

Agricultural Activities Within the LUBGWMA

*Oregon Board of Agriculture Meeting
September 5, 2025*



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AGRICULTURE**

Rulemaking process



Draft Rules

Rulemaking Advisory Committee

Notice of Proposed Rulemaking

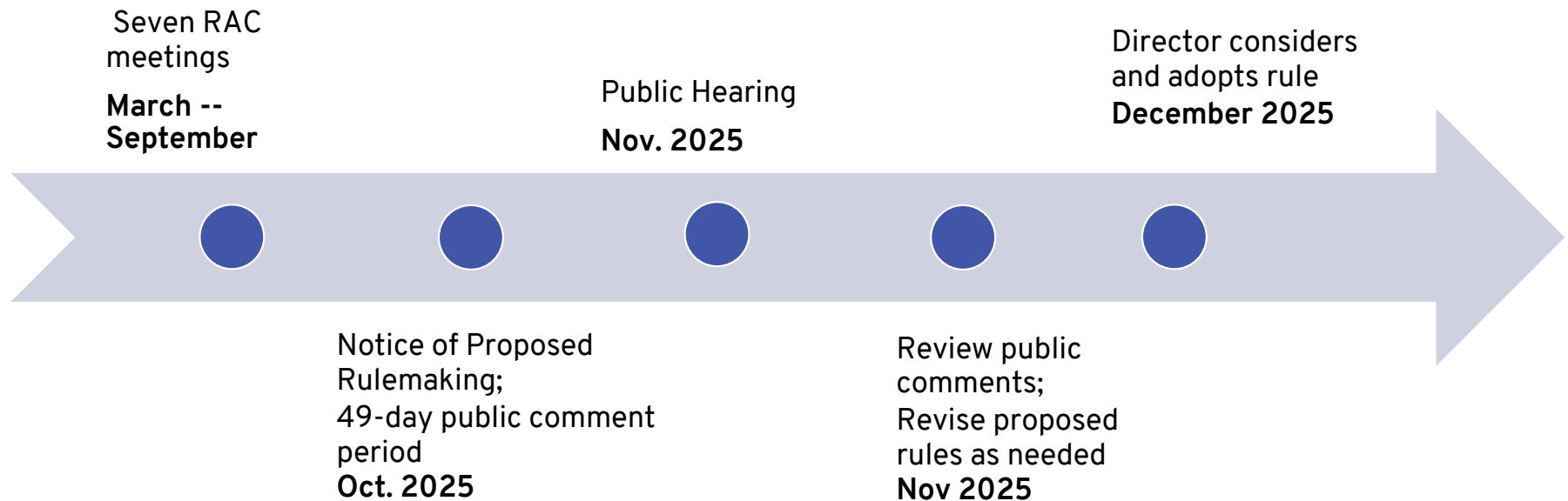
Public Comment & Hearings

Staff Recommendation and Director Decision



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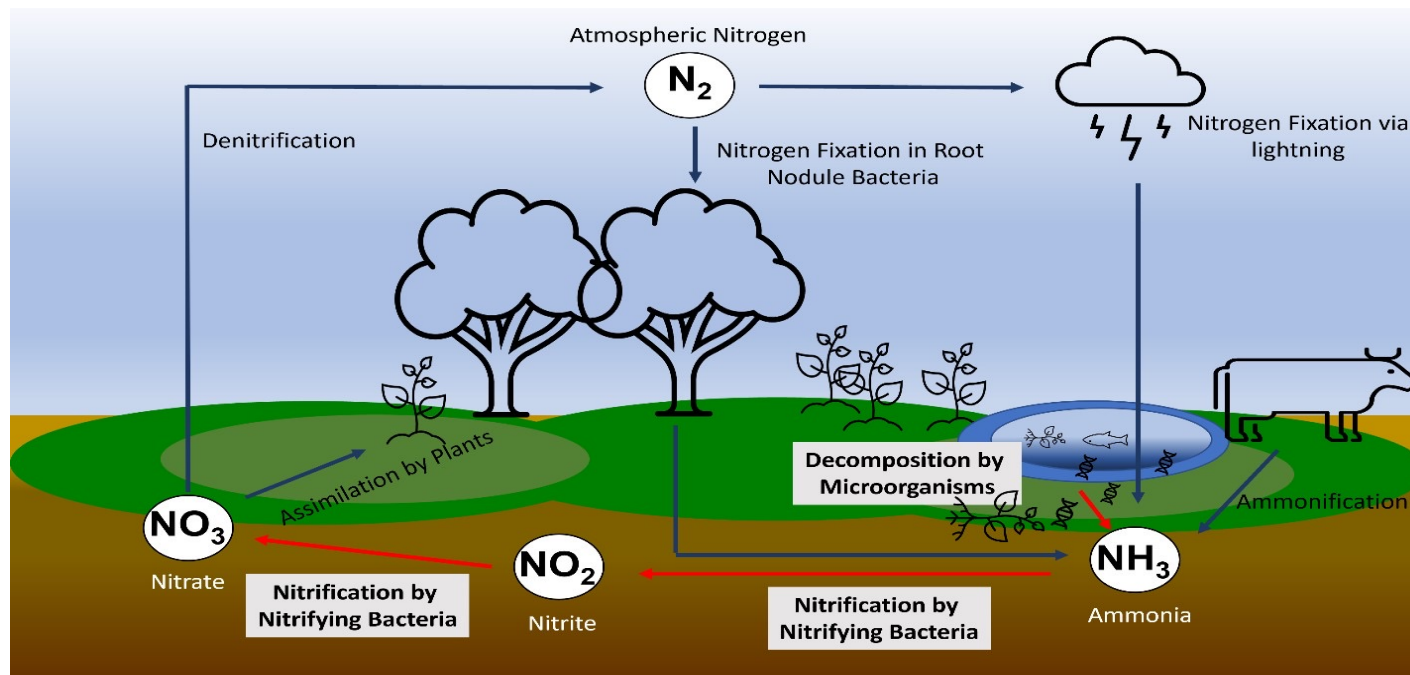
Estimated rulemaking timeline



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Basic Overview of The Nitrogen Cycle

Source: USGS



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The nitrogen cycle

- The soil is a “piggy bank” for nitrogen.
- Nitrogen is added as fertilizer.
- Nitrogen is removed as crop harvest.
- Excess N is stored in the soil.
 - Excess N in soil increases likelihood of leaching to groundwater.
- This dynamic can be shown as:

$$N_{\text{inputs}} - N_{\text{outputs}} = \text{Change in soil N storage } (\Delta N_{\text{soil}})$$



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Control strategy



Fertilizer application rates according to crop need.



Reduce nitrate loading in soils at the crop root zone.



Prevent or reduce excess nitrate from leaching into the groundwater.



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Best practicable management measures



Leave farm management in the grower's hands.



Results oriented – describes the standards to meet.



Provides grower assessment tools.



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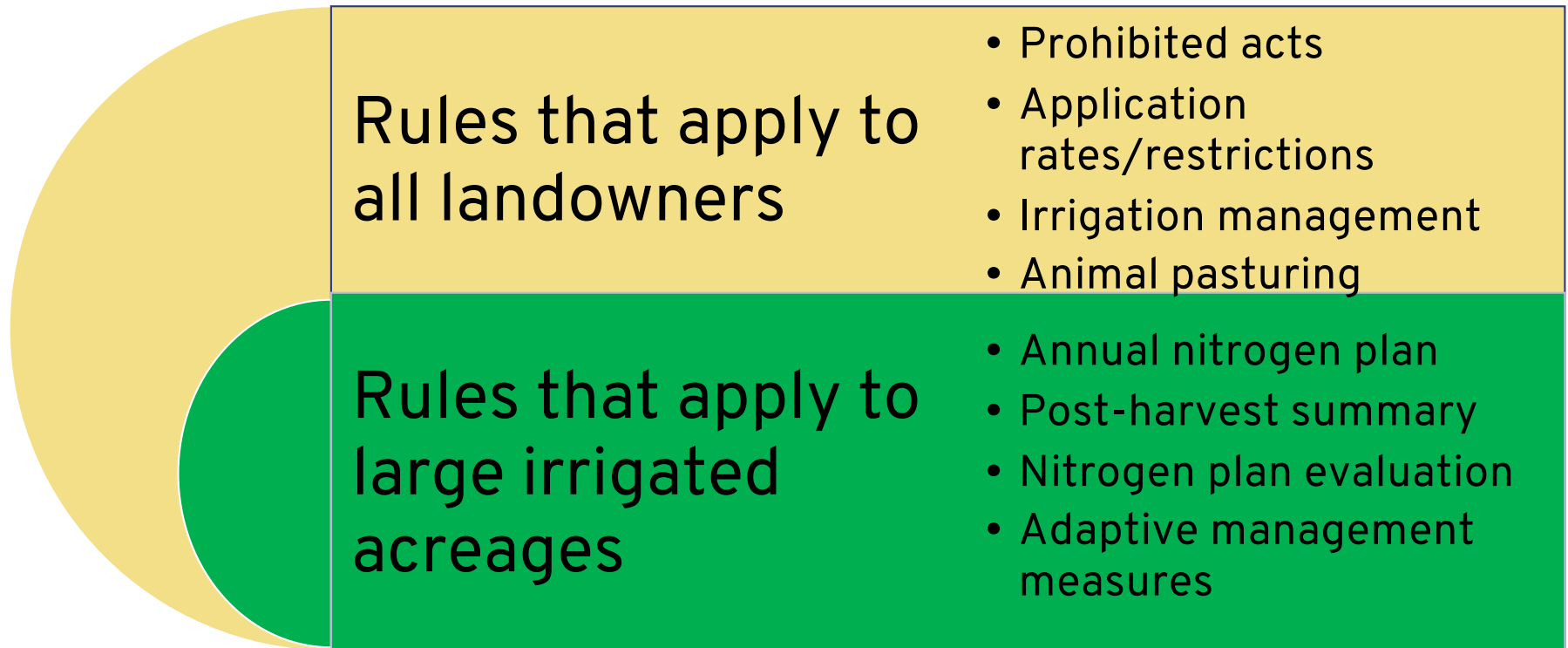


Overview of Draft Rules



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Program structure



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Prohibited Acts

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 they are likely to escape or be carried into groundwater of the state.



Prohibited Acts

May not place fertilizers, fumigants or pesticides via back flow or well casings.

May not violate the provisions of the rules.



Land Application Rates/Restrictions

- Prior to first application of N, take soil samples to determine how much N you need to apply.
- Document date/location of all N applications, soil moisture at time of application, and agronomic application rate used.
 - Records retained by landowner for five years.
- No application to frozen or saturated soils or synthetic N to bare fields unless within 30 days of planting.



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Irrigation Water Management

- Base volume of water needed according to specific parameters including soil moisture.
- Control rate and volume to minimize transport of N to groundwater.
- Match irrigation to crop demand.



Animal Pasturing

- Determine appropriate stocking rate and rotate livestock to prevent over-grazing and bare soils.
- Manage manure in heavy use areas.
- If applying N to pasture, test soil first to determine need.
- Irrigation should not exceed field capacity of soil.



Large Irrigated Acreage Program

(1,000 acres or more)

- Use Annual Nitrogen Plans as an assessment and management tool.
- Evaluate actual practices to forecasted practices and determine performance on your plan every year.
- Determine appropriate adaptive management measures for the following year's plan.



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Annual Nitrogen Plan

- A valuable tool for understanding N use on a specific site.
- Establish an agronomic application rate (fine tune N application)
- Determine residual N left in the soil at the end of the season.
- Use adaptive management measures to address excess N.



Annual Nitrogen Plan

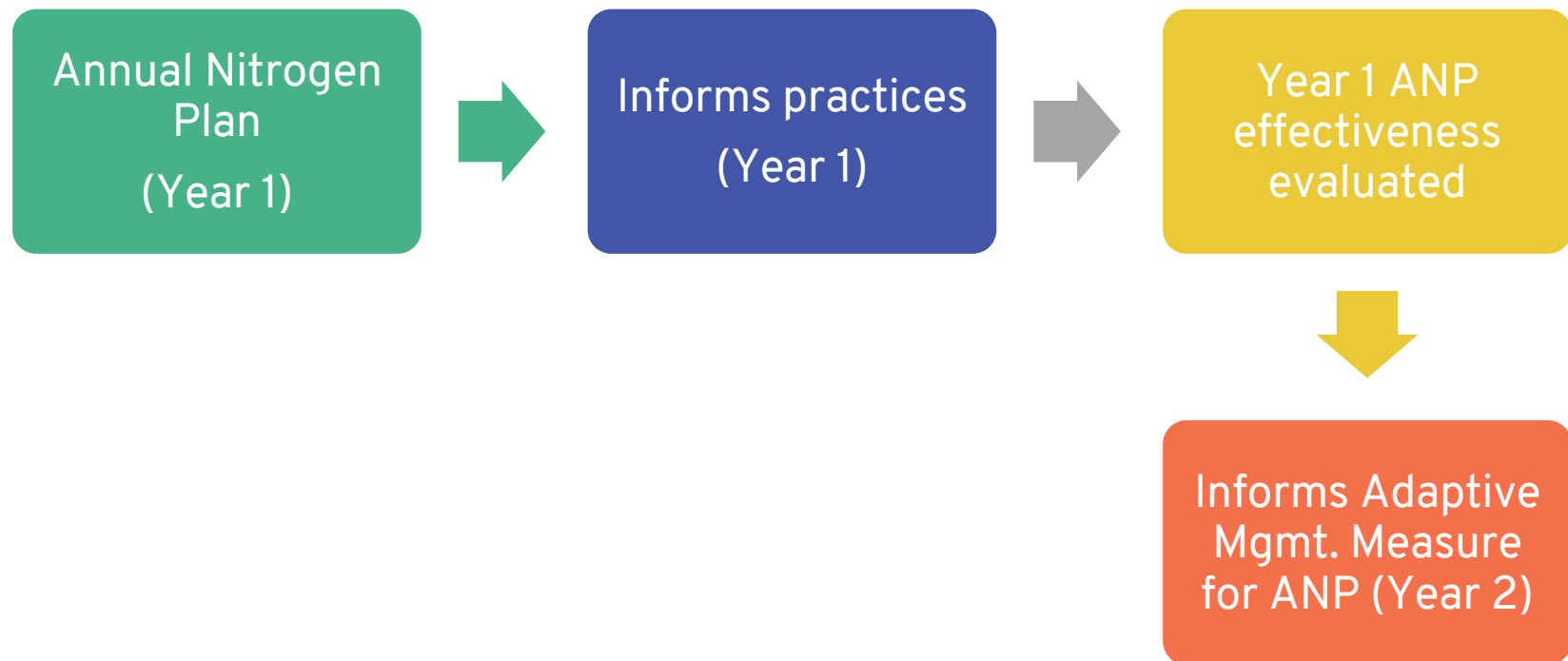
- Is an assessment tool.
- Is NOT a regulatory tool.
- ODA requires growers to submit proof that they have a plan

BUT

- ODA does NOT enforce against a grower who has not met or followed their annual nitrogen plan.



Annual nitrogen plan and adaptive management measures



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Post-harvest summary record (N_{outputs} and ΔN_{soil})

1. Total nitrogen applied (lb/acre) from all sources: (Actual N_{inputs})

2. Crop harvest yield as N removed: (Actual N_{outputs})

3. Nitrogen management measures implemented, including agronomic application rate for each field.

4. Evaluation (Report Card): Approximate how much N is left in the soil (ΔN_{soil}) to determine likelihood of N leaching.



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Adaptive management measures

ANP met or followed?	Required Actions	Required Actions Based on 2 year trend
Yes	<ul style="list-style-type: none"> No changes to current practices required 	<ul style="list-style-type: none"> N/A
No	<ul style="list-style-type: none"> Year 1 Implement measures as described in rule 	<ul style="list-style-type: none"> Year 2 Continue actions from Year 1 and conduct additional actions described in rule.
No	<ul style="list-style-type: none"> Year 3 Continue the previous year's actions and Implement additional measures 	<ul style="list-style-type: none"> Year 4 Continue actions from Years 1 – 3 Conduct additional actions described in rule.
No	<ul style="list-style-type: none"> Year 5 Continue actions required for all previous years and Conduct additional actions described in rule. 	<ul style="list-style-type: none"> Year 6 Continue all previous actions Conduct additional actions described in rule.



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ODA's Methods for Program evaluation

- **Determining compliance**
 - ✓ auditing of records
 - ✓ inspection of records
 - ✓ on-farm inspections
- **Determining participation**
 - ✓ % of participants based on submitted proof of certifications
- **Determining program effectiveness**
 - ✓ residual soil nitrate levels



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Large Irrigated Acres: Program Evaluation Timeline

- The department shall not conduct an evaluation of the large irrigated acres program for at least three growing seasons subsequent to the effective date of the rules.
- The department shall not conduct an evaluation of residual soil nitrate levels until it has a sufficient data set for a scientifically-acceptable analysis.



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The End

Thank you!

Comments or questions:
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Meeting materials and
recording:
<https://oda.direct/rulemaking>



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