



Oregon Department of Environmental Quality

Drinking Water Assessment for the Walla Walla Water Quality Management Area

January 2026

Overview

- There are 16 public drinking water systems in the Walla Walla Agricultural Water Quality Management Area which utilize surface and groundwater sources to serve approximately 10,061 persons regularly.
- Two public water systems within the past ten years have received one or more alerts for exceeding the Maximum Contaminant Level Goal for *E. coli* bacteria.
- One public water system received an alert within the past ten years for nitrate contamination. None of the public water systems received a violation within the past five years for nitrate levels that exceed 10 milligrams per liter.
- There are 46 records of private domestic sample results submitted to Oregon Health Authority's Real Estate Transaction program in the area. Of these, five measured nitrate concentrations ≥ 3 mg/L.
- Contaminants in water supplies potentially related to agriculture occur near human populations, agricultural land uses, and aquifers susceptible to contaminant infiltration.
- DEQ recommends public water systems utilize [Source Water Protection Practices](#) to prevent potential contamination and increase resiliency.
- Resources for addressing risks to drinking water supplies can be found in either the [Groundwater Resource Guide](#) or [Surface Water Resource Guide](#).

Water use

There are 16 public water systems within the Walla Walla Agricultural Water Quality Management Area which obtain drinking water from groundwater sources. Drinking water is an important beneficial use under the [Clean Water Act](#). When Clean Water Act standards are met in source waters, a drinking water treatment plant using standard technology can generate water meeting the [Safe Drinking Water Act](#) standards. **Figure 1** shows the drinking water source areas of the public water systems within the Walla Walla Agricultural Water Quality Management Area. A drinking water source area is defined as the area of land which contributes water to the drinking water supply and where potential contamination from human activities or natural sources may pose a threat to the water quality.

Of the 16 public water systems in the Walla Walla Agricultural Water Quality Management Area, five are community public water systems which use surface water and groundwater sources to serve approximately 8,296 people on a regular basis. There are three non-transient, non-community workplace or school public water systems with an estimated service population of 600. The remaining eight public water systems are transient non-community systems and state-regulated systems with an estimated service population of 1,165. See **Table 1** for a list of the public water systems, their classifications, primary drinking water source, and populations served.

Translation or other formats

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The Walla Walla Agricultural Water Quality Management Area land uses are primarily private rural land and agricultural in the western and central portions of the management area and U.S. Forest Service land in the eastern portion of the management area. Other land use and ownership within the management area includes private industrial forests, private urban lands, and Bureau of Land Management (**Figure 2**).

Bacteria

E. coli bacteria alerts for public water systems are generated by the Oregon Health Authority when their presence is detected in sample results. Within the Walla Walla Agricultural Water Quality Management Area, two public water systems had alerts for detections of *E. coli* bacteria in the past ten years (**Figure 2, Table 1**). No public water systems had a violation with the Oregon Health Authority for *E. coli* bacteria in the past five years. A public water system will receive an MCL violation for *E. coli* bacteria if they collect a sample indicating total coliforms are present and the resample is also positive for either fecal coliform or *E. coli* bacteria.

The locations of public water systems with *E. coli* bacteria alerts occur near areas designated for agricultural land use. Refer to DEQ's [Surface Water Resource Guide](#) to learn more about preventing bacterial contamination in surface water bodies from agricultural land uses.

Nitrates

An alert for elevated nitrate concentrations is generated by the Oregon Health Authority when nitrate sample results for public water systems exceed 5 mg/L. Within the Walla Walla Agricultural Water Quality Management Area, one public water system had an alert for elevated nitrate results in the past ten years. None of the public water systems had an MCL violation in the past five years (the MCL for nitrate is 10 mg/L).

There are numerous private groundwater wells for domestic use within the Walla Walla Agricultural Water Quality Management Area. The Domestic Well Testing Act database includes submitted records of real estate transaction testing data from 1989 to 2018. There are 46 records of private domestic well samples within the management area. Of these 46 records, 21 measured nitrate concentrations from 0.01 to 3 mg/L, one measured nitrate concentrations 3.01 to 7 mg/L, four measured nitrate concentrations 7.01 to 10 mg/L, and none of the records measured nitrate concentrations ≥ 10 mg/L (**Figure 2**). For wells testing at elevated concentrations, attention to well depth, well construction, nitrate leaching potential of local soils, and proximity to nutrient sources such as septic systems, fertilizer use areas, and high concentrations of livestock should be considered when investigating the cause of nitrate contamination.

Of the soils assessed in the Walla Walla Agricultural Water Quality Management Area, much of the western portion of the area with agricultural land uses has low to medium nitrate leaching potential, according to the Natural Resources Conservation Service's National Cooperative Soil Survey. The eastern portion of the area is characterized by high nitrate leaching potential, with some areas remaining unrated (**Figure 3**). Nitrate leaching potential is based on the area's slope, precipitation, and land use. Nitrate from fertilizers and septic systems can readily penetrate aquifers used for drinking water when leaching potential is high. Additionally, bacteria removal through soil filtration can be less effective in sandy soils. Measures to reduce leachable nitrate in soil reduce risk to groundwater sources of drinking water. Refer to the [Groundwater Resource Guide](#) to learn more about nitrate leachability and potential reduction strategies.

DEQ specifically addresses drinking water issues identified for public water systems. A query of Oregon Water Resources Department's (OWRD's) water rights database for private domestic points of diversion (using a threshold of 0.005 cubic feet per second for domestic surface water rights that are household use only, not irrigation) identified 68 private domestic surface water rights in the Walla Walla Agricultural Water Quality Management Area (see **Figure 2**).

Other contaminants

Water quality samples from public water systems within the Walla Walla Agricultural Water Quality Management Area also detected other contaminants including sodium and lead. These are unlikely to be related to agricultural activities.

Contact

For more information, please contact the [Drinking Water Protection Program](#) or send an email to drinkingwater.protection@deq.oregon.gov.

Non-discrimination statement

DEQ does not discriminate on the basis of race, color, national origin, disability, age, sex, religion, sexual orientation, gender identity, or marital status in the administration of its programs and activities. Visit DEQ's [Civil Rights and Environmental Justice page](#).

Table 1. Public Water Systems in the Walla Walla Ag WQMA

Note: Table 1 does not include public water systems that purchase drinking water from these water systems.

PWS ID	Public Water System Name	System Type	Population	MCL Alerts
Surface Water Systems				
4100372	City of Hermiston (population outside of WQMA)	Community	19696 (not included in Walla Walla Ag WQMA)	
Groundwater Systems				
4100521	Vincent Water Company	Community	90	Nitrate
4100522	City Of Milton-Freewater	Community	7070	
4100523	Green Acres MHP	Community	200	
4100525	Villadom Mobile Home Park	Community	96	
4106152	Clay In Motion	Transient Non-Community Water System	100	
4190597	Ferndale Elementary	Non-Transient Non-Community Water System	250	
4191243	Kellys	Transient Non-Community Water System	50	E. Coli
4195484	First Stop Mart	Transient Non-Community Water System	550	
4100949	City Of Weston	Community	840	
4105748	Umatilla Co Pks Harris Park	Transient Non-Community Water System	25	
4190234	Smith Frozen Foods Inc	Non-Transient Non-Community Water System	250	
4190245	Tollgate Resort	Transient Non-Community Water System	100	
4192075	M-F Drive In Theatre	Transient Non-Community Water System	50	E. Coli
4194531	Wayside Market	Transient Non-Community Water System	250	
4194985	Milton-Stateline S.D.A. School	Non-Transient Non-Community Water System	100	
4192755	USFS Jubilee Lake Cg	Transient Non-Community Water System	40	

System Type:

C - "Community Water System (C)" means a public water system that has 15 or more service connections used by year-round residents, or that regularly serves 25 or more year-round residents.

NTNC - "Non-Transient Non-Community Water System (NTNC)" means a public water system that is not a Community Water System and that regularly serves at least 25 of the same persons over 6 months per year.

NC - "Transient Non-Community Water System (NC)" means a public water system that serves a transient population of 25 or more persons.

OVS - "Oregon Very Small" means a public water system, which serves 4 to 14 service connections or serves 10 to 24 people. Monitoring requirements for these systems are the same as those for Transient Non-Community water systems.

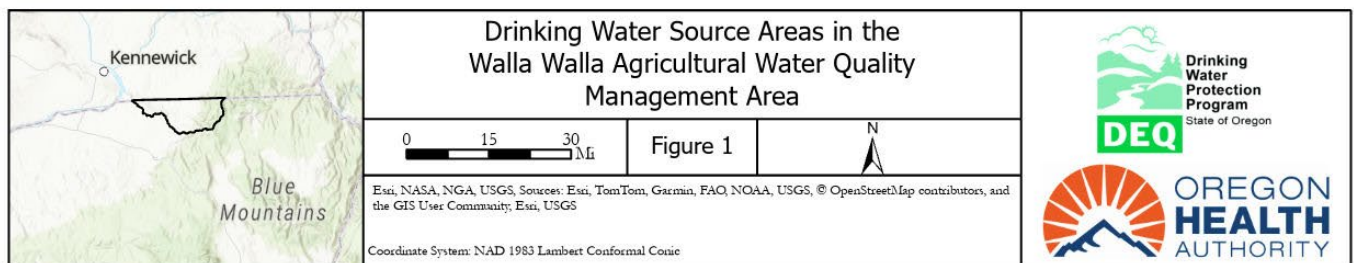
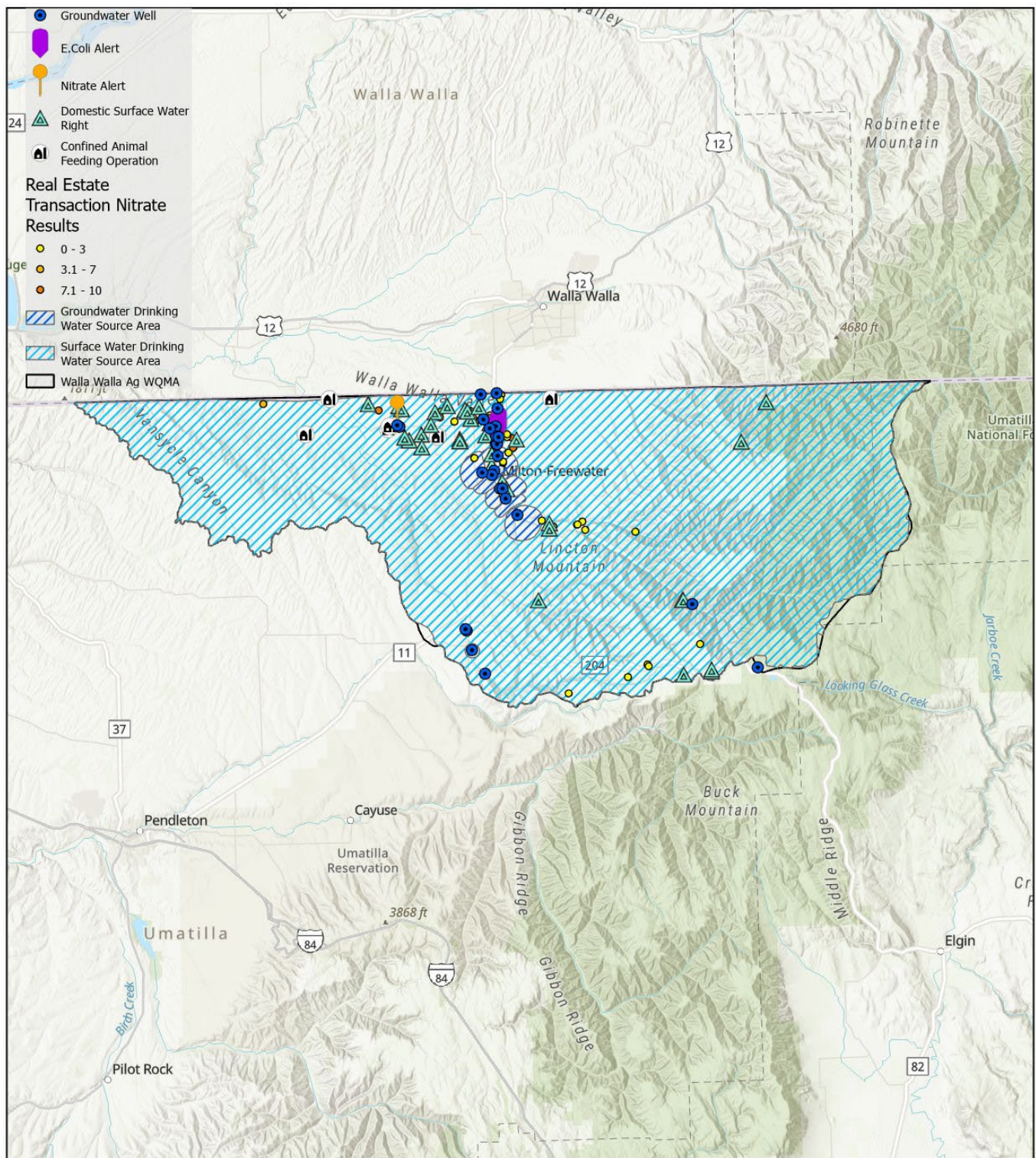


Figure 1: Drinking Water Source Areas for Public Water Systems in the Walla Walla Agricultural Water Quality Management Area

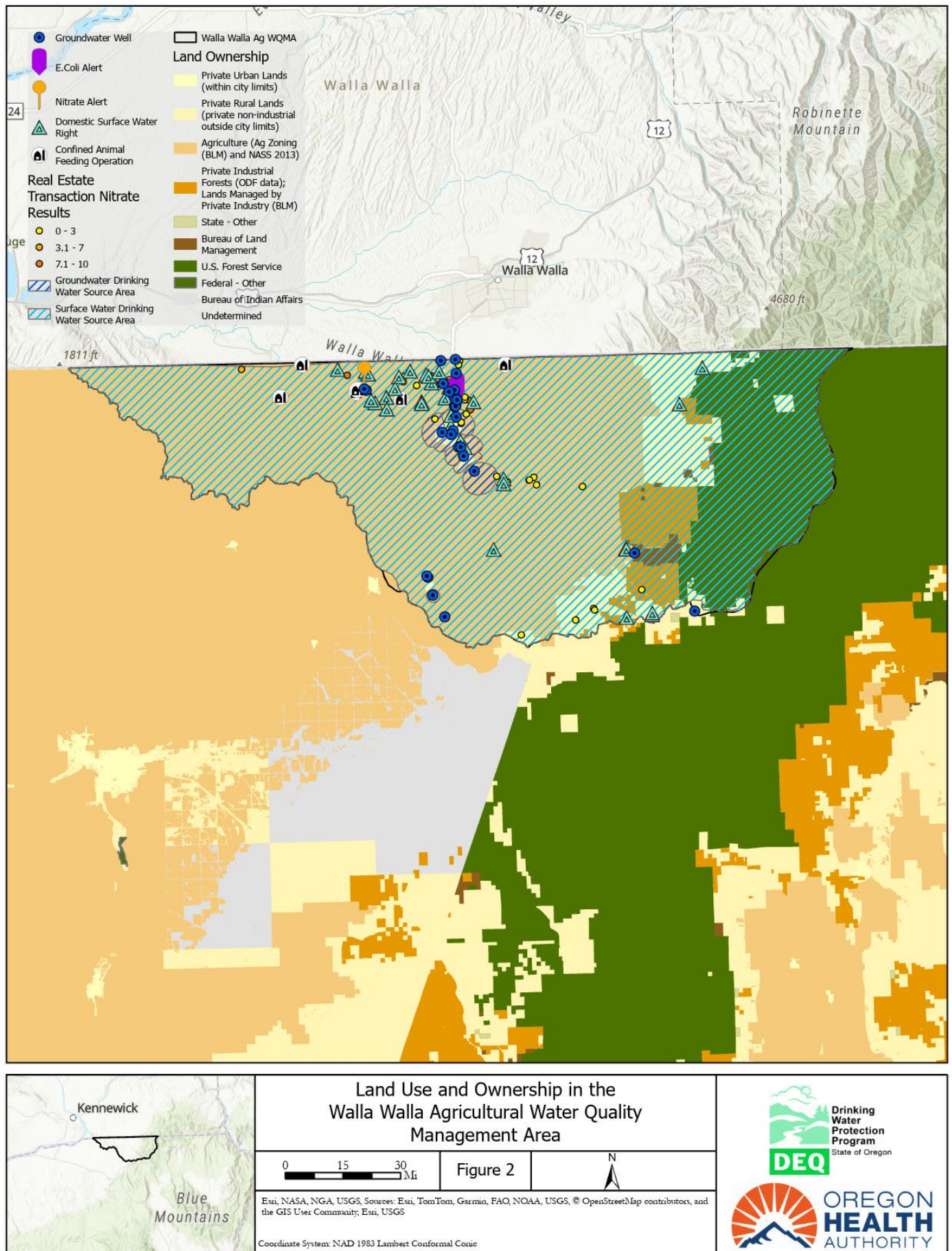


Figure 2: Land Use and Ownership in the Walla Walla Agricultural Water Quality Management Area

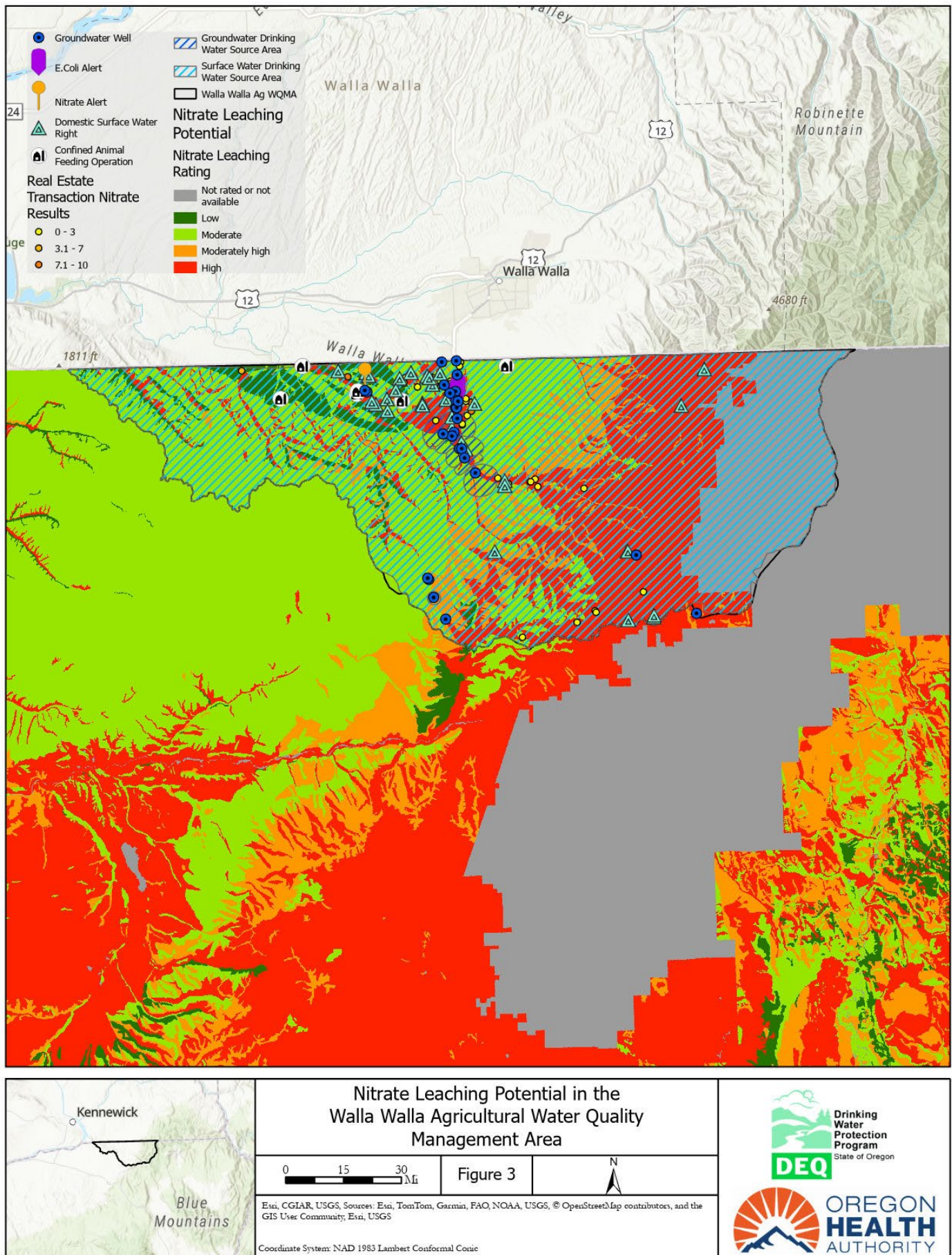


Figure 3: Nitrate Leaching Potential in the Walla Walla Agricultural Water Quality Management Area