State of Oregon Nitrate Reduction Plan for the Lower Umatilla Basin Groundwater Management Area

Quarterly Report to U.S. EPA April 16, 2025

This is a combined report from the Oregon Department of Agriculture (ODA), Oregon Department of Environmental Quality (DEQ), Oregon Water Resources Department (WRD), and Oregon Health Authority (OHA) to the U.S. Environmental Protection Agency (EPA) Region 10 describing State of Oregon actions to address nitrate groundwater contamination and protect public health in the Lower Umatilla Basin Groundwater Management Area (LUBGWMA) in northern Morrow County and northwestern Umatilla County.

The following report provides an update for each of the strategies contained within the <u>Nitrate Reduction Plan for the LUBGWMA</u>. The state submits quarterly status reports to the U.S. EPA and beginning in 2025 will publish an annual report at the end of each calendar year.

Reporting Agencies

Each strategy in the Nitrate Reduction Plan has a lead state agency responsible for implementation, monitoring, and reporting. The list below identifies the strategies associated with each lead agency.

Oregon Department of Agriculture (ODA)

- 4.2 Irrigated Agriculture
 - 4.2.3.1 Agricultural Water Quality Program
 - 4.2.3.2 Strategic Implementation Area
 - 4.2.3.3 Best Management Practices (BMP) for Nutrient and Irrigation Management
 - 4.2.3.4 Fertilizer Registration Program
- 4.3 Confined Animal Feeding Operations
 - 4.3.3.1 Confined Animal Feeding Operations Compliance
- 4.4 Livestock Grazing
 - 4.4.3.1 Agricultural Water Quality Program
 - 4.4.3.2 Inventory of Livestock Operations
 - 4.4.3.3 SB 85 Rules: Manure Management
- 4.6 Rural Residential
 - 4.6.3.1 Agricultural Water Quality Program

Oregon Department of Environmental Quality (DEQ)

- 4.5 Land Application of Industrial and Domestic Wastewater
 - 4.5.3.1 Wastewater Permitting and Compliance
- 4.6 Rural Residential
 - 4.6.3.2 Onsite Septic System Permitting and Compliance

- 4.6.3.3 Onsite Septic System Repair and Replacement Funding
- 4.6.3.4 Public Wastewater Treatment System and Irrigation Modernization Funding
- 5. Monitoring, Data, and Analysis
 - 5.1.1 Groundwater Quality Sampling and Monitoring
 - 5.1.2 Groundwater Quality Trends Analysis
 - 5.1.5 Nitrate Leaching Estimation Update
 - 5.2 Groundwater Data Coordination Effort and GIS Platform

Oregon Water Resources Department (OWRD)

- 4.6 Rural Residential
 - 4.6.3.5 Domestic Well Construction and Compliance
- 5. Monitoring, Data, and Analysis
 - 5.1.3 Hydrogeology of the Lower Umatilla Basin Update of Conceptual Model
 - 5.1.4 Ongoing Groundwater Levels Data Collection

Oregon Health Authority (OHA)

- 6.1 Immediate Safe Drinking Water Services
 - 6.1.3.1 Community Education, Outreach and Engagement About Nitrate in Domestic Well Water
 - 6.1.3.2 Free Initial Domestic Well Water Testing
 - 6.1.3.3 Free Domestic Well Water Retesting
 - 6.1.3.4 Free Kitchen-Tap Treatment System Installation and Maintenance
 - 6.1.3.5 Free Water Delivery
 - 6.1.3.6 Longer Term Water Provisioning for Households Above 25 mg/L
 - 6.1.3.7 Data and Data Management
 - 6.1.3.8 Community Partner Relations
 - 6.1.3.9 Demographic Study
- 6.2 Intermediate Term Public Water Systems Solutions
 - 6.2.3.1 Technical and Funding Assistance for Public Water System Extension and Creation
 - 6.2.3.2 Identifying Public Water Systems Not Currently under OHA Oversight

4.2 Irrigated Agriculture

4.2.3.1 Agricultural Water Quality Program

4.2.3.1 Agriculture Water Quality Program

OBJECTIVE: Prevent and control water pollution (including groundwater) from agricultural activities to achieve water quality standards. [4.2 Irrigated Agriculture]

Continuous

- Investigate water quality complaints of agricultural activities with impacts to waters of the state. This includes irrigation and nutrient application practices that may be causing pollution to waters of the state.

Short-Term 2023-2027

- Investigate locations identified through the Strategic Implementation Area assessment with potential to impact groundwater, as described below in Section 4.1.3.2.
- Area Rules are reviewed every two years. The Willow Creek and Umatilla rules were last reviewed in Feb 2024. Rule changes may be done anytime the agency identifies a need.

Medium-Term 2027-2031

- Area Plans are reviewed on an alternating schedule of a full and light review of every 6 years for full and every 2 years for a light review. The Willow Creek and Umatilla area plans were last reviewed In February of 2024.
- Develop regulatory requirements aimed at addressing nitrate contamination from irrigated agriculture operations inside the LUBGWMA designation. Engage with stakeholders in 2025 to target implementation of the new rules in 2026 (resources needed).

Monitoring Progress:

The AGWQ program tracks and reports on the number and types of compliance actions taken and receives reports from SWCDs on the achievements made to implement area plans. This data will be used to track trends of enforcement activities and engagement of area agriculture producers on achieving nitrate reductions from ag activities.

- Annual AGWQ Compliance Program Report
 - Compliance cases investigated
 - Type of Issues
 - o Pre-enforcement actions
 - Enforcement actions
- Ag Water Quality Management Area SWCD Biennial Review Reports.
 - Landowner participation in outreach events
 - Landowners provided technical assistance
 - Site visits

- Conservation plans written
- Funding applications submitted
- Funding applications awarded

Reporting Progress:

Quarter 1:

See other AgWQ and SIA related sections for quarter 1 reported progress.

ODA has convened a Rules Advisory Committee (RAC) to assist in the development of rules for the Lower Umatilla Basin Groundwater Management Area (LUBGWMA). The RAC will provide input on draft regulations to address groundwater concerns in the region.

RAC meetings are open to the public, and we encourage community members to attend and observe the discussions. However, only invited RAC members will have the opportunity to provide comments during the meetings. To find information on the scheduled RAC meeting and materials provided please visit ODA's Rulemaking webpage here. Currently the RAC process is scheduled to conclude late August. After that the agency will publish the draft rules for public comment.

4.2.3.2 Strategic Implementation Area

4.2.3.2 Strategic Implementation Area

OBJECTIVE: The Strategic Implementation Area (SIA) initiative is a proactive effort to conduct outreach in the LUBGWMA regarding agricultural water quality rules, develop irrigated agriculture Best Management Practices (BMPs), and emphasize the utilization of irrigation and nutrient management plans to protect groundwater. Achieve 100% compliance with agricultural water quality rules within the SIA, therefore preventing pollution of waters of the state. Repeat the SIA process as needed for other areas of the LUBGWMA. [4.2 Irrigated Agriculture]

Continuous

- Outreach materials will be developed and distributed throughout the SIA effort as needs are identified; multiple SIA presentations have been made already, and more than ninety brochures of LUBGWMA SIA Activities and Rules have been distributed to date, both English and Spanish versions.
- Community outreach will be ongoing throughout the SIA effort.
- In field data collection for demonstration, modeling and verification of appropriate area BMPs will occur over the span of the project.

Short-Term 2023-2027

- The remote evaluation completed in Feb 2024.
- The field evaluation is scheduled for Jul 2024.
- Community open-house in Fall/Winter, 2024.
- After the open-house, the owners of tax lots with areas of concern will be first contacted by the Morrow SWCD within 1 year of the open house. All observed issues must be addressed within 1 year of the open house. It is then moved to ODA for compliance follow up.
- ODA anticipates that new BMP development is to be started in 2024.
- Model irrigation and nutrient management plan as a resource for grower implementation.
- Area plans were updated with basic principles of irrigation and nutrient management in Feb 2024.

Medium-Term 2027-2031

- Add an additional LUBGWMA SIA every 4-6 years to eventually cover all of the area.

Long-Term 2031 - Beyond

- The SIA will be implemented over an extended period of time and can last up to 10 years from inception (2023-2033).
- BMPs will continue to evolve through the life of the SIA as data strengthens the BMPs.
- Ongoing outreach, technical assistance and education for BMP implementations.

Monitoring Progress:

There are a number of data points that are collected through the SIA process to evaluate impacts and success of the SIA overall. This data will also be collected for the LUBGWMA SIA to track performance over time.

- Acres evaluated
- Types of issues identified
- Landowners contacted
- Landowners participating in outreach events
- Landowners provided information
- Technical assistance provided to landowners
- Grant Funding applications for landowners
- Compliance data, tax lots/fields that are:
 - Likely in Compliance (LC)
 - Restoration Opportunity (RO)
 - Compliance Opportunity (CO)
 - Potential Violation (PV)

Reporting Progress:

Quarter 1:

Compliance opportunity letters were sent on January 29, 2025, to 20 landowners within the SIA (7 irrigated agriculture). Landowners were notified of the potential concerns regarding their agricultural practices and ODA provided a list of recommended actions tailored to the concerns. Landowners were encouraged to work with the Morrow SWCD and ODA will follow up in 12 months if no corrective actions are taken. The Morrow SWCD has received calls from 3 irrigated agriculture landowners and will complete site visits in the spring of 2025.

ODA met with DEQ to discuss compliance opportunities on 4 DEQ permitted irrigated agriculture tax lots (2 landowners). DEQ is going to contact the permit holders about the potential concerns.

ODA water quality met with ODA CAFO to discuss a compliance opportunity on an irrigated agriculture field owned by a CAFO permit holder. Water quality and CAFO will do a joint site visit.

Letters were sent to all restoration opportunity and likely compliance landowners (279 letters, irrigated agriculture and livestock). Landowners were notified that no compliance concerns were observed on their property. They were encouraged to consider the opportunities provided in the letter to further protect groundwater.

4.2.3.3 Best Management Practices (BMP) for Nutrient and Irrigation Management

4.2.3.3 Best Management Practices (BMP) for Nutrient and Irrigation Management

OBJECTIVE: Use irrigation and crop nutrient management data to develop BMPs. Conduct outreach and support for implementations of model irrigation and nutrient management model plans. [4.2 Irrigated Agriculture]

- Area plans were updated with basic principles of irrigation and nutrient management in Feb 2024. - Web and mobile applications were developed for ag field crop, irrigation type and livestock inventory in 2023. Short-Term - An Agricultural Water Quality Support grant was awarded to Morrow SWCD in Jan 2023-2027 2024 to perform a crop, irrigation type and livestock inventory in Morrow County and the LUBGWMA area. - Model irrigation and nutrient management plan as a resource for grower implementation. - Outreach and collaboration with OSU Extension, growers and the community on BMPs. Several meetings with OSU/Extension have occurred to date and this will be an Medium-Term ongoing effort to align efforts within the LUBGWMA. 2027-2031 - Ongoing outreach, technical assistance and education for BMP Long-Term implementations. 2031 - Beyond

Monitoring Progress:

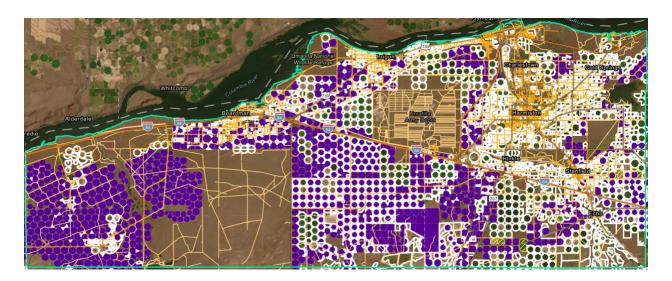
 This is a collaborative project with partners, progress will be shown in the number of collaborative activities between parties. Additional resources needed.

Reporting Progress:

Quarter 1:

The Morrow SWCD continues to complete an ag inventory of the LUBGWMA including crop type and irrigation type to provide basis and prioritization of BMP development. In the graphic below, the purple color are fields that have already been inventoried. Data inventoried includes crop type, rotation crop if known, crop stage, and irrigation type.

This data along with number and size of fields, location and soils will help prioritize outreach and BMP efforts in the area. Purple colored fields indicate that have been inventoried.



4.2.3.4 Fertilizer Registration Program

4.2.3.4 Fertilizer Registration Program

OBJECTIVE: Provide consumer protection and ensure truth in labeling to ensure consumers are informed of the product contents and ensure all products that are sold in Oregon are registered according to requirements. [4.2 Irrigated Agriculture]

Continuous

- The fertilizer registration and consumer protection market inspections are a well-established program. It will continue to ensure product registration meet state requirements.

Short-Term 2023-2027

- Fertilizer research and education grants are administered on an annual basis. The preferred scope of the grants was updated to give priority to projects focused on nitrate reductions in GWMAs.

Monitoring Progress:

 Refer to Section 4.2.3.1. for non-point source performance tracking related to fertilizer use.

Reporting Progress:

Quarter 1:

The fertilizer program is currently recruiting for one public member and two industry members to sit on the fertilizer research advisory committee. To be considered for the Fertilizer Research Committee, please email a letter of interest and qualifications to:

<u>Kevin.COUGHLIN@oda.oregon.gov</u> & <u>Gilberto.URIBE.VALDEZ@oda.oregon.gov</u> or mail to:

Kevin Coughlin & Gilberto Uribe Valdez Oregon Department of Agriculture 635 Capitol St. NE Salem, Oregon 97301

For more information about the Fertilizer Research Committee, please see Oregon statute information at https://oda.fyi/ORS633.

In 2024 the Fertilizer program issued two research grant awards. OSU was awarded a \$42,881 grant to identify novel amendments to mitigate fertilizer leaching from bark substrates in nursery production systems. OSU was also awarded another grant for \$26,753 for engagement, data collection, and analysis for addressing nitrate contamination in the lower Umatilla basin. These grants will be completed in 2025.

The OSU BMP Outreach program runs 9/26/24 through 12/31/25. We are currently awaiting the mailing list to be complete and the survey questions to be signed off on. OSU is currently working on the process to ensure citizen information is kept confidential while still tying data to meaningful information.

4.3 Confined Animal Feeding Operations (CAFOs)

4.3.3.1 Confined Animal Feeding Operations Compliance

4.3.3.1 Confined Animal Feeding Operations Compliance

OBJECTIVE: Continue to administer regulatory oversight of CAFOs in Oregon that exceed the federal standards, including the implementation of SB 85 provisions to ensure compliance and protection of groundwater. [4.3 Confined Animal Feeding Operations (CAFOs)]

Continuous

- Implementation of the CAFO program is a continual ongoing effort. All operations that meet the definition requiring a permit are permitted and inspected at a minimum of every 10 months. This exceeds the current federal standard.

Short-Term 2023-2027

- Development of an updated General NPDES permit is anticipated to begin fall 2024. Due to an extensive public comment process, it is difficult to identify an estimated date of completion.
- Existing Individual NPDES permits in the LUBGWMA will be updated to incorporate SB85 provision following the adoption of the SB85 rules. Rules are anticipated to be adopted in Aug 2024.
- Rulemaking to fully implement SB85 is in process and anticipated to be completed in Aug 2024.

Medium-Term 2027-2031

- Once the New General NPDES permit is complete, ODA will prioritize updating CAFO permits in the LUBGWMA. From there all other General NPDES permits will be updated by region.
- Update existing Individual NPDES permits to be consistent with new general permit is dependent on the timeline for update of the general permit.

Monitoring Progress:

The CAFO program tracks program performance over time by the percent of permitted CAFOs found to be in compliance with their permit during annual inspections. This analysis is done based off data collected from Jan. 1 to Dec. 31. Additionally, we will track the status of updating permits in the LUBGWMA over time.

- Percentage of CAFOs in compliance with permit at annual inspection.
- Number of permits in LUBGWMA that have been updated.

Reporting Progress:

Quarter 1:

The CAFO program has published their 2024 annual report. The report provides information on the activities of the program across the six inspection regions defined by the program.

In 2024 there were 485 permitted CAFOs for the state. The program performed 604 inspections, 464 of those were routine inspections. The program is required to track and report to the legislature the key performance measure of the percent of permitted CAFOs found to be in compliance with their permit during annual inspections, with a target compliance rate of 95%. For 2024 the program had a compliance rate of 97%. A link to the report can be found here.

The program continues to work on updating the General NPDES permit and the individual permits in the LUBGWMA. Currently staff are in the process of reviewing and drafting the new permit language and are targeting this summer to have it out for public comment.

The General WPCF permit will expire September 30, 2025. This permit will need to be administratively extended while we work to complete the NPDES permit. Renewal notices we sent out permittees on April 11th. Permittees must submit their renewal forms along with a water supply plan by August 1st in order to remain on the permit once it is extended. The renewal of this permit will follow after the NPDES permit is completed.

4.4 Livestock Grazing

4.4.3.1 Agricultural Water Quality Program (AGWQ)

4.4.3.1 Agriculture Water Quality Program (AGWQ)

OBJECTIVE: Prevent and control water pollution (including groundwater) from agricultural activities to achieve water quality standards. [4.4 Livestock Grazing]

Continuous

- Investigate water quality complaints of agricultural activities with impacts to waters of the state. This includes irrigation and nutrient application practices that may be causing pollution to waters of the state.

Short-Term 2023-2027

- Investigate locations identified through the Strategic Implementation Area assessment with potential to impact groundwater, as described below in Section 4.1.3.2.
- Area Rules are reviewed every two years. The Willow Creek and Umatilla rules were last reviewed in Feb 2024. Rule changes may be done anytime the agency identifies a need

Medium-Term 2027-2031

- Area Plans are reviewed on an alternating schedule of a full and light review of every 6 years for full and every 2 years for a light review. The Willow Creek and Umatilla area plans were last reviewed In February of 2024.

Monitoring Progress:

See monitoring information listed in Section 4.2.3.1

Reporting Progress:

Quarter 1:

No water quality complaints were filed or investigated this quarter.

Compliance opportunity letters were sent on January 29, 2025, to 20 landowners within the SIA (13 livestock). Landowners were notified of the potential concerns regarding their agricultural practices and ODA provided a list of recommended actions tailored to the concerns. Landowners were encouraged to work with the Morrow SWCD and ODA will follow up in 12 months if no corrective actions are taken. The Morrow SWCD has received a call from 1 livestock landowner and will complete a site visit in the spring of 2025.

Letters were sent to all restoration opportunity and likely compliance landowners (279 letters, livestock and irrigated agriculture). Landowners were notified that no compliance concerns were observed on their property. They were encouraged to consider the opportunities provided in the letter to further protect groundwater.

ODA is preparing for 4 potential violation site visits to be completed next quarter, all 4 are livestock related.

4.4.3.2 Inventory of Livestock Operations

4.4.3.2 Inventory of Livestock Operations

OBJECTIVE: Inventory all livestock operations that do not meet the definition of a CAFO and are not required to seek a permit and to do outreach and technical assistance to livestock owners to ensure compliance with groundwater protection requirements. [4.4 Livestock Grazing]

Continuous

- Outreach and technical assistance will start once the inventory is completed at the end of 2025 and will be ongoing.

Short-Term 2023-2027

- Conduct an inventory of livestock owners within the LUBGWMA, to be completed by the end of 2025.
- Input inventory data into a usable GIS layer, anticipated to be completed in 2025.

Monitoring Progress:

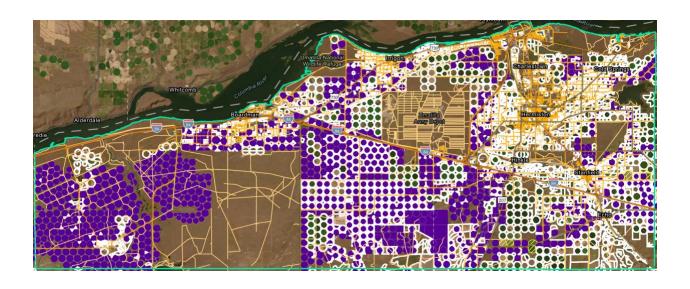
 It is estimated that the inventory project will be complete by August 2025. After completion the data will be completed to be used for outreach and technical assistance.

Reporting Progress:

Quarter 1:

The Morrow SWCD continues to complete an ag inventory of the LUBGWMA to provide basis and prioritization of BMP development. In the graphic below, the purple color are fields that have already been inventoried. Data inventoried includes livestock presence/absence, type of livestock, number of livestock, livestock use (heavy/light/none), crop type, and irrigation type. This data along with number and size of fields, location and soils will help prioritize outreach and BMP efforts in the area.

In the figure, purple indicates that the ag field has been inventoried.



4.4.3.3 SB 85 Rules: Manure Management

4.4.3.3 SB 85 Rules: Manure Management

OBJECTIVE: To extend permit coverage and compliance requirements to those receiving and land applying animal nutrient exported from permitted CAFOs and land applied within a Groundwater Management Area boundary to ensure groundwater protection. [4.4 Livestock Grazing]

Short-Term 2023-2027

- Establish a rules advisory committee (RAC) and complete the rulemaking process to develop rules governing the Nutrient Application Permit, anticipated to occur late 2024.
- Draft and implement a General Nutrient Application Permit. General Nutrient Application Permit will be developed post rulemaking process, this process is anticipated to take 6-8 months.
- Recruitment of the Permit Coordinator and CAFO Inspector positions is anticipated to begin late 2024.

Monitoring Progress:

It is anticipated that the performance tracking used for the nutrient application permits will be similar to that of CAFO permits in evaluating the number that are in compliance with the permit on an annual basis.

• Percentage of permits in compliance with permit during routine inspection.

Reporting Progress:

Quarter 1:

The agency is in the process of actively implementing SB85. The CAFO program conducted rulemaking that was completed in September 2024.

Following that process we conducted outreach and education to the livestock industry around the state in 9 locations to inform them on the changes to the permitting process and CAFO program rules. (Meeting location: Salem, Willow Creek, Ontario, Redmond, Hermiston, Pendleton, K. Falls, Tillamook, Myrtle point).

The development of the nutrient application permit is currently on hold in order to prioritize the renewal of the General NPDES permit.

4.5 Land Application of Industrial and Domestic Wastewater

4.5.3.1 Wastewater Permitting and Compliance

4.5.3.1 Wastewater Permitting and Compliance

OBJECTIVE: Continue regulating land application of industrial and domestic wastewater to protect groundwater under state authority in the absence of applicable federal regulations. [4.5 Land Application of Industrial and Domestic Wastewater]

Continuous

- Continue implementing and enforcing requirements of Water Pollution Control Facilities (WPCF) permits and National Pollutant Discharge Elimination System (NPDES) permits to ensure the collection, treatment, storage, and land application of wastewater is done in a manner that protects groundwater. Review facilities' required annual and monthly reports for compliance with permit conditions. Permits require facilities to continuously adapt operations to maintain compliance and minimize nitrate leaching potential.

Short-Term

2023-2027

- Prioritize modifications and renewals of wastewater permits in the LUBGWMA to be more protective of groundwater. WPCF permits can be issued for a term not to exceed 10 years. NPDES can be issued for a term not to exceed five years. DEQ may process permit modifications to further update conditions of permits in between renewals. Permit schedules are as follows:
- * Port of Morrow: Permit updated and renewal issued 12/1/2017; Permit modifications issued since renewal: 11/1/2022, 2/1/2024, and 6/3/2024.

 Lamb Weston Hermiston: Permit update and renewal is currently underway. Permit

expired 1/31/2009 but permit requirements remain in effect under an administrative extension until DEQ takes renewal action. Administrative extensions are authorized by Oregon rule (OAR 340-045).

* JR Simplot: Permit updated and renewal issued 11/1/2022. The facility has submitted a modification request to remove acreage from the land application program, which is under DEQ review as of July 2024.

Olam West Producers: Permit updated and renewal issued 6/1/2023. General permit holders: JSH Farms, Follett's Meat Company, Starvation Ridge Farming: These facilities are under the 1400B general permit that was updated and renewed 5/21/2018.

- * City of Stanfield: Permit updated and renewal issued 10/13/2022.
- * City of Boardman: Permit updated and renewal issued 2/13/2020.
- * City of Irrigon: Permit expired 4/30/2009 and is under administrative extension. The facility completed an MAO with DEQ in 2021 that required wastewater treatment improvements to discharge below 7 mg/L nitrate. Permit renewal is pending.

- Continue updating and renewing wastewater permits to ensure operations are protective of groundwater.

- * Port of Morrow: Permit expires 11/30/2027.
- * Lamb Weston Hermiston: Permit expiration date will be 10 years from next renewal issuance date.
- * JR Simplot: Permit expires 10/31/2032.
- * Olam West Producers: Permit expires 3/31/2033.
- * JSH Farms, Follett's Meat Company, Starvation Ridge Farming: The 1400B general permit expires 5/21/2028.
- * City of Stanfield: Permit expires 9/30/2027.
- * City of Boardman: Permit expires 1/31/2030.
- * City of Irrigon: Permit expiration date will be 10 years from next renewal issuance date.

Long-Term 2031 - Beyond

Medium-Term

2027-2031

- Continue updating and renewing wastewater permits to ensure operations are protective of groundwater.

Monitoring Progress:

- Number of permits that have been updated via renewal or modification.
- Ensure annual compliance reports are submitted to DEQ each year. Permits require that facilities monitor groundwater nitrate fluctuations and trends at their individual sites to monitor and remediate potential impacts.
- Number of facilities on track with completing compliance schedule and order milestones.
- Number of engineering reviews completed for wastewater infrastructure improvement projects.

Reporting Progress:

Quarter 1:

 Four facilities in the LUGBWMA are under DEQ orders or compliance schedules (see below). All are currently on track to meet requirements and milestones in their permits and orders, with specific updates as shown below:

- Port of Morrow: The Port of Morrow reported that the lined lagoon project required by the permit to cease the winter irrigation program is on-time. The first lagoon is to be complete in July 2025 and the second lagoon is to be complete in September 2025 for a total of ~1.5 billion gallons of wastewater storage to prevent further winter disposal of effluent by November 1, 2025 per the permit schedule. The facility continues to assess options for design of Secondary Treatment.
 - The Governor declared an Executive Order for the Port of Morrow, which expired on February 28, 2025 and allowed continued operations should non-compliance issues occur in accordance with provisions of the facility's WPCF permit due to high precipitation in the winter.
- Lamb Weston Hermiston: DEQ completed an Applicant Review period for the facility's WPCF permit renewal and is updating the draft permit renewal to be placed on public notice in Q2, 2025.
 - DEQ approved the facility's compliance plan required by the Mutual Agreement and Order in March 2025, which includes interim measures to aid in protection of groundwater as the permit process continues. This includes nitrogen budgeting/accounting, and flow restrictions in the winter months.
 - DEQ reviewed the facility's draft RI/FS technical scope of work documents and provided feedback to be included in the RI/FS required due to the facility's land application impacts to groundwater.
- Olam West Coast, Inc: The facility is in process of design of an additional lagoon to manage flows in the winter months. The facility sporadically discharges in the winter, which is required to be ceased by November 2026. In February 2025, DEQ reviewed the engineering design documents for the facility's new lined storage pond.
- J.R. Simplot Hermiston: DEQ completed an applicant review period for a proposed permit modification to add a small amount of acreage, adjust monitoring requirements, and update the groundwater monitoring plan for the facility. DEQ has updated the draft permit modification and placed the documents on public notice in Q2, 2025.

4.6 Rural Residential

4.6.3.1 Agricultural Water Quality Program

4.6.3.1 Agriculture Water Quality Program

OBJECTIVE: Prevent and control water pollution (including groundwater) from agricultural activities to achieve water quality standards. [4.6 Rural Residential Strategies Schedule]

Continuous

- Investigate water quality complaints of agricultural activities with impacts to waters of the state. This includes irrigation and nutrient application practices that may be causing pollution to waters of the state.

Short-Term 2023-2027

- Investigate locations identified through the Strategic Implementation Area assessment with potential to impact groundwater, as described below in Section 4.1.3.2.
- Area Rules are reviewed every two years. The Willow Creek and Umatilla rules were last reviewed in Feb 2024. Rule changes may be done anytime the agency identifies a need.

Medium-Term 2027-2031

- Area Plans are reviewed on an alternating schedule of a full and light review of every 6 years for full and every 2 years for a light review. The Willow Creek and Umatilla area plans were last reviewed in Feb 2024.

Monitoring Progress:

See monitoring information listed in Section 4.2.3.1

Reporting Progress:

Quarter 1:

No water quality complaints were filed or investigated this quarter.

Compliance opportunity letters were sent on January 29, 2025, to 20 landowners within the SIA, 6 are within rural residential areas and 1 is within Boardman city limits. Landowners were notified of the potential concerns regarding their agricultural practices and ODA provided a list of recommended actions tailored to the concerns. Landowners were encouraged to work with the Morrow SWCD and ODA will follow up in 12 months if no corrective actions are taken.

Letters were sent to all restoration opportunity and likely compliance landowners (279 letters). Landowners were notified that no compliance concerns were observed on their property. They were encouraged to consider the opportunities provided in the letter to further protect groundwater.

ODA is preparing for potential violation site visits to be completed next quarter; none are within rural residential areas.

4.6.3.2 Onsite Septic System Permitting and Compliance

4.6.3.2 Onsite Septic System Permitting and Compliance

OBJECTIVE: Continue regulating onsite septic systems to protect groundwater and public health. [4.6 Rural Residential Strategies Schedule]

Continuous

- Partner with Umatilla County Public Health Department to ensure implementation of rule requirements for the construction, alteration, repair, operation, and maintenance of residential onsite septic systems.

- Implement and enforce Water Pollution Control Facilities (WPCF) Onsite permits for large onsite septic systems, such as commercial or community systems, that receive over 2,500 gallons of wastewater per day or wastewater that is stronger than residential strength.

Monitoring Progress:

- Track residential onsite septic system applications submitted to Umatilla County Public Health Department.
- Track number of WPCF Onsite permits issued or renewed in Morrow and Umatilla counties.
- Ensure annual WPCF discharge monitoring reports are submitted to DEQ each year when required by permit. All new and renewed WPCF permits require annual submission of discharge monitoring reports.

Reporting Progress:

- Umatilla County Public Health continues to manage residential onsite septic system permits.
- DEQ will report number of residential onsite septic system applications submitted to Umatilla County Public Health in the annual report.
- DEQ will report the number of WPCF Onsite permits issued and annual discharge monitoring reports received in the annual report.

4.6.3.3 Onsite Septic System Repair and Replacement Funding

4.6.3.3 Onsite Septic System Repair and Replacement Funding

OBJECTIVE: Continue providing homeowners with affordable financing options to repair or replace failing septic systems. [4.6 Rural Residential Strategies Schedule]

Continuous

- Partner with public agencies or qualified nonprofit lender(s) to offer affordable financing options for septic system repair and replacement when funding is available for this purpose.

Monitoring Progress:

 Assess if residents in the area received financing for repair or replacement of their septic systems through DEQ managed programs.

Reporting Progress:

Quarter 1:

 DEQ's nonprofit lending partner, Craft 3, did not receive any applications from Morrow or Umatilla counties for septic system repair or replacement funding.
 DEQ will continue to share information about this funding option and will seek opportunities to partner with other agencies doing drinking water outreach in the area.

4.6.3.4 Public Wastewater Treatment System and Irrigation Modernization Funding

4.6.3.4 Public Wastewater Treatment System and Irrigation Modernization Funding

OBJECTIVE: Continue providing public entities with low interest loans and additional subsidies to support public wastewater system upgrades or expansion and irrigation modernization. [4.6 Rural Residential Strategies Schedule]

Continuous

- Support public entities with funding and technical resources through DEQ's Clean Water State Revolving Fund program. Subsidies are dependent on funding availability.

Monitoring Progress:

- Assess how many communities in the area have applied for funding, are on the intended use plan, or have received financing from the Clean Water State Revolving Fund.
- For communities that have received financing, include the anticipated water quality benefits of the funded projects.

Reporting Progress:

- DEQ has signed three loan agreements: one with the City of Echo to upgrade its
 collection system and primary treatment operations, one with the City of Stanfield
 to develop a wastewater facility plan, and one with the City of Umatilla for sewer
 extension.
- The City of Irrigon has completed its CWSRF-funded project to convert its STEG sewer system to conventional sewer, and the loan has entered repayment.
- DEQ has received five loan applications: one from the City of Umatilla for primary treatment upgrades, one from the City of Hermiston for sewer extension, one from the Port of Morrow for secondary treatment upgrades, one from Westland Irrigation District for floating solar panels, and one from Hermiston Irrigation District for canal piping and infrastructure modernization. Project descriptions will be included in the annual report.

4.6.3.5 Domestic Well Construction and Compliance

4.6.3.5 Domestic Well Construction and Compliance

OBJECTIVE: Protect groundwater resources through ensuring that new and modified wells are constructed properly, abandoned wells are providing education to the public and well drilling community, and utilizing enforcement actions when necessary. [4.6 Rural Residential Strategies Schedule]

Continuous

- Ensure wells are properly constructed, altered, maintained, and decommissioned so as to prevent contamination, loss of artesian pressure, and waste of Oregon's groundwater resources.

Monitoring Progress:

- Inspect 90% of new, altered, and abandoned wells in the LUBGWMA.
- Conduct in-depth well assessments at 10 wells per year (more if federal funds are secured).

Reporting Progress:

- OWRD staff have conducted 2 well inspections within the LUBGWMA during Q1.
 Of those inspected, all were domestic or exempt wells. Staff identified no deficiencies during inspection or review of the well log.
- A contractor has been selected to work with OWRD staff on the well assessment project. Outreach is underway to determine locations and willing landowners.
 Assessments are expected to begin in mid-2025.

5. Monitoring, Data, and Analysis

5.1.1 Groundwater Quality Sampling and Monitoring

5.1.1 Groundwater Quality Sampling and Monitoring

OBJECTIVE: Monitor groundwater quality to understand current nitrate concentrations and track changes over time. [5.1 Technical Work]

Continuous

- Quarterly sampling of DEQ's long-term well network of about 30 wells; occasional larger-scale sampling events as resources allow.

Monitoring Progress:

- Confirm quarterly sampling occurred and report results from previous year.
- Report results of any additional DEQ sampling events.

Reporting Progress:

- DEQ sampled the LUBGWMA well network in March, 2025. Once finalized, results are available through DEQ's Ambient Water Quality Monitoring System (AWQMS) and can be accessed here:
 https://www.oregon.gov/deq/wq/Pages/WQdata.aspx. Results are still being processed for the March event. Sample results will be summarized in the annual report.
- DEQ submitted the first quarterly sampling this year to the EPA lab in Corvallis
 for isotope analysis. Isotope sampling will aid in identifying the sources of nitrate
 in the groundwater.
- DEQ hand delivers water quality results and related health information in both English and Spanish once a year to well users in our network.
- DEQ is in the process of getting permissions for a large scale (100-200 wells) synoptic sampling event in the LUBGWMA in April-June 2025. The analyte list, Quality Assurance Project Plan, and Sampling and Analysis Plans are in the process of being completed.

5.1.2 Groundwater Quality Trends Analysis

5.1.2 Groundwater Quality Trends Analysis

OBJECTIVE: To track fluctuations or consistencies in nitrate concentrations over time to understand how land use activities may affect groundwater quality. [5.1 Technical Work]

Continuous

- Continue to track fluctuations or consistencies in nitrate concentrations over time to understand how land use activities may affect groundwater quality.

Short-Term 2023-2027

- Analyze groundwater quality data from DEQ long-term well network and other monitoring wells; publish public reports to enhance understanding of groundwater quality over time and inform land use decisions. DEQ anticipates completing and publishing an updated trends analysis for the long-term well network in 2024, then will subsequently begin work on the trends analysis using data from permitted sites.

Monitoring Progress:

• Provide summary of any trends reports DEQ has published in the previous year.

Reporting Progress:

- DEQ finalized and released the <u>updated trend analysis report</u> in January for DEQ's long term well network. The report was reviewed by an OSU statistician prior to being finalized.
 - The trend analysis reviewed concentrations across the 33-well network over a period of 32 years and found that over the years the average, median, and maximum concentrations have all increased. The networkwide trend is also slightly increasing.
 - The continued increase of nitrate concentrations across the network indicates current nitrate leaching is likely.
- Next steps:
 - Evaluate trends using data from permitted facilities.
 - Improve the geographic extent of the well network to expand its usefulness in evaluating the entire LUBGWMA.

5.1.3 Hydrogeology of the Lower Umatilla Basin - Update of Conceptual Model

5.1.3 Hydrogeology of the Lower Umatilla Basin - Update of the Conceptual Model

OBJECTIVE: The objective of this project is to update the Lower Umatilla Basin Groundwater Management Area technical investigation, Chapter 2: Hydrogeology section (Wozniak et al. 1995) with new data that have been collected in the three decades since the original report was released as a Final Review Draft. [5.1 Technical Work]

Continuous

- Continue working with partners to expand understanding of hydrogeology of the Lower Umatilla Basin.

Short-Term 2023-2027

- Update the Lower Umatilla Basin Groundwater Management Area technical investigation, Chapter 2: Hydrogeology section (Wozniak et al. 1995) with new data that have been collected in the three decades since the original report was released as a Final Review Draft. Planned completion by Apr 2025.

Monitoring Progress:

- Complete update of the 1995 report by April 30, 2025.
- USGS completes peer review of updated report by October 31, 2025. If USGS is unable to complete the peer review, seek other qualified reviewers from state agencies, academic institutions, and/or other professionals as appropriate.

Reporting Progress:

- Developed preliminary water level contour maps and hydrographs.
- Documentation of work completed, and findings of the study are in progress.
- Newly added monitoring well data is available through WRD's Groundwater Information Service (GWIS)
 - https://apps.wrd.state.or.us/apps/gw/gw info/gw info report/Default.aspx

5.1.4 Ongoing Groundwater Levels Data Collection

5.1.4 Ongoing Groundwater Levels Data Collection

OBJECTIVE: Track groundwater levels over time to inform understanding of the aquifer system. [5.1 Technical Work]

Continuous

- Collect quarterly groundwater level data through OWRD's well monitoring network in the LUBGWMA.

Monitoring Progress:

- Continue to collect quarterly data from existing well network in the LUBGWMA.
- Conduct in-depth well assessments at 10 wells per year (more if federal funds are secured).
- Expand network to fill data gaps as funding is available.

Reporting Progress:

- Completed annual synoptic water level measurement event in early February.
 WRD staff collected measurements at 113 wells in the Lower Umatilla Basin.
- Presented at January meeting of Oregon Rural Action to recruit volunteers for the Well Survey Project.

5.1.5 Nitrate Leaching Estimation Update

5.1.5 Nitrate Leaching Estimation Update

OBJECTIVE: Determine what additional data and resources would be needed to complete an updated nitrate leaching analysis. [5.1 Technical Work]

Short-Term 2023-2027

- Develop a plan to identify what additional data and resources would be needed to update a nitrate leaching analysis.

Monitoring Progress:

Provide status update about plan development.

Reporting Progress:

- Oregon agencies have not yet received updated nitrate application estimates from U.S. EPA's contractor.
- State agencies have contracted Oregon Consensus to provide facilitation and coordination support for the LUBGWMA Advisory Committee. As a first activity, Oregon Consensus has gathered a small group including state agency staff, CTUIR, Oregon Environmental Council, and H20EO to help develop a process design for a research agenda development forum. This small group started with an inventory and presentation of the data that DEQ, OWRD, and ODA collect in the LUBGWMA. Locations and analytes measured were presented to the LUBGWMA Advisory Committee in March 2025. A follow up query will be sent to the Committee to gather information on any additional data that may be available and willing to be shared with the State to inform future data collection.

5.2 Groundwater Data Coordination Effort and GIS Platform

5.2 Groundwater Data Coordination Effort and GIS Platform

OBJECTIVE: Coordinate and compile data from local, state, and tribal partners to build a publicly accessible GIS platform that displays groundwater data with the goal of having a common, high quality data set for the region to improve understanding of the hydrogeology and groundwater quality and inform management and planning decisions.

Continuous

- *Proposed Action:* GIS platform would pull data from existing disparate data portals to display an up-to-date unified dataset to increase understanding of groundwater quality in the basin and inform planning and management decisions.

Short-Term 2023-2027

- *Proposed Action:* EPA utilizes the services of one of its third-party contractors to coordinate and compile data and build a standardized GIS platform that would display groundwater data from the various local, state, and tribal entities working in the basin.

Monitoring Progress:

Provide update about status of GIS platform development.

Reporting Progress:

Quarter 1:

LUB-Hub update: State agencies received a demonstration of the EPA GIS-based hub for relevant data to the GWMA. EPA is currently working through some challenges in connecting data sources to the platform, particularly from ODA due to non-digitized data sources. Once the platform is completed it is anticipated to be transferred to a local partner. There is another demonstration to state agencies anticipated in late April 2025.

6. Safe Drinking Water for Well-Dependent Households

6.1 Immediate Safe Drinking Water Services

6.1.3.1 Community Education, Outreach and Engagement About Nitrate in Domestic Well Water

6.1.3.1 Community Education, Outreach and Engagement About Nitrate in Domestic Well Water

OBJECTIVE: Ensure all residents who depend on a domestic well for drinking water understand there are potential health risks from elevated nitrates in their well water, that safe water services are available to them, and how and whom to contact to access needed services and support. [6.1 Immediate Safe Drinking Water Services]

Continuous

- Maintain and as needed, develop new outreach and education materials and pathways, including updates to the OHA website, fact sheets and outreach materials. Partner with LPHAs and CBOs to carry out community engagement and education.

- Executed grant awards running through June 30, 2025, to renew funding of three CBOs (Doulas Latinas, Eastern Oregon Center for Independent Living, and National Center for Alternatives to Pesticides).

- By September 30, 2024, finalize a scope of work for a client services agreement with the CBO Euvalcree and by October 30 execute the contract backdated to July 1, 2024.
- Completed July 1, 2024 annual funding agreements with Morrow and Umatilla County Public Health Departments through June 30, 2025.

Short-Term 2023-2027

- Posted by July 31, 2024 maps presenting household well test results in a format that protects privacy of individual households to <u>testmywell.oregon.gov</u> and <u>pruebadepozo.oregon.gov</u>.
- Added by July 31 an interested party email sign up to OHA LUBGWMA websites, and an archive of OHA press releases related to the domestic wells public health project.
- By September 15, 2024, finalize a scope of work with strategic communication consultants the Metropolitan Group to review and provide recommendations for improvements to OHA website and CBO engagement.
- By September 30, 2024, begin publishing a monthly bulletin for dissemination via email and on the website.

Monitoring Progress:

- OHA to receive quarterly work reports from funded community-based organizations.
- OHA to receive and provide update on outreach needs and activities at biweekly partner meetings.

Reporting Progress:

- Initiated development of a "Storymap Timeline" with the Metropolitan Group, which will detail the narrative of coordinated efforts and outreach that took place in the LUBGWMA. This map will be part of the updated OHA LUBGWMA website. The timeline will show the events that took place through local outreach efforts prior to OHA's involvement and beyond. Metropolitan Group has reached out to partners (LPHAs, CBOs, and DHS) to hear their unique perspectives of the efforts that should be included in the "Storymap" Timeline. The goal of this effort is to support understanding and awareness of the response and OHA's role for LUBGWMA residents. OHA will receive an update from Metropolitan Group on their progress for this "Storymap" next quarter and will provide an update at that time.
- Launched LUBGWMA Domestic Wells Quarterly Newsletter in March 2025 in both English and Spanish with updates on completed safe water actions and milestones, links to resources and information on OHA's LUBGWMA website, and a "tip of the quarter." The tip this quarter was information on the dangers of cooking with water contaminated with high levels of nitrate. This first edition went out to 368 interested parties who provided either email or a phone number to sign up for updates. OHA also created a QR code in each language for new people to sign up to receive the newsletter, with a plan to disseminate the QR codes to CBOs to use during their tabling events.
- Website improvements include:
 - Translated the "LUBGWMA Frequently Asked Questions" webpage, previously available only in English, to <u>Spanish</u>.
 - Created a new "Resources for Community" page (in <u>English</u> and <u>Spanish</u>) including a new Water Delivery FAQ created in collaboration with partners.
 - o Gained access to webpage analytics, which will provide data on the effectiveness of our public-facing pages and how community members are accessing the available information.
- Updated LUBGWMA public health <u>outreach materials</u> (social media banners, flyers, brochures, etc.). This included the development of shareable graphics for our partners to spread the word about the LUBGWMA newsletter and website.

6.1.3.2 Free Initial Domestic Well Water Testing

6.1.3.2 Free Initial Domestic Well Water Testing

OBJECTIVE: By Jun 30, 2025, complete testing of 30%, or 420 of the 1,400 domestic wells that remain untested as of Jul 1, 2024. *[6.1 Immediate Safe Drinking Water Services]*

Short-Term 2023-2027

- By Jun 30, 2024, completed a minimum of two mailings of at-home nitrate test strips to <u>unreached</u> households (no trespassing/guard dogs/not home households).
- By Nov 30, 2024, complete canvassing of unreached households that do not receive mail at their physical address.
- By Dec 31, 2024, complete a mailing to households whose residents refused testing in summer 2023 renewing the free testing offer and including an "opt out" return mailer to request no further communication.

Monitoring Progress:

- OHA will regularly (generally a weekly or biweekly basis) log new initial water quality test results from its contract laboratory to OR-Wells database.
- OHA will update tabular data for well water nitrate testing and mapped data for highest nitrate results monthly on the English and Spanish versions of its website (testmywell.oregon.gov and pruebadepozo.oregon.gov; click on "Data and News"/ "Datos y Noticias")

Reporting Progress:

Quarter 1

- Initial Well Tests: As of 3/31/25 OHA and its operational partners ODHS and Morrow and Umatilla County Health Departments, with support from local CBOs, have provided nitrate testing for 2,009 households in LUBGWMA that receive their water from domestic wells. This is an increase of 52 new households tested since last quarter's report of 1,957 households.
- Testing Engagement Strategy: Testing slows significantly over the winter quarter. While there is greater opportunity to test as winter weather passes, OHA will also be implementing strategies with our community partners to engage households that have been least responsive to sustained outreach efforts over the past two years. In addition, the agency will persist with previous strategies including social media, marketing, and direct mail.
- Direct Mail Postcard to Households That Previously Declined Testing: In late December 2024, OHA sent a postcard to 309 households that previously declined the offer of free well testing during the Summer 2023 canvas effort. The postcard explained that nitrate levels were still high in the groundwater in the area, and reiterated OHA's offer to test, including ways to get in contact. There

has not been a significant uptick in requests for testing or requests to be removed from future communications as a result of this effort.

6.1.3.3 Free Domestic Well Water Retesting

6.1.3.3 Free Domestic Well Water Retesting

OBJECTIVE: Ensure households with initial nitrate test results below 10 mg/L are monitored and provided alternate water sources if nitrate in their domestic well water rises above the action level due to seasonal fluctuations and still-increasing nitrate concentrations in groundwater in the LUBGWMA. [6.1 Immediate Safe Drinking Water Services]

Continuous

- For these households at high risk of exceeding 10 mg/L range, implement a program of OHA direct mailings, followed by ODHS repeat phone calls to schedule and carry out water sample collection and deliver samples to the OHA contract laboratory for testing.
- For households with initial tests below 5 mg/L or above 25 mg/L, offer access to self-sampling by picking up and dropping off test kits at county public health department for ODHS to deliver to OHA contract laboratory, except that ODHS will provide sample collection assistance upon request.

Short-Term

- By June 30, 2024, completed a mailing to all households describing retesting protocols and pathways for retesting depending on their nitrate level.
- By June 30, 2024, mailed a second, individualized letter to households that completed their initial tests prior to June 2024. This letter provided the specific household's test results, corresponding testing schedule, and details about the sample collection scheduling.
- By June 30, 2024, incorporated retesting information into post-initial-test-results letter OHA mails to newly tested households.
- By December 31, 2024 develop a new reporting template to post to the OHA LUBGWMA websites with information about retesting progress.
- By June 30, 2025, complete quarterly well water re-testing of 75% of households identified as being at highest risk of exceeding 10 mg/L nitrate (i.e., households between 5mg/L 9.99mg/L) and maintain this completion rate as new households are identified in this range.

Monitoring Progress:

2023-2027

- OHA will regularly (generally a weekly or biweekly basis) log new water quality retesting results from its contract laboratory to OR-Wells database.
- OHA will post tabular data for well water nitrate retesting monthly on the English and Spanish versions of its website (testmywell.oregon.gov and pruebadepozo.oregon.gov; click on "Data and News"/ "Datos v Noticias"). (Note:

this monitoring action to be implemented once OHA adds a retesting report to the webpage.)

Reporting Progress:

- LUBGWMA residents actively retesting their wells: As of this writing, 608 households in LUBGWMA have had an initial test and at least one follow-up retest of their domestic well. This is an increase of 84 households from the previous period, where 524 households had engaged with retesting.
- LUBGWMA residents that have declined retesting: In advance of every
 quarter, OHA sends household data to ODHS which informs that team of the
 LUBGWMA residents that are eligible for additional well testing. ODHS contacts
 residents identified for retesting to schedule an appointment to have their well
 water collected. A proportion of residents contacted have declined additional well
 water testing. OHA is currently modifying the program's test results database to
 flag and track these households and will be providing this data in future reports.

6.1.3.4 Free Kitchen-Tap Treatment System Installation and Maintenance

6.1.3.4 Free Kitchen-Tap Treatment System Installation and Maintenance

OBJECTIVE: Provide safe drinking water to households whose domestic well water test results are 10 mg/L to 25 mg/L nitrate. [6.1 Immediate Safe Drinking Water Services]

Continuous

- Newly tested households with levels between 10-25 mg/L nitrate are immediately started on bottled water delivery and added to the list for treatment system installation.
- Households with OHA-installed systems are provided 6 months worth of replacement filters which they can install themselves or call OHA's vendor to perform maintenance.
- OHA vendor conducts post-system-installation nitrate test to confirm nitrate reduction.

Short-Term 2023-2027

- By Dec 31, 2024, reduce by 50% the backlog of eligible households waiting for installation of treatment systems as of Jun 30, 2024.
- By Jun 30, 2025, reduce by 100% the backlog of eligible households waiting for installation of treatment systems as of Jun 30, 2024.

Monitoring Progress:

 OHA will regularly (generally a weekly or biweekly basis) update its tracking Smartsheet of new installations and post tabular data on a monthly basis on the English and Spanish versions of its website (testmywell.oregon.gov and pruebadepozo.oregon.gov; click on "Data and News"/ "Datos y Noticias").

Reporting Progress:

Quarter 1:

Reverse osmosis treatment system installation status: To date there are 368 households whose well water was tested by OHA starting in 2023 with results between 10 mg/L and 24.99 mg/L nitrate, making them eligible for installation of an OHA-provided point-of-use (kitchen tap) reverse osmosis (RO) treatment system certified to remove nitrate in this range. (There are no point-of-use systems certified to treat water above this level.)

- 230 households have had OHA point-of-use treatment systems installed (106 in Morrow County, 124 systems in Umatilla County).
- 23 households have declined installation of a treatment system.
- 100 households have been contacted by the plumbing contractors one or more times to have a treatment system installed but have yet to be successfully scheduled.
- 15 households are pending initial contact.
- Important to note: The eligible number of households will change as currently untested households complete their initial test.
- RO installation data quality improvement: OHA-contracted plumbers currently access information on eligible households through Smartsheet, a web-based tool, which provides the plumbers pertinent information to install the RO systems Despite the attempt at organizing the info, plumbers have not easily been able to find basic information, creating delays and barriers for installing. During the reporting period, OHA worked with plumbing vendors to reformat the information to better meet their needs and prioritize the households waiting the longest for installation of treatment systems. After completing the updates, OHA trained plumbers on using the tool and updating the information as required.
- There are 138 households that are still eligible for treatment systems as of current data. OHA has instructed our contractors to attempt contact to all households that qualify for RO systems, and to document their attempts. The most significant barrier OHA has encountered is that households have proven difficult to reach and schedule. In addition, OHA continues to seek additional plumbing contractors however, as noted in past reports, there are severe workforce challenges in the region, intensified by OHA's requirements to provide Spanish language support and wraparound maintenance services.

6.1.3.5 Free Water Delivery

OBJECTIVE: Provide safe drinking water to households with domestic well water test results at or above 10 mg/L nitrate. [6.1 Immediate Safe Drinking Water Services]

Continuous

- County health departments contact households to sign them up for bottled water delivery as soon as possible after receiving test results from OHA, billing ODHS for reimbursement.

Short-Term 2023-2027

- By Sept 20, 2024, ODHS to complete surveys of all households receiving water deliveries as of Jun 30, 2024 to confirm their needs are being met; thereafter, continue to survey households at least twice yearly to ensure ongoing needs are met for these and newly added households.
- By Jan 31, 2025, ODHS and OHA to develop and implement a protocol to assess, communicate, and reduce or eliminate water deliveries to households that have had point of use water treatment systems installed.

Monitoring Progress:

- ODHS will regularly log information about residents receiving water deliveries in its case management database, DLAN and Morrow and Umatilla Counties will maintain their spreadsheet tracking of residents signed up for water deliveries.
- OHA will post tabular data on residents receiving potable water deliveries on a monthly basis on the English and Spanish versions of its website (testmywell.oregon.gov and pruebadepozo.oregon.gov; click on "Data and News"/ "Datos y Noticias").

Reporting Progress:

Quarter 1

- Maintenance of delivered water: Households in LUBGWMA that receive drinking water from wells that test above 10mg/L for nitrate are eligible for water delivery services, and this includes some households that are also eligible for RO treatment system installs. After these systems are installed, the household should have adequate access to drinking water that is free of nitrate, which should reduce the need for continued delivered drinking water. At this time, no households have been removed from water delivery, based on several factors.
 - Fluctuation of nitrate concentration in groundwater: The <u>recent</u> groundwater nitrate trend analysis provided by DEQ found that "high concentrations are found throughout the area and no predictive

- geographic pattern is evident", which indicates that a household's domestic well water nitrate contamination could increase over time.
- o Households with reverse osmosis treatment systems installed are not currently receiving annual well tests provided by OHA: As part of the current retesting strategy, households with wells that have an initial nitrate test results between 10 to 24.99 mg/L are considered "Tier 3", and, after RO system install would only receive testing of their filtered water. The nitrate in the wells that serve these households could increase, and thereby exceed the certified nitrate reduction limit (25mg/L) of the system. To mitigate the risk in the most cost effective and impactful manner, OHA has provided nitrate test strips to these households (see below) as well as instructions to test their filtered water at least once per month and contact our plumbing contractors for system maintenance if the test indicates high nitrate. These nitrate test strips are also helping to increase the confidence among eligible residents that the RO systems are performing as expected to create healthy drinking water.
- Additional data analysis is needed to inform water delivery policy: OHA is analyzing the testing data that has been collected and will provide a trend analysis among retested households, which should be helpful in additionally illustrating nitrate fluctuation and the amount of migration that is occurring between testing tiers. This information should give more data on the necessity of continued water delivery to households with RO systems installed.
- Nitrate test-strip provisioning and guidance: Beginning in November 2024 OHA added a requirement for contract plumbers to provide households nitrate test-strips at time of RO system to allow residents to monitor whether their RO treatment systems is working properly and in case of high fluctuations of nitrate that might exceed treatment system capacity. OHA developed guidance for plumbers to provide residents at time of installation about when to contact the plumbing company for servicing or maintenance of their system. These households are provided with enough strips to test their filtered water monthly for one year. As of this report, plumbers have provided 44 test-strip kits to households. OHA is preparing to mail test strips to all households with treatment systems installed in the past.
- Service satisfaction survey: In January 2025 ODHS provided a service satisfaction survey to households receiving water delivery services. Of the 575 households receiving this service at the time of survey, 368 responses were received, which included 182 in Morrow County and 186 in Umatilla County. The responsive households reported satisfaction ("meets needs") with their water delivery services factors including the quantity of water they receive and the timeliness of the delivery. 14 households (9 in Morrow County and 5 in Umatilla) reported they have difficulty moving the bottles as they are heavy to lift or needing assistance. OREM followed up directly with the water companies

- requesting a smaller container size for those who reported impacts. Some households that were surveyed did not answer all survey questions, so data on certain aspects of satisfaction may be incomplete.
- ODHS water delivery case management data. ODHS has maintained records for 652 water delivery clients, 575 of which are currently active, 24 are suspended (temporarily vacant rental residence, typically), and 53 have cancelled delivery.

6.1.3.6 Longer Term Water Provisioning for Households Above 25 mg/L

6.1.3.6 Longer Term Water Provisioning for Households Above 25 mg/L

OBJECTIVE: Provide an alternative to bottled water delivery to households with domestic well water test results above 25 mg/L nitrate. [6.1 Immediate Safe Drinking Water Services]

Short-Term 2023-2027

- By December 31, 2024, ODHS to issue a Request for Information to solicit public or private sector solutions for providing drinking water to households with well water over 25 mg/L nitrate where reverse osmosis filters are not certified to remove nitrate to safe drinking water levels.

Monitoring Progress:

 ODHS to report on progress issuing and results at biweekly LUBGWMA partner meetings.

Reporting Progress:

Quarter 1

No progress to report at this time, as the ODHS team that would work on this
project has prioritized testing and retesting tasks and does not have capacity to
pursue this task.

6.1.3.7 Data and Data Management

OBJECTIVE: Maintain and as needed build out OHA and ODHS databases as the systems of record for all household data related to safe water services to support delivery of services and transparent communications about households served and awaiting service. [6.1 Immediate Safe Drinking Water Services]

Continuous

- Data systems are maintained on an ongoing basis.

Monitoring Progress:

 OHA will run routine database queries on a monthly basis and special queries to address non-routine information needs, and post updates to the OHA LUBGWMA websites and respond to public record requests.

Reporting Progress:

Quarter 1

- Database queries and monthly reporting: OHA continues to provide monthly data reports to Morrow and Umatilla counties, as well as their subcontractors. In addition, we update our <u>LUBGWMA Data and Reporting website</u> on a monthly basis with new statistics related to testing and treatment, typically by the fifth of the following month.
- OR Wells moved to cloud-based platform: Our primary well testing and treatment data and reporting platform, OR Wells, is in the process of migrating from a serverbased system to a cloud-based system by our partners in the Office of Information Services. This migration will enhance real-time data reporting and provide additional capabilities that were limited in its previous form, allowing OHA to perform mor efficiently. This work began in October 2024.
- LUBGWMA Well-Dependent Household Data Review. Since early 2023, when the LUBGWMA public health response began offering direct safe water assistance to well-dependent households (testing, treatment, water delivery), OHA has worked with partners to identify the location and number of domestic wells in the area. OHA started with various information sources 4,500 plus or minus 20% from the Oregon Water Resources Department (which also included abandoned wells), 7,000 addresses compiled from tax assessor and county 911 information, and in summer 2023 an intense two-month door-to-door canvassing campaign that identified 3,291 residences in parts of the LUBGWMA not served by public water systems. (This figure also included residences identified by Umatilla County through their Well Health Visits program.) OHA has used 3,300 households as the working estimate for total well-dependent households in the LUBGWMA since October 2023.

In November 2024, OHA and local partners led another round of canvassing in Morrow County primarily to attempt to reach previously unreachable households that had not accessed initial testing. However, during that canvassing effort, the teams identified additional residences that either lacked domestic wells or were vacant, abandoned, or non-residential. This is prompting OHA to carry out a fresh effort, tapping updated and additional sources of data the agency did not have time or staff capacity to collect and analyze during the first two years of the public health response. In the past quarter the team met with previous collaborators and contractors to learn historical context and begin to assemble updated data layers on which to conduct GIS analysis to derive new estimate of LUBGWMA housing units dependent on domestic wells.

To conduct this analysis, OHA will use the following mix of existing, updated, and new-to-OHA GIS data layers:

- Morrow and Umatilla County Address Points: OHA obtained this layer from the Oregon Department of Administrative Services, which regularly maintains and updates the geocoded data. OHA will filter these data to establish addresses within the LUBGWMA boundary.
- 2. Statewide Public Water System Boundaries (PWS): This layer, updated in March 2025, was obtained from OHA's Drinking Water Services Program and will be used to exclude LUBGWMA address points within the PWS boundaries, with points assumed to be dependent on domestic wells.
- Driver's License Data: OHA has obtained data from the Oregon Department of Motor Vehicles, updated through January 2025. OHA expects to complete geocoding the data by June 30, 2025, making it usable to confirm residential address points
- 4. Employment Data: OHA obtained this data from the federal Bureau of Labor Statistics' Quarterly Census of Employment and Wages and will use it to filter out businesses from the address points.
- 5. Tax Lots: OHA has obtained an updated tax lot layer from Umatilla County (2025) and is awaiting tax lot data from Morrow County. This data will allow us to establish the geographic bounds of residential addresses.
- 6. Building Footprints: OHA recently obtained this data layer, last updated in 2023, from the Oregon Department of Geology and Mineral Industries, which will help distinguish vacant lots from inhabited lots.
- 7. American Community Survey (ACS): OHA will use ACS census block-level data on the number of households per census block to help validate the analysis. It is important to note that validation will be limited by the fact that the LUBGWMA boundary does not align with census blocks, requiring estimation to reduce numbers by areas outside the LUBGWMA.
- 8. Zoning (Potential): Depending on the results of the analysis using the above data layers, OHA may also seek to include zoning data to filter residential addresses from non-residential. Including zoning data will also depend on our ability to

secure zoning data for the LUBGWMA region that is accurate and provides full coverage beyond urban areas.

6.1.3.8 Community Partner Relations

6.1.3.8 Community Partner Relations

OBJECTIVE: Maintain partnerships with local community-based organizations and local governments and fund these partners to: inform the design and implementation of OHA's LUBGWMA domestic well safety activities and perform community education and outreach regarding health risks and how residents can access safe water services. [6.1 Immediate Safe Drinking Water Services]

Continuous

- Meet biweekly or as partners agree to carry out the actions above.
- OHA to execute annual funding agreements with Morrow and Umatilla County LPHAs and CBOs noted in the "Description" below.

Monitoring Progress:

OHA will provide and receive updates at biweekly LUBGWMA partner meetings.

Reporting Progress:

Quarter 1

- OHA hired and onboarded a new Domestic Well Safety Coordinator, who is
 tasked with the priority work of supporting the LUBGWMA Domestic Wells Public
 Health Project and as time allows supporting the statewide OHA domestic well
 safety outreach and education program. The staff member is a resident of the
 LUBGWMA, bilingual in Spanish, and has established working relationships with
 community-based organizations, LPHAs, contractors, and other partners of the
 effort.
- LUBGWMA Leadership Workgroups: As previously reported, OHA created biweekly workgroups in several key areas of work: "Outreach & Engagement", "Testing", "Treatment", "Water Delivery", and "Data & Reporting", which were intended to help organize and prioritize work, as well as increase collaboration among partners. In this quarter the need for five separate workgroups diminished as most tasks were completed or assigned to begin work. OHA eliminated the "Testing", "Treatment", and "Water Delivery" workgroups as regular occurrences, opting to meet in the future on these issues with partners as needed. The two remaining workgroups, "Outreach & Engagement" and "Data & Reporting" still presented as opportunities for additional collaboration and organization of the work. The larger and more inclusive of all interested parties "LUBGWMA Leadership" meeting will continue to convene once per month but will be held inperson within the region as staffing and weather permits. Feedback on the changes to the meeting reorganization has been positive from OHA's county

- public health and CBO partners, as has OHA's more frequent trips to the region for in-person engagement.
- Spanish language spaces for CBO partners: OHA is offering more one-on-one check-ins both virtually and in-person that are offered primarily in Spanish. OHA staff recognized that CBO partner organizations were not engaging during English-language primary meetings and workgroups, especially if their native language is Spanish, despite interpretation services being provided. These new Spanish-specific spaces are to collaborate on outreach efforts happening in the area, answer questions and provide training and resources to CBO partners. OHA has received positive feedback on the creation and utilization of these spaces and have noticed increased uptake and interest from our CBO partners as a result.
- Professional services contract with CBO Euvalcree: OHA and the CBO
 Euvalcree signed a client services contract starting in January 2025 with the
 period ending December 31, 2025. The organization provides a well water
 sample drop-off site at their office in Hermiston that they then deliver to OHA's
 contract laboratory for analysis. This organization is also providing outreach,
 engagement, and education materials to community members at local events in
 the LUBGWMA.

6.1.3.9 Demographic Study

6.1.3.9 Demographic Study

OBJECTIVE: Survey LUBGWMA residents receiving safe water services to assess whether the program is equitably serving the community and comply with the state requirements to ask individuals receiving health services about their race, ethnicity, language and disability status. [6.1 Immediate Safe Drinking Water Services]

Continuous

- OHA will continue to survey newly added households.

Short-Term 2023-2027

- By Jun 30, 2024, OHA sent mass emailing to all households receiving services before that date.
- By Dec 31, 2024, OHA will complete a preliminary analysis of responses.

Monitoring Progress:

 OHA will track via project management tracking and demonstrate completion of initial analysis by publication on OHA's LUBGWMA websites, with periodic updates.

Reporting Progress:

Quarter 1:

Survey implementation: In February 2025, OHA made the decision, with consultation from partners attending the LUBGWMA Leadership meeting, to temporarily pause on the distribution of any survey requesting demographic data. Our partners suggested that the survey would have a low response rate and may hurt engagement efforts generally if implemented. We will explore a potential demographic survey at a future date.

6.2 Intermediate Term Public Water Systems Solutions

6.2.3.1 Technical and Funding Assistance for Public Water System Extension and Creation

6.2.3.1. Technical and Funding Assistance for Public Water System Extension and Creation

OBJECTIVE: To provide technical and funding assistance to Counties and Public Water Systems so that public water system service lines are extended or new systems are created to provide safe drinking water to residents with high nitrate levels in their private domestic wells. [6.2 Intermediate Term Public Water Systems Solutions]

Continuous

- OHA entered into a data use agreement with the two counties to provide counties access to OHA's database of nitrate and other analyte results to inform the work of the counties' Drinking Water Investigation team.
- OHA's Drinking Water Services will reach out, encourage and guide counties and local PWSs to apply for DWSRF/BIL funding.

Short-Term 2023-2027

- Counties, with congressionally directed funding through EPA, carry out a Drinking Water Investigation to lay the groundwork for the design and planning of possible public water system solutions for areas currently relying on contaminated domestic wells.
- Counties, with an engineering consultant, conduct feasibility studies of public water system service area extensions or new public water systems.
- Counties or local PWS reach out to DWS for feasibility study grant (~\$20K) for line extension or PWS creation.
- Counties or local PWS submit Letters of Interest (LOI) to OHA-DWS by Q1 2025 or Q1 2026 to be considered for funding for service line extensions or creation of new PWS.

Monitoring Progress:

 OHA will reach out to county planners and engineering consultant to see if Letters of Interest (LOI) for funding for service line extensions or PWS creation are ready to be submitted by the deadline of February 15 each year. The deadline for the next round of funding will be February 15, 2025. OHA will also ask if any data or technical assistance are needed.

Reporting Progress:

Quarter 1:

OHA staff has been engaged in stakeholder meetings and conversations. OHA has provided information about federal infrastructure funding but have not received letters of interest from the counties or PWSs for Drinking Water State Revolving Fund or Bipartisan Infrastructure Funding. Below are the funding related activities occurred in the 1st quarter of 2025:

- Morrow County received two grants through Business Oregon's Water/Wastewater financing program in January 2025 to perform feasibility study to build a drinking water system and a wastewater system.
- In February 2025, OHA provided a letter of eligibility to the Morrow County for Congressionally Directed Spending. The county applied for CDS funding to support planning and development of a preliminary design for a well and water system. This project targets areas where connecting domestic wells to existing water systems is not feasible.

6.2.3.2 Identifying Public Water Systems Not Currently under OHA Oversight

6.2.3.2 Identifying Public Water Systems Not Currently under OHA Oversight

OBJECTIVE: Ensure all Public Water Systems in the LUBGWMA are identified and meeting federal and state requirements for monitoring and treating nitrate. [6.2 Intermediate Term Public Water Systems Solutions]

Continuous

- By December 31, 2024, OHA to meet with county and state agency partners to strengthen outreach to identify PWS not under state oversight. Include criteria and requirements in annual trainings with local and state partners to identify new or previously unknown PWS.

Monitoring Progress:

 Reach out to local and state agency partners to identify previously new or unknown PWSs. Identified PWSs are listed in OHA-DWS online database and are complying with federal and state requirements.

Reporting Progress:

Quarter 1:

- OHA staff accompanied the EPA during inspections of local businesses to identify potential PWSs. Of the four systems identified, three have been added to OHA's inventory. DWS is currently in the process of determining whether the fourth system meets the criteria for classification as a public water system.
 - Beef Northwest Feeders (activated on 1/5/2025): A non-transient noncommunity system in Morrow County with six connections serving 68 people.
 - Columbia Basin Onion (activated on 3/11/2025): A non-transient noncommunity system in Umatilla County with two connections serving 97 people.
 - Fewel Farms (activated on 3/24/2025): A transient non-community system in Umatilla County with 5 connections serving 25 people.