

DEPARTMENT OF ENVIRONMENTAL QUALITY

**DIVISION 55
RECYCLED WATER USE**

340-055-0005

Purpose

These rules (OAR 340-055-0005 to 340-055-0030) prescribe requirements for the use of recycled water for beneficial purposes. The purpose of this division is to protect the environment and public health in the State of Oregon.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710

Stats. Implemented: ORS 468B.015 & ORS 468B.020

340-055-0007

Policy

It is the policy of the Environmental Quality Commission to encourage the use of recycled water for domestic, agricultural, industrial, recreational, and other beneficial purposes in a manner which protects public health and the environment of the state. The use of recycled water for beneficial purposes will improve water quality by reducing discharge of treated effluent to surface waters, reduce the demand on drinking water sources for uses not requiring potable water, and may conserve stream flows by reducing withdrawal for out-of-stream use.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710

Stats. Implemented: ORS 468B.015

340-055-0010

Definitions

The following definitions apply to this division of rules:

- (1) "Artificial Groundwater Recharge" means the intentional addition of water diverted from another source to a groundwater reservoir.
- (2) "Beneficial Purpose" means a purpose where recycled water is utilized for a resource value, such as nutrient content or moisture, to increase productivity or to conserve other sources of water.
- (3) "Department" means the Oregon Department of Environmental Quality.
- (4) "Disinfected Wastewater" means wastewater that has been treated by a chemical, physical or biological process and meets the criteria if applicable to its classification for use as recycled water.
- (5) "Filtered Wastewater" means an oxidized wastewater that meets the criteria defined in OAR 340-055-0012(7)(c).
- (6) "Human Consumption" means water used for drinking, personal or oral hygiene, bathing, showering, cooking, or dishwashing.
- (7) "Landscape Impoundment" means a body of water used for aesthetic purposes or other function that does not include public contact through activities such as boating, fishing, or body-contact recreation. Landscape impoundments include, but are not limited to, golf course water ponds or non-residential landscape ponds.
- (8) "Nonrestricted Recreational Impoundment" means a constructed body of water for which there are no limitations on body-contact water recreation activities. Nonrestricted recreational impoundments include, but are not limited to, recreational lakes, water features accessible to the public, and public fishing ponds.
- (9) "NPDES Permit" means a National Pollutant Discharge Elimination System permit as defined in OAR chapter 340, division 45.
- (10) "Oxidized Wastewater" means a treated wastewater in which the organic matter is stabilized and nonputrescible, and which contains dissolved oxygen.

- (11) "Person" means the United States and agencies thereof, any state, any individual, public or private corporation, political subdivision, governmental agency, municipality, copartnership, association, firm, trust estate, or any other legal entity.
- (12) "Processed Food Crops" means those crops that undergo thermoprocessing sufficient to kill spores of *Clostridium botulinum*.
- (13) "Recycled Water" means treated effluent from a wastewater treatment system which as a result of treatment is suitable for a direct beneficial purpose. Recycled water includes reclaimed water as defined in ORS 537.131.
- (14) "Restricted Recreational Impoundment" means a constructed body of water that is limited to fishing, boating, and other non-body contact water recreation activities.
- (15) "Sprinkler Irrigation" means the act of applying water by means of perforated pipes or nozzles operated under pressure so as to form a spray pattern.
- (16) "Wastewater" or "Sewage" means the water-carried human or animal waste from residences, buildings, industrial establishments or other places, together with such groundwater infiltration and surface water as may be present. The admixture with sewage of wastes or industrial wastes shall also be considered "wastewater" within the meaning of this division.
- (17) "Wastewater Treatment System" or "Sewage Treatment System" means an approved facility or equipment used to alter the quality of wastewater by physical, chemical or biological means or a combination thereof that reduces the tendency of the wastewater to degrade water quality or other environmental conditions.
- (18) "Waters of the State" means lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon, and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters) that are located wholly or partially within or bordering the state or within its jurisdiction.
- (19) "WPCF Permit" means a Water Pollution Control Facilities permit as defined in OAR chapter 340, division 45.
- (20) "Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710
Stats. Implemented: ORS 468B.005, ORS 468B.030 & ORS 468B.050

340-055-0012

Recycled Water Quality Standards and Requirements

- (1) Any person having control over the treatment or distribution or both of recycled water may distribute recycled water only for the beneficial purposes described in this rule, and must take all reasonable steps to ensure that the recycled water is used only in accordance with the standards and requirements of the rules of this division.
- (2) Any person who uses recycled water may use recycled water only for the beneficial purposes described in this rule, and must comply with the standards and requirements of this rule and the rules of this division.
- (3) The following requirements apply to nondisinfected recycled water.
 - (a) Beneficial Purposes. Nondisinfected recycled water may be used only for the following beneficial purposes and only if the rules of this division are met:
 - (A) Irrigation for growing fodder, fiber, seed crops not intended for human ingestion, or commercial timber; and
 - (B) Any beneficial purpose authorized in writing by the department pursuant to OAR 340-055-0016(6).
 - (b) Treatment. Nondisinfected recycled water must be an oxidized wastewater.
 - (c) Criteria. There are no disinfection criteria for nondisinfected recycled water.
 - (d) Monitoring. Monitoring must be in accordance with the wastewater treatment system owner's NPDES or WPCF permit.
 - (e) Setback Distances. There must be a minimum of 150 feet from the edge of the irrigation site to a water supply source used for human consumption. Other site specific setback distances for irrigation necessary to protect public health and the environment must be established in the recycled water use plan and must be met when irrigating.

(f) Access and Exposure. Public access to the irrigation site must be prevented.

(g) Site Management.

(A) Irrigation with recycled water is prohibited for 30 days before harvesting.

(B) Sprinkler irrigation is prohibited unless authorized in advance and in writing by the department based on demonstration that public health and the environment will be adequately protected from aerosols.

(4) The following requirements apply to Class D recycled water.

(a) Beneficial Purposes. Class D recycled water may be used only for the following beneficial purposes and only if the rules of this division are met:

(A) Any beneficial purpose defined in subsection (3)(a) of this rule;

(B) Irrigation of firewood, ornamental nursery stock, Christmas trees, sod, or pasture for animals; and

(C) Any beneficial purpose authorized in writing by the department pursuant to OAR 340-055-0016(6).

(b) Treatment. Class D recycled water must be an oxidized and disinfected wastewater that meets the numeric criteria in subsection (c) of this section.

(c) Criteria. Class D recycled water must not exceed a 30-day log mean of 126 *E. coli* organisms per 100 milliliters and 406 *E. coli* organisms per 100 milliliters in any single sample.

(d) Monitoring. Monitoring for *E. coli* organisms must occur once per week at a minimum.

(e) Setback Distances.

(A) Where an irrigation method is used to apply recycled water directly to the soil, there must be a minimum of 10 feet from the edge of the site used for irrigation and the site property line.

(B) Where sprinkler irrigation is used, there must be a minimum of 100 feet from the edge of the site used for irrigation and the site property line.

(C) There must be a minimum of 100 feet from the edge of an irrigation site to a water supply source used for human consumption.

(D) Where sprinkler irrigation is used, recycled water must not be sprayed within 70 feet of an area where food is prepared or served, or where a drinking fountain is located.

(f) Access and Exposure.

(A) Animals used for production of milk must be restricted from direct contact with the recycled water.

(B) When using recycled water for irrigation of sod, ornamental nursery stock, or Christmas trees, the personnel at the use area must be notified that the water used is recycled water and is not safe for drinking. The recycled water use plan must specify how notification will be provided.

(g) Site Management.

(A) When irrigating, signs must be posted around the perimeter of the irrigation site stating recycled water is used and is not safe for drinking.

(B) Irrigation of fodder, fiber, seed crops not intended for human ingestion, sod, commercial timber, firewood, ornamental nursery stock, or Christmas trees is prohibited for three days before harvesting.

(5) The following requirements apply to Class C recycled water.

(a) Beneficial Purposes. Class C recycled water may be used only for the following beneficial purposes and only if the rules of this division are met:

(A) Any beneficial purpose defined in subsection (4)(a) of this rule;

(B) Irrigation of processed food crops;

- (C) Irrigation of orchards or vineyards if an irrigation method is used to apply recycled water directly to the soil;
 - (D) Landscape irrigation of golf courses, cemeteries, highway medians, or industrial or business campuses;
 - (E) Industrial, commercial, or construction uses limited to: industrial cooling, rock crushing, aggregate washing, mixing concrete, dust control, nonstructural fire fighting using aircraft, street sweeping, or sanitary sewer flushing;
 - (F) Water supply source for landscape impoundments; and
 - (G) Any beneficial purpose authorized in writing by the department pursuant to OAR 340-055-0016(6).
- (b) Treatment. Class C recycled water must be an oxidized and disinfected wastewater that meets the numeric criteria in subsection (c) of this section.
- (c) Criteria. Class C recycled water must not exceed a median of 23 total coliform organisms per 100 milliliters, based on results of the last seven days that analyses have been completed, and 240 total coliform organisms per 100 milliliters in any two consecutive samples.
- (d) Monitoring. Monitoring for total coliform organisms must occur once per week at a minimum.
- (e) Setback Distances.
- (A) Where an irrigation method is used to apply recycled water directly to the soil, there must be a minimum of 10 feet from the edge of the site used for irrigation and the site property line.
 - (B) Where sprinkler irrigation is used, there must be a minimum of 70 feet from the edge of the site used for irrigation and the site property line.
 - (C) There must be a minimum of 100 feet from the edge of an irrigation site to a water supply source used for human consumption.
 - (D) Where sprinkler irrigation is used, recycled water must not be sprayed within 70 feet of an area where food is being prepared or served, or where a drinking fountain is located.

(f) Access and Exposure.

(A) When irrigating for a beneficial purpose defined in subsection (4)(a) of this rule, the access and exposure requirements defined in subsection (4)(f) of this rule must be met.

(B) During irrigation of a golf course, a cemetery, a highway median, or an industrial or business campus, the public must be restricted from direct contact with the recycled water.

(C) If aerosols are generated when using recycled water for an industrial, commercial, or construction purpose, the aerosols must not create a public health hazard.

(D) When using recycled water for an agricultural or horticultural purpose where sprinkler irrigation is used, or an industrial, commercial, or construction purpose, the public and personnel at the use area must be notified that the water used is recycled water and is not safe for drinking. The recycled water use plan must specify how notification will be provided.

(g) Site Management.

(A) When irrigating for a beneficial purpose defined in subsection (4)(a) of this rule, the site management requirements defined in subsection (4)(g) of this rule must be met.

(B) When using recycled water for a landscape impoundment or for irrigating a golf course, cemetery, highway median, or industrial or business campus, signs must be posted at the use area and be visible to the public. The signs must state that recycled water is used and is not safe for drinking.

(C) Irrigation of processed food crops is prohibited for three days before harvesting.

(D) When irrigating an orchard or vineyard, the edible portion of the crop must not contact the ground, and fruit or nuts may not be harvested off the ground.

(E) When using recycled water for a landscape impoundment, aerators or decorative fixtures that may generate aerosols are allowed only if authorized in writing by the department.

(6) The following requirements apply to Class B recycled water.

- (a) Beneficial Purposes. Class B recycled water may be used only for the following beneficial purposes and only if the rules of this division are met:
 - (A) Any beneficial purpose defined in subsection (5)(a) of this rule;
 - (B) Stand-alone fire suppression systems in commercial and residential buildings, non-residential toilet or urinal flushing, or floor drain trap priming;
 - (C) Water supply source for restricted recreational impoundments; and
 - (D) Any beneficial purpose authorized in writing by the department pursuant to OAR 340-055-0016(6).
- (b) Treatment. Class B recycled water must be an oxidized and disinfected wastewater that meets the numeric criteria in subsection (c) of this section.
- (c) Criteria. Class B recycled water must not exceed a median of 2.2 total coliform organisms per 100 milliliters, based on results of the last seven days that analyses have been completed, and 23 total coliform organisms per 100 milliliters in any single sample.
- (d) Monitoring. Monitoring for total coliform organisms must occur three times per week at a minimum.
- (e) Setback Distances.
 - (A) Where an irrigation method is used to apply recycled water directly to the soil, there are no setback requirements.
 - (B) Where sprinkler irrigation is used, there must be a minimum of 10 feet from the edge of the site used for irrigation and the site property line.
 - (C) There must be a minimum of 50 feet from the edge of the irrigation site to a water supply source used for human consumption.
 - (D) Where sprinkler irrigation is used, recycled water must not be sprayed within 10 feet of an area where food is being prepared or served, or where a drinking fountain is located.

(f) Access and Exposure.

(A) During irrigation of a golf course, the public must be restricted from direct contact with the recycled water.

(B) If aerosols are generated when using recycled water for an industrial, commercial, or construction purpose, the aerosols must not create a public health hazard.

(C) When using recycled water for an agricultural or horticultural purpose where sprinkler irrigation is used, or an industrial, commercial, or construction purpose, the public and personnel at the use area must be notified that the water used is recycled water and is not safe for drinking. The recycled water use plan must specify how notification will be provided.

(g) Site Management.

(A) When irrigating for a beneficial purpose defined in subsection (4)(a) of this rule, the site management requirements defined in subsection (4)(g) of this rule must be met.

(B) When using recycled water for a landscape impoundment or for irrigating a golf course, cemetery, highway median, or industrial or business campus, signs must be posted at the use area and be visible to the public. The signs must state recycled water is used and is not safe for drinking.

(C) Irrigation of processed food crops is prohibited for three days before harvesting.

(D) When irrigating an orchard or vineyard, the edible portion of the crop must not contact the ground, and fruit or nuts may not be harvested off the ground.

(7) The following requirements apply to Class A recycled water.

(a) Beneficial Purposes. Class A recycled water may be used only for the following beneficial purposes and only if the rules of this division are met:

(A) Any beneficial purpose defined in subsection (6)(a) of this rule;

(B) Irrigation for any agricultural or horticultural use;

- (C) Landscape irrigation of parks, playgrounds, school yards, residential landscapes, or other landscapes accessible to the public;
 - (D) Commercial car washing or fountains when the water is not intended for human consumption;
 - (E) Water supply source for nonrestricted recreational impoundments;
 - (F) Artificial groundwater recharge by surface infiltration methods or by subsurface injection in accordance with OAR chapter 340, division 44. Direct injection into an underground source of drinking water is prohibited unless allowed by OAR chapter 340, division 44; and
 - (G) Any beneficial purpose authorized in writing by the department pursuant to OAR 340-055-0016(6).
- (b) Treatment. Class A recycled water must be an oxidized, filtered and disinfected wastewater that meets the numeric criteria in subsection (c) of this section are met.
- (c) Criteria. Class A recycled water must not exceed the following criteria:
- (A) Before disinfection, unless otherwise approved in writing by the department, the wastewater must be treated with a filtration process, and the turbidity must not exceed an average of 2 nephelometric turbidity units (NTU) within a 24-hour period, 5 NTU more than five percent of the time within a 24-hour period, and 10 NTU at any time, and
 - (B) After disinfection, Class A recycled water must not exceed a median of 2.2 total coliform organisms per 100 milliliters, based on results of the last seven days that analyses have been completed, and 23 total coliform organisms per 100 milliliters in any single sample.
- (d) Monitoring.
- (A) Monitoring for total coliform organisms must occur once per day at a minimum.
 - (B) Monitoring for turbidity must occur on an hourly basis at a minimum.
- (e) Setback Distances. Where sprinkler irrigation is used, recycled water must not be sprayed onto an area where food is being prepared or served, or onto a drinking fountain.

- (f) Access and Exposure. When using recycled water for an agricultural or horticultural purpose where spray irrigation is used, or an industrial, commercial, or construction purpose, the public and personnel at the use area must be notified that the water used is recycled water and is not safe for drinking. The recycled water use plan must specify how notification will be provided.
- (g) Site Management. When using recycled water for a landscape impoundment, restricted recreational impoundment, nonrestricted recreational impoundment, or for irrigating a golf course, cemetery, highway median, industrial or business campus, park, playground, school yard, residential landscape, or other landscapes accessible to the public, signs must be posted at the use area or notification must be made to the public at the use area indicating recycled water is used and is not safe for drinking. The recycled water use plan must specify how notification will be provided.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710

Stats. Implemented: ORS 468B.030 & ORS 468B.050

340-055-0013

Exempted Use of Recycled Water

Recycled water used by a wastewater treatment system owner for landscape irrigation or for in plant processes at a wastewater treatment system is exempt from the rules of this division if:

- (1) The recycled water is an oxidized and disinfected wastewater;
- (2) The recycled water is used at the wastewater treatment system site where it is generated or at an auxiliary wastewater or sludge treatment facility that is subject to the same NPDES or WPCF permit as the wastewater treatment system. Contiguous property to the parcel of land upon which the treatment system is located is considered the wastewater treatment system site if under the same ownership;
- (3) Spray or drift or both from the use does not occur off the site; and
- (4) Public access to the site is restricted.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710

Stats. Implemented: ORS 468B.050

340-055-0016

General Requirements for Permitting the Use of Recycled Water

- (1) NPDES or WPCF permit. A wastewater treatment system owner may not provide any recycled water for use unless authorized by a NPDES or WPCF permit issued by the department pursuant to OAR chapter 340, division 045.
- (2) Recycled water use plan.
 - (a) Except for use of recycled water authorized by a NPDES or WPCF permit, a wastewater treatment system owner may not provide any recycled water for distribution or use or both until a recycled water use plan meeting the requirements of OAR 340-055-0025 has been approved in writing by the department. Upon approval of the plan, the permittee must comply with the conditions of the plan.
 - (b) Before approving or modifying any plan for the use of Class C, Class D, or nondisinfected recycled water, the department will submit the proposed plan to the Oregon Department of Human Services for comment.
 - (c) For use of recycled water previously authorized under a NPDES or WPCF permit but without a department approved recycled water use plan, the wastewater treatment system owner must submit a recycled water use plan to the department within one year of the effective date of these rules.
- (3) Land application on land zoned exclusive farm use. A recycled water use plan will not be approved for the land application of recycled water on land zoned exclusive farm use until the requirements of ORS 215.213(1)(bb) and 215.283(1)(y) for recycled water are met.
- (4) Compliance with this division. When the rules of this division require a limitation or a condition or both that conflicts with a limitation or a condition or both in an existing permit, the existing permit controls until the permit is modified or renewed by the department. When the existing permit is modified or renewed, the permittee will be given a reasonable compliance schedule to achieve new requirements if necessary.

- (5) Additional permit limitations and conditions. The department may include additional permit limitations or conditions or both if it determines or has reason to believe additional requirements for the use of recycled water are necessary to protect public health or the environment or both.
- (6) Authorization of other recycled water uses. The department may authorize through a NPDES or WPCF permit a use of recycled water for a beneficial purpose not specified in this division. When the department considers the authorization, it may request information and include permit limitations or conditions or both necessary to assure protection of public health and the environment. The department will confer with the Oregon Department of Human Services before authorizing other uses of Class C, Class D, or nondisinfected recycled water under this section.
- (7) Setback distances. The department may consider and approve, on a case-by-case basis, a setback distance other than what is required in this division. For a reduced setback distance, it must be demonstrated to the department that public health and the environment will be adequately protected. The recycled water use plan must include any approved alternative setback distance.
- (8) Public outreach and sign posting. When the rules of this division require the posting of signs at a use area, the department may, on a case-by-case basis, approve an alternative method for public outreach where it considers the method will assure an equivalent degree of public protection.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710
Stats. Implemented: ORS 468B.030 & ORS 468B.050

340-055-0017

Treatment and Use of Recycled Water

- (1) Alternative treatment process. The department may approve in writing an alternative wastewater treatment process not specified in the rules of this division if it is demonstrated that the treatment is equivalent to and can achieve the recycled water criteria required for a specific beneficial purpose.
- (2) Additional treatment. A person using recycled water from a wastewater treatment system may provide additional treatment for a different class of recycled water that is identified in this division. The wastewater treatment system owner providing the additional treatment is subject to the rules of this division and must have a NPDES or WPCF permit issued by the department.

- (3) Blending recycled water. The department may approve on a case-by-case basis blending recycled water with other water if proposed by a wastewater treatment system owner. Before blending recycled water, the owner must obtain written authorization from the department. In obtaining authorization, the wastewater treatment system owner must submit to the department, at a minimum the following:
 - (a) An operations plan,
 - (b) A description of any additional treatment process,
 - (c) A description of blending volumes, and
 - (d) A range of final recycled water quality at the compliance point identified in the NPDES or WPCF permit.
- (4) Water right. The rules of this division do not create a water right under ORS chapters 536, 537, 539 or 540. A person must contact the Oregon Water Resources Department to determine water right requirements for the use of recycled water.
- (5) Prohibited use for human consumption. The use of recycled water for direct human consumption, regardless of the treatment class, is prohibited unless approved in writing by the Oregon Department of Human Services, and after public hearing, and it is so authorized by the Environmental Quality Commission.
- (6) Prohibited use for a public pool. The use of recycled water as a source of supply for a public pool, spa, or bathhouse is prohibited unless authorized in writing by the department and with written approval from the Oregon Department of Human Services. Public pools are subject to the requirements of ORS 448 and the Oregon Department of Human Services administrative rules.
- (7) Transporting recycled water. A vehicle used to transport or distribute recycled water must not be used to transport water for human consumption, unless authorized in writing by the department. The vehicle must be clearly identified with the words “nonpotable water” written in letters at least six inches high and displayed on each side and rear of the vehicle unless otherwise authorized by the department.
- (8) Impoundments. Constructed landscape, and restricted and nonrestricted recreational impoundments approved for use under the rules of this division are not considered waters of the state for water quality purposes. Impoundments used for wastewater treatment are subject to ORS 215.213 and 215.283.

(9) Wetlands.

(a) The term “waters of the state” as provided in OAR 340-055-0012(18) includes, but is not limited to, the following wetlands and discharge to any of these wetlands requires a NPDES permit issued by the Department pursuant to OAR chapter 340, division 45:

(A) Enhanced or restored wetlands;

(B) Existing natural wetlands; and

(C) Wetlands created as mitigation for loss of wetlands under the Clean Water Act, Section 404.

(b) Wetlands constructed on non-wetland sites and managed for wastewater treatment are exempt from the rules of this division and are not considered waters of the state for water quality purposes.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710

Stats. Implemented: ORS 468B.030 & ORS 468B.050

340-055-0020

Groundwater Quality Protection

Recycled water will not be authorized for use unless all groundwater quality protection requirements in OAR chapter 340, division 40 are met. The requirements in OAR chapter 340, division 40 are considered to be met if the wastewater treatment system owner demonstrates recycled water will be used or land applied in a manner and at a rate that minimizes the movement of contaminants to groundwater and does not adversely impact groundwater quality. If the use of recycled water occurs within a designated groundwater management area, the department may require additional conditions to be met.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710

Stats. Implemented: ORS 468B.150 - ORS 468B.190

340-055-0022

Monitoring and Reporting

- (1) The department will include in a NPDES or WPCF permit authorizing the use of recycled water, at a minimum, the monitoring requirements in OAR 340-055-0012.
- (2) When chlorine or a chlorine compound is used as a disinfecting agent, the department may specify in the NPDES or WPCF permit a minimum chlorine residual concentration. When other disinfecting agents are used, the department may require additional monitoring requirements to assure adequate disinfection.
- (3) The department will include in a NPDES or WPCF permit authorizing the use of recycled water, a requirement that the wastewater treatment system owner submit an annual report to the department describing the effectiveness of the system to comply with the approved recycled water use plan, the rules of this division, and the permit limits and conditions for recycled water.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710

Stats. Implemented: ORS 468B.030 & ORS 468B.050

340-055-0025

Recycled Water Use Plan

- (1) A recycled water use plan must describe how the wastewater treatment system owner will comply with the rules of this division and must include, but is not limited to, the following:
 - (a) A description of the wastewater treatment system, including treatment efficiency capability;
 - (b) A detailed description of the treatment methods that will be used to achieve a specific class of recycled water and for what beneficial purpose;
 - (c) The estimated quantity of recycled water to be provided by the wastewater treatment system owner to the user, and at what frequency and for what beneficial purpose;

- (d) A description of contingency procedures that ensure the requirements of this division are met when recycled water is provided for use;
 - (e) Monitoring and sampling procedures;
 - (f) A maintenance plan that describes how the wastewater treatment system equipment and facility processes will be maintained and serviced;
 - (g) If notification is required by the rules of this division, a description of how the public and personnel at the use area will be notified; and
 - (h) A description of any measuring and reporting requirements identified by the Oregon Water Resources Department after consultation with that agency.
- (2) If Class B, C, or D, or nondisinfected recycled water is to be used for irrigation, a recycled water use plan must also include, but is not limited to, the following:
- (a) A description and identification of the land application site, including the zoned land use of the irrigation site and surrounding area, a site map with setbacks, and distances of nearest developed property from all boundaries of the irrigation site;
 - (b) A description of the irrigation system, including storage, distribution methods, application methods and rates, and shut off procedures;
 - (c) A description of the soils and crops or vegetation grown at the land application site;
 - (d) A description of site management practices including, but not limited to, the timing of application, methods used to mitigate potential aerosol drift, and if required by this division, posting of signs or public outreach; and
 - (e) If public access control or notification is required by this division, descriptions of public access control and how the public and personnel will be notified.
- (3) If Class A recycled water is to be used for the beneficial purpose of artificial groundwater recharge, a recycled water use plan must also include, but is not limited to, the following:

- (a) A groundwater monitoring plan in accordance with OAR 340-040-0030(2);
 - (b) A determination if the recharge will be to a drinking water protection area;
 - (c) A description of the soils and characteristics;
 - (d) The distance from the recharge area to the nearest point of withdrawal and the retention time in the aquifer until the time of withdrawal; and
 - (e) Verification from Oregon Water Resources Department that a request for authorization for this use has been initiated.
- (4) Conditions contained in a department approved recycled water use plan are NPDES or WPCF permit requirements.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710

Stats. Implemented: ORS 468B.030 & ORS 468B.050

340-055-0030

Operational Requirements for the Treatment and Distribution of Recycled Water

- (1) **Bypassing.** The intentional diversion of wastewater from any unit process in the wastewater treatment system for a beneficial purpose is not allowed, unless with the unit process out of service the recycled water meets the criteria of this division for a specific class and beneficial purpose described in the recycled water use plan.
- (2) **Alarm devices.** Alarm devices are required to provide warning of power loss and failure of process equipment essential to the proper operation of the wastewater treatment system and compliance with this division.
- (3) **Standby power.** Unless otherwise approved in writing by the department, a wastewater treatment system providing recycled water for use must have sufficient standby power to fully operate all essential treatment processes. The department may grant an exception to this section only if the wastewater treatment system owner demonstrates that power failure will not result in inadequately treated water being provided for use and will not result in any violation of an NPDES or WPCF permit limit or condition or Oregon Administrative Rule.

- (4) Redundancy. A wastewater treatment system that provides recycled water for use must have a sufficient level of redundant treatment facilities and monitoring equipment to prevent inadequately treated recycled water from being used or discharged to public waters.
- (5) Distribution system requirements. Unless otherwise approved in writing by the department, all piping, valves, and other portions of the recycled water use system that is outside a building must be constructed and marked in a manner to prevent cross-connection with a potable water system. Unless otherwise approved in writing by the department or as required by the rules of this division, construction and marking must be consistent with sections (2), (3), (4), and (5) of the 1992 "Guidelines for the Distribution of Nonpotable Water" of the California-Nevada Section of the American Water Works Association.
- (6) Cross-connection control. Connection between a potable water supply system and a recycled water distribution system is not authorized unless the connection is through an air gap separation approved by the department. A reduced pressure principle backflow prevention device may be used only when approved in writing by the department and the potable water system owner.

Stat. Auth.: ORS 468.020, ORS 468.705 & ORS 468.710

Stats. Implemented: ORS 468B.030 & ORS 468B.050