors that may limit or prevent the planned use of reclaimed water.

(4) **Notice of facility location(s).** The person proposing to generate reclaimed water must locate, identify and provide notice of proposed reclaimed water storage or diversion facilities to all owners of:
(a) Potable water supplies with sources located within
(i) 1000 feet, if groundwater;
(ii) 100 feet, if surface water or groundwater under the influence of surface water; or
(iii) An area determined by the lead agency, based on the hydrogeology and soil type of the storage or diversion facilities area; and
(b) All other water supplies with sources located within 1000 feet.

(5) **Distance to public water supply well.** The minimum horizontal distance between a public water supply well and reclaimed water storage facilities such as impoundments or ponds, must comply with restrictions for the sanitary control area established under WAC 246-290-135 for Group A public water supplies and for all other potable water supplies, under WAC 246-291-100.

(6**)** Distance to a public water supply surface water or designated groundwater under the influence of surface water intake. The minimum horizontal distance between reclaimed water operational storage and public source water intakes shall be determined in the reclaimed water engineering report prepared under WAC 173-219-160(3).

NEW SECTION

WAC 173-219-510 Maintenance of chlorine residual. Chlorine residual must be maintained as follows:

(1) **Chlorine residual.** A minimum chlorine residual of **≥** 0.2 mg/L free chlorine or **≥** 0.5 mg/L combined or total chlorine is required in pipeline distribution systems conveying the reclaimed water from the generating plant to the point of use. The lead agency may waive or modify the requirements for maintaining a chlorine residual during storage or conveyance to the point of use, if the applicant demonstrates a benefit from reducing or eliminating the chlorine residual.

(2) **Chlorine residual for use areas.** A chlorine residual is not required in reclaimed water impoundments, storage ponds, and storage tanks at the point of use, or for conveyance along natural streams, lakes, or surface waters of the state. However, the lead agency may require maintenance of a chlorine residual within distribution systems within the use area to prevent biological growth, prevent deterioration of reclaimed water quality, or to protect public health.

NEW SECTION

WAC 173-219-520 Distribution system requirements. (1) **Labeling.** All new reclaimed water piping, valves, outlets, storage facilities and other appurtenances must be labeled and color-coded purple (Pantone 512, 522 or other shade approved in the engineering report), identified with purple tape, or otherwise marked to clearly identify the water conveyed as nonpotable reclaimed water, and in conformance of the most recent edition of the Uniform Plumbing Code amended for Washington state, where applicable. If the lead agency approves the conversion of existing storage and distribution systems to reclaimed water use, all accessible points must be labeled as reclaimed water at the time of conversion and any inaccessible locations must be labeled at the time of repair or replacement.

(2) **Pipe separation.** Reclaimed water distribution systems must provide adequate separation between the underground reclaimed water lines and sanitary sewer lines, storm sewer lines, potable water lines, and potable water wells in order to protect public health. The engineering report must provide:
(a) The rationale for all pipeline separation distances proposed, both horizontal and vertical.
(b) Consistency with the most recent edition of *Pipeline Separation Design and Installation Reference Guide* by ecology and health.

(3) **Notice of facility location.** In order to protect public health, the person proposing to generate reclaimed water must locate, identify and provide notice to and coordinate with all owners of potable water supply treatment and distribution facilities and sources identified in section 500(4) of a potential reclaimed water distribution system and any changes thereto.

(4) **Cross-connection control.** Cross-connections between the reclaimed water and potable water and between the reclaimed water and wastewater, storm water or other systems of lower water quality are prohibited. The reclaimed water distributor must coordinate the permittee's cross-connection control program with any water purveyor that provides potable water to reclaimed water distribution and use areas so that the purveyors can amend their cross connection control plan required under WAC 246-290-490 as appropriate. The reclaimed water permittee and distributor shall comply with all affected potable water purveyor's cross-connection control program requirements, including for premises isolation by air gap or reduced principle backflow assembly, established under WAC 246-290-490 to protect public health.

(5) **Other design requirements.** Reclaimed water distribution pipe material, valves, valve covers, hydrants, and associated components must comply with the most recent *Planning for the Distribution of Reclaimed Water - M24* by American Water Works Association manual or other recognized standard engineering practices for reclaimed water distribution systems.

NEW SECTION
WAC 173-219-530 Distribution by transport vehicles. Tank trucks or similar transport vehicles may be used to distribute reclaimed water provided:
(1) The vehicle is clearly identified with reclaimed water advisory signs.
(2) Hazardous or dangerous waste or water of lower quality is not present in the containers used to transport reclaimed water. Containers that have transported dangerous wastes must be cleaned in accordance with requirements in chapter 173-303 WAC.
(3) The operation and maintenance manual includes provisions for the use of transport vehicles.

NEW SECTION

WAC 173-219-540 Conveying reclaimed water through surface waters of the state. (1) **Applicability.** Surface waters of the state may be used to convey reclaimed water from the point of generation to the point of diversion in accordance with the provisions of RCW 90.03.030 and chapters 90.46 and 90.48 RCW. Water withdrawn must be for beneficial use. The conveyance of the reclaimed water must be as described in an approved reclaimed water plan and engineering report.

(2) **NPDES permit required.** Reclaimed water conveyed through any surface water of the state for downstream withdrawal must meet all applicable requirements of the Federal Water Pollution Control Act and chapter 90.48 RCW and must be issued an NPDES permit in accordance with the requirements of chapter 173-220 WAC and this chapter. The reclaimed water permit compliance point is at the point of discharge to the surface water.

(3) **Conveyance report.** For projects proposing conveyance in waters of the state, ecology must approve a conveyance report as part of the engineering report. The report must address how the following requirements are met:
(a) The maximum quantity of water diverted for beneficial use must equal the amount discharged minus evaporation, seepage, and other losses, including any from potentially affected senior water right holder, as determined by ecology.
(b) The distance and time interval between discharge and diversion as specified by ecology.
(c) The total volume of reclaimed water discharged and conveyed must not raise the intervening surface water body above the ordinary high water mark of that body of water.

(4) The reclaimed water permit must include conditions assuring the conveyance and diversion of water as approved in the engineering report. The reclaimed water permit conditions must specify:
(a) Enforceable limits and monitoring requirements.
(b) The distance and time interval between discharge and diversion.
(c) The distance and time interval between the reclaimed water discharge and any potentially affected potable supply intakes.
(d) Requirements for an enforceable contract with each person diverting or using the conveyed reclaimed water.
(e) Measurement and recording of the location, rate, frequency, timing, and duration of each diversion.
(f) Recordkeeping and reporting of requested data to ecology.
(g) Circumstances requiring cessation of discharge, conveyance or diversion.

Subpart C Use-Based Requirements

NEW SECTION
WAC 173-219-550 Use area requirements. (1) **General requirements.** The labeling, pipeline separation, cross-connection control, and

other design requirements of WAC 173-219-520 apply to all use areas unless otherwise specified by the lead agency.

(2) **Other cross-connection requirements.** Where both reclaimed water and potable water are supplied to any use area:
(a) The permittee, the user and the owner of a use site must install:
(i) A DOH-approved air gap or reduced pressure principle backflow assembly for premises isolation to protect the public water system from contamination.
(ii) The premises isolation backflow preventer at the potable water service connection or meter as required in WAC 246-290-490, and in conformance with the installation standards of the potable water supplier, as required in WAC 246-290-490.
(b) If potable water is used to supplement reclaimed water at a use site the use site owner must ensure that:
(i) The potable water is supplied through an approved air gap as required in the Uniform Plumbing Code amended for Washington state;
(ii)The air gap is inspected for compliance with the approved air gap definition by a DOH-certified backflow assembly tester or cross-connection control specialist at the time of installation or re-plumbing and at least at 12–month intervals thereafter; and
(iii) Results of air-gap inspections are reported to the lead agency in the permit summary plan.
(c) Reclaimed water shall not be used to flush toilets or for other indoor use in any residential property or dwelling unit where residents have access to plumbing systems for repairs or modifications.

(3) **Signage or advisory notification.** The permittee or user must notify the public and employees at the use site of the use of reclaimed water in all use areas by the posting of advisory signs, distribution of written advisory notices, or both. Signage must be clearly visible, emphasize the color purple and read "Reclaimed Water - Not For Drinking," or other language acceptable to DOH or required by the most recent edition of the Uniform Plumbing Code as amended for Washington State, when applicable. DOH may approve other methods of notification that provide equivalent public health protection.

(4) **Confined to site.** Reclaimed water, including runoff and spray, must be confined to the designated and approved use area.

(5) **Restricted operation.** All reclaimed water valves and outlets must be of a type, or secured in a manner, that permits operation only by authorized personnel. Access to hose bibs on reclaimed water lines must be controlled or restricted.

NEW SECTION
WAC 173-219-560 Facility maintenance uses. When under the direct control of responsible maintenance personnel, reclaimed water may be used:

(1) Within the bounds of the reclaimed water plant for purposes such as process water, wash down water, yard hydrants, and site irrigation subject to WAC 173-219-550(5).
(2) At other restricted locations within the sanitary sewer collection system for flushing of the sanitary sewers and for pump station maintenance.

NEW SECTION

WAC 173-219-570 Commercial, industrial and institutional uses.

(1) **Applicability.** This section applies only to commercial, industrial, and institutional uses of reclaimed water. These requirements are in addition to all other applicable requirements in this chapter.

(2) **Uses with public contact.** Class A technology-based standards apply to all uses where public or general employee contact is likely. These uses include, but are not limited to, toilet and urinal flushing, street washing, decorative fountains and similar water features, cooling water that produces mists or aerosols, fire control hydrants and indoor sprinkler systems, and industrial process water with worker exposure, and indoor residential uses consistent with locally adopted plumbing codes.

(3) **Uses or storage with environmental contact.** Class A technology-based standards shall apply to all uses with significant potential for site runoff or seepage. These uses must minimize the potential for adverse impacts to the environment including aesthetics, algal growth, runoff, and discharges to waters of the state. Ponds or other water features that are not lined or sealed to prevent seepage may be approved provided the engineering report demonstrates how the ground water quality standards in chapter 173-200 WAC are met. All outlets flowing from reclaimed water storage or use sites to surface waters must meet all applicable requirements of the Federal Water Pollution Control Act and chapter 90.48 RCW.

(4) **Uses with restricted access.** The Class B technology-based standards shall apply to uses with restricted access where contact is limited to qualified personnel and there is little potential for environmental impact. These uses include, but are not limited to, emergency dumping from aircraft for firefighting, damp sweeping, noncontact cooling water with mist or aerosol suppression, noncontact process water, and ship ballast water.

(5) **Water quality characterization.** In addition to the minimum technology based standards, the quality of the reclaimed water must be characterized sufficiently to assure it is appropriate for the approved uses. Characterization must include the parameters listed in standard manuals of practice applicable to the types of use. Where approved:
(a) Reclaimed water may be blended with potable or other nonpotable water supplies; or

(b) Additional treatment may be provided at the use site to meet required water quality.
(6) **Use management plan.** A use management plan is required. See WAC 173-219-160(4).

NEW SECTION
WAC 173-219-580 Land applications--Landscape irrigation. (1) **Applicability.** This section applies only to landscape irrigation uses of reclaimed water. These requirements are in addition to all other applicable requirements in this chapter.

(2) **Uses with public contact.** The Class A technology-based standards shall apply to all uses where public or employee contact is likely. These uses include, but are not limited to, public areas such as parks, playgrounds, golf courses, common areas, and private property including individual residences.

(3) **Uses with restricted access and contact.** The Class B technology-based standards shall apply to uses with restricted access and contact limited to specialized personnel. These uses include, but are not limited to, highway medians and fenced industrial properties. The minimum setback distance between the area subject to spray or surface irrigation and any public use area is fifty feet.

(4) **Uses or storage with environmental contact.** The Class A technology-based standards shall apply to all uses with significant potential for site runoff or seepage. Uses must minimize the potential for adverse impacts to the environment including aesthetics, algal growth, runoff, and discharges to waters of the state. Ponds or other water features that are not lined or sealed to prevent seepage may be approved in the engineering report provided the report demonstrates how the ground water protection standards in chapter 173-200 WAC are met. All applications of reclaimed water to state waters must meet all applicable requirements of the Federal Water Pollution Control Act and chapter 90.48 RCW.

(5) **Agronomic rates and water quality characterization.** The application of irrigation water is limited to methods and agronomic rates established in standard manuals of practice appropriate to the type of landscape irrigated. In addition to the minimum technology-based standards, the quality of the reclaimed water must be characterized sufficiently to assure it is appropriate for the uses approved in the engineering report. Constituents such as salts, nutrients, organic, and inorganic compounds may adversely affect soil or plants when applied for irrigation. Characterization must include the parameters listed in standard industry manuals of practice applicable to the types of vegetation and irrigation methods. Where approved by the lead agency:
(a) Reclaimed water may be blended with potable or other nonpotable water supplies;
(b) Additional treatment may be provided at the use site; or

(c) Additional restrictions may apply to meet the required water quality for a specific use.

(6) **Use management plan.** A use management plan or supplement thereof meeting the requirements in WAC 173-219-160(4) is required.

NEW SECTION

WAC 173-219-590 Land application--Agricultural irrigation.

(1) **Applicability.** This section applies only to agricultural irrigation uses of reclaimed water. These requirements are in addition to all other applicable requirements in this chapter.

(2) **Uses with public contact.** The Class A technology-based standards shall apply to all uses where public contact is likely.

(3) **Food crops.** The Class A technology-based standards shall apply to all uses of reclaimed water for food crop production except where otherwise specified in this section.

(4) **Frost protection of orchard crops.** The Class B technology-based standards shall apply to reclaimed water use for frost protection of orchard crops provided the crops are not harvested for at least fifteen days. The minimum setback distance between the area subject to spray or surface irrigation and any public use area is fifty feet.

(5) **Surface irrigation of orchards or vineyards.** The Class B technology-based standards shall apply to irrigation uses where the fruit does not contact the irrigation water or the ground, except that the total coliform bacteria standard is 240 MPN/100ml as a seven-day median. The minimum setback distance between the area subject to spray or surface irrigation and any public use area is fifty feet.

(6) **Processed food crops.** The Class B technology-based standards shall apply to irrigation uses for food crops that are processed by physical or chemical methods sufficient to destroy all pathogenic agents before distribution, sale, or use except that the total coliform bacteria standard is 240 MPN/100ml as a seven-day median. The minimum setback distance between the area subject to spray or surface irrigation and any public use area is fifty feet.

(7) **Nonfood crops.** The Class B technology-based standards shall apply to all nonfood crop production uses for trees, fodder, fiber, or seed crops and pastures. The minimum setback distance between the area subject to spray or surface irrigation and any public use area is fifty feet.

(8) **Trees, fodder, fiber, or seed crops in pastures not accessed by milking animals.** Class B technology-based standards shall apply to

irrigation uses on trees, fodder, fiber or seed crops in pastures not accessed by milking animals except that the reclaimed water meets a total coliform bacteria limit of 240 MPN/100ml as a seven-day median. The minimum setback distance between the area subject to spray or surface irrigation and any public use area is fifty feet.

(9) **Agronomic rates and water quality characterization.** The application of irrigation water is limited to methods and agronomic rates established in standard manuals of practice appropriate to the type of crop irrigated. In addition to the minimum technology-based standards, the quality of the reclaimed water must be characterized sufficiently to assure it is appropriate for the uses approved in the engineering report. Constituents such as salts, nutrients, organic and inorganic compounds may adversely affect soil or plants when applied for irrigation. Characterization must include the parameters listed in standard industry manuals of practice applicable to the crops and irrigation methods. Where approved by the lead agency:
(a) Reclaimed water may be blended with potable or other nonpotable water supplies;
(b) Additional treatment may be provided at the use site; or
(c) Additional restrictions may apply to meet the required water quality for a specific use.

(10) **Use management plan.** A use management plan under WAC 173-219-160(4) is required.

NEW SECTION
WAC 173-219-600 Wetlands. (1) **Applicability.** This section applies only to uses of reclaimed water in wetlands. These requirements are in addition to all other applicable requirements in this chapter.

(2) **Other applicable laws.** Any use of reclaimed water in wetlands must be consistent with the applicable requirements of the Federal Water Pollution Control Act, chapters 90.48 and 90.58 RCW, and local government adopted critical areas ordinances and any other applicable laws.

(3) **General requirements for all allowable uses in wetlands.**
(a) Unless net environmental benefits are authorized, Class A technology-based standards shall apply in addition to the requirements below.
(b) Reclaimed water must not exceed 20 mg/L BOD5, 20 mg/L TSS, 3 mg/L - N total Kjeldahl nitrogen, and 1 mg/L-P measured as annual average concentrations.
(c) Un-ionized ammonia concentrations must comply with the Washington chronic toxicity standards in chapter 173-201A WAC for freshwater systems.
(d) Metal concentrations in reclaimed water must comply with the surface water quality standards in chapter 173-201A WAC, unless acute whole effluent toxicity testing using daphnids demonstrates absence of toxicity.

(4) **Use in Category I wetlands and Category II wetlands with special characteristics.** In order to protect sensitive wetland functions and values, the use of reclaimed water is not allowed in wetlands designated as Category I or Category II with special characteristics under the state of Washington wetland rating system unless a net environmental benefit to the wetland has been clearly demonstrated in the approved engineering report. Examples of these wetlands include estuarine, coastal lagoons, interdunal wetlands, vernal pools, and forested wetlands in eastern Washington.

(5) **Use in all other Category II and in Category III or IV wetlands.** Reclaimed water is encouraged for the restoration or enhancement in wetlands designated as Category II, III, or IV under the state of Washington wetland rating system.

(a) Reclaimed water use is limited to an annual hydraulic load ≤ 2 cm/day in Category II wetlands and ≤ 3 cm/day in Category III or IV wetlands unless a net environmental benefit to the wetland has been clearly demonstrated in the approved engineering report.

(b) For depressional wetlands, reclaimed water use is limited to an increase of 10 cm above the natural average monthly water level unless it has been clearly demonstrated in the approved engineering report that a higher increase in water level provides a net environmental benefit to the wetland.

(6) **Monitoring requirements.** Monitoring requirements must be sufficient to document the protection or enhancement of the beneficial uses and biological criteria established for the wetland, public health and the environment such as ground water and surface water impacts.

(7) **Engineering report for wetlands uses.** The engineering report must include baseline information and background studies necessary to evaluate the proposed project, including:

(a) The wetland rating category, size, hydrogeomorphic class, and vegetation class of the existing and proposed wetlands.

(b) The beneficial uses of the existing and proposed wetland.

(c) The hydrologic regime of the existing and proposed wetland, including depth and duration of inundation, average monthly water level fluctuations, and annual loadings of reclaimed water to the wetlands.

(d) Characterization of the quality of reclaimed water to be used.

(e) The assimilative capacity of the wetland, the anticipated or actual changes in the timing, quantity and quality of the water leaving the wetland, and the potential for degradation of existing ground water or surface water quality from the use of reclaimed water.

(f) Any studies conducted or additional information applicable to the specific project or site.

(g) 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 provides full and uninterrupted protection of all significant beneficial uses existing in the wetland prior to the use of reclaimed water and creates new or enhances the existing beneficial uses of the wetland.

(8) **Mitigation wetlands.**

(a) Any wetland constructed to provide compensatory mitigation for natural wetlands must be consistent with the requirements established in an ecology-approved wetland mitigation plan. Use of reclaimed water for mitigation to impacts of federal jurisdictional wetlands requires additional approvals and permits from the U.S. Army Corps of Engineers or the USEPA. Guidance is available to assist in site selection and preparation of wetland mitigation plans.

(b) Only reclaimed water, which is Class A, may be used to establish wetland vegetation or its buffer during construction of a mitigation wetland.

(c) Reclaimed water meeting the requirements for use in wetlands may be used to provide a temporary supplemental water source to protect or enhance wetlands functions and values after the mitigation wetland is established.

(9) **Constructed treatment wetlands.**

(a) Reclaimed water may be used for the following constructed treatment wetlands as defined in RCW 90.46.010(5):

(i) The Class B technology-based standards shall apply to all uses in constructed treatment wetlands. Constructed treatment wetlands may provide additional treatment or retention of reclaimed water to prepare it for another use or may use the reclaimed water to construct or supplement wetlands used for wastewater treatment or stormwater management.

(ii) Wetland water features specifically constructed in parks or on wetland sites to provide aesthetic, recreational, or educational benefits. The Class A technology-based standards shall apply to all uses in constructed wetlands where public contact is likely.

(b) The lead agency may establish additional monitoring requirements to assure that the use of reclaimed water in a constructed treatment wetland is sufficient to protect the wetland functions and values, public health and the environment.

(c) The following information is required as part of the reclaimed water engineering report for a constructed treatment wetland.

(i) The location and proposed uses of reclaimed water in the constructed treatment wetland.

(ii) The proposed functions and values of the constructed treatment wetland.

(iii) The quality of reclaimed water to be used.

(d) Wetland design including influent and effluent structures, grading, linings, berms, vegetation, flow patterns, and number of cells.
(i) The relationship to and potential for impact to ground water quality.
(ii) The relationship to and potential for impact to surface water quality and additional information applicable to the specific project or site as required by the lead agency.

NEW SECTION

WAC 173-219-610 Streamflow and surface water augmentation.

(1) **Applicability.** This section applies only to uses of reclaimed water for streamflow or surface water augmentation. These requirements are in addition to all other applicable requirements in this rule.

(2) Projects must meet all applicable requirements of the Federal Water Pollution Control Act, chapters 90.48 RCW, 173-220, and 173-201A WAC.

(3) **Use in primary recreation impoundments.** The Class A technology-based standards shall apply to all uses for augmentation directly into primary recreation impoundments.

(4) **Use in potable water supply impoundments.** The Class A technology-based standards shall apply to all uses for augmentation directly into raw water impoundments used as a source of water supply.

(5) **Use in other surface waters.** The Class B technology-based standards shall apply to all other uses for direct augmentation of surface water.

(6) **Use for indirect augmentation of surface water via ground water.** The lead agency shall establish requirements for indirect augmentation of surface water by ground water recharge on a case-by-case basis.

(7) **Monitoring.** The lead agency may establish additional monitoring requirements to assure that the use of reclaimed water is sufficient to protect the surface water, public health and the environment.

(8) **Engineering report.** The following information is required as part of the reclaimed water engineering report:
(a) The location and proposed augmentation uses of the reclaimed water.
(b) The quality of reclaimed water to be used.
(c) A description of the receiving water, applicable water quality standards, potential for impact to surface water quality and how water quality standards will be met outside any applicable dilution zone.
(d) Determination of adequate time of travel and distance between the reclaimed water discharge point and any nearby downstream

surface water or groundwater under the influence of surface water intake for potable water, based on protecting public health and on not causing additional intake modifications or treatment requirements for the production of potable water.
(e) The degree of treatment required based upon applicable permits and rules, the receiving body of water, and other influencing factors.

NEW SECTION

WAC 173-219-620 Ground water recharge.

(1) **Applicability.**

This section applies only to uses of reclaimed water for ground water recharge. These requirements are in addition to all other applicable requirements in this chapter. The project description must clearly specify the planned intent to recharge ground water and the relevant site characteristics.

(2) **Other applicable laws.**

(a) Reclaimed water used for any ground water recharge project must meet all applicable requirements of chapter 90.48 RCW including chapter 173-200 WAC for the protection of ground water.
(b) The minimum horizontal distance between a ground water recharge site and any potable water supply well, or surface water and groundwater under the influence of surface water intakes must comply with restrictions for adequate source water protection under chapters 246-290 and 246-291 WAC.
(i) Notice of ground water recharge use of reclaimed water shall be provided to all Group A water purveyors, if it is within their watershed control area or 5 year time of travel for their Group A public water supply well head as defined in WAC 246-290-135.
(ii) Surface percolation or direct recharge to ground water recharge is prohibited within the sanitary control area established in WAC 246-290-135 for Group A public potable water supplies and WAC 246-291-100 for all other potable water supplies.

(3) **Recharge by surface percolation.** The Class A technology-based standards plus biological nitrogen reduction shall apply for all uses of reclaimed water to recharge ground water by surface or vadose zone percolation except as described in subsection (5) of this section. Total nitrogen must be reduced within the biological oxidation treatment process. Total nitrogen measured in the final, disinfected reclaimed water before ground water recharge must not exceed a monthly average of 10 mg/L or a sample maximum of 15 mg/L.

(4) **Recharge directly into ground water.** The technology-based standards for recharge by percolation plus reverse osmosis shall apply to all uses of reclaimed water used for direct recharge of ground water except as in subsection (5) of this section. The following performance standards apply:

(a) Total nitrogen measured in the final, disinfected reclaimed water before ground water recharge must not exceed a monthly average of 10 mg/L or a sample maximum of 15 mg/L.
(b) Turbidity must be continuously measured following reverse osmosis treatment and must not exceed a monthly average of 0.1 NTU or exceed 0.5 NTU at any time.
(c) Total organic carbon (TOC) must be measured in the final, disinfected reclaimed water before direct recharge. TOC must not exceed a monthly average of 1.0 mg/L based on twenty-four-hour composite samples.
(d) Total coliform bacteria must be measured in the final, disinfected reclaimed water before direct recharge. Grab samples must not exceed a seven-day median reported as 1 MPN/100mL or a sample maximum of 5. The lead agency may approve other standard methods and criteria that are equivalent to these MPN values.

(5) **Enforceable limits.** Enforceable limits must be established in permits at levels that will be protective of the ground water quality beneath the recharge application site.
(a) Limits must consider the:
(i) Potential for the parameter to be in the reclaimed water.
(ii) Existing ground water quality.
(iii) Existing and proposed uses of the recharge ground water.
(iv) Antidegradation provisions of state waters in chapter 173-200 WAC.
(v) Point where compliance is measured.
(b) Enforceable limits are based on the following state standards:
(i) Drinking water standards adopted by the state of Washington under chapter 246-290 WAC; and
(ii) Water quality standards for ground waters adopted by the state of Washington under chapter 173-200 WAC.

(6) **Point of compliance.** For each parameter, the lead agency establishes the location(s) where the enforceable limit for each parameter applies. The point of compliance may be:
(a) In the reclaimed water before recharge.
(b) Within the ground water as near the reclaimed water recharge location as technically, hydrogeologically, and geographically feasible.
(c) At an alternative point some distance from the reclaimed water recharge location up to but not exceeding the property boundary.
(d) In the surface water beyond the property boundary when needed for compliance with chapter 173-201A WAC.

(7) **Monitoring requirements.** Monitoring requirements must be sufficient to document the protection of public health and ground water quality at the designated point(s) of compliance.

(8) **Engineering report.** The following information is required as part of the reclaimed water engineering report.

(a) Information requested by the lead agency necessary to assess the specific treatment and use of reclaimed water for application to recharge ground water.
(b) Site specific soil and hydrogeologic information necessary to characterize and evaluate the ground water recharge site using criteria from chapter 173-157 WAC, WAC 173-157-110 through 173-157- 170, and chapter 173-200 WAC, as applicable.
(c) A pilot plant study, if needed.

NEW SECTION
WAC 173-219-630 Aquifer storage and recovery. This section applies only to the artificial storage of reclaimed water in underground geological formations and subsequent recovery for beneficial use permitted under this chapter. These requirements are in addition to all other applicable requirements in this rule. The provisions of this chapter do not limit any person's ability to submit an application for and acquire water rights appropriated under RCW 90.03.250 and 90.44.060.

(1) **Water right permit exemption.** Use, distribution, and recovery of reclaimed water from aquifer storage are exempt from the permit requirements of RCW 90.03.250 and 90.44.060.

(2) **Engineering report.** The following information is required as part of the reclaimed water engineering report. A professional hydrogeologist licensed by the state of Washington must prepare the geological information required.
(a) Reclaimed water aquifer storage and recovery projects must meet the standards for mitigation of impacts and review established under RCW 90.03.370(2) for artificial underground storage and recovery. These standards are described in RCW 90.03.370(2) and WAC 173-157-110 through 173-157-170.
(b) Any withdrawal facilities constructed solely for extracting reclaimed water from the underground must comply with chapters 173-136, 173-150, and 173-157 WAC.

(3) **Reclaimed water permit conditions.** The reclaimed water permit must include appropriate conditions authorizing and controlling the storage, recovery, and subsequent uses of the reclaimed water. Conditions must include estimated time frames for recovery of the reclaimed water based on the hydrogeologist report. Ecology may modify the reclaimed water permit and the recovery time based on later, supplemental documentation.