

# Staff Report

**TO:** Water Resources Commission

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**DATE:** September 12, 2025

**SUBJECT:** Agenda Item F  
Water Resources Commission

## **DIVISION 512 RULEMAKING UPDATE**

### **I. Introduction**

During this agenda item, staff will brief the Commission on how the proposed Division 512 rules address declining groundwater levels in the Harney Basin. The discussion will focus on key provisions within the proposed rules and the reasoning behind the proposed approach. Staff will also present the finalized Groundwater Report for the Harney Basin Critical Groundwater (CGWA) area and provide a short summary of some of the themes from public comments received. This brief to the commission will be outside of the public comment period.

### **II. Integrated Water Resources Strategy Recommended Action**

- 1. A-C – Understanding water resources today
- 9. C – Partner with federal agencies, Tribes, and neighboring states in long-term water resources management
- 10. F – Provide an adequate presence in the field
- 11. E – Develop additional groundwater protections

### **III. Background**

Through years of monitoring groundwater levels and an intensive collaborative scientific study with the United States Geological Survey (USGS), the Department has substantial evidence that parts of the Harney Basin groundwater reservoir have declined excessively (greater than 50 ft of decline) or are excessively declining (3 or more feet of decline per year for 10 or more years). Furthermore, portions of the groundwater reservoir are overdrawn, which means that pumping exceeds recharge. In response to these serious groundwater conditions, the Department is proposing to amend the Division 512 Basin Program rules (attachment 1) to extend and update the existing classification area, implement a Critical Groundwater Area (CGWA) designation, and designate a Serious Water Management Problem Area (SWMPA) to

require water use measurement and reporting.

#### **IV. Discussion**

Within the proposed Division 512 rules, the Department is proposing a 30-year regulatory strategy for stabilizing groundwater levels within the Harney Basin, beginning in 2028. This strategy contains three key elements: (1) protect recharge through classification, (2) reduce groundwater use through a CGWA designation and regulatory curtailment, and (3) achieve accountable water use through water use measurement and reporting (SWMPA). The Department continues working on pathways for voluntary reduction of groundwater use in the groundwater reservoir, but these separate processes are not part of the rule update.

##### Protect recharge - Classification

In 2016, the Commission classified the Greater Harney Valley Groundwater Area of Concern (GHVGAC) for exempt uses while a basin study was conducted. The study found that the mostly undeveloped uplands, which are outside the current classification boundary, are the primary source of recharge to the lowlands. To protect this recharge, the Department proposes expanding the classification boundary and limiting groundwater use to exempt and non-consumptive geothermal uses. This action will prevent new consumptive groundwater right development in the Harney Basin, ensuring no additional demand on upland recharge.

##### Reduce groundwater use – CGWA

The primary areas of groundwater level decline in the groundwater reservoir in the Harney Basin are within the GHVGAC. This area is also where most of the pumping occurs from the reservoir within the basin. To stabilize groundwater levels, reductions in groundwater use from the reservoir must occur. The proposed rules provide the regulatory framework and timelines that the Department will follow to reduce groundwater use within the CGWA. The proposed rules also define seven subareas to allow for more strategic management of water use across the groundwater reservoir.

The proposed rules establish the permissible total withdrawal (PTW), which is the allowed volume of water that can be pumped from the groundwater reservoir. The rules define the process by which water will be allotted to users, and a schedule for regulatory reductions in use until the pumping in each subarea matches the PTW. Reductions will occur in six-year steps over 24 years to allow for adaptive management. This reduction schedule was developed based on comments by groundwater users with the intent of providing more certainty to groundwater users and allowing time for periodic check-ins on groundwater levels during the transition period. An adaptive management plan is laid out in the rules, which proposes a modeled trajectory for achieving success, an evaluation of groundwater levels at six-year checkpoints, and prescriptive adjustments based on the measured water level changes compared to the modeled trajectory (trajectories for water levels can be found on pages 14-19 of Attachment 2). If measured water levels are higher than expected, less of the scheduled groundwater use curtailment would be implemented

at that six-year checkpoint. If measured water levels are lower than expected, then more curtailment than is scheduled would be implemented at that checkpoint. This plan allows the regulatory reductions of use to adjust to the actual, measured conditions, thereby providing a mechanism to match management with conditions.

#### Achieve accountable water use – SWMPA

The proposed rules require all permitted groundwater users to install a totalizing flowmeter by March 1, 2028. Users must measure their use each month and report their use by December 31st of each calendar year for water used between November 1st of the preceding year and October 31st of the current year. Comprehensive water use data within the basin will provide Department staff with data needed to hold users accountable for the reductions and better understand the relationship between groundwater pumping and water level changes.

#### **V. Conclusion**

There is substantial evidence that groundwater levels in the groundwater reservoir in the proposed Harney Basin Critical Groundwater Area have declined significantly and are continuing to decline. To address the ongoing decline in groundwater levels, the Department proposes resolving the issue by protecting recharge, reducing use, and promoting accountable water use. The Department's approach aims to balance the need for reductions and achieving sustainable amounts of pumping with the economic impacts of regulating users off.

#### **Attachments:**

1. Proposed Division 512 rules
2. OAR 690 Division 512 rule exhibits

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**WATER RESOURCES DEPARTMENT  
CHAPTER 690  
DIVISION 512  
MALHEUR LAKE BASIN PROGRAM**

**690-512-0010            Definitions**

Unless specified in these rules the definitions in OAR 690-300-0010 apply to the below rules:

- (1) "Adaptive Management Checkpoint" means the scheduled interval at which the Department evaluates changes in groundwater levels and determines if adjustments to scheduled reductions in groundwater use are required as described in OAR 690-512-0080.
- (2) "Exempt Groundwater Uses" are those defined in ORS 537.545.
- (3) "Groundwater Level Change Envelope" means the modeled trajectory for groundwater levels to achieve the target water level trend by 2058. A groundwater level change envelope is modeled for each subarea including the median, 10<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> percentiles relative to the modeled groundwater levels in 2028. The envelope describes the range of values that will be used to inform the adaptive management process in OAR 690-512-0080. The trajectories are modeled using "Groundwater model of the Harney Basin, southeastern Oregon" by S.B. Gingerich, D.E. Boschmann, G.H. Grondin, and H.J. Schibel, 2024, U.S. Geological Survey Scientific Investigations Report 2024-5017.
- (4) "Initial Allotment" means the maximum annual volume of water that may be used by each groundwater right upon completion of the contested case.
- (5) "Permissible Total Withdrawal" is the annual volume of groundwater the Department has determined can achieve the target groundwater level trend by 2058 when following the schedule of reductions defined in OAR 690-512-0070. The Department may not reduce groundwater pumping through regulatory orders to a value less than the permissible total withdrawal. The unit of measurement for the permissible total withdrawal is acre-feet.
- (6) "Public Uses" are those uses defined in ORS 537.332.
- (7) "Subarea" means an administratively defined portion of the critical groundwater area to which corrective control provisions under ORS 537.735(3)(a)-(f) may be applied.
- (8) "Target Groundwater Level Trend" means the goal for the rate of change in groundwater levels within a subarea of the critical groundwater area.
- (9) "Totalizing flow meter" is an instrument used to measure and display both the instantaneous flow rate, and the total volume of groundwater produced from a well.

Statutory/Other Authority: ORS 537.545, ORS 537.735, OAR 690-300-0010,  
Statutes/Others Implemented: ORS 536.300 ORS 536.027, ORS 537.332, ORS 537.780

**Rule Summary:** This rule replaces OAR 690-512-0010 (Classification), readopted as 690-512-0030; the rule defines terms used in OAR Chapter 690, Division 512, ORS 536.300, ORS 536.027, ORS 537.545, and ORS 537.735, including “Adaptive Management Checkpoint,” “Exempt Groundwater Uses,” “Groundwater Level Change Envelope,” “Initial Allotment,” “Permissible Total Withdrawal,” “Public Uses,” “Subarea,” “Target Groundwater Level Trend,” and “Totalizing Flow Meter.”

#### **690-512-0020                      Administrative Boundaries**

- (1) The Greater Harney Valley Groundwater Area of Concern (GHVGAC) Boundary is defined for administrative purposes and is described and shown in Exhibit 1.
- (2) The Malheur Lake Basin Boundary is delineated on the agency Map 12.6, dated January 1, 1966, and shown in Exhibit 2.
- (3) The Serious Water Management Problem Area (SWMPA) Boundary is defined as the Harney Basin within the Malheur Lake Basin and within portions of Grant and Harney Counties as shown in Exhibit 3.
- (4) The Groundwater Classification Boundary is defined as the Harney Basin within the Malheur Lake Basin and within portions of Grant and Harney Counties as shown in Exhibit 4.
- (5) The Harney Basin is defined as the closed surface-water basin that drains into Malheur and Harney Lakes including the four National Watershed Boundary Dataset 8-digit hydrologic units Donner und Blitzen 17120003, Silver 17120004, Harney-Malheur Lakes 17120001, and Silvies 17120002 as shown in Exhibit 5.
- (6) The Harney Basin Groundwater Reservoir Boundary is defined as the area coincident with the Harney Basin Boundary, as shown in Exhibit 5.
- (7) The Harney Basin Critical Groundwater Area Boundary is defined as the area coincident with the Greater Harney Valley Groundwater Area of Concern Boundary as shown in Exhibit 1 and contains a portion of the Harney Basin Groundwater Reservoir. The boundary of the Harney Basin Groundwater Reservoir is shown in Exhibit 5.

Statutory/Other Authority: ORS 540.435, ORS 536.340, ORS 537.735  
Statutes/Others Implemented: ORS 536.027, ORS 537.525, ORS 536.300, ORS 540.435, ORS 536.340, ORS 537.735, ORS 537.780

**Rule summary:** This rule replaces OAR 690-512-0020 (Groundwater use in the Greater Harney Valley Groundwater Area of Concern); the rule defines the administrative boundaries used in OAR, Chapter 690, Division 512, including those for the Greater Harney Valley Groundwater Area of Concern (GHVGAC), Malheur Lake Basin, Serious Water Management Problem Area (SWMPA), Groundwater Classification, Harney Basin, Harney Basin Groundwater Reservoir, and Harney Basin Critical Groundwater Area (CGWA); the rule includes boundary maps as Exhibits 1- 5.

### **690-512-0030                      Classifications**

- (1) Except as provided in section 2 of this rule, the groundwater and surface water of the Malheur Lake Basin are classified for direct appropriation of, or storage of surface water and use of, water for domestic, livestock, irrigation, municipal, quasi-municipal, industrial, mining, agricultural water use, commercial, power development, forest management, public uses, road watering, dust abatement, and wildlife refuge management.
- (2) Groundwater in the Groundwater Classification Boundary defined in OAR 690-512-0020(4) is classified for statutorily exempt groundwater uses as specified in ORS 537.545 and nonconsumptive geothermal uses.

Statutory/Other Authority: ORS 536.340, ORS 537.621(2), ORS 537.545,  
Statutes/Others Implemented: ORS 536.027, ORS 536.300, ORS 537.621(2), ORS 536.340, ORS 537.780, ORS 537.545

**Rule Summary:** This new rule readopts the current rule OAR 690-512-0010; the-rule retains-the existing surface water classification for the Malheur Lake Basin and classifies groundwater use to exempt uses and nonconsumptive geothermal uses only within the boundary defined in 690-512-0020(4).

### **690-512-0041                      Harney Basin Critical Groundwater Area**

- (1) The target groundwater level trend within the Harney Basin Critical Groundwater Area is a median groundwater level decline rate of no more than 0 feet per year over a five-year period when calculated as described in OAR 690-512-0080(7).
- (2) The Department may access any well within the critical groundwater area that is authorized as a point of appropriation on a valid water right for the purpose of implementing these rules. The Department will provide notice to the groundwater right holder, well owner, or well operator prior to accessing the well.
- (3) A review of the Harney Basin Critical Groundwater Area rules shall be completed once every 3 years. The review shall be presented at a public meeting held within the basin at which written and oral public comment shall be accepted. The review and a summary of public

comments received shall then be presented at a Commission meeting which has been publicly noticed and provides opportunity for public comment.

- (4) A review of the conditions in the Harney Basin Critical Groundwater area shall be completed no less frequently than once every 10 years. The review shall be presented at a public meeting held within the basin at which written and oral public comment shall be accepted. The review and a summary of public comments received shall then be presented at a Commission meeting which has been publicly noticed and provides opportunity for public comment.
- (5) Except as defined in OAR 690-512-0030(2) Classifications, the Department will not accept new applications for groundwater permits within the Harney Basin Critical Groundwater Area.
- (6) The Harney Basin Critical Groundwater area defined in OAR 690-512-0020(7) shall be divided into seven subareas for the purpose of management as shown in Exhibit 6.
  - a. The Dog Mountain subarea is shown in Exhibit 7.
  - b. The Lower Blitzen-Voltage subarea is shown in Exhibit 8.
  - c. The Northeast-Crane subarea is shown in Exhibit 9.
  - d. The Silver Creek subarea is shown in Exhibit 10.
  - e. The Silvies subarea is shown in Exhibit 11.
  - f. The Upper Blitzen subarea is shown in Exhibit 12.
  - g. The Weaver Springs subarea is shown in Exhibit 13.

Statutory/Other Authority: ORS 537.735, OAR 690-010-0130(3)(a) – (c), OAR 690-217-0045  
Statutory/Others Implemented: ORS 536.027, ORS 537.525, ORS 537.780, ORS 536.300, ORS 537.735, OAR 690-010-0130(3)(a) – (c)

**Rule Summary:** The new rule specifies the target water level trend for the Harney Basin Critical Groundwater Area; the new rule requires static water level reporting starting in 2028, a Department review of the rules every three years, and a Departmental review of the conditions at least once every ten years; the new rule contains a provision closing the Harney Basin Critical Groundwater Area to any further nonexempt consumptive appropriation; the new rule defines the seven subareas within the Harney Basin Critical Groundwater Area; the new rule includes subarea maps as Exhibits 6-13.

**690-512-0050 Permissible Total Withdrawal for Each Subarea Within the Harney Basin Critical Groundwater Area**

- (1) The permissible total withdrawal for the Dog Mountain subarea shall be 4,200 acre-feet per year.
- (2) The permissible total withdrawal for the Lower Blitzen-Voltage subarea shall be 8,300 acre-feet per year.
- (3) The permissible total withdrawal for the Northeast-Crane subarea shall be 35,000 acre-feet per year.
- (4) The permissible total withdrawal for the Silver Creek subarea shall be 15,200 acre-feet per year.
- (5) The permissible total withdrawal for the Silvies subarea shall be 21,200 acre-feet per year.
- (6) The permissible total withdrawal for the Upper Blitzen subarea shall be 76 acre-feet per year.
- (7) The permissible total withdrawal for the Weaver Springs subarea shall be 4,800 acre-feet per year.

Statutory/Other Authority: ORS 537.735

Statutory/Others Implemented: ORS 536.027, ORS 537.780, ORS 537.525, ORS 536.300

**Summary:** This new rule specifies the permissible total withdrawal for the seven subareas in the Harney Basin Critical Groundwater Area. The permissible total withdrawal for each of the seven subareas is the annual volume of water that the Department has determined can achieve the target groundwater level trend by 2058 after implementing the scheduled reductions in OAR 690-512-0070. The Department may not reduce groundwater pumping through regulatory orders to a value less than the permissible total withdrawal.

**690-512-0060 Determination of Initial Allotment for All Groundwater Rights**

- (1) To establish a schedule for reductions in groundwater use, the Department will determine an initial allotment for each groundwater right within the critical groundwater area which will be implemented through an order after completion of the contested case process as required in OAR 690-010. The initial allotment shall not exceed the total rate or duty authorized on the water right.

- (2) In determining the initial allotment for each groundwater right with an irrigation use, the Department will:
- a. Use a duty of 2.5 acre-feet per acre for primary and supplemental groundwater rights; and
  - b. Consider the historic, beneficial use in the five-year period from 2020 to 2024 when identifying the number of acres that will be allotted water.
- (3) The initial allotment for municipal and quasi-municipal rights shall be a quantity of water equal to 110% of the greatest single-year quantity reported to the Department in the five-year period from 2020 to 2024.
- (4) In determining the initial allotment for each groundwater right with use types other than irrigation, municipal, and quasi-municipal, the department will consider:
- a. The limits of the groundwater rights;
  - b. Historic beneficial use in the five-year period from 2020 to 2024;
  - c. Whether or not a water user is physically capable of pumping and putting the allotted water to a beneficial use; and
  - d. Any other factors deemed appropriate by the Department to determine historic beneficial use.

Statutory/Other Authority: ORS 537.742, ORS 537.735

Statutory/Others Implemented: ORS 536.027, ORS 537.780, ORS 537.525, ORS 536.300

**Summary:** This new rule describes how the Department will determine the initial allotment allowed for each irrigation, municipal, and quasi-municipal groundwater right and all other groundwater right uses within the Harney Basin Critical Groundwater Area; initial allotments will be determined for groundwater irrigation rights based on beneficial use, with a duty of 2.5 acre-feet for primary and supplemental rights; initial allotments for municipal and quasi-municipal groundwater rights will be set at 110% of the greatest single-year quantity reported to the Department between 2020 and 2024; all other groundwater use allotments will be determined by the Department as specified in this rule (OAR 690-512-0060(4)(a) – (d)).

#### **690-512-0070 Scheduling Water Use Reductions to Meet the Permissible Total Withdrawal**

Notwithstanding adjustments made by the adaptive management methodology defined in OAR 690-512-0080, upon consideration of all water rights and after determining the initial allotment for each:

- (1) Water use within the Weaver Springs subarea will be scheduled to be reduced to the permissible total withdrawal with 75% of the total reduction being scheduled for 2028 and the remaining 25% of the reduction scheduled for 2034;
- (2) Water use within all remaining subareas of the Critical Groundwater Area will be scheduled for reduction to the permissible total withdrawal with 40% of the total reduction scheduled in 2028, 30% of the total reduction scheduled for 2034, 15% of the total reduction scheduled for 2040, 10% of the total reduction scheduled for 2046, and 5% of the total reduction scheduled for 2052;
- (3) The schedule for reductions will be based on the relative priority dates of the water rights within each subarea, with the most junior water rights being curtailed first;
- (4) Municipal and quasi-municipal water use will be evaluated at each adaptive management checkpoint, and the schedule of reductions may be adjusted so that the allotment for each municipal or quasi-municipal right is increased or decreased to 110% of the greatest single year quantity reported to the Department in the preceding 6 years. The allotment shall not exceed the total quantity of water authorized on the water right;
- (5) Uses exempt under ORS 537.545 are not subject to reduction;
- (6) Corrective control orders reducing use will not be enforced until the completion of the contested case process specified in OAR 690-010-0170 through 230;
- (7) If enforcement of corrective control orders reducing use does not occur as scheduled in 2028, then at such time as enforcement occurs, all reductions scheduled under OAR 690-512-0070(1)(a) and (b), including any adjustments that should have occurred at the adaptive management checkpoints defined in OAR 690-512-0080, will be included in the enforcement.

Statutory/Other Authority: ORS 537.742, ORS 537.735

Statutory/Others Implemented: ORS 536.027, ORS 537.780, ORS 537.525, ORS 536.300

**Summary:** This new rule describes the schedule for groundwater use reductions for the seven subareas defined within the Harney Basin Critical Groundwater Area and the process for enforcement of corrective control orders. The Weaver Springs Subarea will be scheduled for water use reductions starting in 2028 and the final reduction to permissible total withdrawal in 2034. For the other six subareas reductions may begin in 2028 and continue through 2052 with reductions happening every six years. All reductions will be done by relative priority date and

cannot be done until the contested case process is completed. Exempt uses will not be reduced. This rule also defines how municipal and quasi-municipal use will be adjusted.

#### **690-512-0080 Adaptive Management of the Harney Basin Critical Groundwater Area**

The purpose of this section is to define how the Department will adaptively manage the Harney Basin Critical Groundwater Area over a 30-year period starting in calendar year 2028 with adaptive management checkpoints in calendar years 2033, 2039, 2045, and 2051 which are the years immediately preceding the scheduled reductions in OAR 690-512-0070 of these rules.

- (1) Weaver Springs subarea is exempt from the adaptive management process as defined in section 2 through 5 of this rule.
- (2) For each subarea, if the contested case process is complete and corrective control orders reducing use can be implemented in 2028, the Department will:
  - a. Determine the 2027 median annual high groundwater level for each subarea and compare it with the median annual high groundwater level measured in 2022 using representative wells with sufficient data as determined by the Department;
  - b. Calculate the median groundwater level decline rate using the Sen's slope method using annual high measurements for representative wells with sufficient data as determined by the Department for years 2022 through 2027; and
  - c. If the median annual high groundwater level in 2027 is found to be greater than or equal to than the median annual high groundwater level measured in 2022 and the groundwater level decline rate calculated for 2022 through 2027 is found to be zero or above, then the regulatory reductions scheduled for 2028 will be reduced to zero.
- (3) Groundwater level changes will be evaluated using representative wells with sufficient data as determined by the Department.
  - a. For each representative well the groundwater level change will be evaluated based on a reference groundwater level determined by the Department. The reference groundwater level for a well shall be the annual high static water level measurement in calendar year 2028, if one exists. Otherwise, the Department may establish the reference groundwater level based on an analysis of water level data from that well or other water level data in nearby wells.
  - b. For each representative well, the groundwater level change will be calculated as the difference between the annual high static water level measured at the

adaptive management checkpoint being evaluated and the reference groundwater level.

- (4) The median groundwater level change for each subarea will be evaluated at each adaptive management checkpoint using representative wells with sufficient data as determined by the Department.
- (5) At each adaptive management checkpoint, the Department will compare the median groundwater level change for each subarea defined in OAR 690-512-0041 with the groundwater level change envelope defined Exhibit 14. If the median groundwater level change for a subarea is:
  - a. At or below the 10<sup>th</sup> percentile, the scheduled quantity of reduction will be doubled.
  - b. Between the 10<sup>th</sup> and 25<sup>th</sup> percentiles, the scheduled quantity of reduction will be increased by one and a half times.
  - c. From the 25<sup>th</sup> and through 75<sup>th</sup> percentiles, no adjustment will be made.
  - d. Between the 75<sup>th</sup> and 90<sup>th</sup> percentiles, the scheduled quantity of reduction will be halved unless 10% or more of the measured wells fall below the 10<sup>th</sup> percentile.
  - e. At or above the 90<sup>th</sup> percentile, the scheduled quantity of reduction will be reduced to zero unless 10% or more of the measured wells fall below the 10<sup>th</sup> percentile.
- (6) At the end of each adaptive management checkpoint evaluation and after the Department has completed sections 3 through 5 of this rule, the Department will hold at least one public meeting at a location within the critical groundwater area boundary at which the Department will present:
  - a. The findings of the evaluation of groundwater level changes.
  - b. The comparison to the groundwater level change envelope.
  - c. Any adjustments to the scheduled reductions.
- (7) No sooner than 2058, the Department will evaluate the groundwater level decline rate for each subarea to identify if the target groundwater level trend has been achieved. The groundwater level decline rate will be calculated using the Sen's slope method using annual high measurements for representative wells with sufficient data as determined

by the Department from the 6 years leading up to the evaluation. After the evaluation in this section, if:

- a. The target water level trend has not been achieved and all scheduled reductions have not been implemented, the Department will evaluate groundwater conditions and implement additional reductions as needed to achieve the target water level trend;
- b. The target water level trend has not been achieved and all scheduled reduction have been implemented, the Department will initiate a rulemaking process to adjust the permissible total withdrawal as needed to achieve the target water level trend; or
- c. The target water level trend has been achieved and all scheduled reductions have not been implemented, the Department will initiate a rulemaking process to adjust the permissible total withdrawal to match the implemented reductions.

Statutory/Other Authority: ORS 537.742, ORS 537.735

Statutes/Others Implemented: ORS 536.027, ORS 537.780, ORS 537.525, ORS 536.300

**Rule Summary:**

This new rule describes how the Department will adjust scheduled reductions in groundwater use based on the median measured groundwater level data as compared to modeled trajectories, shown in exhibit 14, for each subarea. The Weaver Springs subarea is excluded from this process. For the other six subareas, adaptive management will occur every 6 years for the 30-year management period. In 2058 the Department will evaluate the groundwater level decline rate to identify if the target groundwater level trend has been achieved. This rule also contains a provision for evaluating groundwater levels and the Sens's slope rate of decline in 2028, if certain conditions are met then the 2028 reductions will be reduced to zero.

**690-512-0110 Serious Water Management Problem Area (SWMPA)**

- (1) Groundwater conditions within the SWMPA boundary defined in OAR 690-512-0020(3) meet the criteria defined in OAR 690-085-0020(1)(a) and OAR 690-085-0020(1)(f).
- (2) By no later than March 1, 2028, each groundwater right holder, well owner, or well operator shall properly install and thereafter properly maintain a totalizing flow meter on each well listed as a point of appropriation on a valid groundwater right within the Harney SWMPA boundary as defined in OAR 690-512-0020(3). The Department may extend the deadline as needed. If the deadline is extended, the Department will notify each groundwater right holder, well owner, or well operator at least 60 days before March 1, 2028. Groundwater wells that are regulated off and disconnected from all water use infrastructure do not require a totalizing flow meter to be installed unless or until use is permitted to resume.

- (3) Totalizing flow meters shall be properly installed according to manufacturer specifications and must meet the specifications in section 6 of this rule.
- (4) Totalizing flow meters and the method of flow meter installation may be subject to approval by Department staff. Once installed, totalizing flow meters must be maintained in good working order. Department staff shall have reasonable access to the totalizing flow meters upon request pursuant to ORS 537.780(1)(e).
- (5) The groundwater right holder, well owner, or well operator shall keep a complete record of the volume of water appropriated each month. The groundwater right holder, well owner, or well operator shall submit annually a report that includes water use measurements to the Department by December 31 of each calendar year for water used between November 1<sup>st</sup> of the preceding year and October 31<sup>st</sup> of the current year. Reports shall be submitted using a form developed and maintained by the Department.
- a. Groundwater wells regulated off are not required to report until use is permitted to resume.
  - b. Any governmental entity required to submit water use reports under OAR 690-085 is exempt from the reporting requirements of this rule.
- (6) A totalizing flow meter shall meet the following specifications:
- a. A totalizing flow meter shall have a rated accuracy of plus or minus 2 percent of actual flow for all flow rates for which the meter is expected to measure;
  - b. A totalizing flow meter shall measure the entire discharge from the well;
  - c. A totalizing flow meter shall have a visual and recording, mechanical or digital totalizer located on or adjacent to the flow meter and shall be equipped with a sweep hand or digital readout so that instantaneous flow rate can be read;
  - d. The totalizing part of the flow meter shall have sufficient capacity to record at minimum the quantity of water authorized to be pumped over a period of 2 years. Units of water measurement shall be in acre-feet, cubic-feet, or gallons, and the totalizer shall read directly in one of these units. Flow meters recording in acre-feet shall, at a minimum, read to the nearest 1/10th acre-foot, and the decimal multiplier shall be clearly indicated on the face of the register head;
  - e. Totalizers on each meter shall not be field reset without notice to and written permission from the local watermaster. Prior to resetting the totalizers, the final reading must be recorded and reported;

- f. The totalizing flow meter shall be installed in accordance with all manufacturer specifications. There shall be no turnouts or diversions between the well and the flow meter; and
  - g. The totalizing flow meter shall be installed no more than 100 feet from the well head unless an exception is approved by the watermaster in writing.
- (7) A water user shall report broken flow meters to the local watermaster's office within 48 hours after determining that the flow meter is broken. A water user shall not appropriate water for more than 60 days without an operating flow meter.
- (8) While the flow meter is broken, the water user shall use other methods of reporting as defined under OAR 690-085-0015(5) until the flow meter is replaced or repaired. The water user shall keep the monthly data and mail the data to the local watermaster upon request. The data shall include a statement of the initial reading on the newly installed flow meter, the current power meter reading and the time of operation. The water user shall notify the local watermaster within 48 hours of installing the repaired or replacement flow meter.
- (9) Failure to have and maintain a properly installed, functioning totalizing flow meter by the deadline will result in the local watermaster regulating and controlling the unmetered well such that no groundwater may be pumped or appropriated until a flow meter is installed consistent with these rules.
- (10) Consistent with ORS 536.900, ORS 183.745, and OAR 690-260, the Department may assess civil penalties for violation of these rules.

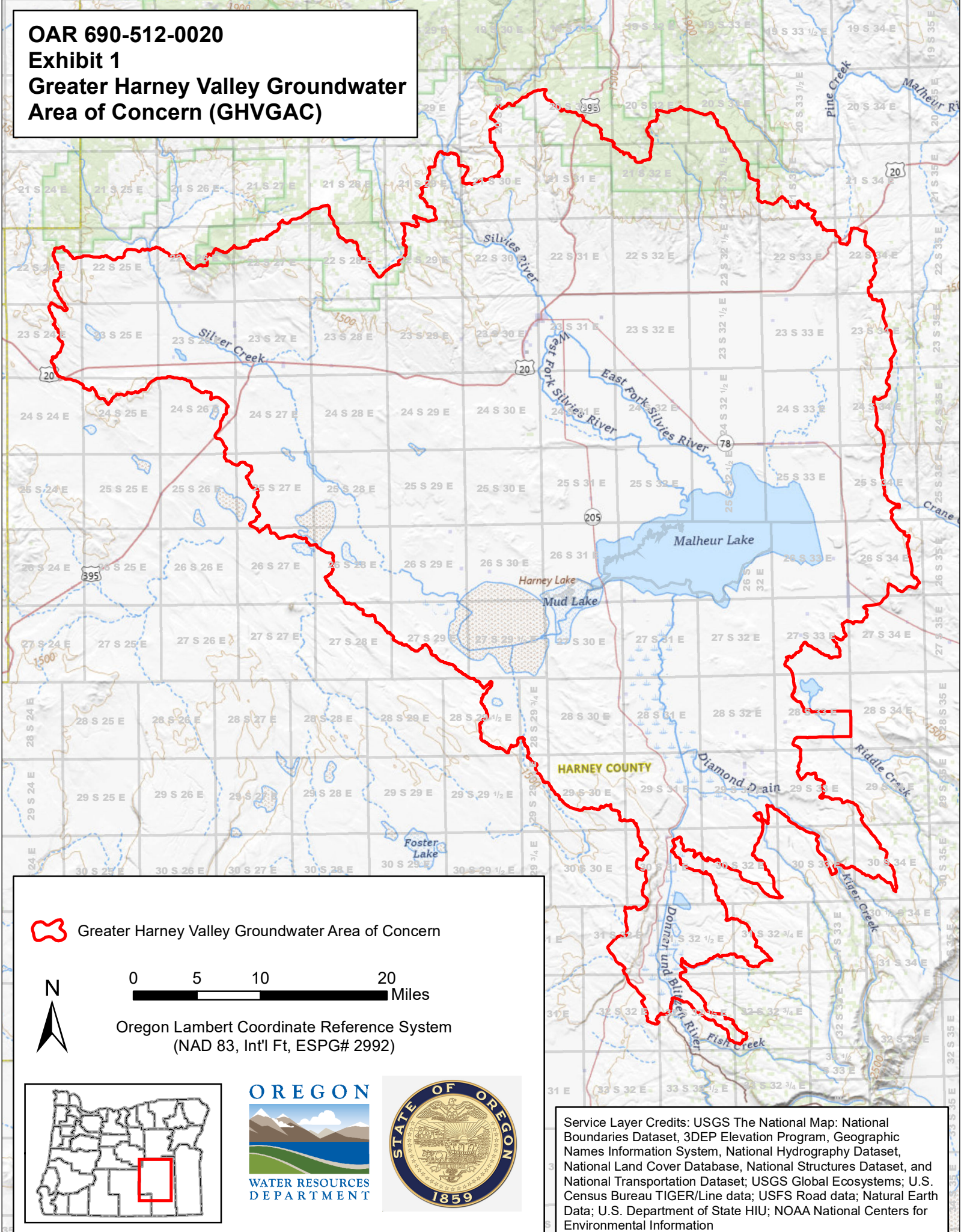
Statutory/Other Authority: ORS 183.745, ORS 540.435, ORS 536.900, ORS 536.905, ORS 536.910, ORS 536.915, ORS 536.920, ORS 536.930, ORS 536.935, OAR 690-260, 690-085-0020(1)(a), OAR 690-085-0020(1)(f), OAR 690-085-0015(5)

Statutes/Others Implemented: ORS 536.027, ORS 536.900, ORS 536.905, ORS 536.910, ORS 536.915, ORS 536.920, ORS 536.930, ORS 536.935, ORS 537.780, OAR 690-085-0020(1)(f), OAR 690-085-0015(5)


**Rule Summary:** This new rule establishes water use measurement and reporting requirements within the Serious Water Management Problem Area boundary defined in OAR 690-512-0020(3). Each groundwater right holder, well owner, or well operator shall install a totalizing flowmeter by March 1, 2028, according to the specifications in this rule. Water use between November 1st of the preceding year and October 31st of the current year is required to be reported to the Department by December 31<sup>st</sup> each year. Failure to install a flowmeter or report use will result in the local watermaster shutting off the well and potential assessment of

civil penalties.

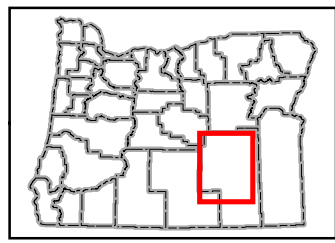
**OAR 690-512-0020**  
**Exhibit 1**  
**Greater Harney Valley Groundwater**  
**Area of Concern (GHVGAC)**



 Greater Harney Valley Groundwater Area of Concern

 0 5 10 20 Miles

Oregon Lambert Coordinate Reference System  
(NAD 83, Int'l Ft, ESPG# 2992)



Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information

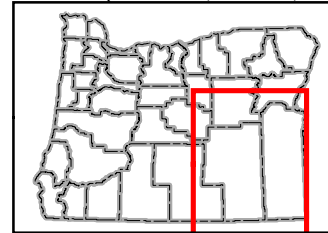
**OAR 690-512-0020**  
**Exhibit 2**  
**Malheur Lake Basin**



Malheur Lake Basin

0 10 20 40 Miles

Oregon Lambert Coordinate Reference System  
(NAD 83, Int'l Ft, ESPG# 2992)



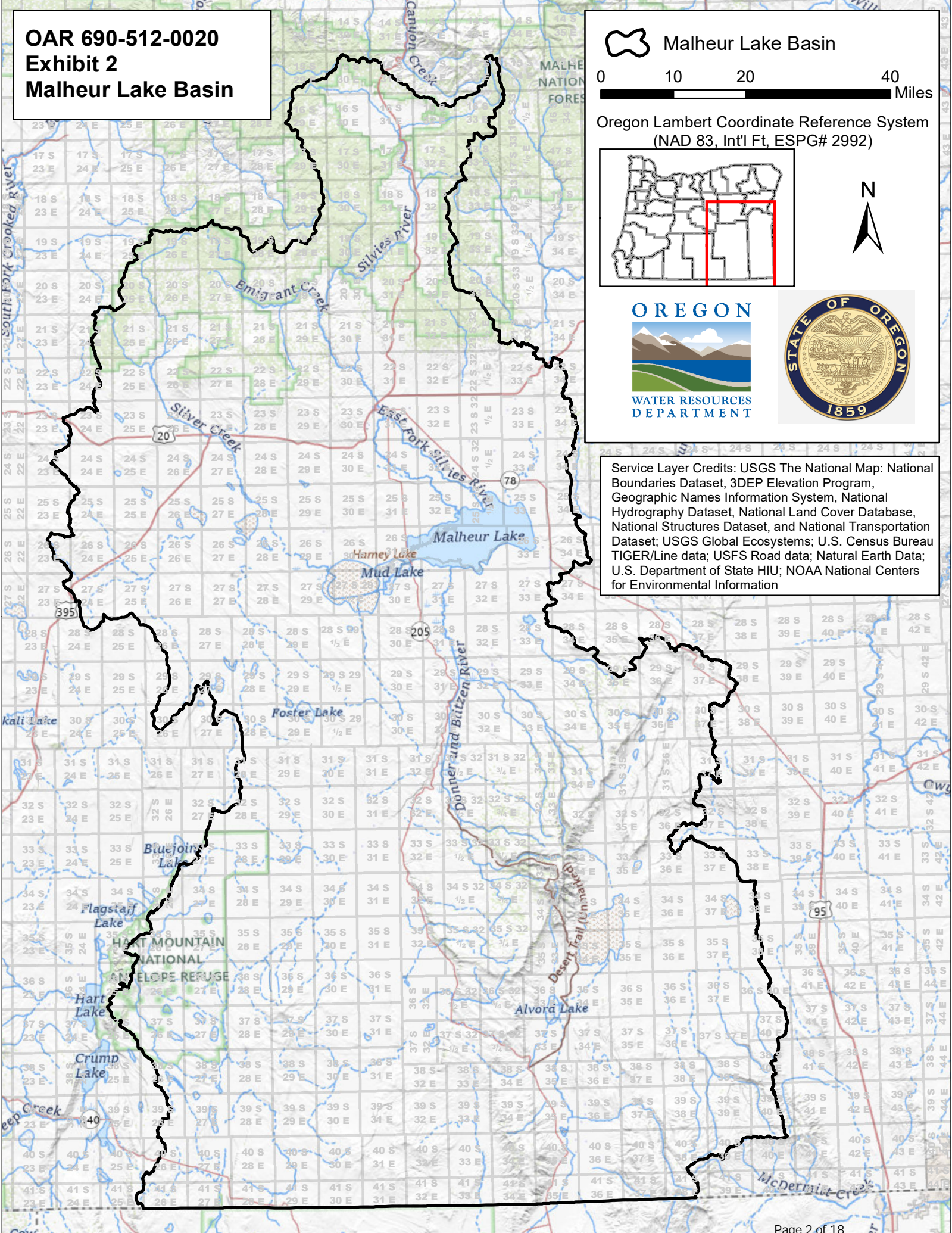
OREGON

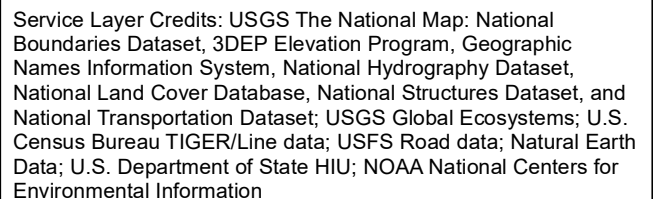


WATER RESOURCES  
DEPARTMENT

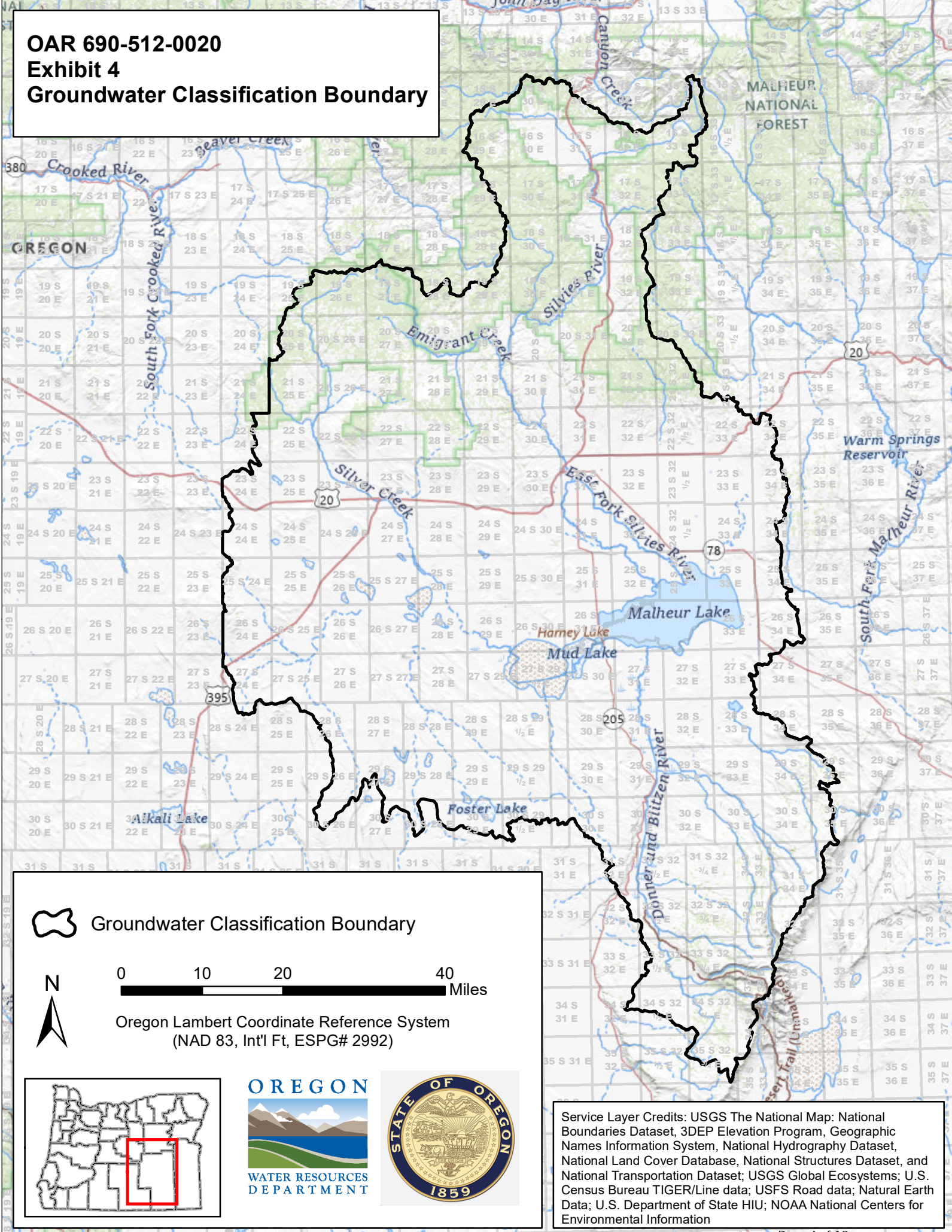


Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information

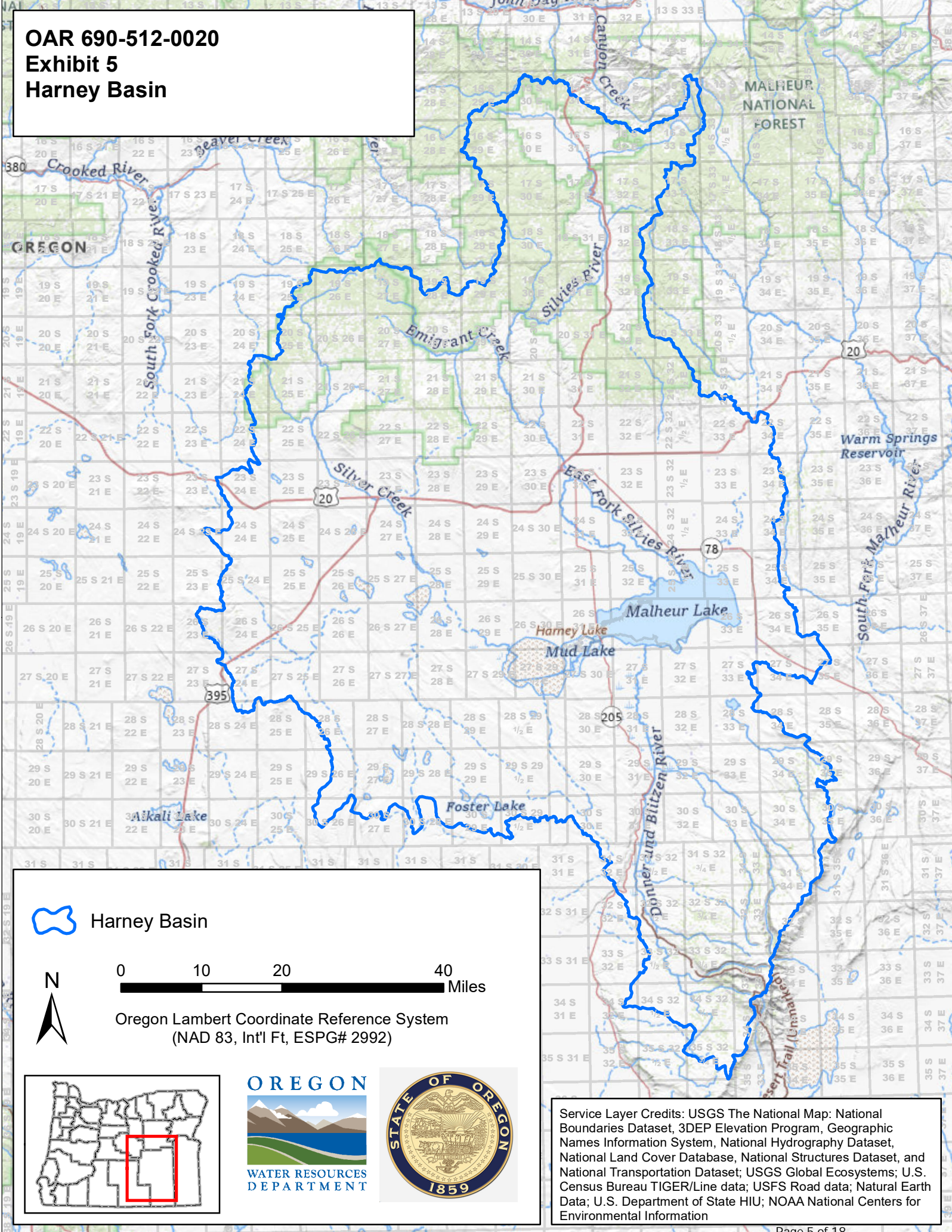




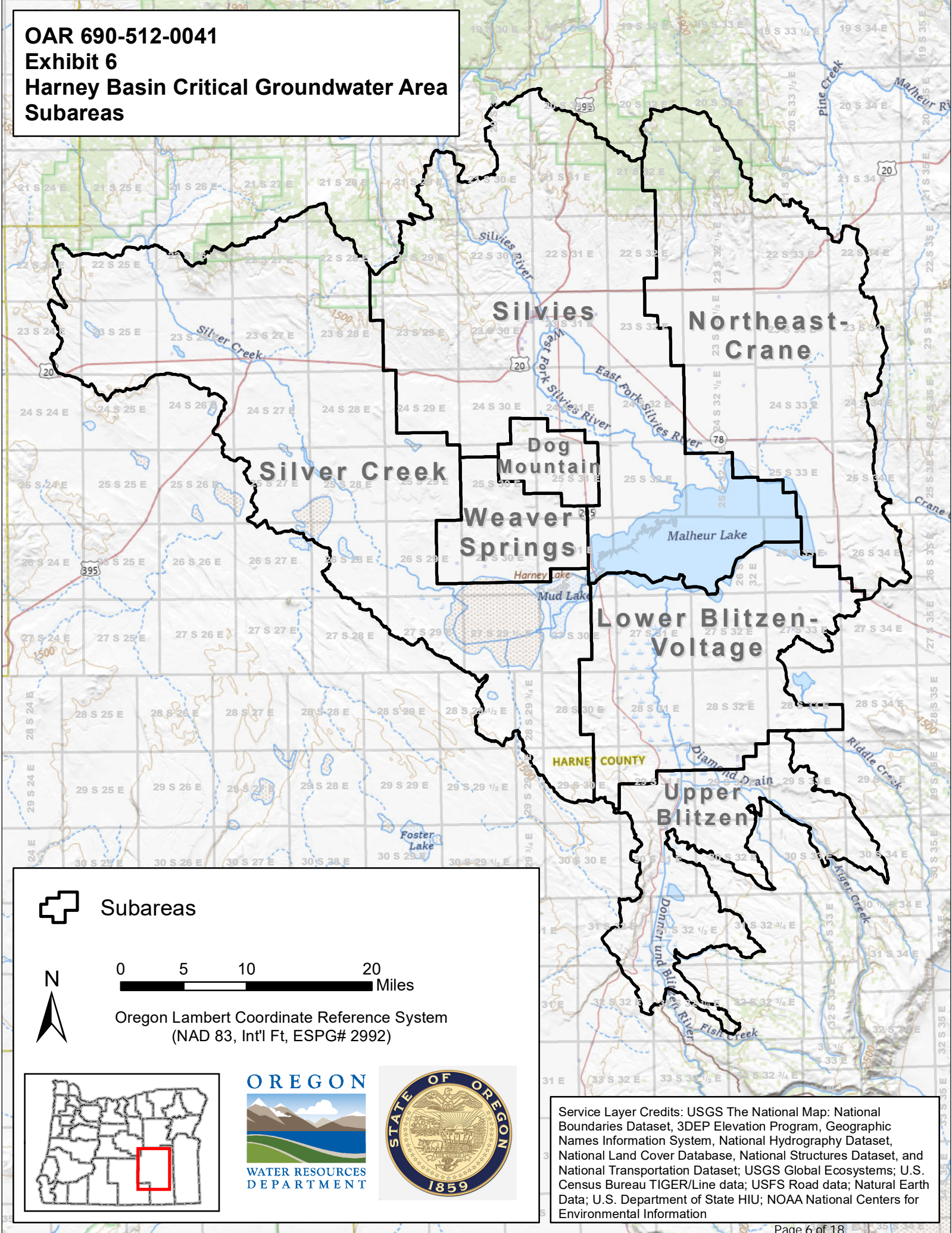
**OAR 690-512-0020**  
**Exhibit 4**  
**Groundwater Classification Boundary**



# **OAR 690-512-0020** **Exhibit 5** **Harney Basin**

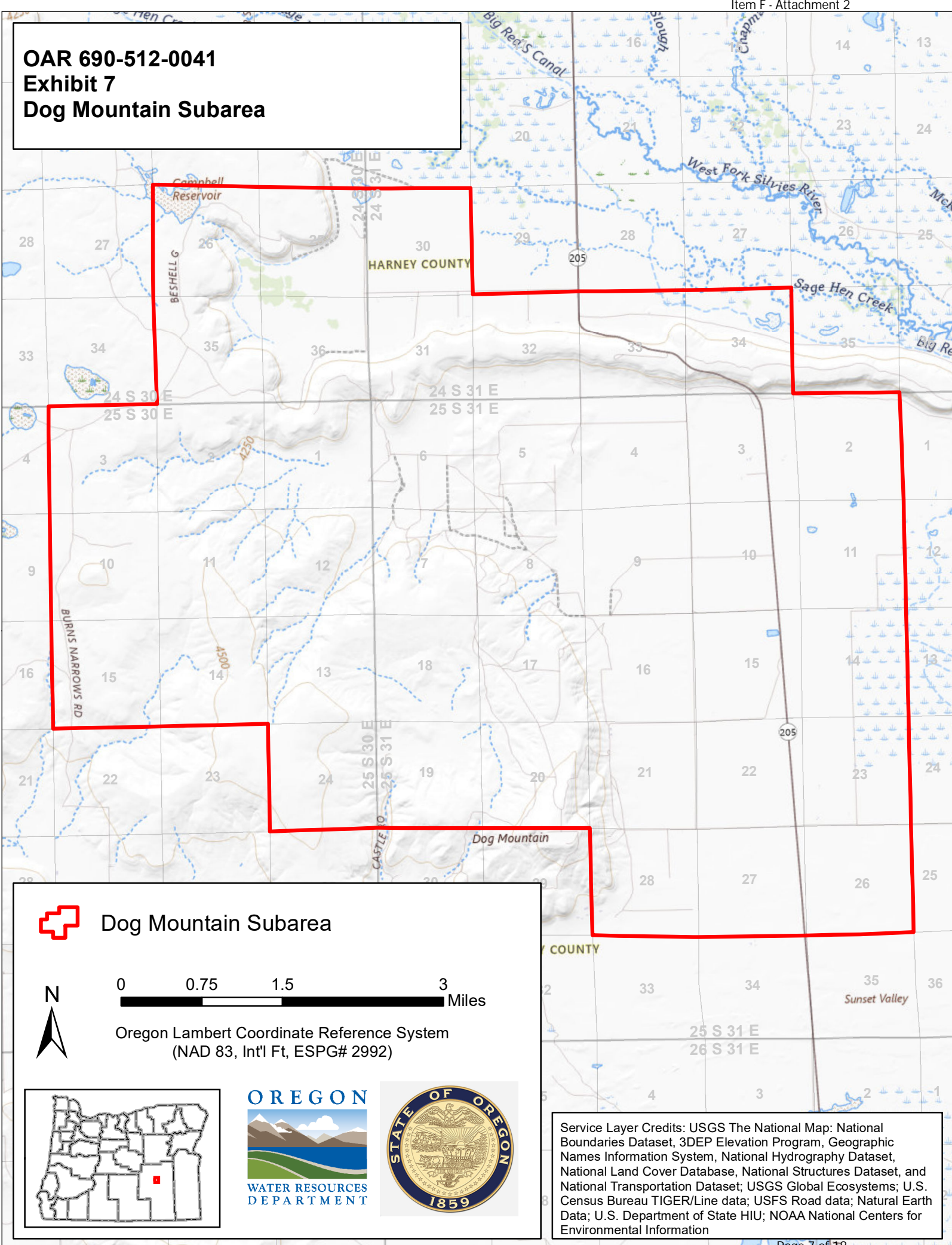


**OAR 690-512-0041**  
**Exhibit 6**  
**Harney Basin Critical Groundwater Area**  
**Subareas**

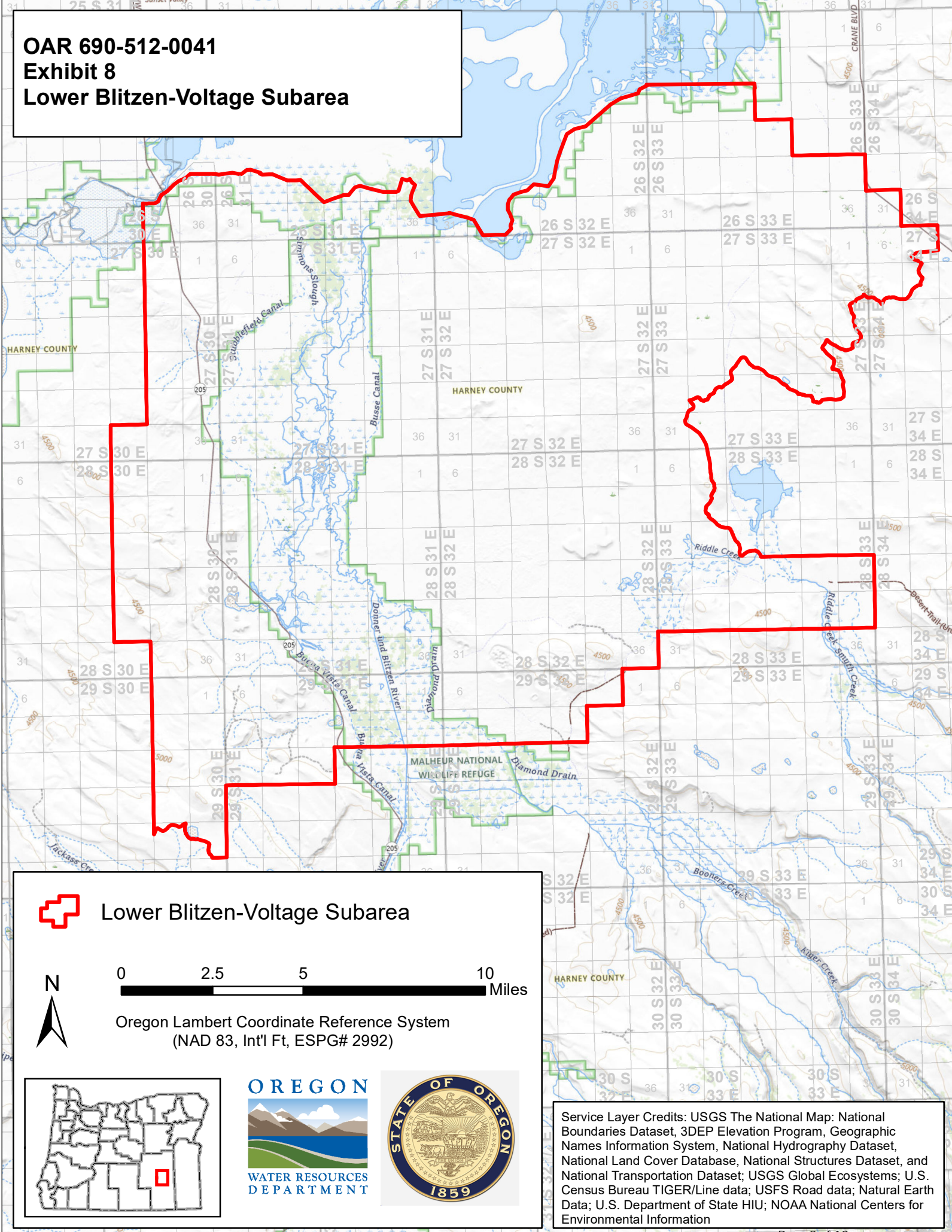


Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information

**OAR 690-512-0041**  
**Exhibit 7**  
**Dog Mountain Subarea**



**OAR 690-512-0041**  
**Exhibit 8**  
**Lower Blitzen-Voltage Subarea**

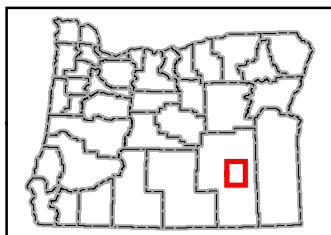


**Lower Blitzen-Voltage Subarea**



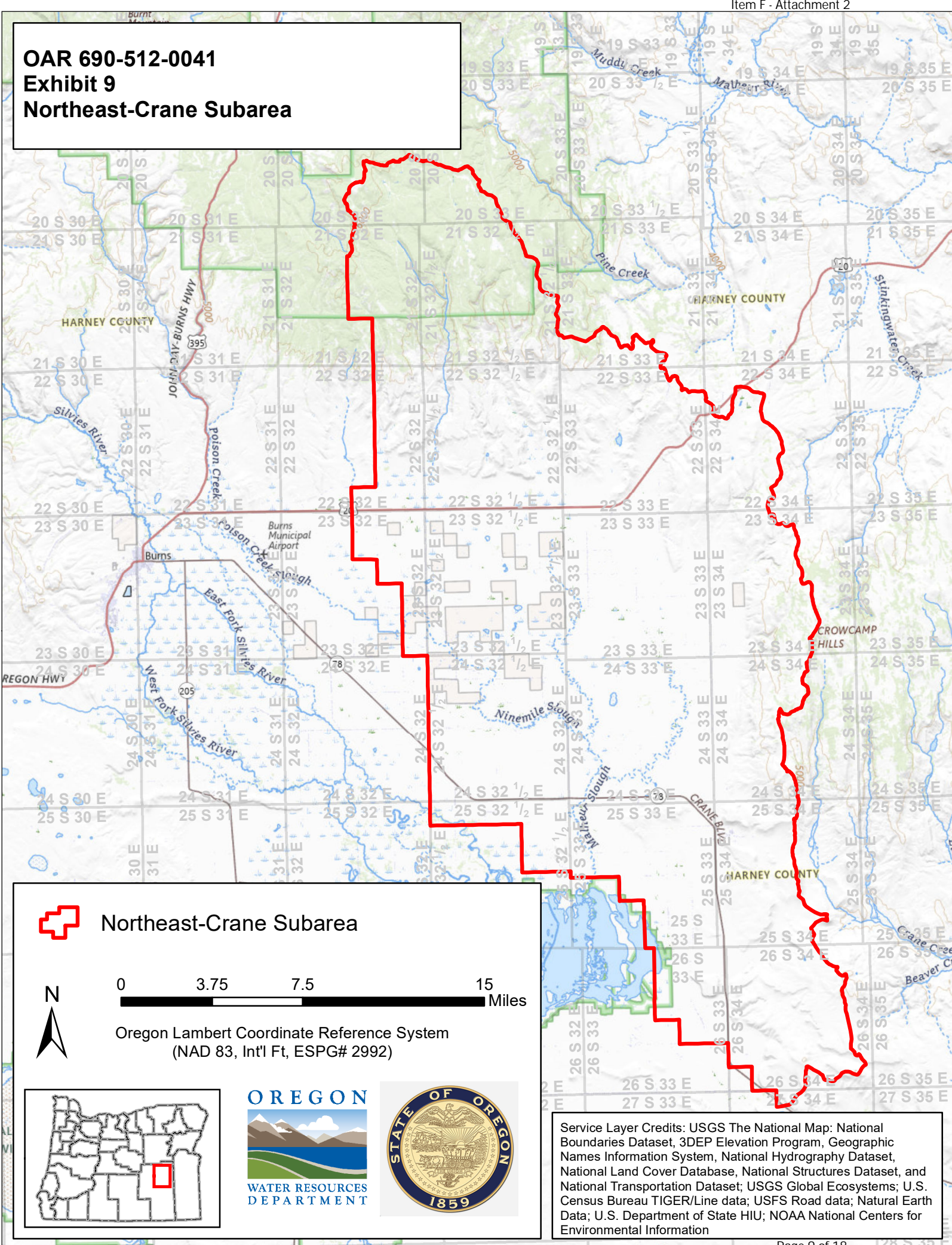
0 2.5 5 10 Miles

Oregon Lambert Coordinate Reference System  
(NAD 83, Int'l Ft, ESPG# 2992)



Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information

**OAR 690-512-0041**  
**Exhibit 9**  
**Northeast-Crane Subarea**

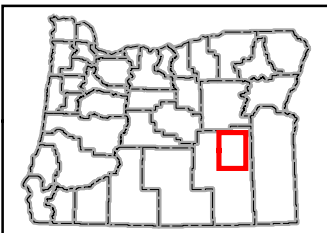


**Northeast-Crane Subarea**



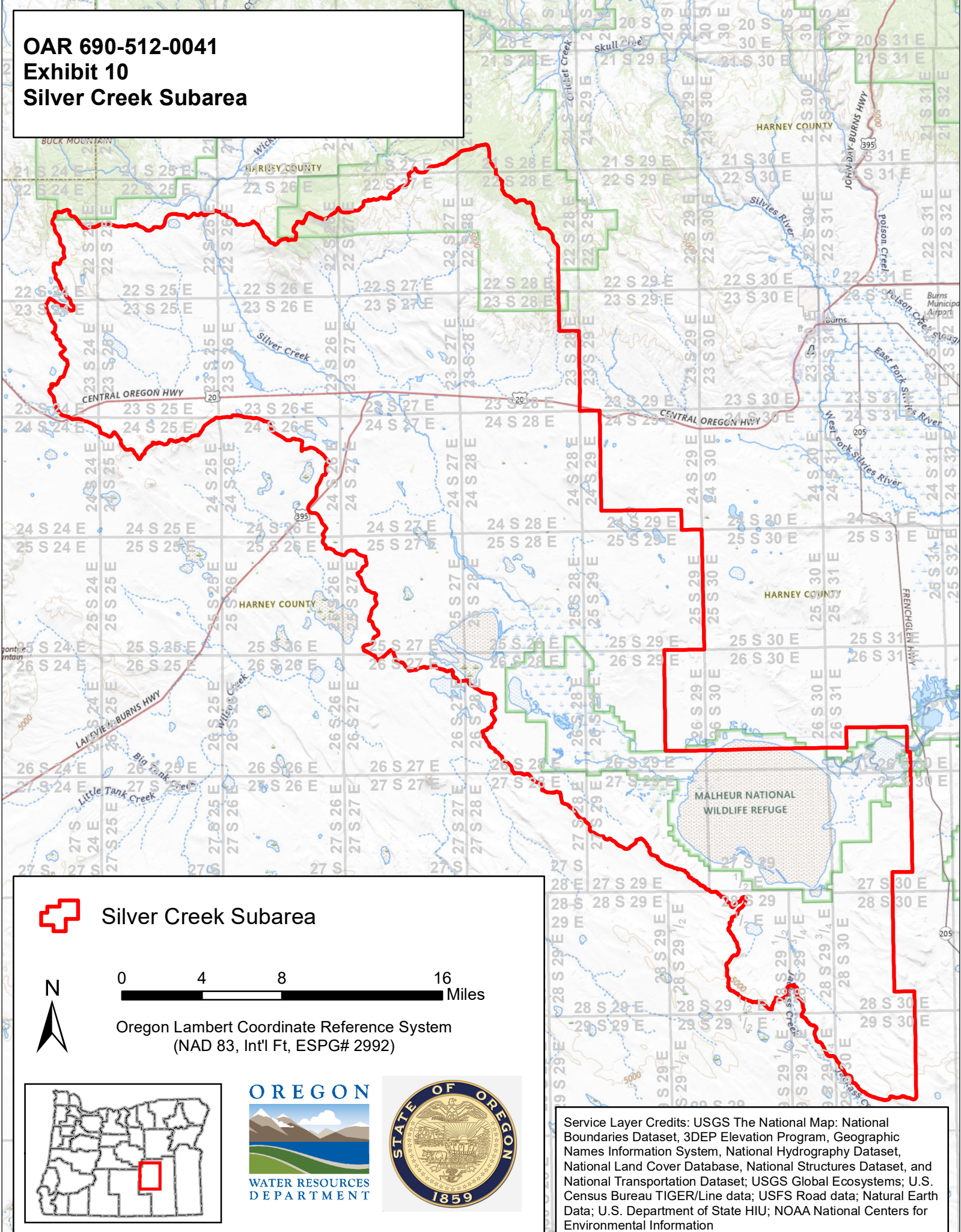
0 3.75 7.5 15 Miles

Oregon Lambert Coordinate Reference System  
 (NAD 83, Int'l Ft, ESPG# 2992)



Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information

**OAR 690-512-0041**  
**Exhibit 10**  
**Silver Creek Subarea**

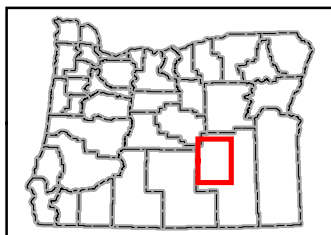


**Silver Creek Subarea**



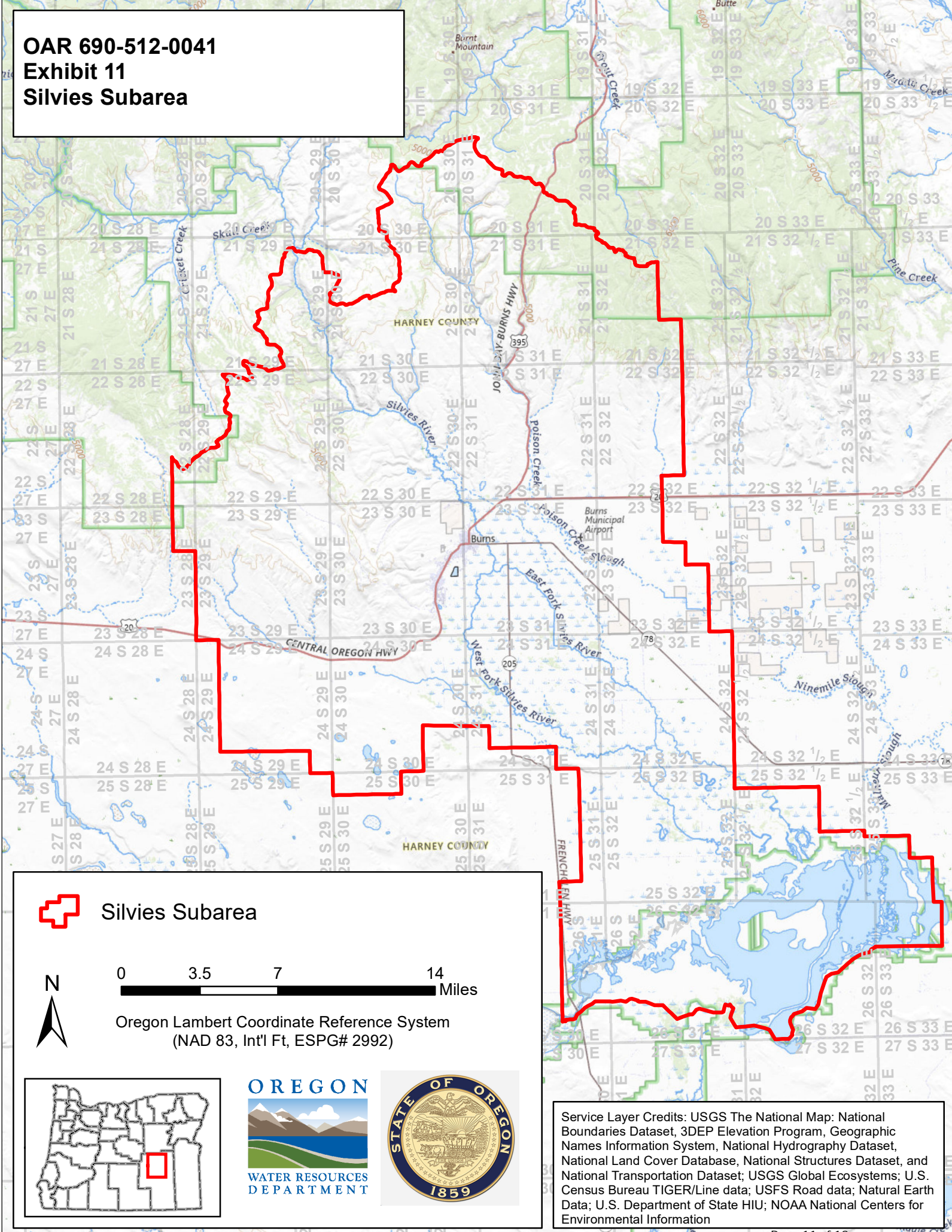
0 4 8 16 Miles

Oregon Lambert Coordinate Reference System  
(NAD 83, Int'l Ft, ESPG# 2992)



Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information

**OAR 690-512-0041**  
**Exhibit 11**  
**Silvies Subarea**

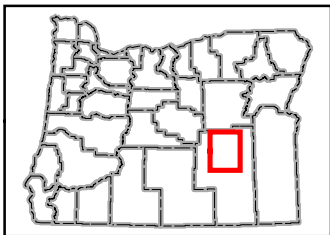


**Silvies Subarea**



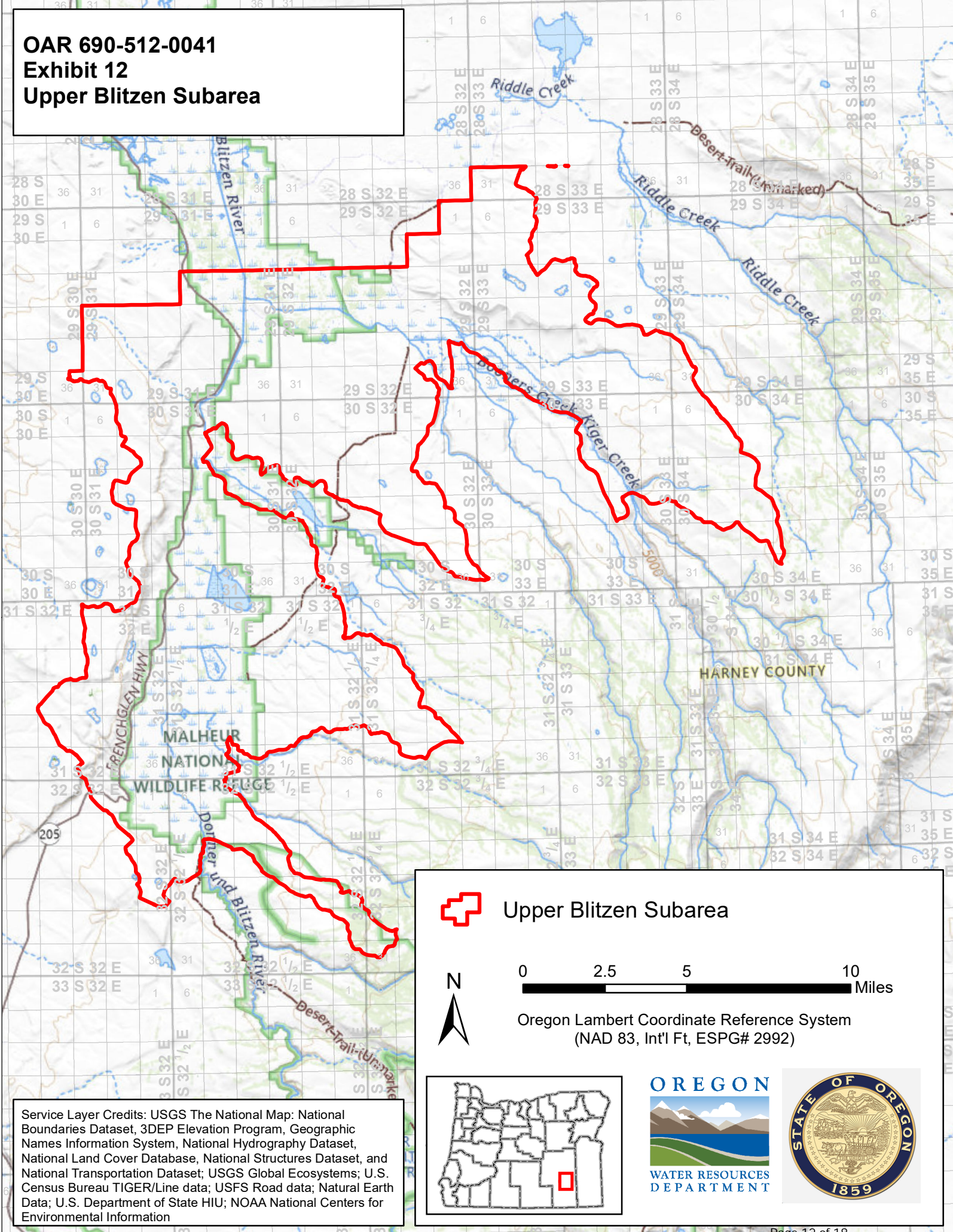
0 3.5 7 14 Miles

Oregon Lambert Coordinate Reference System  
(NAD 83, Int'l Ft, ESPG# 2992)

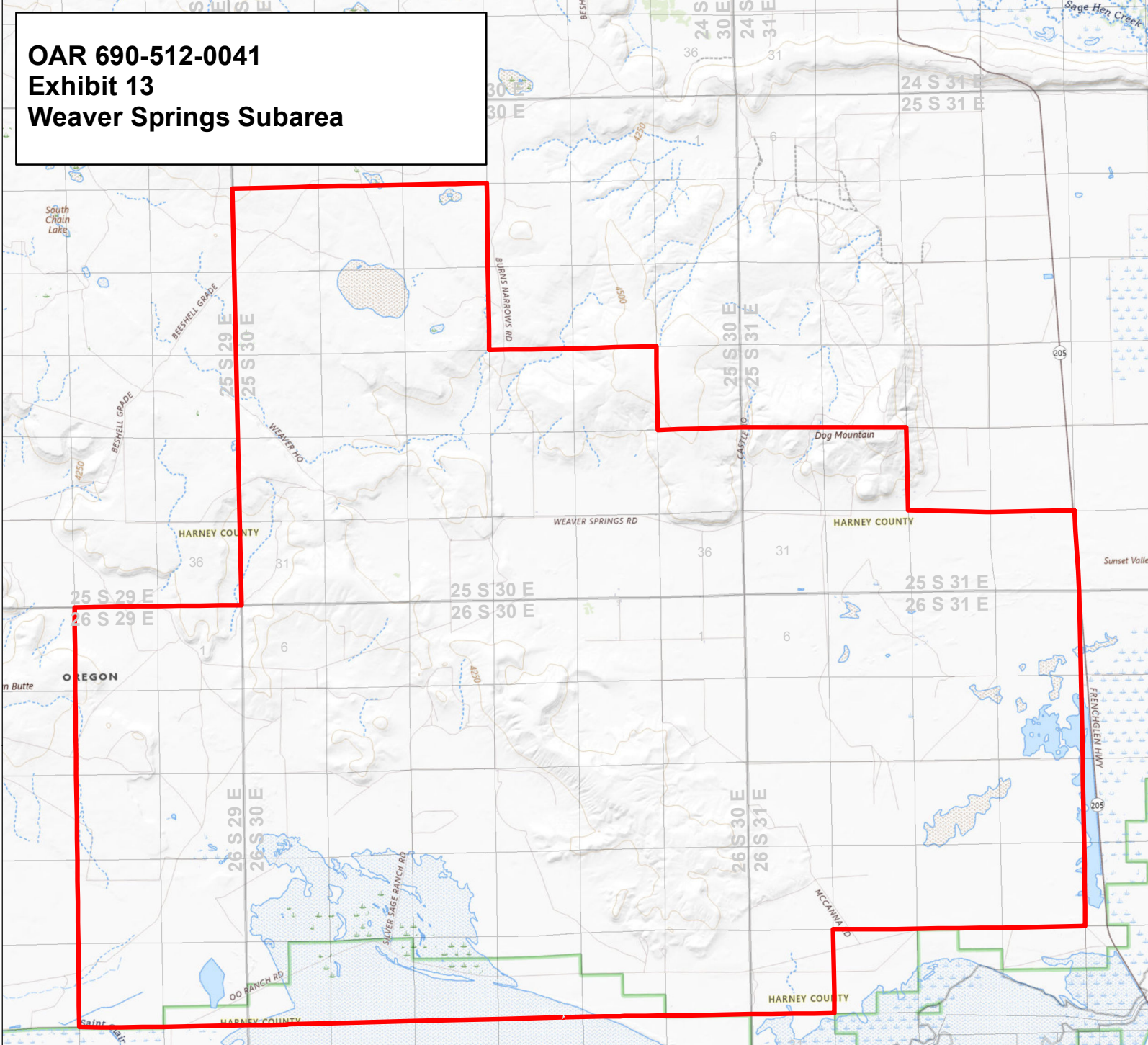


Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information

**OAR 690-512-0041**  
**Exhibit 12**  
**Upper Blitzen Subarea**



# OAR 690-512-0041 Exhibit 13 Weaver Springs Subarea

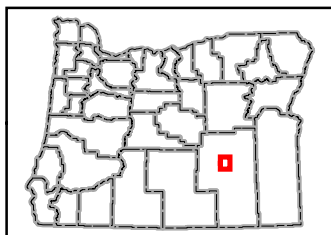


## Weaver Springs Subarea



0 1 2 4 Miles

Oregon Lambert Coordinate Reference System  
(NAD 83, Int'l Ft, ESPG# 2992)



Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information

## Exhibit 14

## Groundwater Level Change Envelope

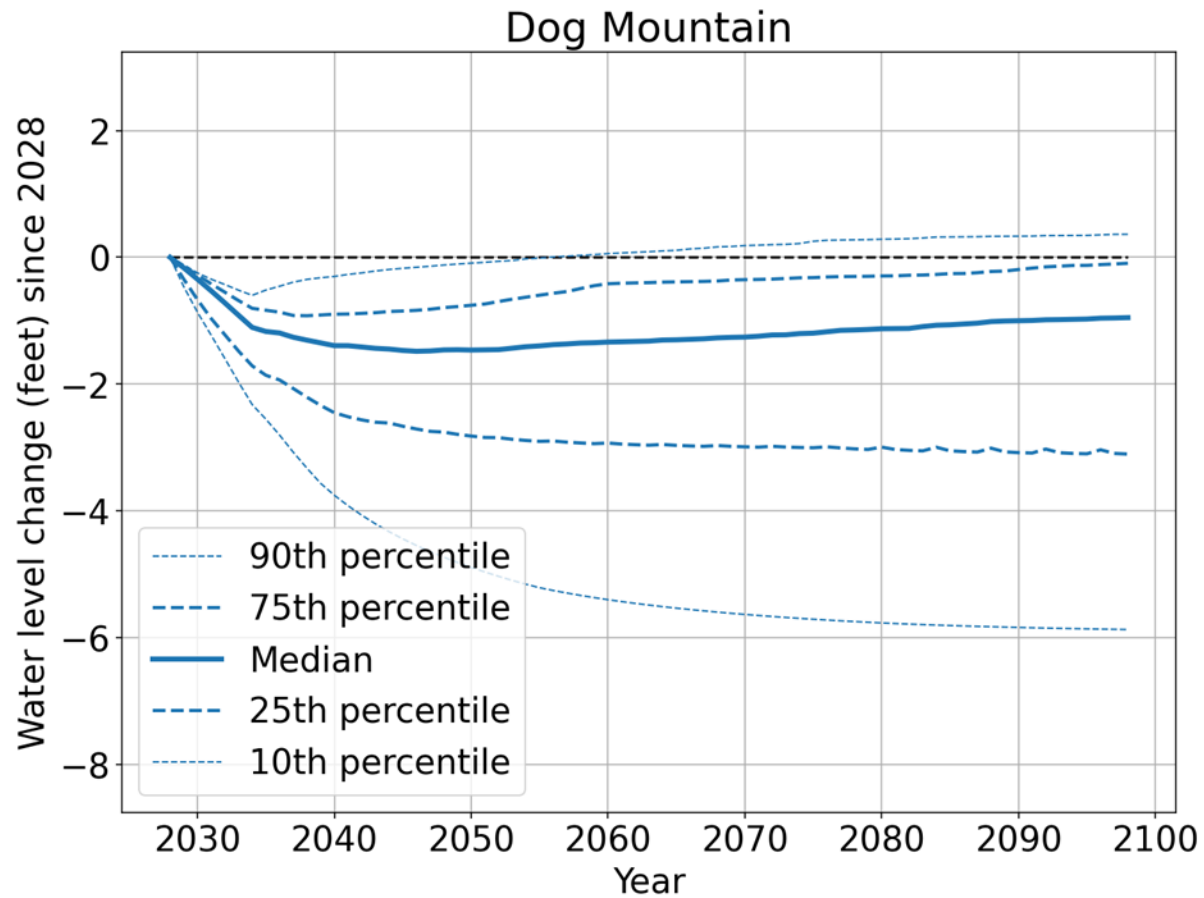


Table 1: Magnitudes of changes in annual high water levels (feet) compared with year 2028 in the Dog Mountain subarea. Each column represents a particular year when water level changes may be evaluated. Each row represents a percentile of water level changes within the subarea.

Percentile	2028	2033	2039	2045	2051	2057
90	0	-0.5	-0.3	-0.2	-0.1	0
75	0	-0.7	-0.9	-0.8	-0.7	-0.5
50	0	-0.9	-1.4	-1.5	-1.5	-1.4
25	0	-1.5	-2.3	-2.7	-2.8	-2.9
10	0	-2	-3.6	-4.4	-5	-5.3

## Exhibit 14

## Groundwater Level Change Envelope

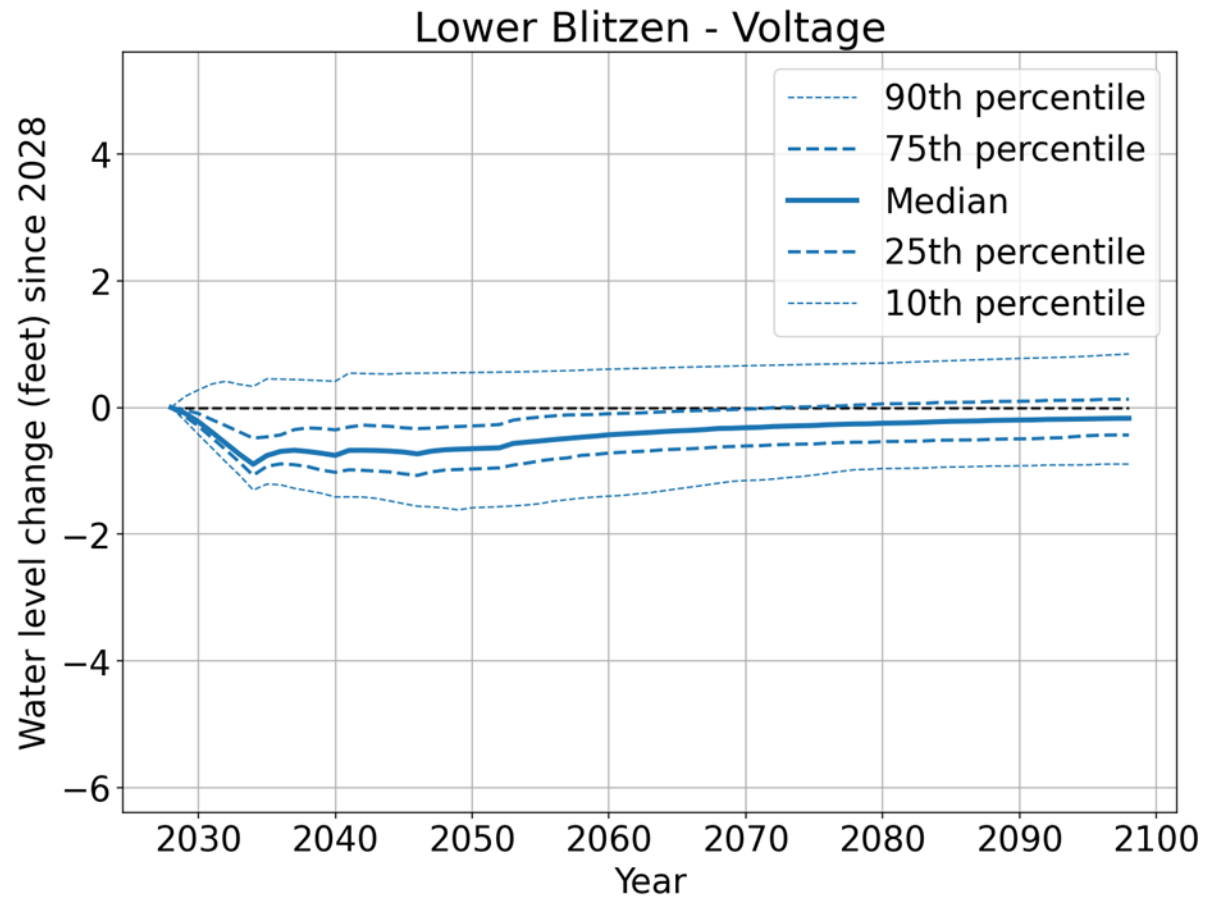


Table 2: Magnitudes of changes in annual high water levels (feet) compared with year 2028 in the Lower Blitzen - Voltage subarea. Each column represents a particular year when water level changes may be evaluated. Each row represents a percentile of water level changes within the subarea.

Percentile	2028	2033	2039	2045	2051	2057
90	0	0.4	0.4	0.5	0.6	0.6
75	0	-0.4	-0.3	-0.3	-0.3	-0.1
50	0	-0.7	-0.7	-0.7	-0.6	-0.5
25	0	-0.9	-1	-1	-1	-0.8
10	0	-1.1	-1.4	-1.5	-1.6	-1.5

## Exhibit 14

## Groundwater Level Change Envelope

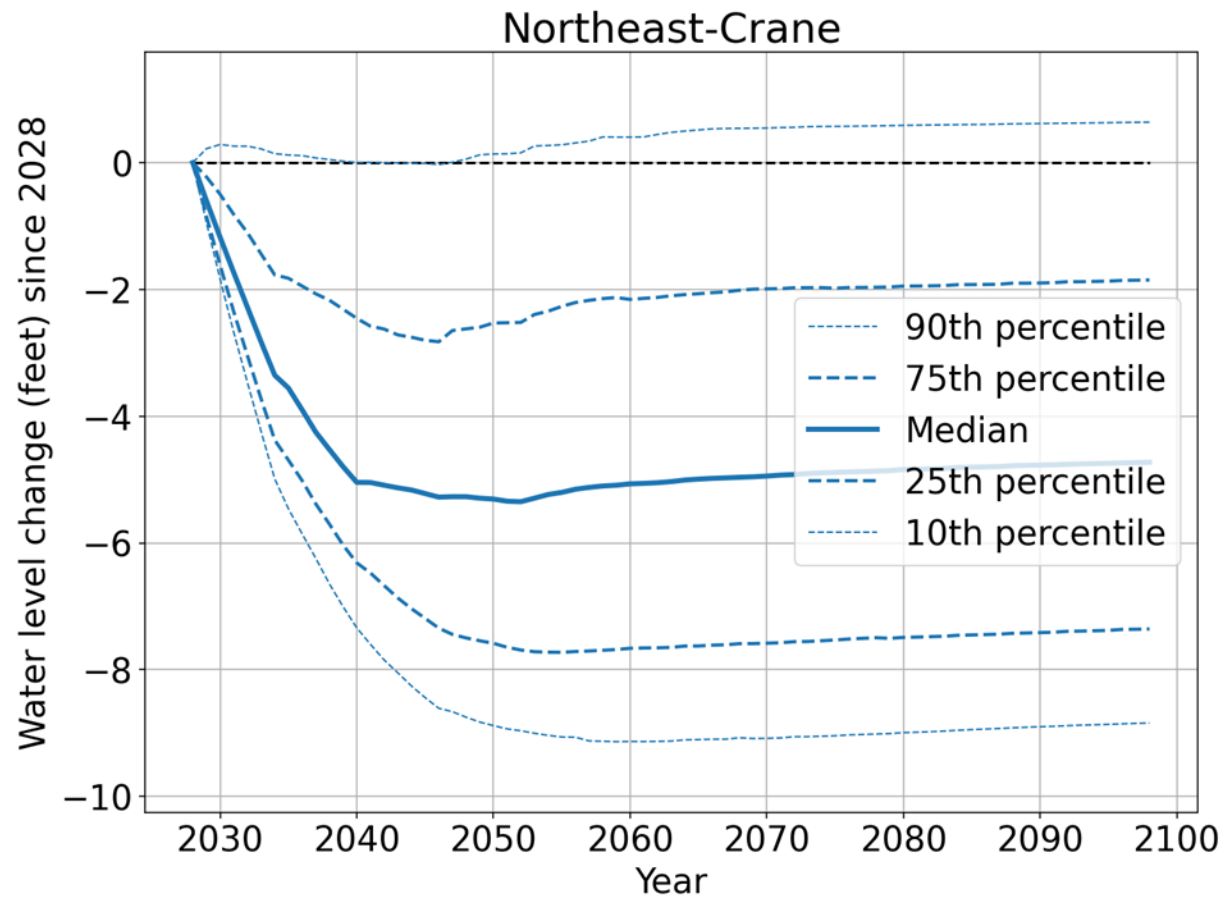


Table 3: Magnitudes of changes in annual high water levels (feet) compared with year 2028 in the Northeast - Crane subarea. Each column represents a particular year when water level changes may be evaluated. Each row represents a percentile of water level changes within the subarea.

Percentile	2028	2033	2039	2045	2051	2057
90	0	0.2	0	0	0.1	0.3
75	0	-1.4	-2.3	-2.8	-2.5	-2.2
50	0	-2.8	-4.8	-5.2	-5.3	-5.1
25	0	-3.7	-6	-7.2	-7.6	-7.7
10	0	-4.2	-7	-8.4	-8.9	-9.1

## Exhibit 14

## Groundwater Level Change Envelope

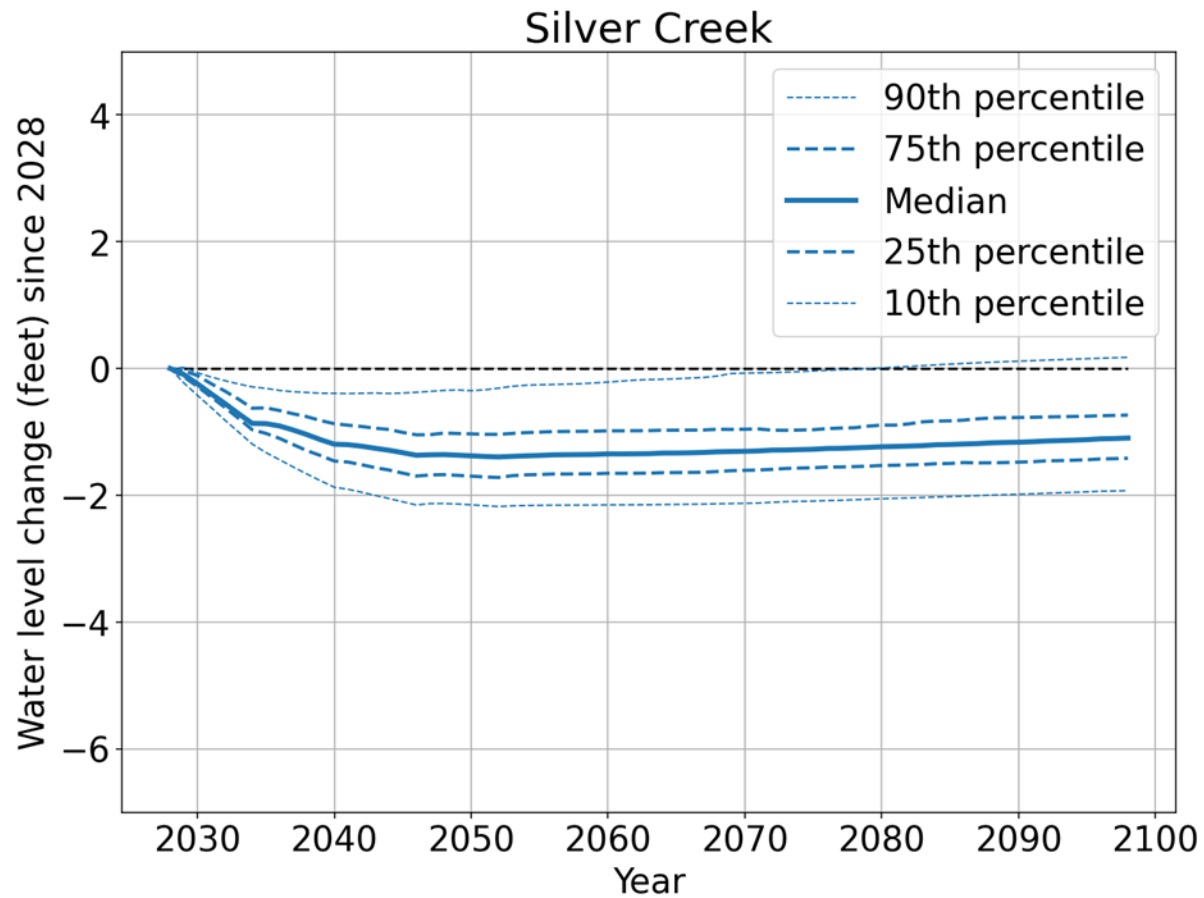


Table 4: Magnitudes of changes in annual high water levels (feet) compared with year 2028 in the Silver Creek subarea. Each column represents a particular year when water level changes may be evaluated. Each row represents a percentile of water level changes within the subarea.

Percentile	2028	2033	2039	2045	2051	2057
90	0	-0.2	-0.4	-0.4	-0.3	-0.2
75	0	-0.5	-0.8	-1	-1	-1
50	0	-0.7	-1.1	-1.3	-1.4	-1.4
25	0	-0.8	-1.4	-1.7	-1.7	-1.7
10	0	-1	-1.8	-2.1	-2.2	-2.2

## Exhibit 14

## Groundwater Level Change Envelope

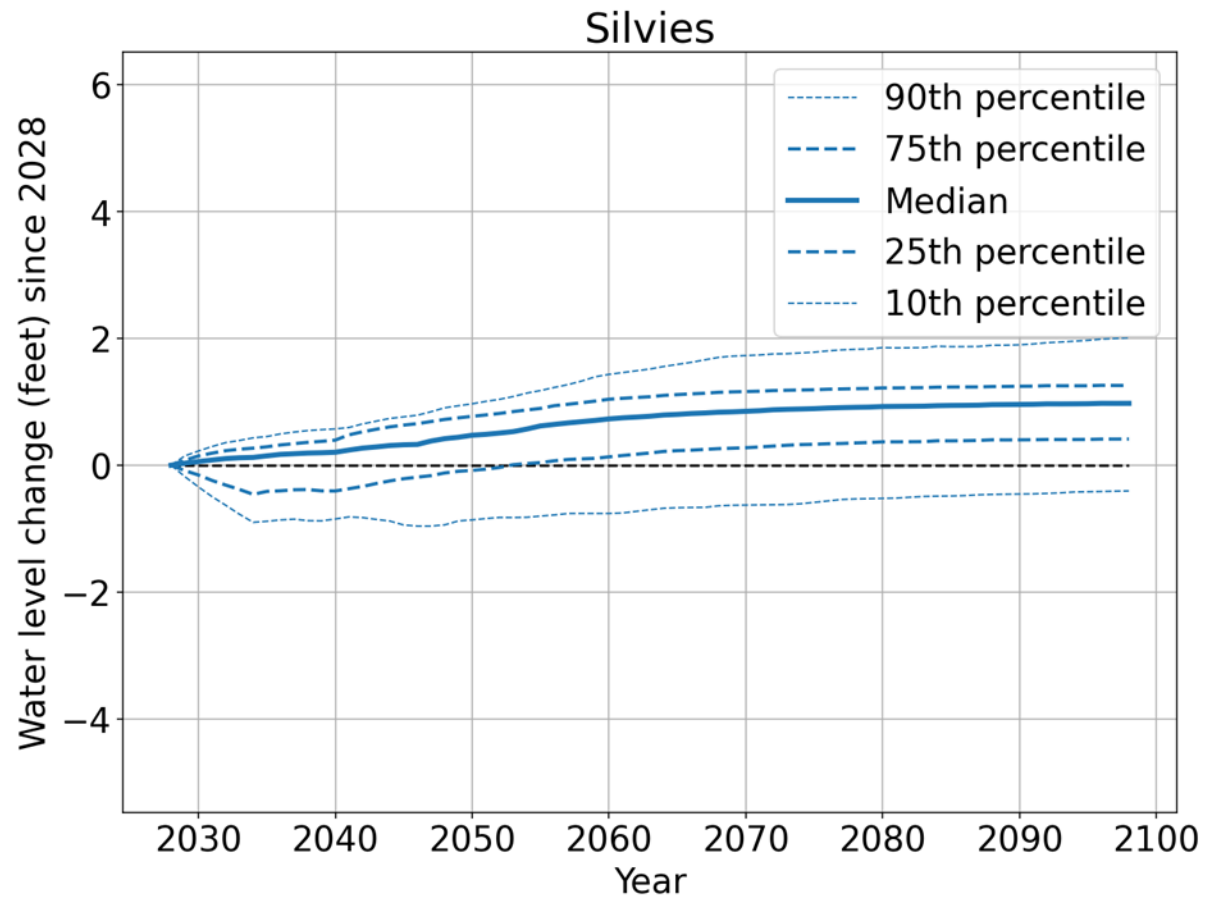


Table 5: Magnitudes of changes in annual high water levels (feet) compared with year 2028 in the Silvies subarea. Each column represents a particular year when water level changes may be evaluated. Each row represents a percentile of water level changes within the subarea.

Percentile	2028	2033	2039	2045	2051	2057
90	0	0.4	0.6	0.8	1	1.3
75	0	0.3	0.4	0.6	0.8	1
50	0	0.1	0.2	0.3	0.5	0.7
25	0	-0.4	-0.4	-0.2	-0.1	0.1
10	0	-0.8	-0.9	-0.9	-0.8	-0.8