



Oregon Department of Environmental Quality

# Drinking Water Assessment for the North and Middle Fork John Day Water Quality Management Area

December 2024

## Overview

- There are six public drinking water systems in the North Middle Fork John Day River Agricultural Water Quality Management Area which utilize groundwater and surface water sources to serve approximately 581 persons regularly.
- None of the public water systems received alerts within the past ten years or violations within the past five years from the Oregon Health Authority for *E. coli* or nitrate contamination.
- DEQ recommends public water systems utilize [Source Water Protection Practices](#) to prevent potential contamination to drinking water sources 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 six public water systems which obtain domestic drinking water from groundwater and surface water sources in the North and Middle Fork John Day Agricultural Water Quality Management Area. Drinking water is an important beneficial use under the federal 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 North and Middle Fork John Day 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 six public water systems in the North and Middle Fork John Day Agricultural Water Quality Management Area, three are Community public water systems which use groundwater wells, springs, and surface water (groundwater under the influence of surface water is classified as a surface water source) intakes to serve approximately 545 people on a regular basis, in addition to visitors at recreation sites. There are no Non-Transient Non-Community workplace or school public water systems. There are no Transient Non-Community systems. There are two active Oregon Very Small (also known as State Regulated Non-Public) systems in the area serving 32 people on a regular basis. See **Table 1** below for a list of public water systems, their classifications, sources and activity status, and populations served.

The land uses within the North and Middle Fork John Day Agricultural Water Quality Management Area are primarily United States Forest Service land and private rural land uses as well as some private industrial forests,

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private rural lands, and Bureau of Land Management property. Agricultural land uses (e.g. alfalfa, meadow hay, and beef cattle) are present near public water system wells and springs in the area. Most of the land utilized for agricultural purposes is in the southwest portion of the North and Middle Fork John Day Agricultural Water Quality Management Area (**Figure 3**).

## Bacteria

Total coliform bacteria alerts for public water systems are generated by Oregon Health Authority when their presence is detected in sample results. The maximum contaminant level goal for total coliform bacteria is zero. Three public water systems have recent alerts in the past ten years for total coliform: Monument, Ukiah, and Granite. None of the public water systems received violations for exceeding the maximum contaminant level for total coliform bacteria within the past five years. A public water system will receive an MCL violation if total coliform is present in more than 5% of their routine samples taken each month. Additionally, a public water system will receive an MCL violation for total coliform bacteria if they fail to resample following a routine positive sample.

*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 North and Middle Fork John Day Agricultural Water Quality Management Area, none of the public water systems had alerts for detections of *E. coli* bacteria in the past ten 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.

## 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 North and Middle Fork John Day Agricultural Water Quality Management Area, none of the public water systems had an alert for elevated nitrate results within the past ten years. In addition, none of the public water systems had MCL violations in the past five years for nitrate levels. The MCL for nitrate is 10 mg/L.

There are numerous private groundwater wells for domestic use. The Domestic Well Testing Act database (real estate transaction testing data) for 1989-2019 indicates that there are no data results included in the database for this area.

Of the soils assessed in the North and Middle Fork John Day Agricultural Water Quality Management Area, most have high nitrate leaching potential, according to the Natural Resources Conservation Service's (NRCS) National Cooperative Soil Survey (**Figure 2**). Nitrate leaching potential is influenced by 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 may be less effective in sandy soils. Measures to reduce leachable nitrate in soils 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. However, more information is needed as most of the area has not been assessed by NRCS.

DEQ specifically addresses drinking water issues identified for public water systems. A query of the Oregon Water Resources Department'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 designated for household use only,

not irrigation—identified 53 private domestic surface water rights in the Yamhill Agricultural Water Quality Management Area (**Figure 1**).

## Other contaminants

Water quality samples from public water systems within the North and Middle Fork John Day Agricultural Water Quality Management Area also detected other contaminants that may be related to agricultural activity such as xylenes. Copper and sodium were also measured, but 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](mailto: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 North and Middle Forks John Day 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	Primary Drinking Water Source	System Type	Population	MCL Alerts
<b>Surface Water (groundwater under the direct influence of surface water)</b>					
4100541	MONUMENT, CITY OF	groundwater under the direct influence of surface water	Community	115	
<b>Groundwater Systems</b>					
4100490	LONG CREEK, CITY OF	Groundwater	Community	195	
4100913	UKIAH, CITY OF	Groundwater	Community	235	
4191147	AUSTIN HOUSE	Groundwater	Oregon Very Small	15	
4194269	LEHMAN HOT SPRINGS Inactive System	Groundwater	Oregon Very Small	4	
4194812	GRANITE, CITY OF	Groundwater	Oregon Very Small	17	

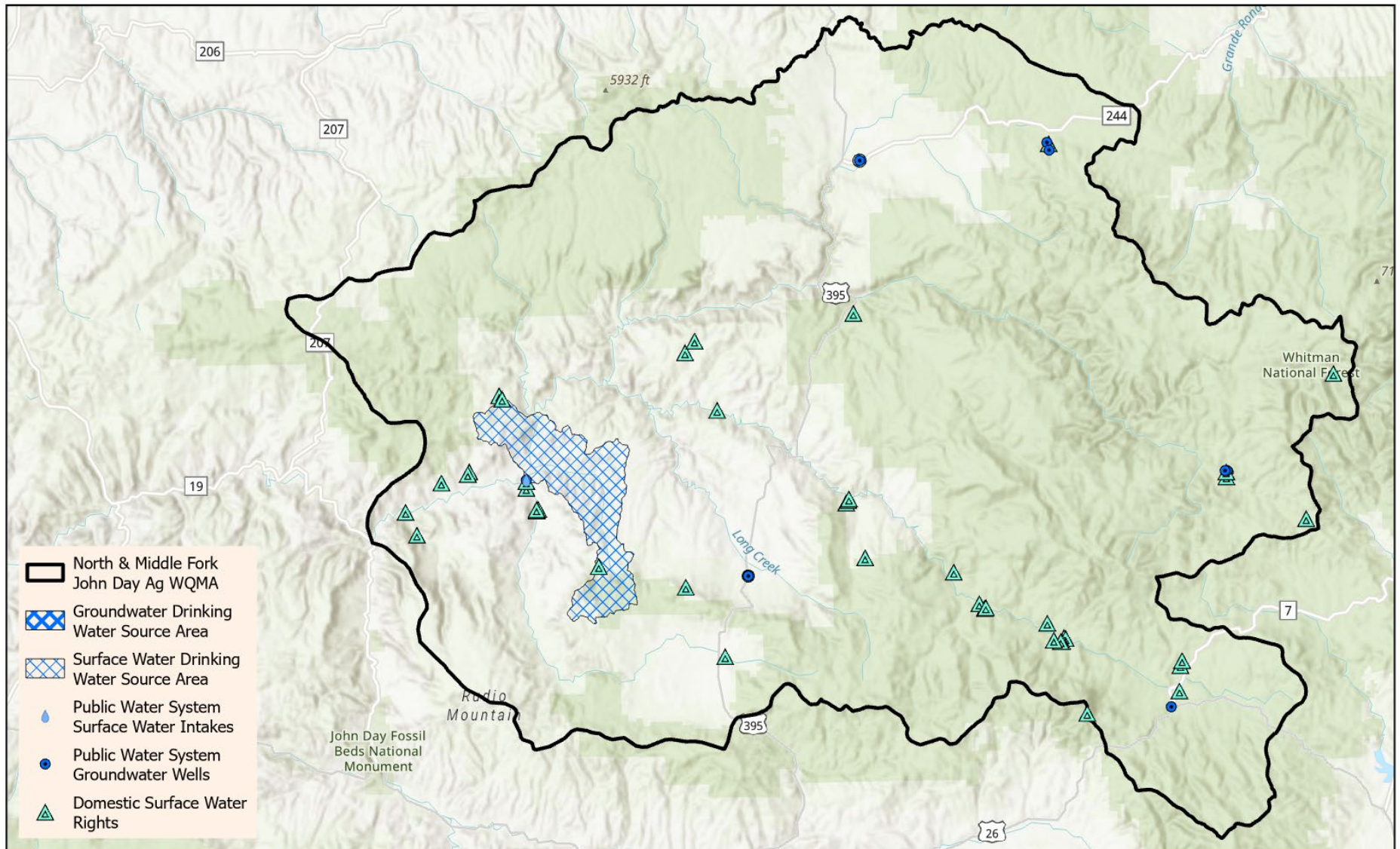
System Type:

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.

NP or OVS - "State Regulated Water System (NP)" 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. This designation was recently changed to OVS for Oregon Very Small systems. Both designations are still used.



-  North & Middle Fork John Day Ag WQMA
-  Groundwater Drinking Water Source Area
-  Surface Water Drinking Water Source Area
-  Public Water System Surface Water Intakes
-  Public Water System Groundwater Wells
-  Domestic Surface Water Rights



## Drinking Water Source Areas in the North & Middle Fork John Day Agricultural Water Quality Management Area

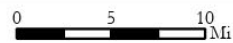


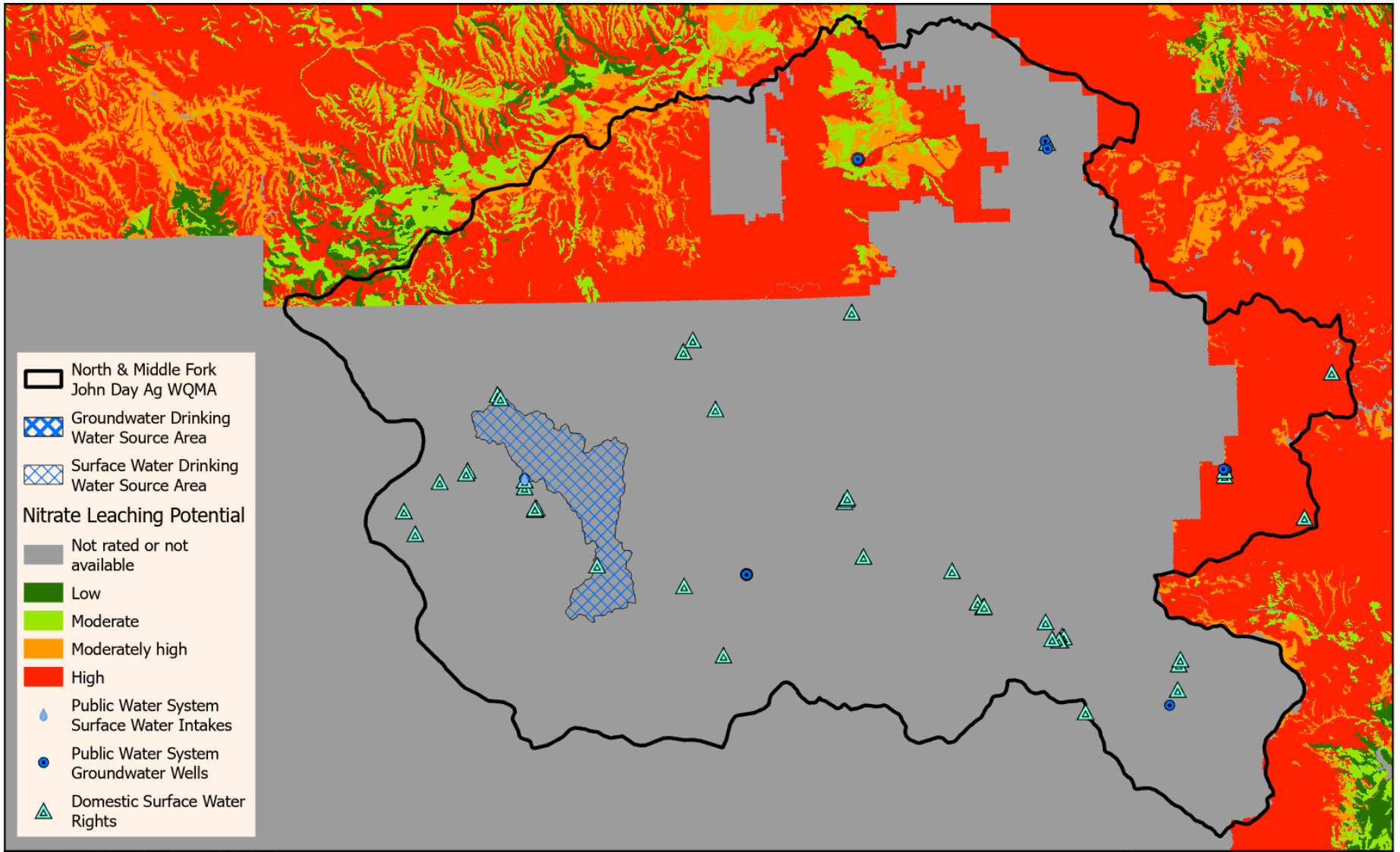
Figure 1



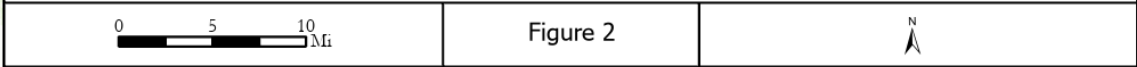
Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS, Oregon State Parks, State of Oregon GEO, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS, Esri, NASA, NGA, USGS, Esri, USGS

Coordinate System: NAD 1983 Lambert Conformal Conic



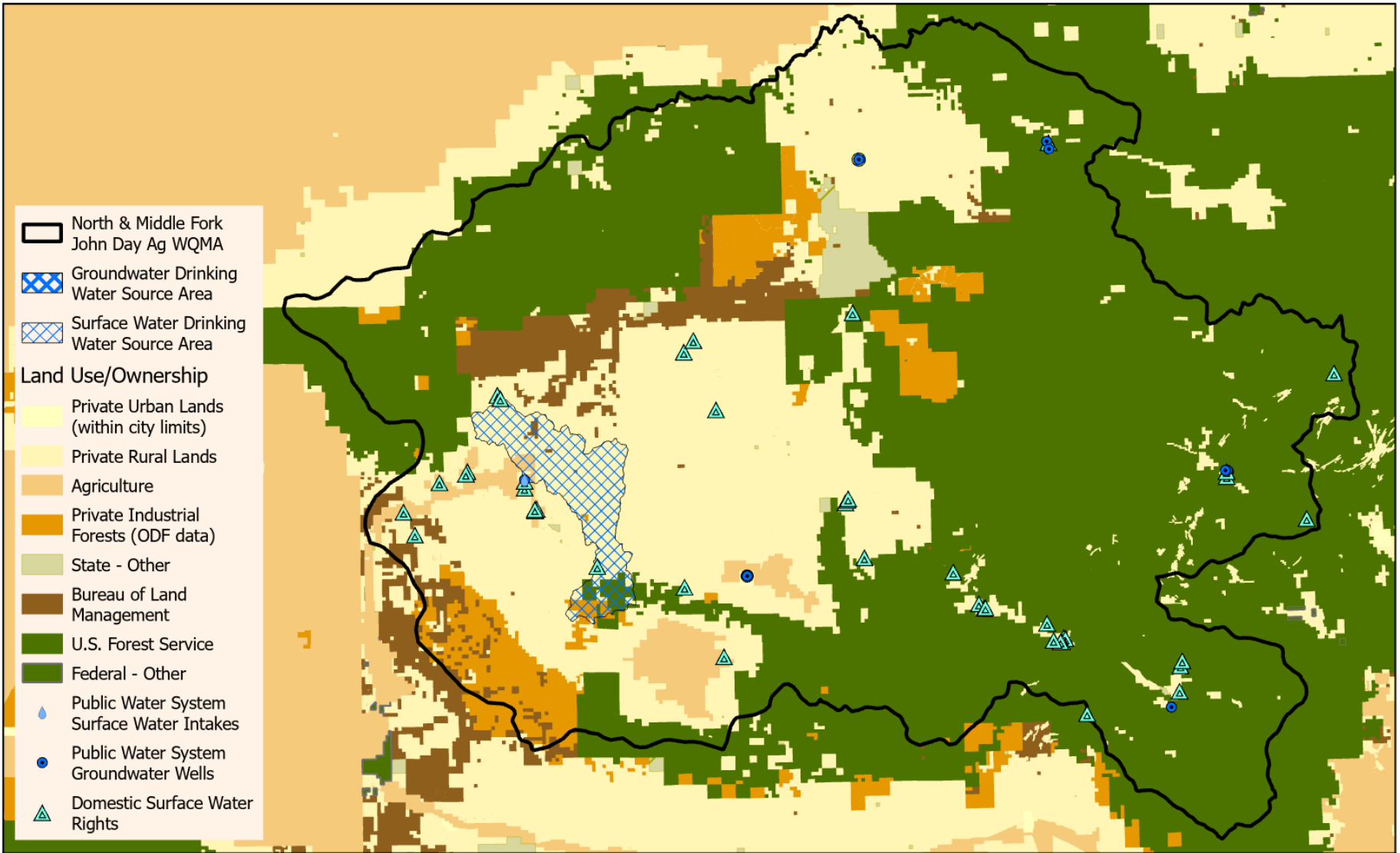


Drinking Water Source Areas in the North & Middle Fork John Day Agricultural Water Quality Management Area  
 NRCS Nitrate Leaching Potential - Irrigated



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

Coordinate System: NAD 1983 Lambert Conformal Conic



Drinking Water Source Areas in the North & Middle Fork John Day  
Agricultural Water Quality Management Area  
Land Use/Ownership

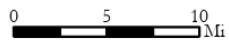


Figure 3



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

Coordinate System: NAD 1983 Lambert Conformal Conic

