



Oregon Department of Environmental Quality

Drinking Water Assessment for the Mid-Coast Agricultural Water Quality Management Area

December 2023

Overview

- Public drinking water systems in the Mid-Coast Agricultural Water Quality Management Area (Ag WQMA) utilize groundwater sources to serve approximately 78,650 persons regularly.
- 22 public water systems had an alert within the past ten years for exceeding the Maximum Contaminant Level Goal (MCLG) for *E. coli* bacteria (MCLG for *E. coli* bacteria is zero).
- Three public water systems had an alert within the past ten years for elevated [≥ 5 milligrams per liter (mg/L)] nitrate concentrations. None of the public water systems had Maximum Contaminant Level (MCL) exceedances for nitrate in the past five years.
- There are 192 records of private domestic well sample results submitted to Oregon Health Authority's (OHA's) Real Estate Transaction program in the area. Of these, two measured nitrate concentrations above 5 mg/L.
- Contaminants in water supplies potentially related to agriculture occur near human populations, agriculture land uses, and aquifers susceptible to contaminant infiltration.
- Department of Environmental Quality (DEQ) recommends Oregon Department of Agriculture (ODA) work with the appropriate Soil and Water Conservation Districts (SWCDs) to implement best management practices (BMPs) in and around private domestic and public drinking water wells to reduce high nitrate levels. BMPs to reduce nitrate levels are beneficial in helping communities reduce long term costs associated with treatment, operations, maintenance, and sustainability.
- 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 109 public water systems which obtain drinking water from a combination of surface and groundwater sources in the Mid-Coast Agricultural Water Quality Management Area (Ag WQMA). Drinking water is an important beneficial use under the federal Clean Water Act (CWA). When CWA 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** demonstrates the drinking water source areas of the public water systems within the Mid-Coast Ag WQMA. 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.

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There are 36 Community public water systems in the Mid-Coast Ag WQMA using groundwater and/or surface water wells to serve approximately 69,561 people on a regular basis, in addition to visitors at recreation sites. There are 4 Non-Transient, Non-Community workplace or school public water systems using groundwater, serving 530 persons regularly. The remaining 54 public water systems are Transient Non-Community systems and Non-Public, state-regulated systems with an estimated service population of 7,630. Land use and ownership within public water system's drinking water source areas in the Mid-Coast Ag WQMA primarily include private industrial forests, private rural lands, private urban lands, agriculture, Bureau of Land Management, United States Forest Service, and Oregon Department of Forestry (**Figure 2**). See **Table 1** below for a list of public water systems, their classifications, sources and activity status, and populations served.

Bacteria

E. coli bacteria alerts for public water systems are generated by the Oregon Health Authority (OHA) when their presence is detected in sample results. Within the Mid-Coast Ag WQMA, 22 public water systems had an alert for detections of *E. coli* bacteria in the past ten years (**Figure 1, Table 1**). Three public water systems had violations with OHA for *E. coli* bacteria in the past five years: Drift Creek Landing, Guptil Subdivision, and Swisshome Village. In addition, 28 public water systems had alerts for total coliform bacteria in the past ten years with no violations. The Mid-Coast Ag WQMA does not appear to have *E. coli* or total coliform bacteria contamination issues associated with agricultural practices as the location of public water systems with alerts occur near private rural and urban land use.

Nitrates

An alert for elevated nitrate concentrations is generated by the OHA when nitrate sample results for public water systems exceed 5 mg/L. Within the Mid-Coast Ag WQMA, three public water systems had an alert for elevated nitrate results in the past ten years. None of the public water systems had MCL violations for nitrate in the past ten years (the MCL for nitrate is 10 mg/L). In addition, there are numerous private groundwater wells for domestic use within the Mid-Coast Ag WQMA. The Domestic Well Testing Act database includes submitted records of real estate transaction testing data from 1989 to 2018. There are 192 records of private domestic well samples within the Mid-Coast Ag WQMA. Of these 192 records, 190 measured nitrate concentrations below 5 mg/L; two measured nitrate concentrations above 5 mg/L. 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 Mid-Coast Ag WQMA, most have high nitrate leaching potential, according to the Natural Resources Conservation Service's (NRCS) National Cooperative Soil Survey (**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 soils would reduce risk to groundwater sources of drinking water. Refer to section 5.0 - Pollutant Reduction Tools in 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 352 private domestic surface water rights in the Mid-Coast Ag WQMA (see **Figure 1**).

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Other

Other contaminants found that are likely not related to agricultural activities include asbestos, copper, toluene, fluoride, sodium, xylenes, ethylbenzene, lead, total haloacetic acids (HAA5) and total trihalomethanes (TTHM). HAA5 and TTHM are disinfection byproducts that form when chlorine compounds that are used to disinfect water react with other naturally occurring chemicals in the water.

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 or sex in administration of its programs or activities. Visit DEQ's [Civil Rights and Environmental Justice page](#).

Table 1. Public Water Systems in the Mid Coast 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	Drinking Water Primary Source	System Type	Population	MCL Exceedance
Groundwater Systems					
4192091	ADA RESORT	Groundwater	Oregon Very Small	15	
4100967	AGATE CREEK WATER ASSOCIATION	Groundwater	Transient Non-Community	45	
4192026	ALSEA BAY STEAKHOUSE & SALOON Inactive System	Groundwater	Transient Non-Community	80	
4100978	ALSEA COUNTY SERVICE DISTRICT	Groundwater	Community	202	
4192043	ALSEA RIVER RV PARK	Groundwater under direct influence of surface water	Transient Non-Community	24	E. coli
4191874	AMERICAN LAMINATORS--TIDEWATER	Groundwater	Non-Transient Non-Community	50	
4194888	BENTON CO PKS SALMONBERRY CG	Groundwater	Transient Non-Community	43	E. coli
4193596	BEST WESTERN PIER POINT INN	Groundwater	Transient Non-Community	100	E. coli
4100295	BIG SPRUCE MHP LLC	Groundwater	Community	80	
4194183	BLM ALSEA FALLS CAMPING	Groundwater	Transient Non-Community	120	
4190639	BLM ALSEA FALLS PICNIC GROUND Inactive System	Groundwater	Transient Non-Community	25	
4192033	BOILER BAY RV PARK	Groundwater	Oregon Very Small	20	
4195105	C & M STABLES	Groundwater	Transient Non-Community	75	E. coli
4100480	CALKINS ACRES IMPROVEMENT INC	Groundwater	Transient Non-Community	10	
4100565	CARMEL BEACH WATER DISTRICT	Groundwater	Community	39	
4191839	COAST MARINA & RV PARK	Groundwater	Transient Non-Community	50	E. coli
4191126	COYOTE ROCK RV RESORT &	Groundwater	Community	64	

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	MARINA Inactive System				
4100233	CROOKED CREEK TRAILER PARK	Groundwater	Oregon Very Small	20	
4191797	DARLINGS RESORT	Groundwater	Transient Non-Community	300	E. coli
4191796	DAVIDSON INDUSTRIES-MAPLETON Inactive System	Groundwater	Oregon Very Small	10	E. coli
4194848	DEADWOOD COUNTRY MARKET	Groundwater	Oregon Very Small	20	
4192023	DRIFT CREEK CAMP	Groundwater	Transient Non-Community	28	
4192040	EDDYVILLE CHARTER SCHOOL	Groundwater	Non-Transient Non-Community	200	
4100299	FLORENCE, CITY OF	Groundwater	Community	9561	
4194707	GET N GO GROCERY 7	Groundwater	Transient Non-Community	100	
4100602	GUPTIL SUBDIVISION	Groundwater	Community	79	E. coli
4192022	HAPPY LANDING RV PARK/MARINA	Groundwater	Transient Non-Community	25	
4100722	HILAND WC - BOULDER CREEK	Groundwater under direct influence of surface water	Community	350	
4100605	HILAND WC - ECHO MOUNTAIN	Groundwater	Community	362	
4100601	HILAND WC - RIVERBEND	Groundwater under direct influence of surface water	Community	172	E. coli
4100567	HILAND WC - WESTWOOD	Groundwater	Community	200	E. coli
4194280	KING SILVER RV PARK	Groundwater	Community	62	
4101345	KOZY ACRES WATER SYSTEM	Groundwater	Community	40	
4191852	LAKES EDGE RV PARK	Groundwater	Transient Non-Community	20	
4195160	LAKEVIEW GROCERY	Groundwater	Transient Non-Community	50	
4191784	LANE CO PARKS CAMP LANE	Groundwater	Transient Non-Community	50	
4192041	LINCOLN CO PKS-ELK CITY PARK	Groundwater	Oregon Very Small	10	

4192053	LINCOLN CO PKS- MOONSHINE PARK	Groundwater	Transient Non- Community	25	
4192050	LOGSDEN NEIGHBORHOOD CHURCH Inactive System	Groundwater	Transient Non- Community	100	
4191203	LUCAS PIONEER RANCH & LODGE	Groundwater	Transient Non- Community	38	
4194096	MORGANS COUNTRY KITCHEN Inactive System	Groundwater	Transient Non- Community	250	
4194696	NIGHTINGALES FISHING CAMP Inactive System	Groundwater	Transient Non- Community	50	
4192054	OAKLANDS FISH CAMP/MARINA	Groundwater	Oregon Very Small	20	E. coli
4194773	ODD FELLOWS RV PARK	Groundwater	Transient Non- Community	80	Nitrate
4192055	OLALLA VALLEY GOLF COURSE Inactive System	Groundwater	Transient Non- Community	40	
4191815	OLD WORLD GINGERBREAD	Groundwater	Transient Non- Community	75	
4191047	OPRD CARL WASHBURNE SP	Groundwater	Transient Non- Community	200	
4191959	OPRD HB VAN DUZER STATE PARK	Groundwater	Transient Non- Community	500	
4191048	OPRD HECETA HEAD LIGHTHOUSE	Groundwater	Transient Non- Community	1800	
4194710	OR YOUTH AUTHORITY - FLORENCE	Groundwater	Non-Transient Non-Community	45	
4194365	OREGON HOUSE, THE	Groundwater	Oregon Very Small	14	
4192028	OTIS JUNCTION WATER SYSTEM	Groundwater	Transient Non- Community	100	E. coli
4100608	OTTER ROCK WATER DISTRICT	Groundwater	Community	175	E. coli
4191848	PARK MOTEL	Groundwater	Oregon Very Small	20	Nitrate
4100929	RIVERSIDE MOBILE PARK	Groundwater	Community	32	
4192036	ROVERS RV PARK	Groundwater	Transient Non- Community	27	

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4100606	SALMON RIVER MOBILE VILLAGE Inactive System	Groundwater	Community	75	
4192048	SALMON RIVER RV PARK	Groundwater	Community	69	E. coli
4191869	SAND DUNES FRONTIER	Groundwater	Transient Non- Community	200	
4191859	SEA LION CAVES	Groundwater	Transient Non- Community	350	
4191856	SEE VUE, THE	Groundwater	Transient Non- Community	50	
4105289	SIUSLAW MARINA	Groundwater	Transient Non- Community	40	E. coli
4195300	SLAC RES/C&D DOCK	Groundwater	Oregon Very Small	15	
4106049	SOUTHVIEW IMPROVEMENT DIST	Groundwater	Community	35	
4192006	ST MARYS CATHOLIC CHURCH	Groundwater	Transient Non- Community	100	
4100943	SUMMIT WATER ASSOCIATION	Groundwater	Oregon Very Small	15	
4191807	SWISSHOME EVANGELICAL CHURCH Inactive System	Groundwater	Transient Non- Community	65	
4100854	SWISSHOME VILLAGE	Groundwater	Community	24	E. coli
4192063	TAYLORS LANDING RV PARK	Groundwater	Community	48	
4191866	THOUSAND TRAILS SO JETTY RESORT	Groundwater	Transient Non- Community	350	
4194924	TOKETEE ILLAHEE RV PARK	Groundwater	Oregon Very Small	20	E. coli
4194412	TRIANGLE LAKE CENTER Inactive System	Groundwater	Transient Non- Community	30	
4190556	TRIANGLE LAKE HIGH/ELEM SD 90	Groundwater	Non-Transient Non-Community	235	
4195159	TRIANGLE LAKE PARK Inactive System	Groundwater	Transient Non- Community	40	
4192717	USFS BLACKBERRY CG	Groundwater	Transient Non- Community	27	
4192726	USFS CAPE PERPETUA VISITOR CTR	Groundwater	Transient Non- Community	1250	
4192721	USFS CARTER LAKE CG	Groundwater	Transient Non- Community	60	

4194351	USFS MARYS PEAK CG HP Inactive System	Groundwater	Transient Non-Community	25	
4192715	USFS MIKE BAUER PICNIC GROUNDS Inactive System	Groundwater	Transient Non-Community	75	
4194015	USFS OREGON DUNES OVERLOOK	Groundwater	Transient Non-Community	250	
4192718	USFS SILTCOOS CAMPGROUND	Groundwater	Transient Non-Community	425	
4195051	USFS SOUTH JETTY	Groundwater	Transient Non-Community	25	
4192719	USFS TAHKENITCH CG	Groundwater	Transient Non-Community	80	
4191891	WESTLAKE RESORT	Groundwater	Transient Non-Community	25	Nitrate
4192034	WESTWIND STEWARDSHIP GROUP	Groundwater	Transient Non-Community	150	
4100298	WOAHINK LAKE RV PARK	Groundwater	Transient Non-Community	40	
4192064	ZELLERS RIVERSIDE BAR & GRILL	Groundwater	Transient Non-Community	25	E. coli
Surface Water Systems					
4100304	ALDERWOOD WATER DEV CO	Surface Water	Community	34	E. coli
4100564	BAY HILLS WATER ASSOCIATION	Surface Water	Community	45	
4100568	BEVERLY BEACH WATER DISTRICT	Surface Water	Community	152	
4191786	CAMP BAKER BSA	Surface Water	Transient Non-Community	75	
4100254	DEPOE BAY, CITY OF	Surface Water	Community	1398	
4192038	DRIFT CREEK LANDING	Surface Water	Transient Non-Community	34	E. coli
4100301	HECETA WATER PEOPLES UTILITY DISTRICT	Surface Water	Community	4921	
4100482	HILAND WC - BEAR CREEK	Surface Water	Community	275	E. coli
4101072	JOHNSON CREEK WATER SERVICE	Surface Water	Community	363	
4100324	KERNVILLE- GLENEDEN-LINC BCH WD	Surface Water	Community	5644	

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4100483	LINCOLN CITY WATER DISTRICT	Surface Water	Community	20830	
4100507	MAPLETON WATER DISTRICT	Surface Water	Community	600	
4100556	NETARTS WATER DISTRICT	Surface Water	Community	1800	
4100566	NEWPORT, CITY OF	Surface Water	Community	10160	
4100603	PANTHER CREEK WD	Surface Water	Community	620	
4100821	SILETZ, CITY OF	Surface Water	Community	1264	
4100302	SOUTH COAST WATER COMPANY	Surface Water	Community	200	E. coli
4100925	SW LINCOLN CO WATER PUD	Surface Water	Community	3000	
4100899	TOLEDO WATER UTILITIES	Surface Water	Community	3645	
4100926	WALDPORT, CITY OF	Surface Water	Community	2080	
4100966	YACHATS, CITY OF	Surface Water	Community	1000	

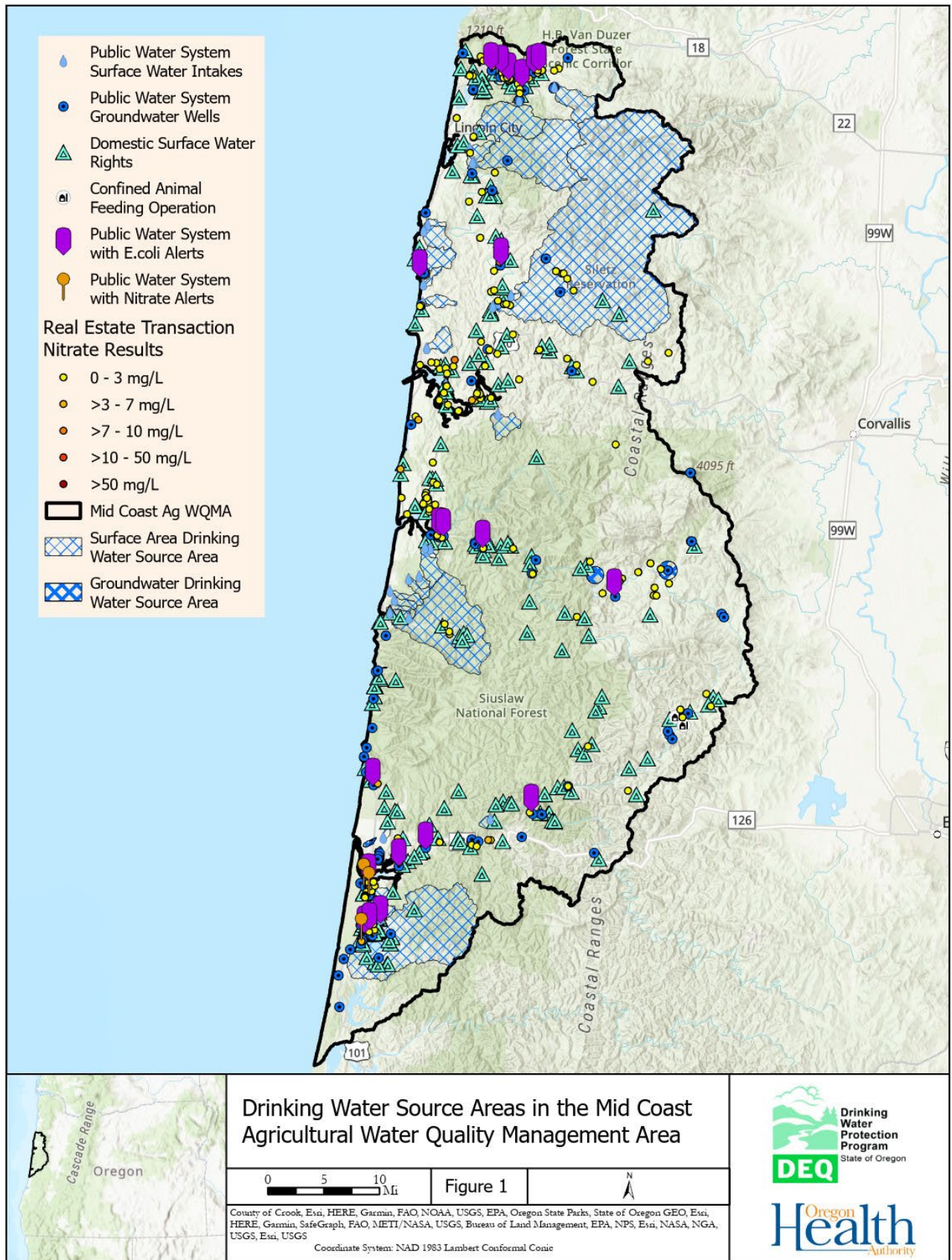
System Type

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.

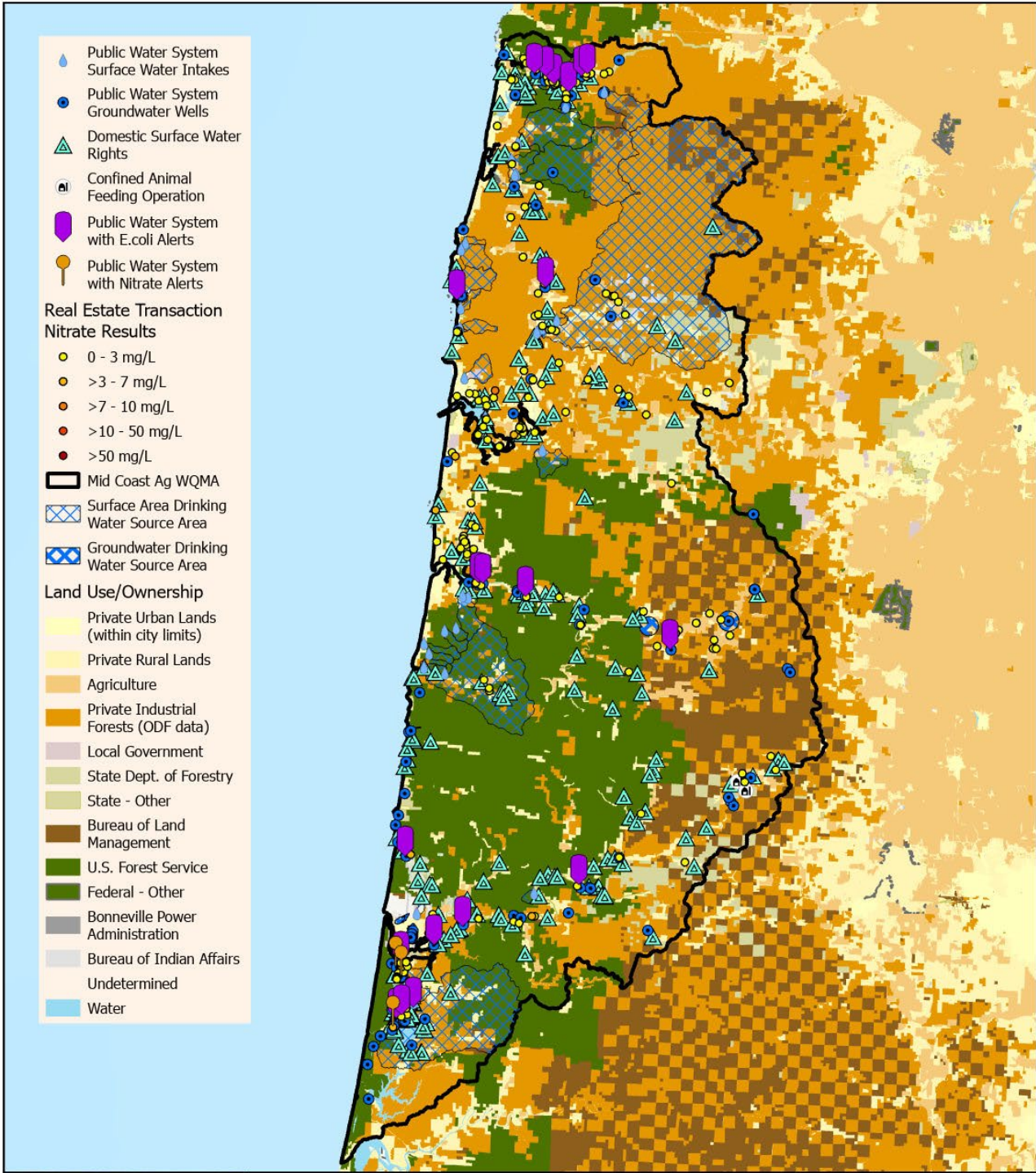
OVS - "Oregon Very Small" means a public water system, which serves 4 to 14 service connections or serves 10 to 24 people. Monitoring requirements for these systems are the same as those for Transient Non-Community water systems.



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Drinking Water Source Areas in the Mid Coast Agricultural Water Quality Management Area Land Use/Ownership



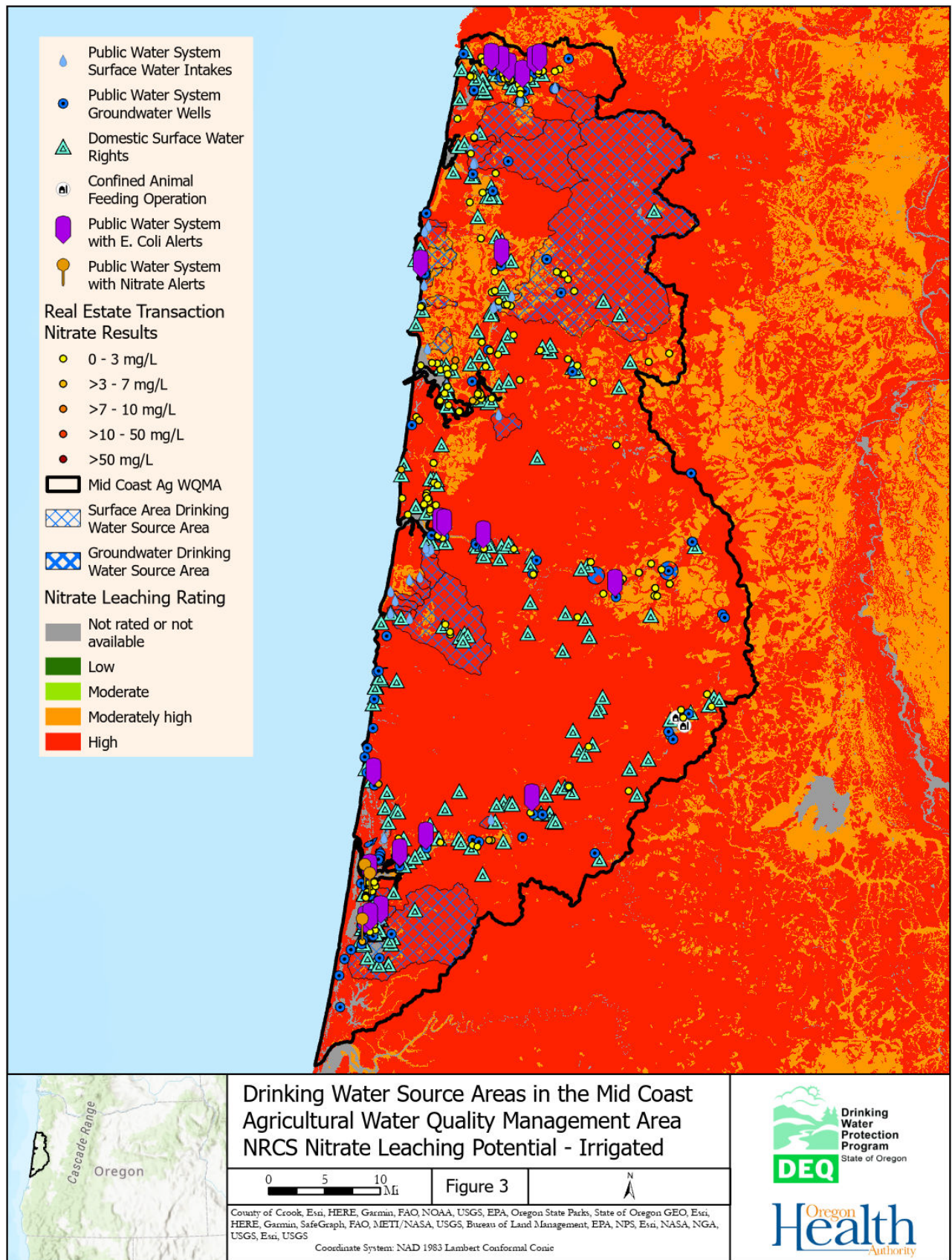
Figure 2



County of Crook, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, Oregon State Parks, State of Oregon GEO, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, Esri, NASA, NGA, USGS, Esri, USGS

Coordinate System: NAD 1983 Lambert Conformal Conic





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