

CLEAN DRAFT

AGRICULTURAL ACTIVITIES IN THE LOWER UMATILLA BASIN GROUNDWATER MANAGEMENT AREA

10/10/25

Edits from RAC #2 4/23/25
Edits from RAC #3 5/22/25
Edits from DEQ 6/6/25
Edits from RAC #4 6/26/25
Edits after call with OSU 7/14/25
Edits from RAC #5 7/24/25
Edits from DEQ 8/8/25
Edits from OSU comments 8/14/25
Partial Edits from RAC #6 8/18/25
Edits from Board of Agriculture 9/5/25
Edits from RAC #7 9/30/25
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603-XX-XX01

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, as shown in **Appendix A**, 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 as a result of 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 within the LUBGWMA and contain actions necessary to prevent or minimize nitrate leaching to groundwater.
- (4) The Oregon Department of Agriculture's authority for these rules is ORS 561.191, ORS 568.900 – 933, ORS 468B.025, ORS 468B.150 – 190 and ORS 541.973.

603-XX-XX02

Geographic and Programmatic Scope

- (1) The operational boundaries for the agricultural lands subject to these area rules are in **Appendix A** and include all agricultural lands within the LUBGWMA that are 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 lands owned or managed by federal agencies, lands that make up the Reservation of the Confederated Tribes of the Umatilla Indian Reservation, and land or activities subject to Oregon's Forest Practices Act.

(3) All landowners conducting agricultural activities on lands 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 rules apply to all agricultural lands 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 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 rules.

603-XX-XX03

Definitions

For the purposes of the rules in this division 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) "Agronomic application rate" or "agronomic rate" means the application rate of fertilizers required to achieve estimated crop yield with no or minimal leaching of nitrate beyond the crop root zone.

(3) "Agricultural land(s)" means lands in agricultural use.

(4) "Agricultural operation" means (a) all agricultural land, whether or not contiguous, that is under the effective control of a landowner engaged in the production of livestock or livestock products or the growing or harvesting of agricultural crops; or (b) a "farm" as defined in ORS 30.930(1).

(5) "Agricultural use" means the use of land for the raising or production of livestock or livestock products including poultry or poultry products, milk or milk products, fur-bearing animals; or the growing of crops such as, but not limited to, grains, small grains, fruit, vegetables, forage grains, nursery stock, Christmas trees; or any other agricultural or

horticultural use or animal husbandry or any combination thereof. Wetlands, pasture, and woodlands accompanying land in agricultural use are also defined as in agricultural use.

(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” are administrative rules 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 rules.

(8) “Certifier” means a qualified irrigation and nitrogen management plan specialist as provided in OAR 603-XX-XX13.

(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 advisors, 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 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), 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 lands” or “irrigated agriculture” means agricultural lands irrigated to produce crops or pasture and including lands that are planted to crops that are not yet marketable such as vineyards and tree crops. Irrigated lands include 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 the possession of any land, whether as lessee, renter, or tenant.

(19) “Manure” means solids or liquids excreted from an animal.

(20) “Nitrate” means readily soluble form of nitrogen, easily taken up by plants, but also prone to leaching, with the chemical formula NO_3 ($\text{NO}_3\text{-N}$).

(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 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 waste water 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 NO_3 ($\text{NO}_3\text{-N}$) and NH_4 ($\text{NH}_4\text{-N}$).

(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% 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, and / or water insoluble nitrogen manufactured through human controlled chemical reactions. Synthetic nitrogen includes both dry and liquid formulations.

(28) “Total Nitrogen (TN) is the sum of all nitrogen-containing compounds in a sample including both inorganic and organic forms. $\text{TN} = \text{Total Kjeldahl Nitrogen (TKN)} + \text{Nitrate (NO}_3\text{-N)} + \text{Nitrite (NO}_2\text{)}$.

(29) “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 ($\text{NO}_3\text{-N}$) that enters groundwater as a result of agricultural activities.

(30) “Water” or the “waters of the state” has the meaning given in ORS 468B.005.

603-XX-XX04

Prohibited Acts

[This rule applies to all landowners in the LUBGWMA]

(1) Fertilizer may not be applied to agricultural lands 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) The placing of fertilizers, fumigants, or pesticides into groundwater via back flow through a water supply well is prohibited.

(3) The placing of fertilizers, fumigants, or pesticides down a groundwater well casing is prohibited.

(4) A landowner within the LUBGWMA may not violate any provision of these area rules OAR 603-XX-XX01 – XX19.

603-XX-XX05

Land Application Rates and Restrictions

[These rules apply to all landowners within the LUBGWMA]

(1) A landowner shall employ nitrogen management measures when applying fertilizer to agricultural lands within the LUBGWMA.

(2) Prior to the first application of fertilizer each year, a landowner within the LUBGWMA shall:

(a) Except as provided in subsection (2)(c), take soil samples consistent with OAR 603-XX-XX14(1) to determine plant available nitrogen; and

(b) Take into consideration 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-XX-XX12(3) 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 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 subsection (3) shall be retained by the landowner for five (5) years and made available to the department upon request by the department.

(5) A landowner may not apply fertilizer:

(a) To fields with a frozen surface crust two (2) 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 to the surface.

(6) A landowner may not apply synthetic nitrogen to fields that are bare unless the landowner is preparing the bare fields for the current year's annual crop or cover crop planting and the application is within 60 days of planting.

603-XX-XX06

Irrigation Water Management

[This rule applies to all landowners within the LUBGWMA]

(1) All landowners within the LUBGWMA shall manage irrigated agricultural lands 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, landowners 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; and

(f) Computerized irrigation scheduling recommendation.

(3) A landowner 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.

603-XX-XX07

Animal Pasturing

[This rule applies to all landowners within the LUBGWMA]

(1) A landowner grazing livestock on pasture within the LUBGWMA shall rotate livestock and limit livestock numbers to prevent bare ground and shall promote and maintain adequate vegetative cover.

(a) In determining an appropriate stocking rate for livestock grazing on pasture, a landowner shall match livestock requirements with the available forage and frequently monitor forage growth and adjust the stocking rate and grazing period to prevent runoff or overgrazing.

(2) Where animals are concentrated to a distinct heavy use area during the rainy season so that the soil is prone to compaction or when inadequate forage growth would result in over-grazing, a landowner 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 if spreading during the growing season, spread at an agronomic application rate.

(3) A landowner applying fertilizer to irrigated pasture shall conduct nutrient management in a manner that prevents the over-application of nitrogen and reduces the likelihood of nitrate leaching to groundwater.

(a) A landowner mechanically applying fertilizer to pasture shall first conduct a soil test consistent with the soil sampling protocol in OAR 603-XX-XX14(1) to determine plant available nitrogen in the soil.

(4) A landowner 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.

603-XX-XX08

Control Measures for Irrigated Agriculture on Large Acreages

[This rule applies only to landowners irrigating large acreages]

(1) The provisions of OAR 603-XX08 – XX16 specifically govern agricultural activities on agricultural lands 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 or pasture on those acreages.

(2) In addition to conducting agricultural activities consistent with OAR 603-XX01 – XX07, landowners subject to these rules must prepare an annual nitrogen plan as described in OAR 603-XX-XX09, prepare annual post-harvest summary records as provided in OAR 603-XX-XX11, evaluate performance under an annual nitrogen plan and implement adaptive management measures as described in OAR 603-XX-XX12, and collect and submit residual soil samples as described in OAR 603-XX-XX15.

(3) Documents created as specified in OAR 603-XX-XX08 – XX16 shall be retained for five (5) years at the landowner's principal place of business for the agricultural operation and made available for inspection at the request of the department.

603-XX-XX09

Annual Nitrogen Plan

[This rule applies only to landowners irrigating large acreages]

(1) Each year, prior to the first application of fertilizer, a landowner subject to these rules 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) 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-XX-XX13 shall be submitted to the department by May 1 of each year.

(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 year may result in enforcement by the department, and conditions that indicate a violation of ORS 468B.025(1) may result in enforcement by the department.

603-XX-XX10

Annual Nitrogen Plan Contents

[This rule applies only to landowners irrigating large acreages]

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

(a) Record pre-planting levels of plant available nitrogen in the 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 and include plant-available nitrogen to be applied from all sources including irrigation water.

(b) Landowners may use *OSU Organic Fertilizer & Cover Crop Calculator: Predicting Plant-available Nitrogen*. (EM 9235) (2019) to determine the agronomic application rate for their 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 and/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-XX-XX06(3).
- (10) Adaptive Management Measures. For each field, record any applicable adaptive management measures according to Table 1 in OAR 603-XX-XX12.
- (11) Certification. A landowner shall provide proof of certification of an annual nitrogen plan as described in OAR 603-XX-XX13 to the department by May 1 of each calendar year.

603-XX-XX11

Post-Harvest Summary Records

[This rule applies only to landowners irrigating large acreages]

- (1) Each year, following implementation of an annual nitrogen plan, a landowner subject to these rules 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 (lb/acre).
 - (e) Irrigation Water Management Measures. For each field, record the irrigation method(s) used and assess whether the objectives of OAR 603-XX-XX06(3) were 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:
 - (i) Total nitrogen applied through irrigation water;
 - (ii) Total nitrogen applied through fertilizer; and
 - (iii) If applicable, total nitrogen from crop residues or cover crops.
 - (h) Annual Nitrogen Plan Evaluation. For each field, record a determination according to 603-XX-XX12 of whether the annual nitrogen plan was followed and a description of the methodology used to make this conclusion.
 - (i) Adaptive Management Measures. For each field, describe any applicable adaptive management measures to be employed in the following year's annual nitrogen plan.

OAR 603-XX-XX12

Annual Nitrogen Plan Evaluation

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

(a) A landowner may assess implementation of nitrogen management measures including the development of an accurate agronomic application rate consistent with any one of the methodologies provided in subsections (2) – (4) of this rule.

(b) A landowner has minimized or prevented nitrate leaching only as consistent with subsection 5.

(2) A landowner may estimate post-harvest soil nitrate levels according to the partial nitrogen balance equation: Total Nitrogen Applied minus Total Nitrogen Removed = Change in Soil N storage ($A - R = \Delta N_{\text{soil}}$). An annual nitrogen plan is met or followed if a landowner is approaching or meeting a steady-state condition, i.e., soil N storage (ΔN_{soil}) is within an acceptably small value for the crop type.

(a) For each field, a landowner may calculate post-harvest plant available nitrogen levels as total nitrogen (N) inputs including inputs from irrigation water (if applicable) minus total crop N removal including removal of crop residue (if applicable) (Total N Inputs – Total N Removed).

(b) Total crop N removal (lbs/acre) is calculated as actual crop yield (units/acre) plus crop residue (if any) multiplied by the specific nitrogen coefficient (C_N) (lbs/unit) of the harvested crop (Nitrogen Removed (lbs/acre)) = Crop Yield (units/acre) x C_N (lbs/unit)).

(3) 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-XX-XX14.

(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.

(4) A landowner may estimate post-harvest 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 met or followed their annual nitrogen plan, and the risk of nitrate leaching is lowered.

(b) If a landowner has not met or exceeded their estimated crop yield, this may be an indication that excess plant available nitrogen remains in the soil at the crop root depth, and the risk of nitrate leaching is increased.

(5) Nitrate leaching is prevented or minimized if a landowner has followed their irrigation water management plan and one or more irrigation events did not result in the exceedance of the soil's field capacity.

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

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

(a) 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-XX-XX06(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.
No Year 5	(1) Continue the actions for “No” Year 3; and (2) Enhance residual nitrogen removal via cropping; and (3) Reduce nitrogen application.
No Year 6 And 6+	(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 OAR 603-XX-XX14(2) 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.

603-XX-XX13

Certification of Annual Nitrogen Plans

[This rule applies only to landowners irrigating large acreages]

(1) Annual nitrogen plans shall be certified in one of the following ways:

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

(i) Specialists may include Professional Soil Scientists, Professional Agronomists, or Crop Advisors certified by the American Society of Agronomy, or Technical Service Providers certified in nutrient management by the Natural Resource Conservation Service (NRCS);

(b) Self-certified by the landowner who attests that the document adheres to a site-specific recommendation from the NRCS, a certified agronomist or crop advisor, or from a land grant university, provided the specific NRCS recommendations or land grant university recommendations are documented along with the certification; or

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

(2) Each certification shall include:

(a) The name of the operator or 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.

Acreage Categories

Acreage Category	Range of Acres
A	500 - 999
B	1000 - 1999
C	2000+

(3) Each submission of proof of certification shall be contained 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.

603-XX-XX14

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 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 (3) 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 applicable 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 (3) 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).

603-XX-XX15

Residual Soil Nitrate Levels

[This rule applies only to landowners irrigating large acreages]

(1) A landowner subject to these rules shall determine residual soil nitrate levels for ten percent (10%) of the irrigated fields under their ownership or control using the soil sampling protocol in subsection (2) of this section.

(a) Initial residual nitrate soil samples shall be taken one (1) calendar year following the effective date of these rules in the fall, post-harvest.

(b) Thereafter, residual soil nitrate samples shall be taken in the fall, post-harvest, once every five (5) years.

(c) Samples shall be taken at the same GPS locations (Lat/Long) with the locations marked on a map or aerial photograph.

(2) To determine residual soil nitrate levels a landowner shall collect separate composite soil samples after harvest of annual crops.

(a) Separate composite soil samples shall be collected at the 60 inch (5 foot) depth according to protocol in, *Postharvest Soil Nitrate Testing for Manured Grass and Silage Corn (West of the Cascades)*(EM 8832-E) (2021) and *Soil Nitrate Testing for Willamette Valley Vegetable Production* (EM9221) (2019) for post-harvest nitrate-nitrogen.

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

(3) A landowner shall record residual soil nitrate levels on a worksheet supplied by the department and shall also record the GPS location for each sample.

(a) Landowners shall submit completed worksheets to the department by December 30 of each reporting year.

(b) Notwithstanding whom the operator is, a landowner shall assure that residual soil nitrate samples are taken, recorded, and sample results submitted consistent with this rule.

603-XX-XX16

Large Irrigated Acreages Program Evaluation

[This rule applies only to landowners irrigating large acreages]

(1) The department shall conduct an evaluation of agricultural operations with large irrigated acreages as described in OAR 603-XX-XX08(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 shall not conduct an evaluation under this subsection for at least three (3) calendar years subsequent to the effective date of these rules where the total irrigated acres for an agricultural operation is 1,000 or more.

(b) The department shall not conduct an evaluation under this subsection for at least five (5) calendar years subsequent to the effective date of these 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-XX-XX08 – XX12 which documents shall remain with 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 in OAR 603-XX-XX08 – XX12

(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 evaluation may include a determination of the trends of residual soil nitrate levels if the department has a sufficient data set for a scientifically acceptable analysis.

OAR XXX-XX-XX17

Water Quality Certification Program and Agreements

[This rule applies only to landowners irrigating large acreages]

(1) The Agricultural Water Quality Certification Program is a voluntary opportunity for a landowner conducting agricultural activities within the LUBGWMA. Through this program, a landowner who has entered into an Agricultural Water Quality Certification Agreement with the department may:

(a) Upon entry into a Water Quality Certification Agreement with the department, receive regulatory certainty. The department shall, during the term of the certification agreement, consider a landowner as in compliance for purposes of enforcement, with ORS 468B.025 and ORS 568.930(1) and any of the department's rules implementing those statutes;

(b) Receive recognition that certified landowner's agricultural practices are protective of water quality; and

(c) Receive priority access to specially designated technical and financial assistance to implement practices that promote groundwater quality as that assistance is available.

(2) Qualifying landowners may apply for certification on an Oregon Agricultural Water Quality Certification Program form supplied by the department. Application elements shall include:

(a) A statement from the landowner agreeing to produce any documents requested for inspection by the department during the term of the Agricultural Water Quality Certification Agreement;

(b) A statement from the landowner agreeing to submit to the department post-harvest soil sample results each year for each field;

(c) A statement from the landowner agreeing to submit to the department residual soil nitrate samples; and

(d) A statement from the landowner agreeing that the department may use the data collected during landowner's participation in the Agricultural Water Quality Certification Program to support the program.

(3) The department may enter into an Agricultural Water Quality Certification Agreement with a landowner if:

(a) The application is complete;

(b) The department has, after inspection, determined that the landowner is in full compliance with the rules in this division; and

(c) The landowner agrees to the terms of the agreement.

(4) An Agricultural Water Quality Certification Agreement shall, among other terms, contain terms specifying that the landowner's duties include the duty to:

(a) Maintain compliance with all applicable water quality rules in place at the time of certification and to notify the department within 30 days of a violation of applicable water quality rules;

(b) Continue to implement the annual nitrogen plans, soil sampling as appropriate to implement the annual nitrogen plan, and post-harvest and residual soil nitrate soil sampling regimes.

(c) Inform the department upon the sale of any lands subject to the certification agreement or inform the department upon the purchase or lease of any additional agricultural land after the start of the certification agreement;

(d) Retain all records pertinent to the certification agreement and make them available to the department upon request;

(e) Allow entry by the department at agreed-upon dates and times to lands subject to the certification agreement for the purpose of the department's inspection for compliance with the terms of the agreement; and

(f) Inform the department if landowner is unable to comply with the terms of the certification agreement due to circumstances the landowner believes are beyond the landowner's control.

(5) An Agricultural Water Quality Certification Agreement shall, among other terms, contain terms specifying that the department:

(a) May conduct periodic audits with the landowner on lands subject to the certification agreement. An audit means a review of land management practices on lands subject to the certification agreement and a review of documents necessary to determine compliance with the certification agreement's terms;

(b) Shall notify landowner if documents or data retained by the department pursuant to a certification agreement are requested for disclosure under the Oregon Public Records Act;

(c) May recognize that all documents submitted to the department as part of landowner's certification agreement are exempt from disclosure provided that the documents are confidential submissions as provided in ORS 192.355(4), exempt as provided in ORS 192.355(9)(a), are trade secrets as provided in ORS 192.345(2) or are otherwise determined as lawfully exempt from disclosure;

(d) May terminate the certification agreement upon a final determination that the landowner has violated any state water quality law and rule in effect during the period of the certification agreement;

(e) May terminate the certification agreement if the department finds the landowner is no longer complying with any term of the certification agreement.

OAR 603-XX-XX18

Specific Action Requirements

- (1) A landowner subject to the rules in this chapter may be required to undertake additional, site-specific practices designed to prevent agricultural wastes 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 agricultural wastes to enter the waters of the groundwater of the state.
- (2) A landowner may appeal a specific action requirement as provided in OAR 603-090-0040 – 50.

OAR 603-XX-XX19

Complaints and Investigations

- (1) When the department receives notice of an alleged occurrence of agricultural pollution through a written complaint, its own observation, through notification by another agency, or by other means, the department may conduct an investigation. The department may, in its discretion, coordinate inspection activities with the appropriate Local Management Agency.
- (2) Each notice of an alleged occurrence of agricultural pollution shall be evaluated in accordance with the criteria in ORS 568.900 to 568.933 and any rules adopted thereunder to determine whether an investigation is warranted.
- (3) Any person allegedly being damaged or otherwise adversely affected by agricultural pollution or alleging any violation of ORS 468B.025, ORS 568.900 to 568.933 or any rules adopted thereunder 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 any rules adopted thereunder.
- (5) As used in subsection (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 any rules adopted thereunder has occurred, the department may proceed with the enforcement procedures provided in OAR 603-090-60 through 603-090-0120.