Photo: ODOT

Photo: US Forestt Service

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OREGON
WATER RESOURCES
DEPARTMENT

Agenda Item 4D

Housing & Water Availability

Land Conservation and Development Commission &
Water Resources Commission Special Meeting
February 26, 2026

Overview

Meeting Objective: to stimulate conversation about how to improve the integration of water information and land-use planning

Topics we'll cover today:

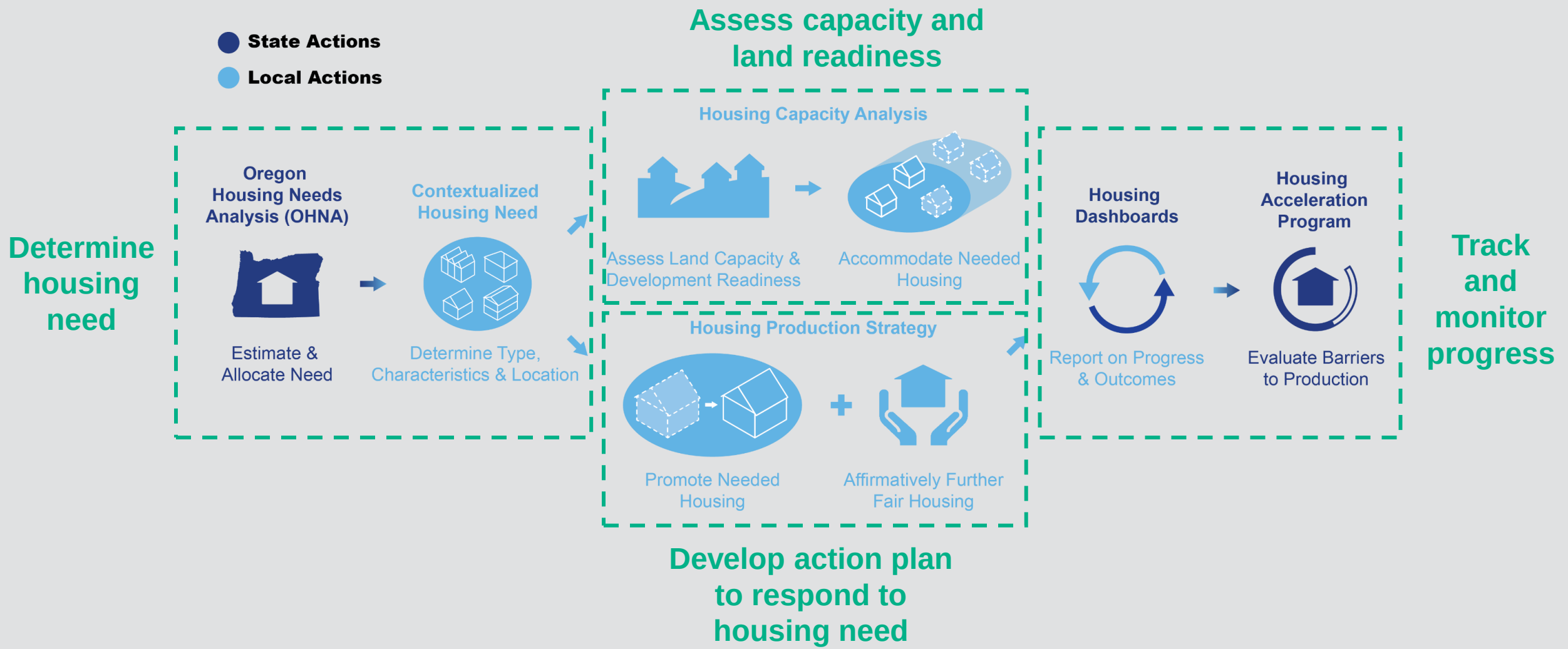
- **Housing modernization and public facilities planning**
- **Water availability – groundwater and surface water**
- **Municipal water supply planning for cities**
- **Water supply options to support housing growth and development**

Planning for Needed Housing

- **<u>Since 1970's:</u>** Ensure sufficient 'land capacity' with minimal focus on production and outcomes
- Disconnect between local Goal 10 planning and public facilities planning

- **<u>Outcome</u>** – Decades of under-investment in housing. Reinforced, rather than affirmatively addressing disparities and patterns of exclusion

Housing Planning Paradigm Under OHNA



Reorientation to Public Facilities and Urban Services

Buildable land is

- Within an Urban Growth Boundary
- Planning for 20-year supply
- Informs assessment of housing capacity
- Supports need for Urban Growth Boundary Amendments

vs.

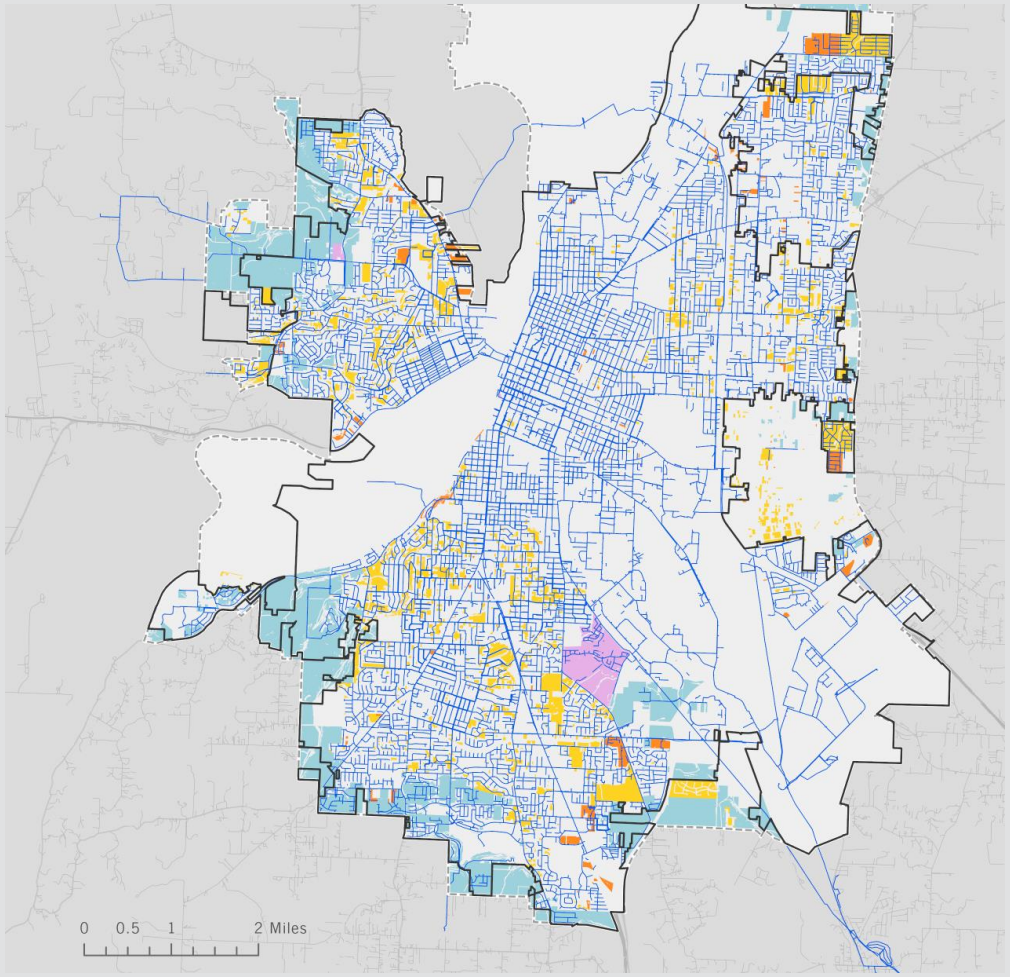
Development-Ready Land is

- Land that is zoned for urban residential development
- Planning for 6- or 8-year housing needs
- Informs assessment of near-term capacity
- Supports selection of housing actions

NEW Development-Ready Lands Inventory

Development-ready lands means buildable lands that are likely to support the production of housing during a city's housing production target because the lands are:

- **Annexed and zoned** to allow housing
- **Readily served** or identified in a capital improvement plan
- **Not encumbered** or have appropriate entitlements to prepare land for development



Housing – Water Nexus

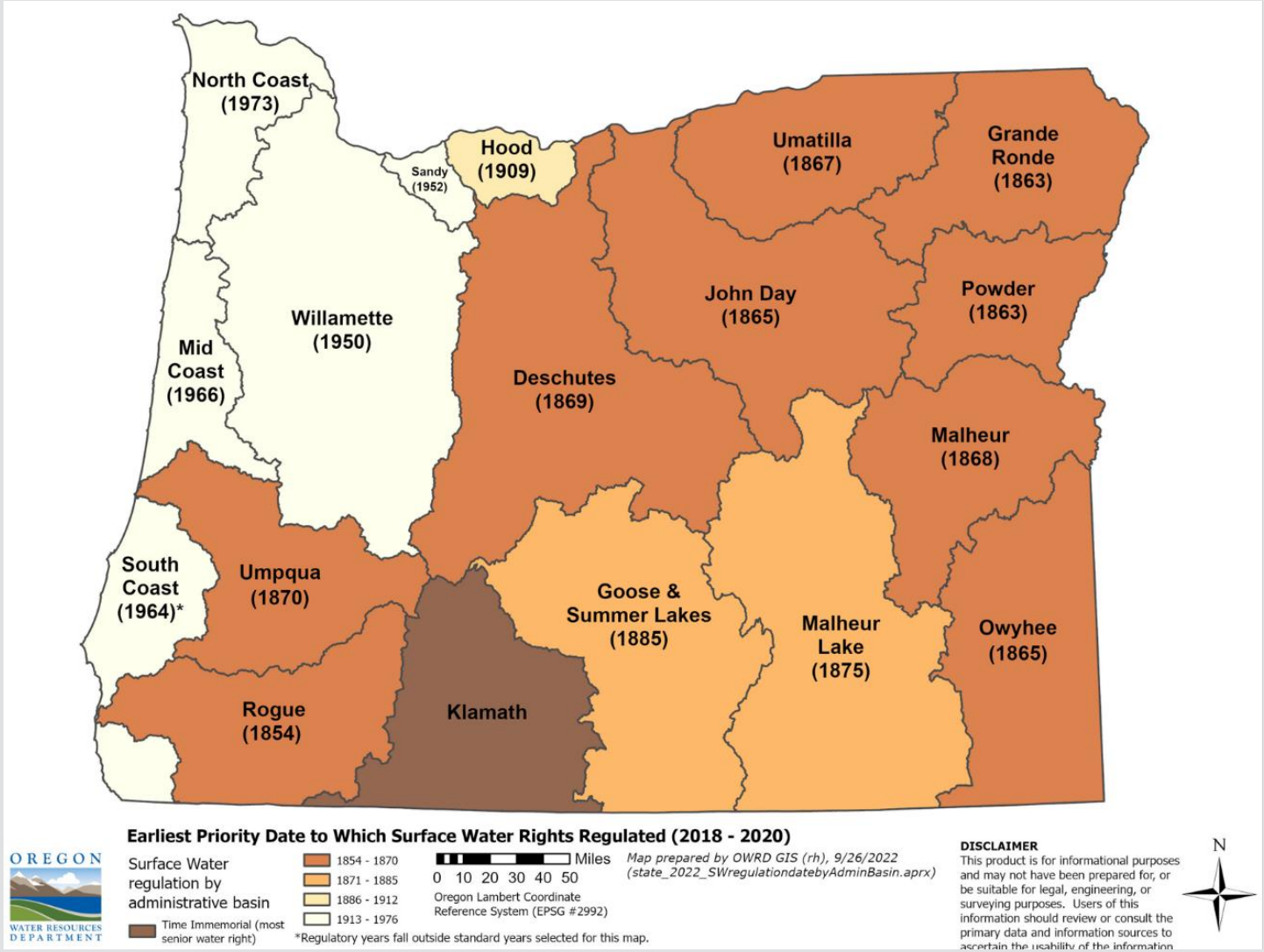
- Water rights are generally required to use water (e.g., municipal use)
- Existing cities and water providers plan for growth, including water rights planning
- Rural housing often depends on domestic wells exempt from water right permitting
- Water availability for new water rights is limited in much of Oregon
- Alternate water supply options exist


Photo: Google Maps

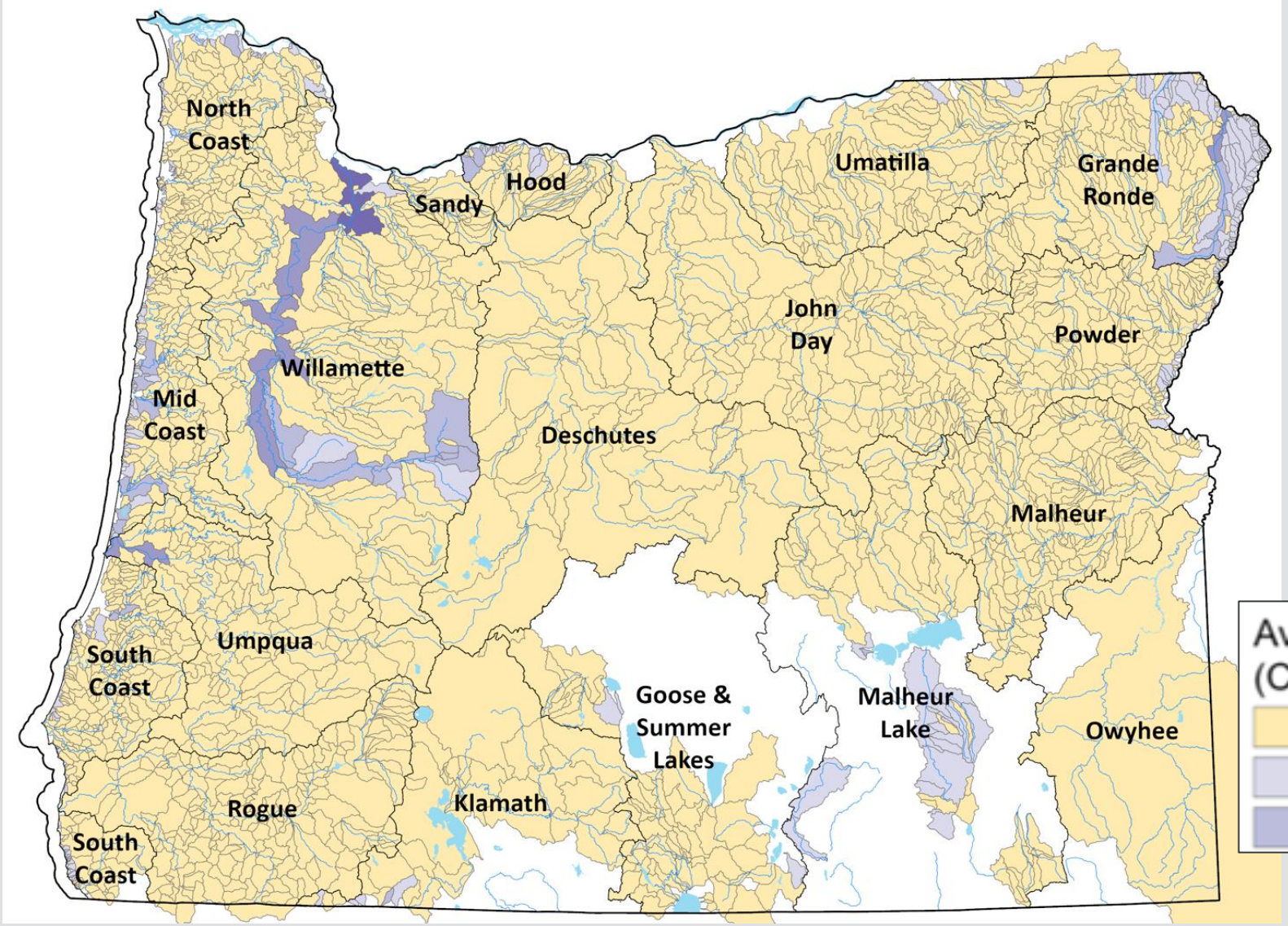
Surface Water Development, by Prior Appropriation

Earliest priority date in each basin for which surface water rights were regulated

(2018-2020)

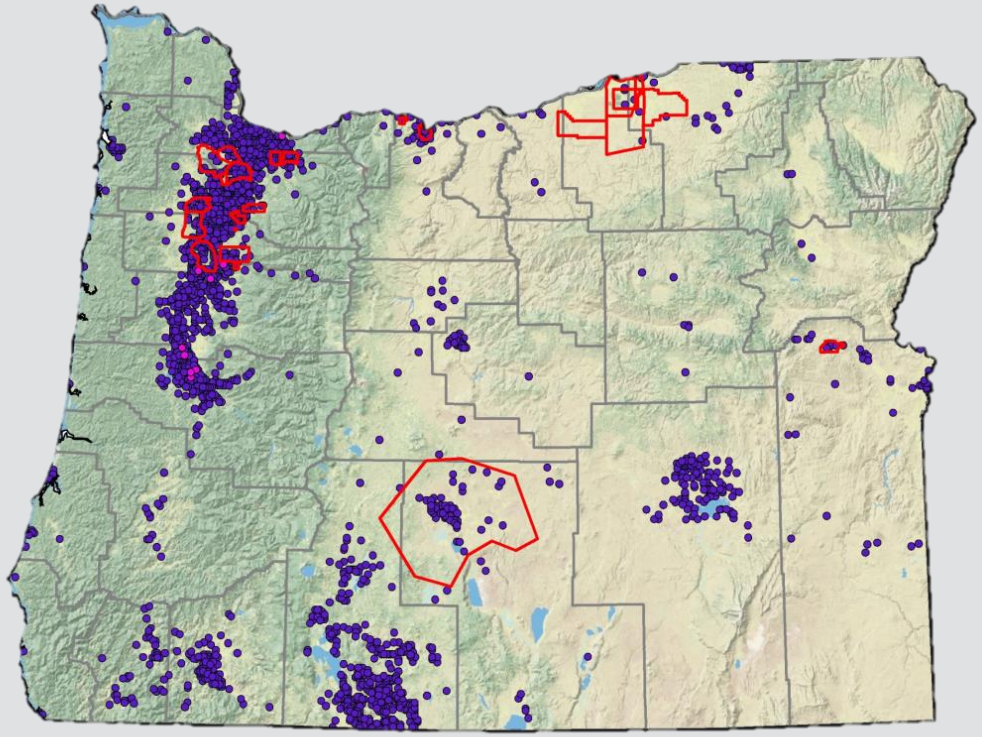


Surface Water Availability Today



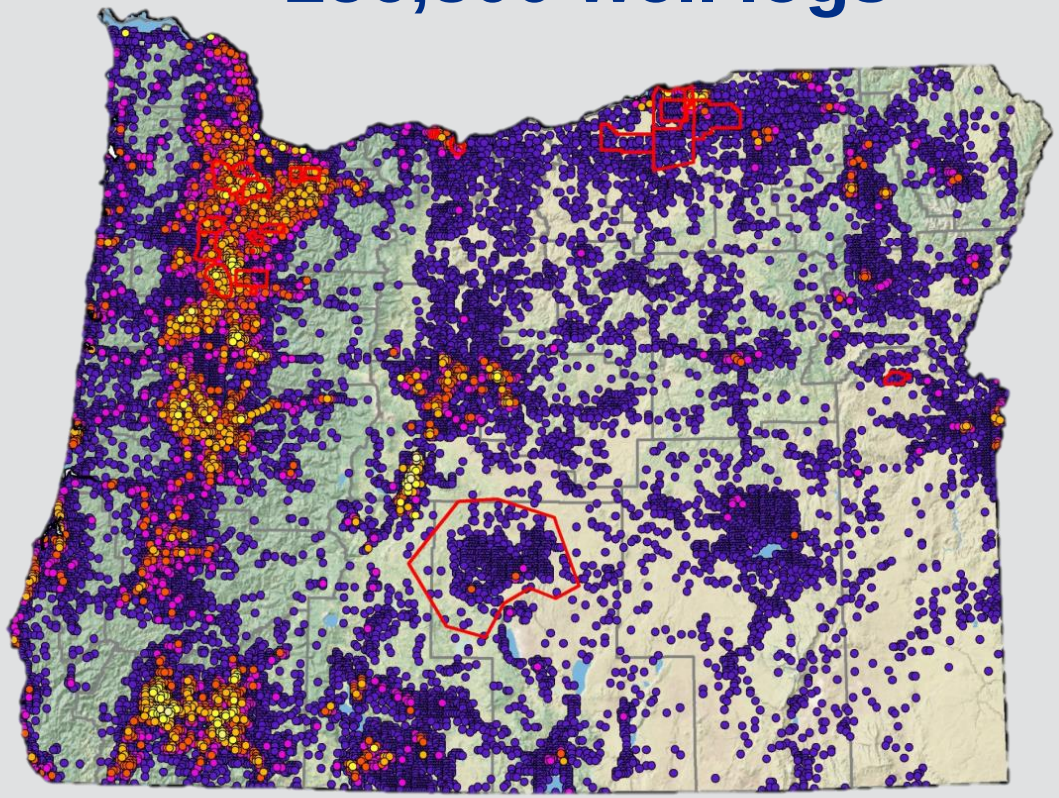
- **Most streams and rivers are fully allocated during the summer months**
- **Water availability is determined for new water right applications**

Groundwater Development



1955
4,660 well logs

2016
256,800 well logs



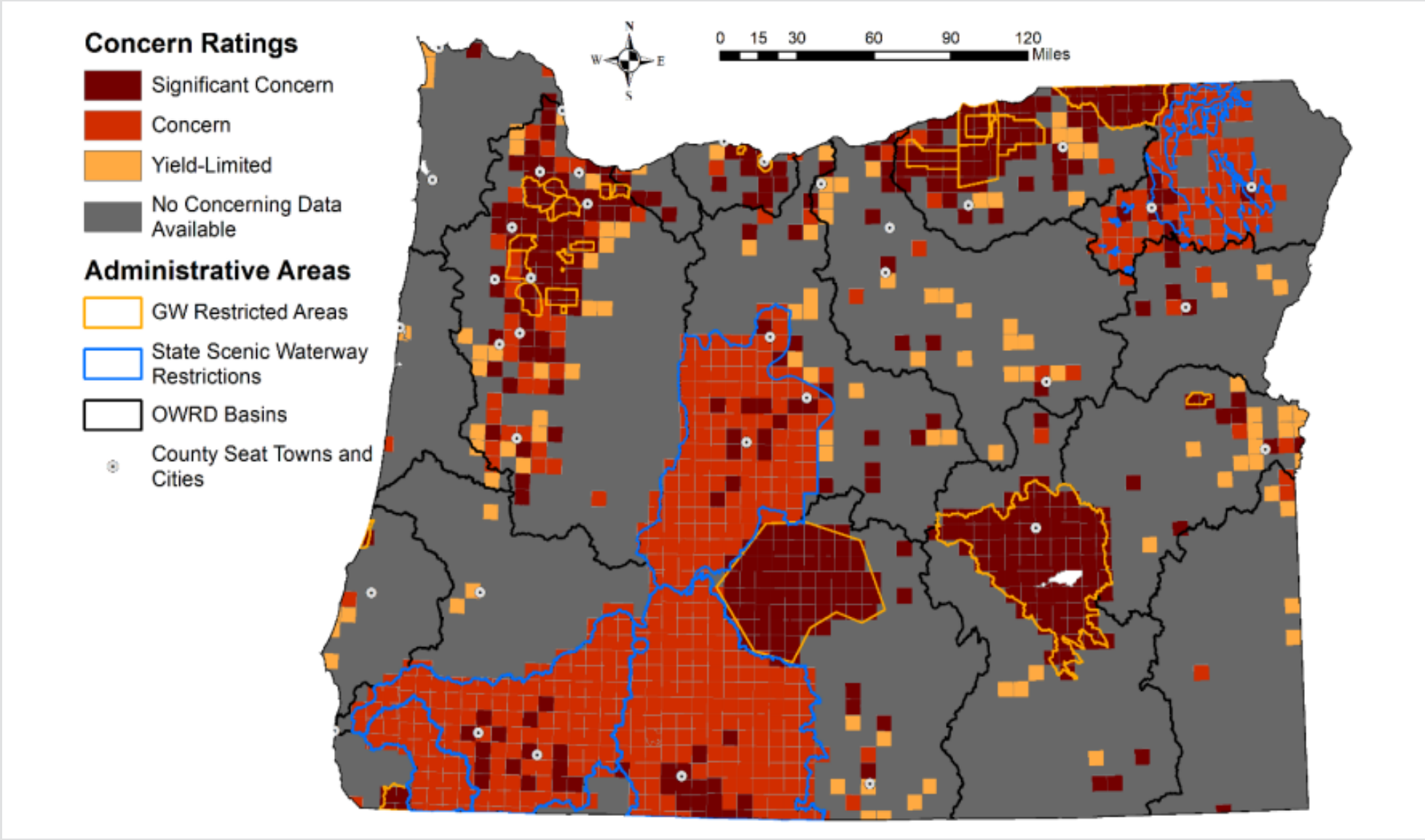
Density of Water Well Logs per 640 Acres

- 1 - 16 (<= 1 well / 40 acres)
- 17 - 32 (<= 1 well / 20 acres)
- 33 - 64 (<= 1 well / 10 acres)
- 65 - 128 (<= 1 well / 5 acres)
- 129 - 256 (<= 1 well / 2.5 acres)
- 257 - 320 (<= 1 well / 2.0 acres)
- >320 (<= 1 well / 1.0 acres)

Counties

Ground Water Restricted Areas

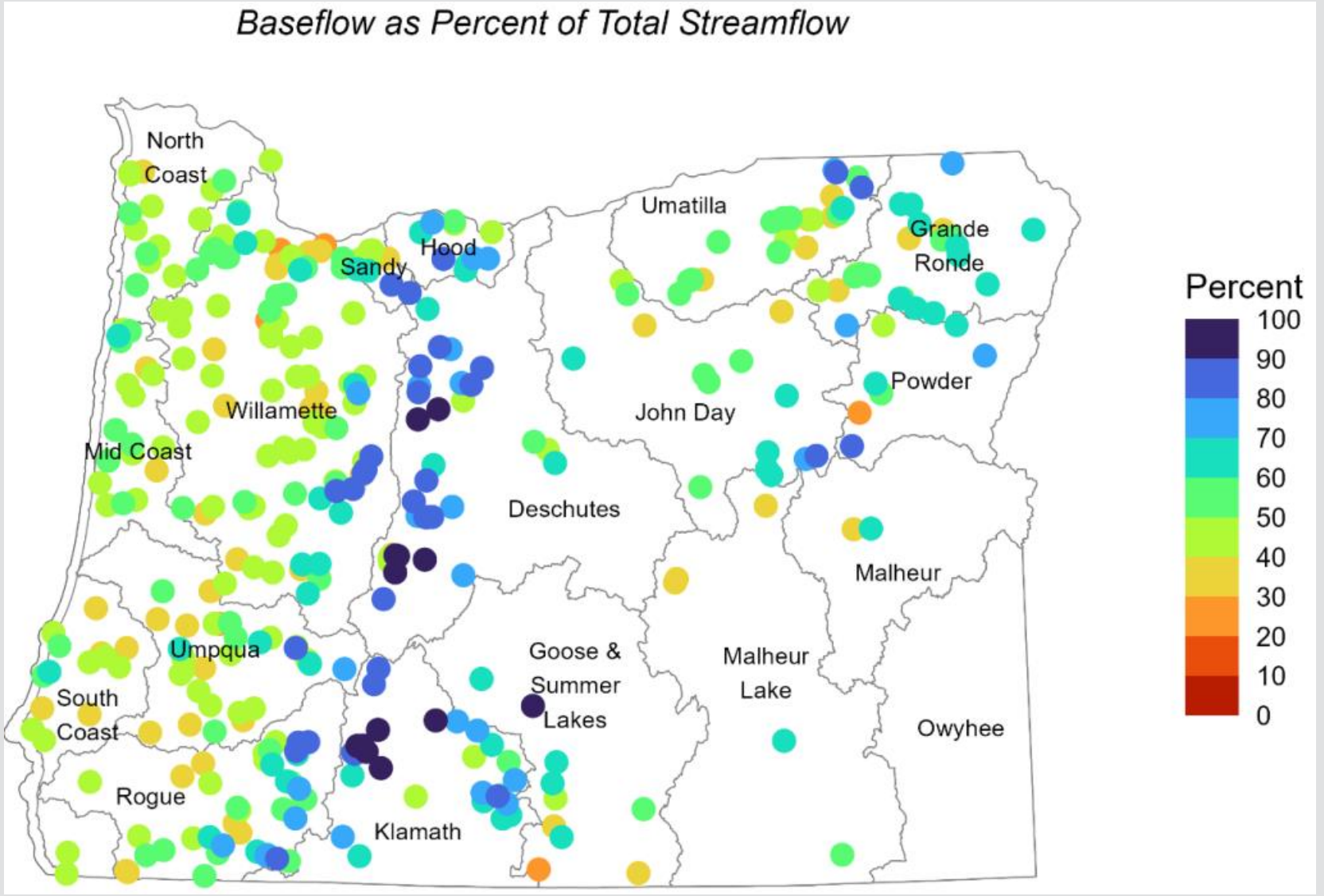
Groundwater Today



Modernized Groundwater Allocation Framework

Groundwater Allocation Rules Updated in 2024

- **Limited maximum allocation rates to match aquifer capacity**
- **Defined Reasonably Stable Groundwater Levels (RSGL)**
- **Redefined Potential for Substantial Interference (PSI)**



MUNICIPAL WATER SUPPLY PLANNING

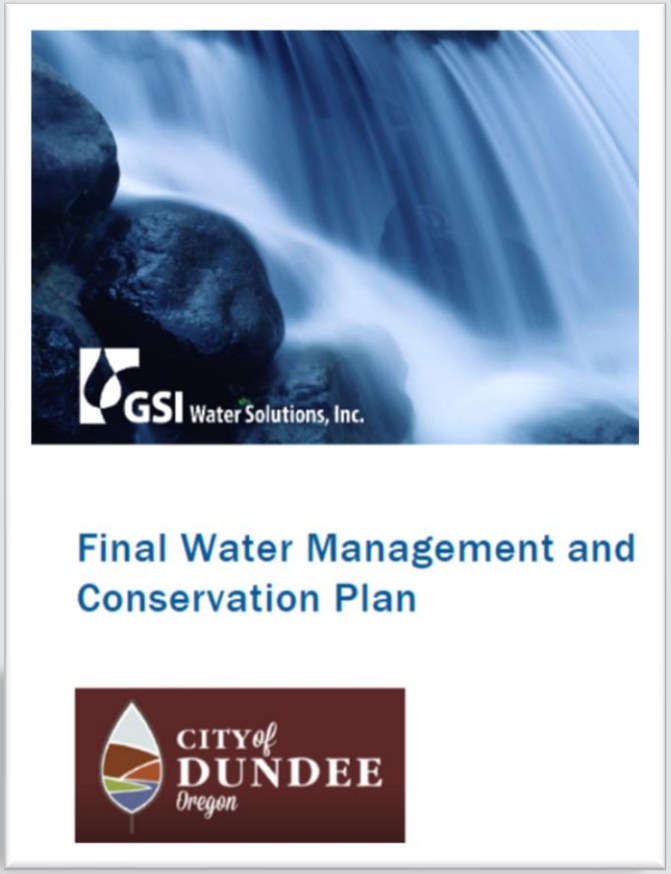
Water Management and Conservation Plans

Long-range plan for estimating future water demands

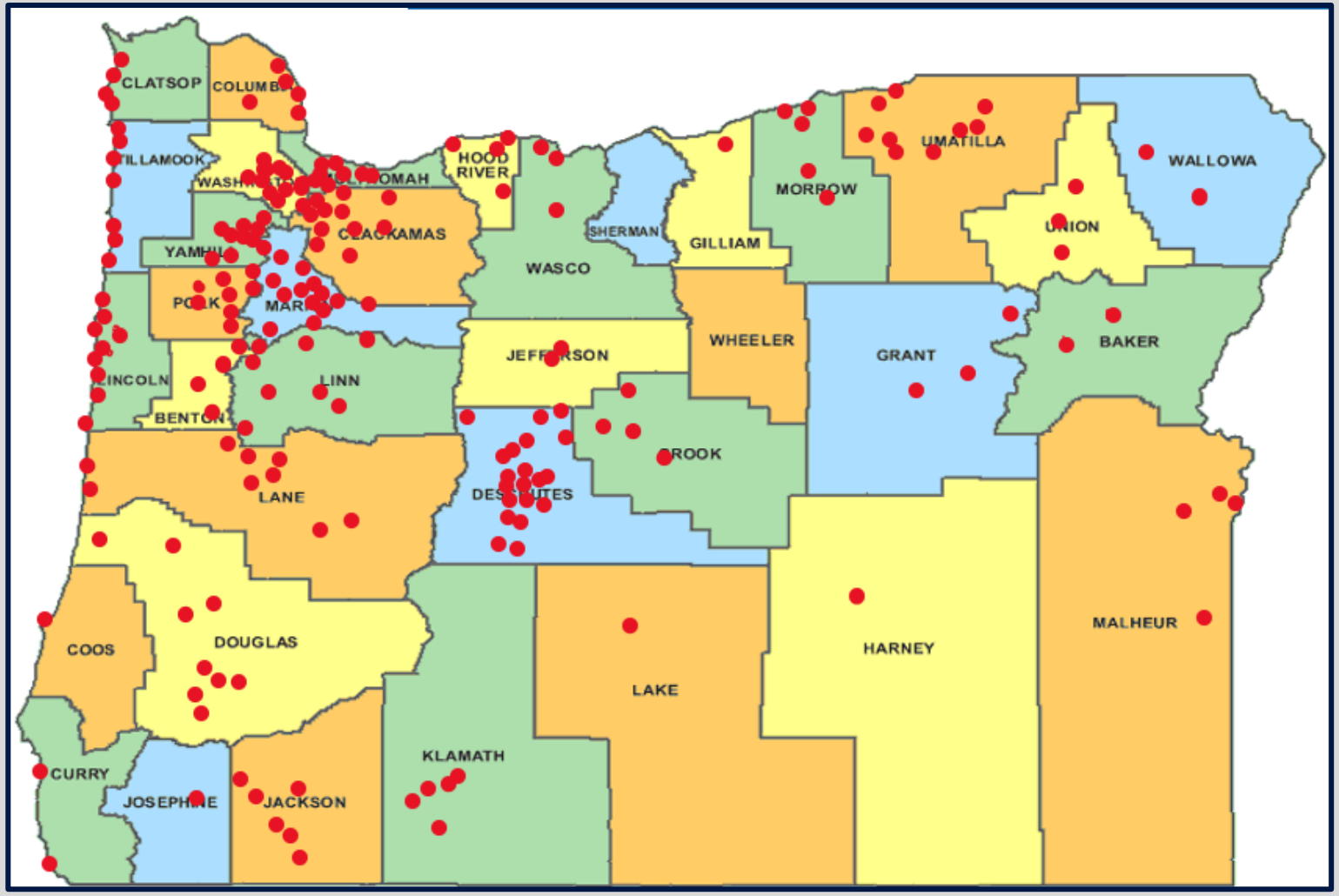
- Includes the following elements:
  - Snapshot of current water system
  - Conservation measures for efficient use of water
  - Curtailment plan for water supply shortages (drought, etc.)
  - Water forecast for minimum of 20 years

Water Management and Conservation Plans (WMCPs)

- ~ 3,500 Water Suppliers in Oregon
  - Includes small, localized water systems
  - 200 suppliers have approved WMCP's
- Typically required due to the following:
  - Water Right Permit Extension of Time
  - New Water Right Permits
  - Previous Final Order approving WMCP



WMCP's by County



WATER SUPPLY OPTIONS TO SUPPORT HOUSING GOALS AND ECONOMIC GROWTH

Water Supply – Expense and Energy Requirements

Expense
& Energy
Required

Desalination

Trucking in Water

Interties

Water Reuse

Water Storage (ASR & AR)

Watershed Management

Water Conservation

Water Right Transfers

A legal way to make changes to an existing water right

What can be changed:

- ✅ Point of diversion / appropriation
- ✅ Adding a point of diversion / appropriation
- ✅ Place of use
- ✅ Character of use

What cannot be changed:

- ☒ Source
- ☒ Annual rate / volume
- ☒ Priority date
- ☒ Increase in acres
- ☒ Season

Water Right Transfers

Example: City of Bend

- **Most of the city's surface water rights were formerly irrigation use and transferred to municipal use**
- **The water rights have both a seasonal limitation and annual volume limit**
- **Unique to Deschutes Basin, the transfer tool creates mitigation for groundwater pumping impacts to instream water right and scenic waterway flows**

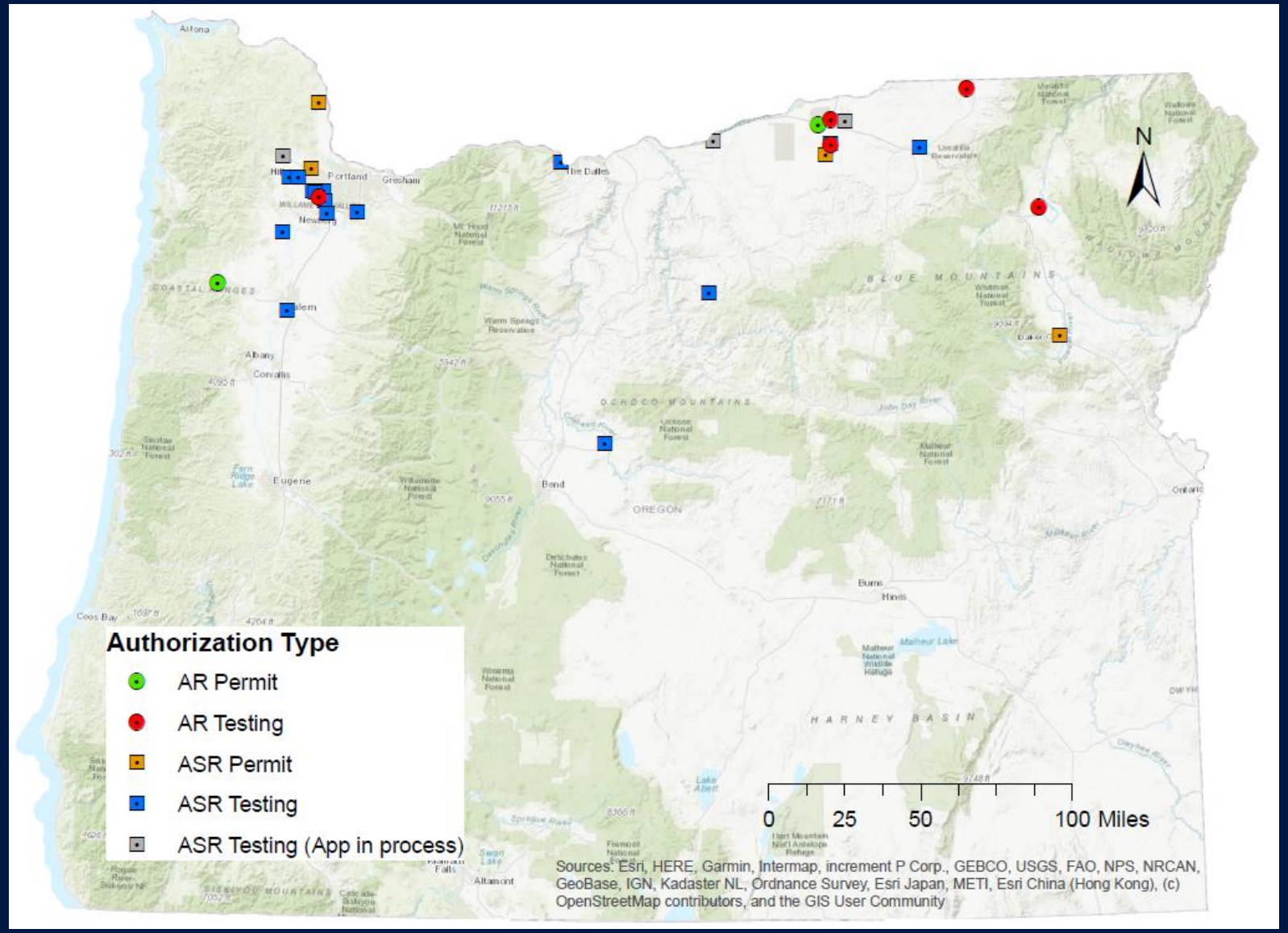
Photo: "Sunrise at Todd Lake and Mt Bachelor, Oregon" by Bonnie Moreland

Aquifer Storage and Recovery (ASR)
Aquifer Recharge (AR)

Example: City of Beaverton

- During winter and spring, Beaverton injects treated drinking water into an aquifer, recovering later when demand is higher
- In 2015, 413.7 MG were recovered to meet customer needs
- Drinking water from ASR wells represents up to 30% of daily water consumed in the summer, and 16% of all water consumed
- Since 1999, the city has pumped over 3.71 billion gallons of potable water from its ASR wells

ASR and AR Projects in Oregon Today



Water Reuse

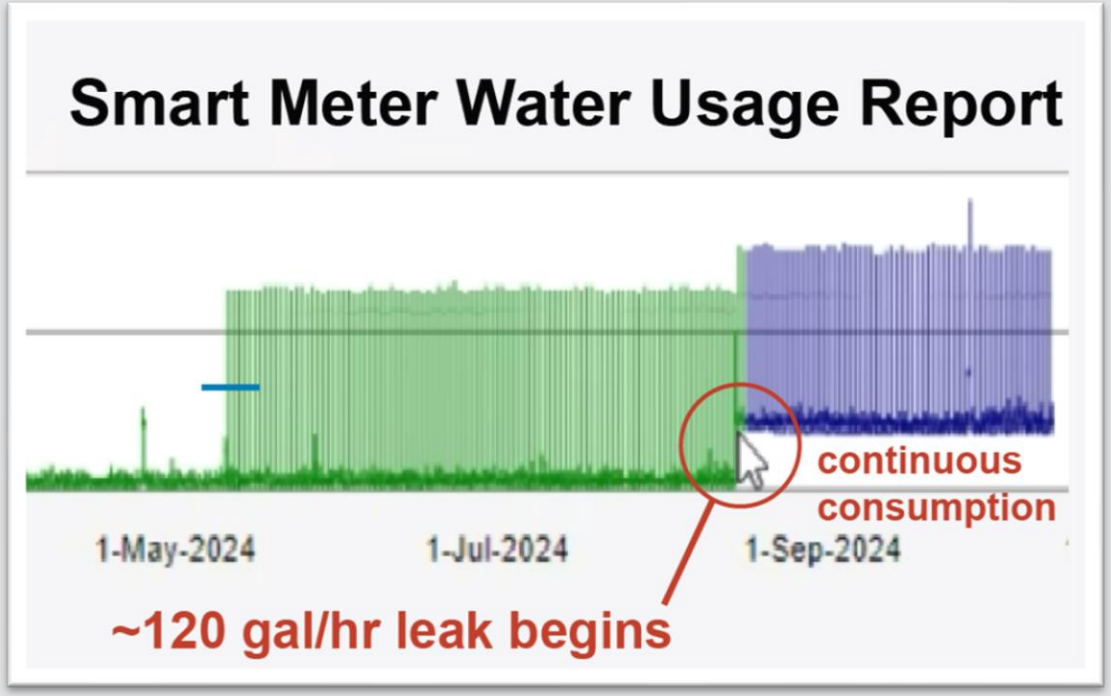
Example: City of Cottage Grove

- City faced a compliance issue with discharging treated wastewater to a temperature limited stream (Coast Fork Willamette River)
- Cost of a cooling tower for effluent water was over $1 Million
- City purchased Middlefield Golf Course and converted its irrigation supply to reclaimed water
- Additional benefits – 30% reduction in fertilizer use and expense

Water Conservation Programs

Example: Eugene's Smart Meter Leak Detection

- Eugene has upgraded its outdated, mechanical meters with "smart" meters that transmit data every four hours
- Since implementation, over 18,000 notifications have been sent to customers about their continuous flow events
- This has saved customers an estimated 170 million gallons of water



Source: Eugene Water and Electric Board

Interties

Connection between two different water systems

Example: City of Lafayette, Oregon

- Constructed an intertie with McMinnville in 2018
- Total cost was approximately $2.5 Million
- Construction of an estimated 8,800 feet of 12-inch waterline to connect the two water systems
- Lafayette currently has an agreement with McMinnville to purchase up to 720,000 gallons per day of surplus water at 500 gallons per minute

Watershed Management – Source Water Protection

Bull Run Watershed (Portland)

- Portland and U.S. Forest Service manage the Bull Run Watershed Management unit with formal protections aimed at safeguarding water quality

Panther Creek (Curry County)

- Following 2017 Chetco Bar Fire, partners inventoried sediment risks and implemented in-stream/riparian restoration actions

Photo: Mt Hood National Forest, Bull Run Lake, USFS

Other Water Supply Approaches

- Integrated water resources planning and management
- Locally-led groundwater sustainability planning
- Mitigation programs
- Improved weather forecasting and modeling
- Improve reservoir operations (changes to spring refill)

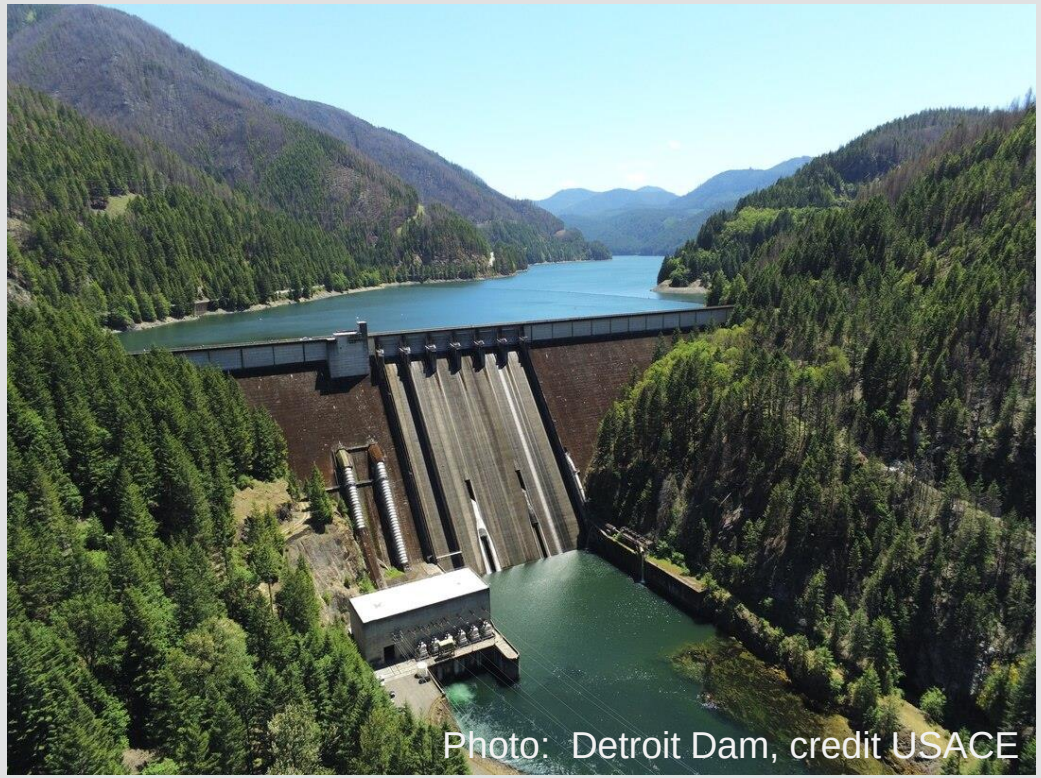


Photo: Detroit Dam, credit USACE

In Closing

Land use and water management are **integrally related**. Statewide planning goals require comprehensive plans to include inventories of, and mechanisms **to protect, important local water resources.**

State water laws require the Commission to **protect the public interest in all waters** of the state.

Recognizing the responsibilities vested in both state and local government to manage and protect water resources, **the Commission places a high priority on complying with statewide planning goals and achieving compatibility with local comprehensive plans**.

OWRD's Land Use Policy, OAR 690-005-0020(1), adopted 1990

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OREGON WATER RESOURCES DEPARTMENT

Thank you!

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