



Staff Report

TO: Water Resources Commission

FROM: Chris Kowitz, North Central Region Manager

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SUBJECT: Agenda Item G
Water Resources Commission

LOWER UMATILLA GROUNDWATER MANAGEMENT AREA UPDATE

I. Introduction

During this informational report, staff from the Oregon Department of Environmental Quality, Department of Agriculture, and the Water Resources Department will brief the Commission on the implementation of the State of Oregon's Nitrate Reduction Plan and other work focused within the Lower Umatilla Basin Ground Water Management Area (LUBGWMA).

II. Background

The Lower Umatilla Basin Groundwater Management Area, or LUBGWMA, is about 550 square miles in northern Morrow and northwestern Umatilla counties that includes the communities of Hermiston, Boardman, Irrigon, Stanfield, Echo, and surrounding areas (see Attachment 1). The Department of Environmental Quality (DEQ) designated it a [groundwater management area](#) in 1990 because of high levels of nitrate in the groundwater. It is one of three groundwater management areas in Oregon.

Nitrate is a common groundwater pollutant in many areas throughout the state and country. The most common sources of nitrate contamination are agricultural fertilizer, manure, septic systems, and wastewater, all of which can travel through sediment and into groundwater. High levels of nitrate in drinking water can cause serious health effects and is particularly dangerous for formula-fed infants and pregnant women. People who drink water from private wells are the ones at risk. While water from public water systems is regularly tested and required to meet drinking water standards, private wells are not regulated. Under both federal and state law, private well users are generally responsible for monitoring their well water quality and ensuring it is safe to drink. The Oregon Health Authority (OHA) recommends that private well users regularly test for nitrate, bacteria, and arsenic, all of which are common pollutants in Oregon.

Four state agencies implement most federal and state programs relating to groundwater and drinking water in Oregon: the Oregon Health Authority (OHA), Oregon Department of Environmental Quality (DEQ), Oregon Department of Agriculture (ODA), and the Oregon

Water Resources Department (OWRD).

In accordance with Oregon's Groundwater Quality Protection Act of 1989, DEQ declared the Lower Umatilla Basin a Groundwater Management Area in 1990. This declaration was made because regional nitrate concentrations in groundwater exceeded 7 milligrams per liter (mg/L), which is 70 percent of the federal safe drinking water level of 10 mg/L.

Following the declaration, an interagency group formed and conducted a hydrogeological investigation to determine the extent and potential sources of contamination. The investigation identified sources of excess nitrate in groundwater including agricultural fertilizers, animal waste, industrial food processing wastewater, onsite septic systems, lawns, and gardens.

III. Discussion

The State of Oregon is committed to reducing nitrate contamination in groundwater to protect the health of people who reside in the LUBGWMA because high levels of nitrate in drinking water pose a serious health threat. Oregon's public health agency, the Oregon Health Authority (OHA), has been charged with developing a plan to ensure that all residents in the LUBGWMA are aware of and able to access immediate, free testing (and retesting) of their private drinking water wells and subsequent water delivery or treatment installations. The DEQ, the ODA, and the WRD are working in collaboration to identify and implement key strategies to reduce groundwater nitrate concentrations to less than 7 mg/L.

Last fall, the Oregon State Nitrate Reduction Plan (NRP) was published which outlines an unprecedented collaborative effort that spans four state agencies working in cooperation with the U.S. Environmental Protection Agency (EPA), the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Morrow County, Umatilla County, city governments, businesses, residents and community groups. See below for a link to the NRP. The State is dedicated to rigorously evaluating the effectiveness of these efforts, continuously monitoring progress, and adjusting strategies as needed to ensure lasting results.

Given the complexity of the problem, the plan will be continuously refined and adjusted based on ongoing data collection and analyses, ensuring that the state's approach remains responsive to the evolving needs of the LUBGWMA community. By closely monitoring these indicators, Oregon will be better equipped to make informed decisions, prioritize resources, and achieve the goal of reducing nitrate contamination in groundwater to protect public health and the environment.

As the state embarks on this effort of collaboration, it is important to emphasize that this is a complex problem with no simple or quick solutions. Cleaning up the area's groundwater nitrate contamination will take decades. The most effective and feasible way to clean up groundwater contamination of this scale is to eliminate the sources of pollutants so that, over time, clean water cycles into the groundwater system, diluting and eventually replacing contaminated water.

During our update, each agency will provide an update on their implementation of the NRP, current priorities, and future needs.

IV. Conclusion

The collective work of OWRD, ODEQ, OHA, and ODA in the LUBGWMA continues to grow and evolve. Each agency is working to implement existing programs, evaluate potential changes, and develop new rules to ensure we are collectively meeting our goal to lower nitrate contamination levels. Our work in the Lower Umatilla Basin will continue to be an important regional focus for our agencies and will require continued investment over time.

Attachments:

1. Map of LUBGWMA Boundaries

References:

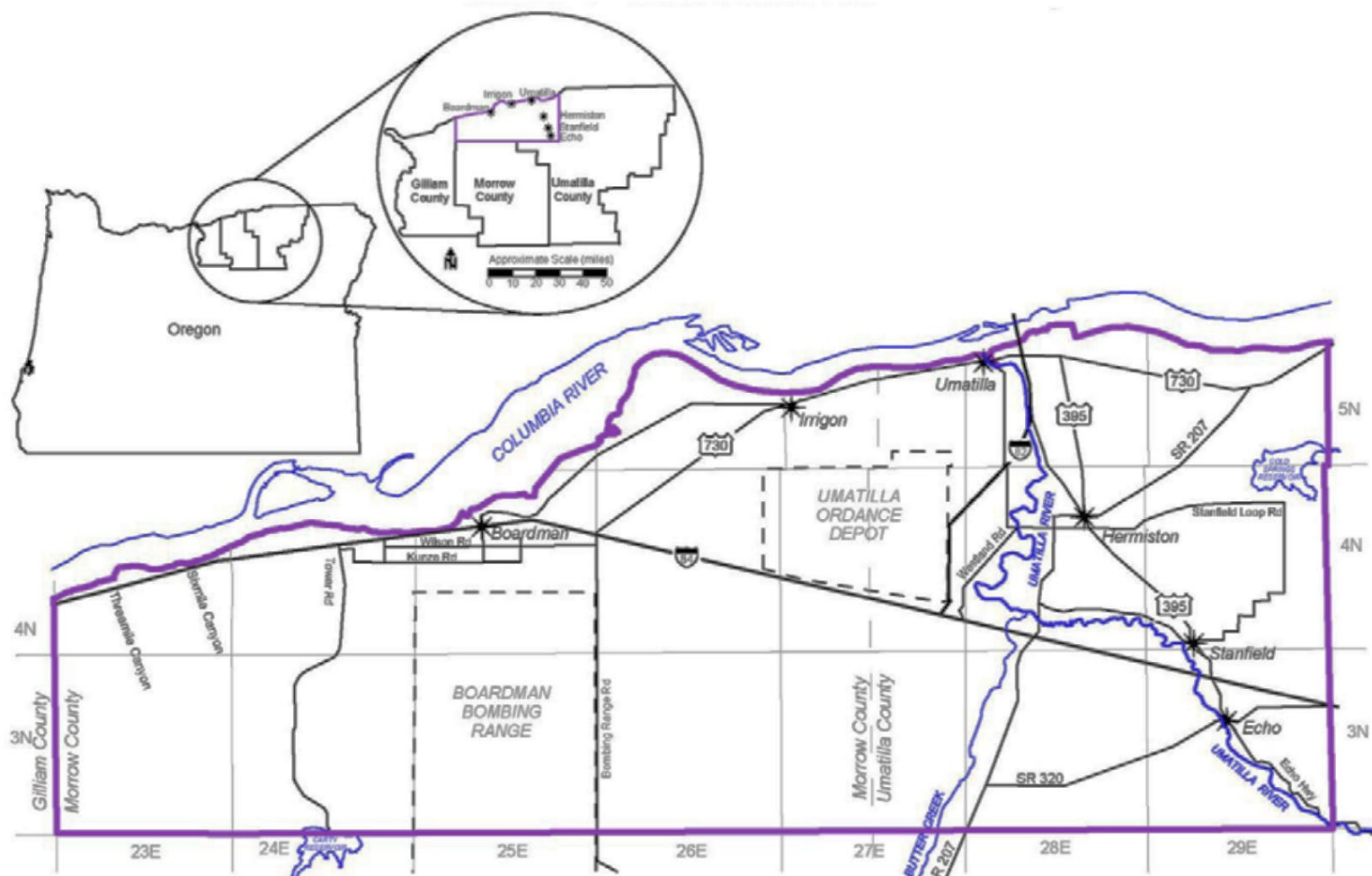
1. Oregon Nitrate Reduction Plan
(https://lubgwma.org/nitrate_reduction_plan/)

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Oregon Department of Environmental Quality

Lower Umatilla Basin Groundwater Management Area



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