

OFFICE OF THE SECRETARY OF STATE
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MICHAEL KAPLAN
DEPUTY SECRETARY OF STATE



ARCHIVES DIVISION
STEPHANIE CLARK
DIRECTOR

800 SUMMER STREET NE
SALEM, OR 97310
503-373-0701

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FILING CAPTION: Rules governing agricultural activities in the Lower Umatilla Basin Groundwater Management Area

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CONTACT: Sunny Summers
503-400-4196
rulemaking@oda.oregon.gov

635 Capitol St NE
Salem, OR 97301

Filed By:
Sunny Summers
Rules Coordinator

RULES:

603-095-5000, 603-095-5005, 603-095-5010, 603-095-5015, 603-095-5020, 603-095-5025, 603-095-5030, 603-095-5035, 603-095-5040, 603-095-5045, 603-095-5050, 603-095-5055, 603-095-5060, 603-095-5065, 603-095-5070, 603-095-5075, 603-095-5080

ADOPT: 603-095-5000

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: States the purpose and authority of the rules governing agricultural activities within the Lower Umatilla Basin Groundwater Management Area (LUBGWMA).

CHANGES TO RULE:

603-095-5000

Purpose and Authority

(1) In 1990, the Oregon Department of Environmental Quality designated approximately 550 square miles in northern Morrow and northeastern Umatilla counties as a groundwater management area because levels of nitrate in groundwater exceed federal drinking water standards and present serious health risks to vulnerable populations. This area is referred to as the Lower Umatilla Basin Groundwater Management Area (LUBGWMA).

(2) Understanding that agriculture within the LUBGWMA provides valuable food and fiber products to communities worldwide, these area rules are intended to prevent or minimize nitrate leaching to groundwater from agricultural activities while also maintaining the economic viability of agriculture within the LUBGWMA.

(3) These area rules implement the Umatilla and Willow Creek Agricultural Water Quality Management Area Plans as those plans address nitrate pollution in groundwater and contain actions necessary to prevent or minimize nitrate leaching to groundwater.

(4) The Oregon Department of Agriculture's authority for these area rules is ORS 561.191 and ORS 568.900 - 933.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5005

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Contains the geographic and programmatic scope of the rules governing agricultural activities within the LUBGWMA.

CHANGES TO RULE:

603-095-5005

Geographic and Programmatic Scope

(1) The operational boundary for the agricultural land subject to these area rules is in Appendix A and includes all agricultural land within the LUBGWMA that is not otherwise subject to a National Pollution Discharge Elimination System or Water Pollution Control Facility permit issued by the Oregon Department of Agriculture or the Oregon Department of Environmental Quality.

(2) Unless otherwise required by law, these area rules do not apply to land owned or managed by federal agencies, land that makes up the Reservation of the Confederated Tribes of the Umatilla Indian Reservation, and land or activities subject to the Oregon Forest Practices Act.

(3) A landowner conducting agricultural activities on land in agricultural use within the LUBGWMA shall employ best practicable management practices to implement these area rules according to the site-specific attributes and needs of each agricultural operation.

(4) The provisions of these area rules apply to all agricultural land whether or not in current productive agricultural use.

(5) These area rules do not authorize violation of any federal, state, or local law or regulation.

(6) These area rules do not constitute a National Pollutant Discharge Elimination System Permit or Water Pollution Control Facilities Permit issued pursuant to the Federal Clean Water Act (33 USC §1251 et seq.) or ORS 468B.050. Compliance with these area rules does not exempt a landowner from the Federal Clean Water Act or state water pollution control laws.

(7) The fact that it is necessary to halt or reduce activities contributing to the placement of wastes into waters of the state shall not be a defense for violation of these area rules.

(8) The requirements in these area rules do not authorize the commission of any act causing injury to property of another or protect the landowner from liabilities under other federal, state, county, or local laws.

(9) These area rules do not apply to conditions resulting from unusual weather events or other exceptional circumstances beyond the reasonable control of the landowner. Beyond the reasonable control of the landowner means that technically sound and economically feasible measures are not available or adequate to address conditions described in these area rules.

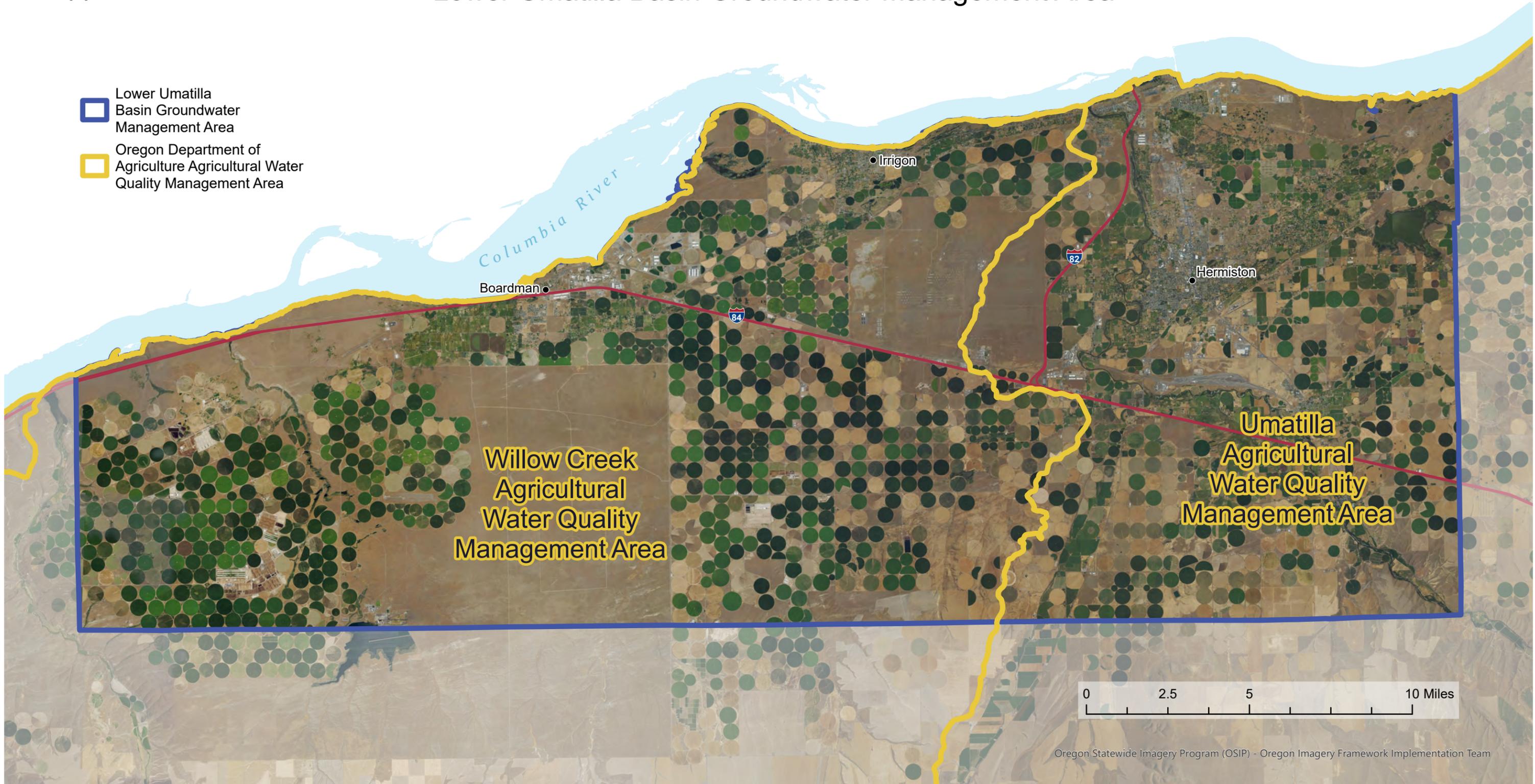
Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

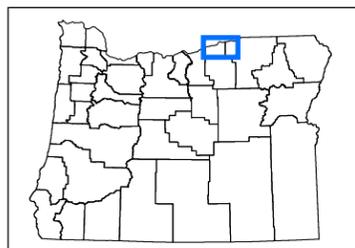
RULE ATTACHMENTS MAY NOT SHOW CHANGES. PLEASE CONTACT AGENCY REGARDING CHANGES.

Lower Umatilla Basin Groundwater Management Area

-  Lower Umatilla Basin Groundwater Management Area
-  Oregon Department of Agriculture Agricultural Water Quality Management Area



Oregon Statewide Imagery Program (OSIP) - Oregon Imagery Framework Implementation Team



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**OREGON
DEPARTMENT OF
AGRICULTURE**
635 Capitol St NE
Salem, OR 97301-2532 USA

ADOPT: 603-095-5010

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Defines the terms used in the rules governing agricultural activities within the LUBGWMA.

CHANGES TO RULE:

603-095-5010

Definitions

For the purposes of these area rules unless the context requires otherwise.¶

(1) "Agricultural activities" means engaging in any generally accepted, reasonable and prudent method of raising or producing livestock or livestock products or growing or harvesting agricultural crops or commodities.¶

(2) "Agricultural land" means land in agricultural use.¶

(3) "Agricultural operation" means:¶

(a) All agricultural land, whether or not contiguous, that is under the effective control of a landowner engaged in producing livestock or livestock products or the growing or harvesting of agricultural crops; or¶

(b) A "farm" as defined in ORS 30.930(1).¶

(4) "Agricultural use" means the use of land for raising or producing livestock or livestock products including poultry or poultry products, milk or milk products, fur-bearing animals; or for growing crops such as, but not limited to, grains, small grains, fruit, vegetables, forage grains, nursery stock, Christmas trees; or for any other agricultural or horticultural use or animal husbandry or any combination thereof.¶

(5) "Agronomic application rate" or "agronomic rate" means the application rate or range of application rates of fertilizer required to achieve estimated crop yield with no or minimal leaching of nitrate beyond the crop root zone.¶

(6) "Area Plan" or "Agricultural Water Quality Management Area Plan" means a plan for the prevention and control of water pollution from agricultural activities and soil erosion in a management area that has been designated under ORS 568.909.¶

(7) "Area Rules" means OAR 603-095-5000 - 5080 adopted by the Oregon Department of Agriculture, in consultation with the Oregon Board of Agriculture and the Oregon Department of Environmental Quality, for the implementation of the area plans referenced in these area rules.¶

(8) "Certifier" means a qualified irrigation and nitrogen management plan specialist as provided in OAR 603-095-5060.¶

(9) "Compost" has that meaning given in ORS 633.311(5).¶

(10) "Department" means the Oregon Department of Agriculture.¶

(11) "Estimated crop yield" means the near-maximum or optimum crop yield estimated for each field according to sources such as recommendations by land grant universities, the Natural Resources Conservation Service, commodity groups, Certified Crop Advisers, or according to site-specific knowledge based on previous experience.¶

(12) "Fertilizer" has the meaning given in ORS 633.311(12) except that for the purposes of these area rules, fertilizer includes "Exceptional Quality Biosolids" as that term is defined in OAR 340-050-0010(14), includes "compost" as that term is defined in ORS 633.311(5), includes manure, and includes "agricultural amendments" as that term is defined in ORS 633.311(1).¶

(13) "Field" means an area of land that is used for agricultural activities and enclosed or otherwise distinguished by physical characteristics of the property such as roads, fences, topography or other barriers and is characterized by a uniform irrigation system, crop type and system of nutrient management measures. A center pivot is one field.¶

(14) "Field capacity" means the content of water, on a mass or volume basis, remaining in a soil two or three days after having been wetted with water and after free drainage is negligible.¶

(15) "Groundwater" or "groundwater of the state" means water that is in a saturated zone or stratum beneath the surface of land or below a surface water body.¶

(16) "Irrigated agricultural land" or "irrigated agriculture" means agricultural land irrigated to produce crops or pasture and including land that is planted to crops that are not yet marketable such as vineyards and tree crops. Irrigated land includes nurseries.¶

(17) "Landowner" includes any person or public body as defined in ORS 174.109 shown by records of the county to be the owner of land or having such land under contract to purchase and includes a "land occupier", "occupiers of land" or "operator."¶

(18) "Land occupier" or "occupiers of land" includes any person who is in possession of any agricultural land, whether as lessee, renter, or tenant.¶

(19) "Manure" means solids or liquids excreted from an animal.¶

- (20) "Nitrate" means a readily soluble form of nitrogen, easily taken up by plants, but also prone to leaching, with the chemical formula NO₃ (NO₃-N).¶
- (21) "Nitrogen Management Measures" means measures to match fertilizer and nitrogen applications to agronomic demands and includes a determination of the appropriate agronomic application rate. Nitrogen management measures include those measures in Natural Resources Conservation Service (NRCS) Conservation Practice Standard Nutrient Management Code 590 (2019).¶
- (22) "Operator" means any person, including a landowner or land occupier engaged in any commercial activity related to the growing or harvesting of agricultural crops or the production of agricultural commodities.¶
- (23) "Pasture" means land that sustains vegetative growth in the normal growing season that is primarily used to grow forage for grazing livestock where the livestock are not confined in pens or lots or on a prepared surface and where waste is not managed using a wastewater control facility.¶
- (24) "Plant Available Nitrogen" means a form of nitrogen in the soil that plants can readily absorb and utilize for growth, with the chemical formula NO₃ (NO₃-N) and Ammonium NH₄ (NH₄-N).¶
- (25) "Pollution" or "water pollution" has the meaning given in ORS 468B.005.¶
- (26) "Saturated soil" means soil with all available pore space filled that it is at or exceeding 100 percent of field capacity.¶
- (27) "Synthetic Nitrogen" means a fertilizer, agricultural mineral, or other material containing ammoniacal nitrogen, nitrate nitrogen, urea nitrogen, other water-soluble nitrogen, or water insoluble nitrogen manufactured through human controlled chemical reactions. Synthetic nitrogen includes both dry and liquid formulations.¶
- (28) "Waste" or "wastes" has that meaning given in ORS 468B.005 with the clarification that "waste" or "wastes" includes but is not limited to fertilizer, pesticides, fumigants or nitrate (NO₃-N) that enters groundwater.¶
- (29) "Water" or the "waters of the state" has the meaning given in ORS 468B.005.
- Statutory/Other Authority: ORS 561.191, ORS 568.900-933
- Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5015

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Contains prohibited acts.

CHANGES TO RULE:

603-095-5015

Prohibited Acts

(1) Fertilizer may not be applied to agricultural land within the LUBGWMA in a manner that causes pollution of the groundwater of the state or in a manner that places wastes in a location where such wastes are likely to escape or be carried into the groundwater of this state.¶

(2) Fertilizer, fumigants or pesticides may not be placed into groundwater via backflow devices or well casings.¶

(3) A landowner conducting agricultural activities on agricultural land within the LUBGWMA may not violate any provision of OAR 603-095-5000 - 5065.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5020

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Sets out the land application rates and restrictions governing landowners and landowners growing agricultural crops and commodities on agricultural land within the LUBGWMA.

CHANGES TO RULE:

603-095-5020

Land Application Rates and Restrictions

- (1) A landowner growing agricultural crops or commodities on agricultural land within the LUBGWMA shall employ nitrogen management measures when applying fertilizer.¶
 - (2) Prior to the first application of fertilizer each calendar year, a landowner growing agricultural crops or commodities on agricultural land within the LUBGWMA shall:¶
 - (a) Except as provided in subsection (2)(c), take soil samples consistent with OAR 603-095-5065(1) to determine plant available nitrogen existing in the soil; and¶
 - (b) Consider existing plant available nitrogen levels, plant uptake, and estimated crop yields when making an application of fertilizer.¶
 - (c) A landowner taking post-harvest soil samples pursuant to OAR 603-095-5055(4) need not take pre-planting soil samples but may instead use post-harvest soil sample results to determine pre-planting levels of plant available nitrogen.¶
 - (3) A landowner growing agricultural crops or commodities on agricultural land within the LUBGWMA shall document on a worksheet provided by the department or according to a format otherwise used by the landowner, the following information for each field to which fertilizer is applied:¶
 - (a) The date(s) and location(s) of all fertilizer applications containing nitrogen;¶
 - (b) The weather conditions and soil moisture at the time of application; and¶
 - (c) The agronomic application rate used.¶
 - (4) Records required in section (3) shall be retained by the landowner for ten calendar years and made available to the department upon request.¶
 - (5) A landowner within the LUBGWMA may not apply fertilizer:¶
 - (a) To fields with a frozen surface crust two inches or deeper, or if the soil is at or below zero degrees Celsius (32 degrees Fahrenheit);¶
 - (b) To fields that are snow covered;¶
 - (c) To fields with soils that are or will become saturated with forecasted precipitation prior to infiltration or incorporation;¶
 - (d) If the water table is within 12 inches or less of the surface.¶
 - (6) A landowner growing agricultural crops or commodities on agricultural land within the LUBGWMA may not apply synthetic nitrogen to a field that is bare unless the landowner is preparing the bare field for the current calendar year's annual crop or cover crop planting and the application is within 60 days of planting.
- Statutory/Other Authority: ORS 561.191, ORS 568.900-933
- Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5025

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Sets out standards for managing irrigated agricultural land to minimize the downward movement of nitrate in the soil.

CHANGES TO RULE:

603-095-5025

Irrigation Water Management

(1) A landowner within the LUBGWMA shall manage irrigated agricultural land to minimize the downward movement of nitrate in the soil by managing irrigation water so that the amount of water applied from the combination of precipitation and irrigation does not exceed the field capacity of the soil beyond the crop root depth. ¶

(2) As consistent with applicable water rights of record, a landowner irrigating agricultural land within the LUBGWMA shall base the rate and volume of water needed for each irrigation event on at least the following information as practicable:¶

(a) Field capacity of the soil for the crop rooting depth;¶

(b) Management allowed soil water depletion;¶

(c) Current soil moisture status of the soil for the crop rooting depth;¶

(d) Distribution uniformity of the irrigation event;¶

(e) Water table contribution if applicable;¶

(f) Computerized irrigation scheduling recommendation.¶

(3) A landowner irrigating agricultural land within the LUBGWMA shall plan the rate and volume of irrigation water to prevent the transport of nitrates to groundwater by:¶

(a) Controlling the rate and volume of water application to limit the transport of nitrate through the soil profile to groundwater; and¶

(b) Matching irrigation application quantities and rates to the crop, soil type, soil moisture content, and agronomic demands of each crop type such that irrigation does not exceed the soil's infiltration rate or field capacity below the crop root zone.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5030

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Sets out standards for grazing livestock on pasture within the LUBGWMA.

CHANGES TO RULE:

603-095-5030

Animal Pasturing

(1) A landowner grazing livestock on pasture within the LUBGWMA shall:

(a) Rotate livestock and limit livestock numbers to prevent bare ground and shall promote and maintain adequate vegetative cover.

(b) Shall match livestock requirements with the available forage and frequently monitor forage growth; and

(c) Adjust the stocking rate and grazing period to prevent runoff or overgrazing.

(2) Where animals are concentrated to a distinct heavy use area so that the soil is prone to compaction, or when inadequate forage growth would result in over-grazing, a landowner grazing livestock on pasture within the LUBGWMA shall:

(a) Remove manure and waste feed from heavy use areas; and

(b) Cover accumulated manure and waste feed to prevent exposure to precipitation; and

(c) If spreading during the growing season, spread at an agronomic application rate.

(3) A landowner applying fertilizer to pasture shall first conduct a soil test consistent with the soil sampling protocol in OAR 603-095-5065(1) to determine plant available nitrogen in the soil.

(4) A landowner irrigating pasture within the LUBGWMA shall minimize the downward movement of nitrate in the soil by managing irrigation water so that the amount of water applied from the combination of precipitation and irrigation does not exceed the soil's field capacity within the forage root depth.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5035

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Defines provisions of the rules that apply to agricultural activities on agricultural land where the total land acreage is greater than 500 acres.

CHANGES TO RULE:

603-095-5035

Control Measures for Irrigated Agriculture on Large Acreages

(1) The provisions of OAR 603-095-5035 - 5065 govern agricultural activities on agricultural land where the total land acreage under the ownership or control of a landowner is equal to or greater than 500 acres and where irrigation is used to grow crops on those acreages.¶

(2) In addition to conducting agricultural activities consistent with OAR 603-095-5000 - 5030, a landowner subject to this rule shall prepare an annual nitrogen plan as described in OAR 603-095-5040 and OAR 603-095-5045, prepare annual post-harvest summary records as provided in OAR 603-095-5050, evaluate performance under an annual nitrogen plan and implement adaptive management measures as described in OAR 603-095-5055, certify plans as specified in OAR 603-095-5060, and collect soil samples according to the protocol in OAR 603-095-5065.¶

(3) Documents created as specified in OAR 603-095-5040 - 5055 shall be retained for ten calendar years at the agricultural operation and made available for inspection at the request of the department.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5040

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Sets out the standards governing annual nitrogen plans.

CHANGES TO RULE:

603-095-5040

Annual Nitrogen Plan

(1) Each calendar year, prior to the first application of fertilizer, a landowner subject to this rule shall prepare an annual nitrogen plan that demonstrates that fertilizer will be applied only at the agronomic application rate necessary to support estimated crop yield.¶

(a) An annual nitrogen plan shall cover the entire growing season and include double-crops and cover crops.¶

(b) An annual nitrogen plan shall be prepared on a worksheet provided by the department or according to a format otherwise used by the landowner.¶

(2) Actual conditions may differ from those forecasted in an annual nitrogen plan and so necessitate adjustment of a plan to reflect unanticipated changes in weather, water availability or other agronomic circumstances. A landowner shall document adjustments to an annual nitrogen plan and the reasons for the adjustments.¶

(3) Proof of certification of an annual nitrogen plan as described in OAR 603-095-5060 shall be submitted to the department by May 1 of each calendar year except that the first proof of certification following the effective date of these rules shall be submitted by May 1, 2027.¶

(4) A landowner's inability to follow an annual nitrogen plan may not result in enforcement by the department. However, failure to submit proof of certification of an annual nitrogen plan by May 1 of each calendar year may result in enforcement by the department and conditions that indicate a violation of OAR 603-095-5015(1) or ORS 468B.025(1) may result in enforcement by the department.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5045

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Contains the required elements of an annual nitrogen plan.

CHANGES TO RULE:

603-095-5045

Annual Nitrogen Plan Contents

An annual nitrogen plan shall include each of the following elements.¶

- (1) Landowner Name. Record the name of the landowner and the name of the operator if operator is not the owner of the land. If a certifier prepares the form, then the name of the certifier shall also be included.¶
- (2) Crop Year. Record the crop year for the calendar year that the crop will be harvested.¶
- (3) Field Identification and Acreage. Identify the location and the acreage for each field and label field location and the field identifier for each field on a map or aerial photograph.¶
- (4) Soil Type and Nitrogen. For each field, identify and label the soil type on a map or aerial photograph and record pre-planting levels of plant available nitrogen in the crop root zone.¶
- (5) Crop Type(s). For each field, identify and label on a map or aerial photograph the crop type(s) for the upcoming season.¶
- (6) Estimated Crop Yield. For each field, estimate yield per acre for each crop type. ¶
- (7) Nitrogen Management Measures. For each field, record anticipated nitrogen management measures and specify the anticipated agronomic application rate for each crop.¶
 - (a) An agronomic application rate shall account for existing plant-available nitrogen in the soil and include plant-available nitrogen to be applied from all sources including irrigation water.¶
 - (b) A Landowner may use OSU Organic Fertilizer & Cover Crop Calculator: Predicting Plant-available Nitrogen (EM 9235) (2019) to determine the agronomic application rate for a crop.¶
 - (c) An agronomic application rate for mid- or late-season fertilizer application shall account for the need for plant available nitrogen as obtained from soil or petiole sampling or as consistent with land grant university guidance for management of a specific crop type.¶
- (8) Anticipated Total Nitrogen. For each field, record estimated total nitrogen to be applied during the growing season from all sources.¶
- (9) Irrigation Water Management Measures. For each field, record the irrigation method(s) that will be used to meet the objectives in OAR 603-095-5025(3).¶
- (10) Adaptive Management Measures. For each field, record any applicable adaptive management measures according to Table 1 in OAR 603-095-5055(8).¶
- (11) Certification. A landowner shall provide proof of certification of an annual nitrogen plan as described in OAR 603-095-5060.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5050

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Contains the required elements of a post-harvest summary record.

CHANGES TO RULE:

603-095-5050

Post-Harvest Summary Records

(1) Each calendar year, following implementation of an annual nitrogen plan, a landowner subject to this rule shall prepare a post-harvest summary record on a worksheet provided by the department or according to a format otherwise used by the landowner. The post-harvest summary record shall be used to evaluate the effectiveness of an annual nitrogen plan.

(2) A post-harvest summary record shall include each of the following elements.

(a) Landowner Name. Record the name of the landowner and the name of the operator if operator is not the owner of the land.

(b) Crop Year (harvested). Record the crop year for the calendar year that the crop is harvested.

(c) Crop Type. For each field, record the type of crop(s) harvested.

(d) Crop Harvest Yield. Record the crop harvest yield in crop production units per acre and include all harvested materials from primary harvest, secondary crop harvests, and crop residue or other materials (lbs/acre).

(e) Irrigation Water Management Measures. For each field, record the irrigation method(s) used and assess whether the goal in OAR 603-095-5025(1) was met.

(f) Nitrogen Management Measures. Record nitrogen management measures implemented, including the agronomic application rate used for each crop.

(g) Total Nitrogen Applied (lbs/acre). For each field, record the total nitrogen applied as follows:

(A) Total nitrogen applied through irrigation water;

(B) Total nitrogen applied through fertilizer; and

(C) If applicable, total nitrogen from crop residues or cover crops.

(h) Annual Nitrogen Plan Evaluation. For each field, using a methodology described in OAR 603-095-5055 record a determination of whether the annual nitrogen plan was met or followed or not, and a description of the methodology(ies) used to make this conclusion.

(i) Adaptive Management Measures. For each field, describe any applicable adaptive management measures from Table 1 in OAR 603-095-5055(8) to be employed in the following calendar year's annual nitrogen plan.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

RULE SUMMARY: Sets out the methodologies for evaluating an annual nitrogen plan and contains adaptive management measures.

CHANGES TO RULE:

603-095-5055

Annual Nitrogen Plan Evaluation

(1) A landowner subject to this rule has met or followed an annual nitrogen plan if, for each field, application of fertilizer at an agronomic application rate has resulted in achieving a crop's estimated yield, post-harvest soil nitrate levels are low or decreasing and nitrate leaching is minimized or prevented.

(a) A landowner may estimate post-harvest soil nitrate levels using any one or more of the methodologies provided in sections (2) - (5) of this rule.

(b) A landowner has minimized or prevented nitrate leaching only as consistent with section (6).

(2) A/R Ratio. Especially when evaluated over multiple years, the A/R ratio may provide a reliable measurement of the nitrogen left in the field post-harvest. In each consecutive year, the nitrogen left in the field from the prior year as approximated by the A/R ratio will either be utilized by the next crop or move further down the soil with the potential of leaching into the groundwater. A landowner has met or followed their annual nitrogen plan if for each specific crop type, the A/R ratio is low or dropping.

(a) The A/R ratio is calculated as the ratio of total nitrogen applied divided by the total nitrogen removed. (A/R = All nitrogen added to a field from any source/ All nitrogen removed from a field in harvested or other materials).

(b) Total nitrogen applied shall be the sum total of all nitrogen from any source applied to a field (lbs/unit).

(c) Total nitrogen removed shall be calculated by multiplying crop yield (lbs/acre) by the specific nitrogen coefficient (CN) (lbs/unit) for that crop. (Nitrogen removed (lbs/acre) = Crop Yield (units/acre) x CN (lbs/unit)). Crop yield includes the harvested crop removed from the field and other materials. Other materials include wheat straw, crop residues, and orchard prunings that are removed from a field.

(3) A-R Difference. A landowner may estimate post-harvest soil nitrate levels as the A-R difference (A - R = storage of N in soil). An annual nitrogen plan is met or followed if a landowner is approaching or meeting a steady-state condition, i.e., soil nitrogen storage is within an acceptably small value for the crop type. The A-R difference may also be paired with the A/R ratio, especially where use of only the A/R ratio may mask significant quantities of nitrogen left in the field.

(a) The A - R difference is calculated as the sum total of nitrogen (lbs/acre) added to a field from any source minus the sum total of all nitrogen removed (lbs/acre) from a field. (Nitrogen Applied minus Total Nitrogen Removed = Change in Soil N storage).

(b) Total nitrogen applied (lbs/acre) is calculated as the sum total of nitrogen added to a field from any source.

(c) Total nitrogen removed (lbs/acre) is calculated as actual crop yield (units/acre) multiplied by the specific nitrogen coefficient (CN) (lbs/unit) of the harvested crop. (Nitrogen removed (lbs/acre) = Crop Yield (units/acre) x CN (lbs/unit)). Crop yield includes the harvested crop removed from the field and other materials. Other materials include wheat straw, crop residues, and orchard prunings that are removed from a field. (Nitrogen Removed (lbs/acre) = Crop Yield (units/acre) x CN (lbs/unit)).

(4) Post-harvest soil nitrate samples. A landowner may determine post-harvest nitrate levels using soil nitrate levels derived from post-harvest soil samples taken consistent with the soil sampling protocol in OAR 603-095-5065(2).

(a) Low or decreasing post-harvest soil nitrate concentrations may indicate that a landowner has applied fertilizer at an agronomic application rate and the risk of nitrate leaching is lowered.

(b) Increasing post-harvest soil nitrate concentrations may indicate an increased risk of nitrate leaching.

(5) Estimated Crop Yield. A landowner may estimate post-harvest soil nitrate levels by determining whether they met or exceeded their estimated crop yield.

(a) If a landowner has met or exceeded their estimated crop yield this is an indication that a landowner has applied fertilizer at an agronomic application rate and post-harvest soil nitrate concentrations are low.

(b) If a landowner has not met or exceeded their estimated crop yield, this may be an indication that a landowner has not applied fertilizer at an agronomic application rate and excess plant available nitrogen remains in the soil at the crop root depth.

(6) Nitrate leaching is prevented or minimized if a landowner has followed their irrigation water management plan and has achieved the goal in OAR 603-095-5025(1) for each irrigation event.

(7) For each field, a landowner shall determine and record in their post-harvest summary report whether they met or followed an annual nitrogen plan or not.

(8) Adaptive Management Measures. For each field where an annual nitrogen plan was not met or followed, a landowner shall record in the following calendar year's annual nitrogen plan, the adaptive management measures they will employ according to Table 1 Adaptive Management Measures.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

RULE ATTACHMENTS MAY NOT SHOW CHANGES. PLEASE CONTACT AGENCY REGARDING CHANGES.

Table 1. Adaptive Management Measures

Annual Nitrogen Plan Met or Followed?	Required Actions
Yes	(1) No changes to current practices required.
No Year 1	(1) Document reason(s) for not following an annual nitrogen plan in post-harvest summary record. (2) Reevaluate nitrogen plan assumptions for estimated crop yield. (3) Verify actual agronomic application rates and recalibrate application equipment as necessary. (4) Review irrigation water management and determine how to achieve the standard in OAR 603-095-5025(3). (5) Consider planting a fall/winter cover crop.
No Year 2	(1) Continue Required Actions for “No” Year 1.
No Year 3	(1) Continue the Required Actions for “No” Year 1 and 2; and (2) Adjust nitrogen application timing so nutrient availability aligns with peak crop uptake; (3) Stop nitrogen application after peak crop uptake; and (4) Plant a fall/winter cover crop.
No Year 4	(1) Continue the actions in the Required Actions column for “No” Year 1 through Year 3; and (2) Reduce nitrogen application to fields; and (3) Hire a Certified Crop Advisor to develop annual nitrogen plan and agronomic application rates.

Table 1. Adaptive Management Measures

<p>No Year 5</p>	<p>(1) Continue the actions for “No” Year 3; and (2) Enhance residual nitrogen removal via cropping; and (3) Reduce nitrogen application.</p>
<p>No Year 6 And 6+</p>	<p>(1) Stop further nitrogen application until you have hired a Certified Crop Advisor to develop an annual nitrogen plan and develop appropriate agronomic application rates for each crop and then apply nitrogen according to the recommendations of the Certified Crop Advisor. (2) To determine progress after taking the measures in (1) above, collect post-harvest soil samples consistent with the protocol in OAR 603-095-5065(2)(a) at the 12 - 24 inch, 24 - 36 inch, 36 - 48 inch, and 48 - 60 inch depth or until refusal or groundwater is reached and analyze for nitrate.</p>

ADOPT: 603-095-5060

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Sets out the standards for certification of annual nitrogen plans.

CHANGES TO RULE:

603-095-5060

Certification of Annual Nitrogen Plans

Annual nitrogen plans shall be certified in one of the following ways:¶

(1) Certified by an irrigation and nitrogen management plan specialist.¶

(a) Specialists may include Certified Professional Soil Scientists by the Soil Science Society of America, Certified Crop Advisers by the American Society of Agronomy, or Technical Service Providers certified in nutrient management by the Natural Resources Conservation Service (NRCS).¶

(b) In certifying a plan, a specialist shall attest that the record accurately reflects the conditions and management of the agricultural operation, that they can answer questions relevant to the document certified, and are competent and proficient by education and experience relevant to the development of the document.¶

(2) Self-certified by the landowner who attests that the document adheres to a site-specific recommendation from the Natural Resources Conservation Service (NRCS) or from a land grant university, provided the specific NRCS recommendations or land grant university recommendations are documented along with the certification.¶

(3) Self-certified by the landowner if the landowner states that they apply no fertilizer to any field on the agricultural operation.¶

(4) Each certification shall include:¶

(a) The name of the operator if different than the landowner;¶

(b) The name of the certifier;¶

(c) The date of plan certification;¶

(d) The certification method used; and¶

(e) The acreage category of the agricultural operation as follows:¶

(A) Acreage Category A with a range of 500 - 999 irrigated acres.¶

(B) Acreage Category B with a range of 1000 - 1999 irrigated acres.¶

(C) Acreage Category C with a range of 2000 plus irrigated acres.¶

(5) Each submission of proof of certification shall be on a form provided by the department and shall contain a statement that under penalty of law, the certified record is true, accurate, and complete.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5065

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Sets out soil sampling protocols for pre-plant and post-harvest soil sampling.

CHANGES TO RULE:

603-095-5065

Soil Sampling Protocol

(1) Pre-planting soil samples or soil samples taken prior to mid- or late-season fertilizer application shall be collected at the depth of the crop root zone according to the applicable protocol in Oregon State University Extension Service Publication, A Guide to Collecting Soil Samples for Farms and Gardens (EC628) (2022) and Soil Testing Lab Selection and Recommended Analytical Methods for Oregon (EM 9423) (2024).¶

(2) Post-harvest soil samples shall be collected after harvest of annual crops, before three inches of rainfall accumulates, and before significant post-harvest irrigation. October 31 shall be the start date for tallying the accumulation of rainfall.¶

(a) Separate composite soil samples shall be collected at the 0 - 12 inch depth, the 12 - 24 inch depth and the 24 - 36 inch depth according to the protocol contained in Oregon State University Extension Publications Postharvest Soil Nitrate Testing for Manured Grass and Silage Corn (West of the Cascades)(EM 8832-E) (2021) and Soil Testing Lab Selection and Recommended Analytical Methods for Oregon (EM 9423) (2024) for post-harvest nitrate-nitrogen.¶

(b) If soil samples are taken after three inches of rainfall accumulates, a landowner shall collect an additional composite soil sample for the 36 - 48 inch depth to account for nitrate leaching.¶

(3) Soil samples shall be processed at a laboratory accredited by the North American Proficiency Testing (NAPT).

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5070

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Contains the content and timing for the Oregon Department of Agriculture's evaluation of agricultural operations with large irrigated acres (500 acres and greater).

CHANGES TO RULE:

603-095-5070

Large Irrigated Acreages Program Evaluation

(1) The department shall conduct an evaluation of agricultural operations with large irrigated acreages as described in OAR 603-095-5035(1) to determine whether and to what extent the nitrogen management measures and annual nitrogen plans have been implemented and adaptive management measures adopted. ¶

(a) The department may initiate an evaluation under this section at least one calendar year subsequent to the effective date of these area rules where the total irrigated acres for an agricultural operation is 1,000 or more. ¶

(b) The department may initiate an evaluation under this section for at least two calendar years subsequent to the effective date of these area rules where the total irrigated acres for an agricultural operation is between 500 and 999 acres. ¶

(2) The department's evaluation shall include an on-farm audit of documents required pursuant to OAR 603-095-5020(3), and OAR 603-095-5040 - 5055 which documents shall remain with the landowner at the agricultural operation. ¶

(a) The department may use the results of any audit to determine the percentage of landowners participating in the program and to determine whether landowners are recording and keeping information as required. ¶

(b) The department may inspect any portion of the agricultural operation and fields as necessary to determine the extent of participation in the program. ¶

(3) The department's program evaluation may also include the following: ¶

(a) The number of acres within the LUBGWMA included in certified nutrient management plans. ¶

(b) Data collected through the audit process will be aggregated for the entire LUBGWMA and may include the following: ¶

(A) The percentage of acres in each adaptive management category (e.g., green/yellow/orange/red), as defined in Table 1 of OAR 603-095-5055. ¶

(B) The percentage of acres meeting the irrigation water management goal as is consistent with OAR 603-095-5025(1).

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5075

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Sets forth provisions governing specific action requirements.

CHANGES TO RULE:

603-095-5075

Specific Action Requirements

(1) A landowner conducting agricultural activities on agricultural land may be required to undertake additional, site-specific practices designed to prevent waste from entering the groundwater of the state if after inspection of an agricultural operation, the department determines that a landowner is in compliance with the rules of this chapter but there still exists the potential for waste to enter the groundwater of the state.¶

(2) A landowner may appeal a specific action requirement as provided in OAR 603-090-0040 - 0050.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)

ADOPT: 603-095-5080

NOTICE FILED DATE: 10/31/2025

RULE SUMMARY: Sets forth provisions governing complaints and investigations by the Oregon Department of Agriculture.

CHANGES TO RULE:

603-095-5080

Complaints and Investigations

(1) When the department receives notice of an alleged occurrence of pollution resulting from agricultural activities on agricultural land within the LUBGWMA through a written complaint, its own observation, through notification by another agency, or by other means, the department may conduct an investigation.¶

(2) Each notice of an alleged occurrence of pollution resulting from agricultural activities on agricultural land within the LUBGWMA shall be evaluated in accordance with the criteria in ORS 468B.025, ORS 568.900 to 568.933 and OAR 603-095-5000 - 5065 to determine whether an investigation is warranted.¶

(3) Any person allegedly being damaged or otherwise adversely affected by pollution resulting from agricultural activities on agricultural land within the LUBGWMA or alleging any violation of ORS 468B.025, ORS 568.900 to 568.933 or OAR 603-095-5000 - 5065 may file a complaint with the department.¶

(4) The department will evaluate or investigate a complaint filed by a person under OAR 603-095-0380(3) if the complaint is in writing, signed and dated by the complainant and indicates the location and description of:¶

(a) The waters of the state allegedly being damaged or impacted; and¶

(b) The property allegedly being managed under conditions violating ORS 468B.025, ORS 568.900 to 568.933 or OAR 603-095-5000 - 5065.¶

(5) As used in section (4) of this section, "person" does not include any local, state or federal agency.¶

(6) If the department determines that a violation of ORS 468B.025, ORS 568.900 through 568.933 or OAR 603-095-5000 - 5065 has occurred, the department may proceed with the enforcement procedures provided in OAR 603-090-0060 through 603-090-0120.

Statutory/Other Authority: ORS 561.191, ORS 568.900-933

Statutes/Other Implemented: ORS 568.900-933, 468B.025(1)