

OREGON



**WATER RESOURCES
DEPARTMENT**

Proposed Groundwater Allocation Rules Oregon Association of Water Utilities

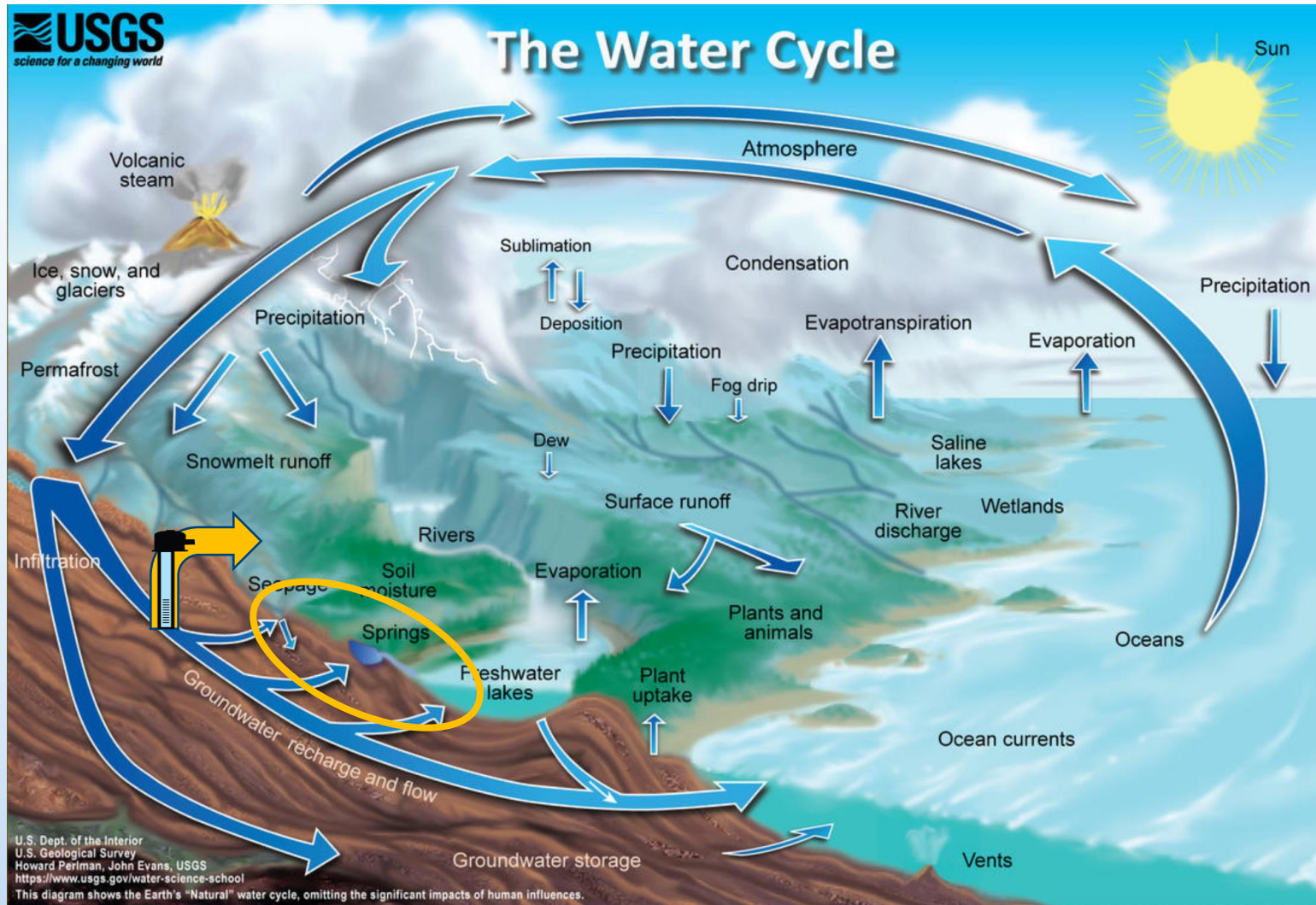
**Annette Liebe, Technical Services Division Administrator
Oregon Water Resources Department**

March 7, 2024



Groundwater Development Primer

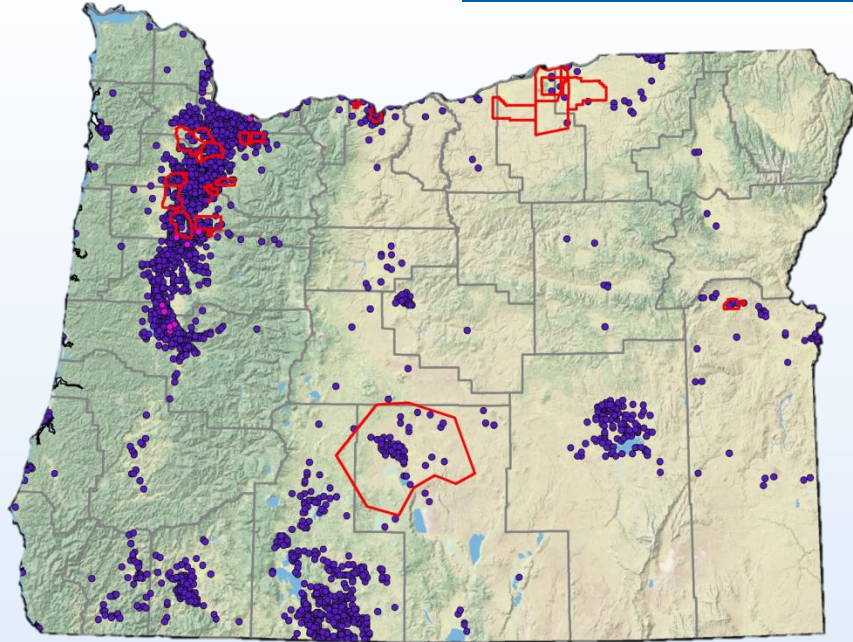
Key Groundwater Concept



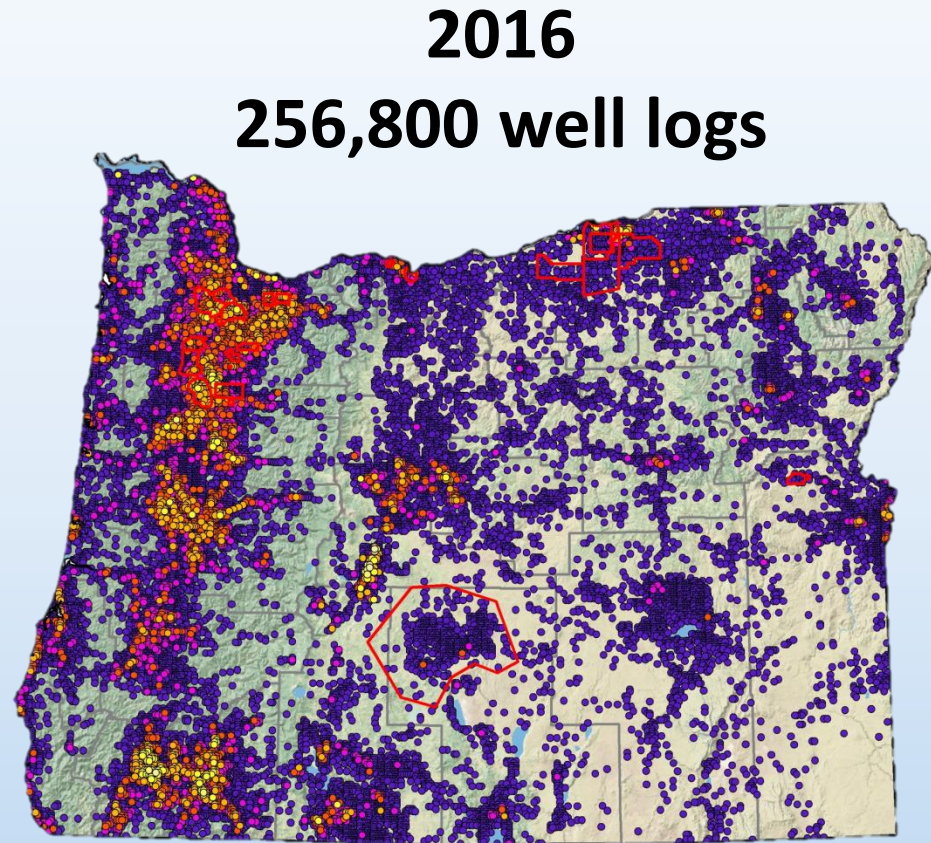
Key Groundwater Concept



Groundwater Development

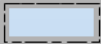
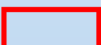


1955
4,660 well logs

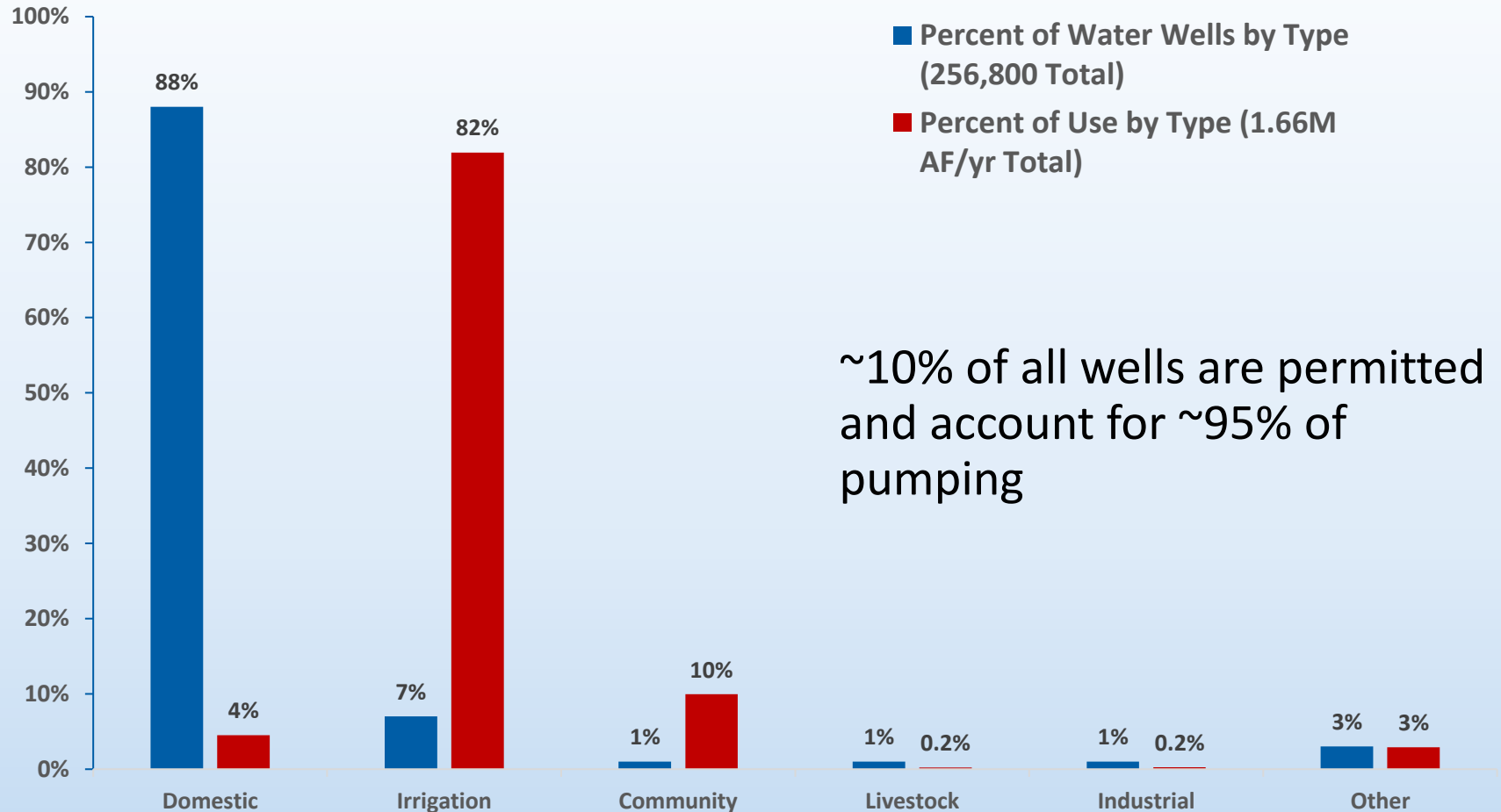


Density of Water Well Logs per 640 Acres

- 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

Wells in Oregon





Need for Rulemaking

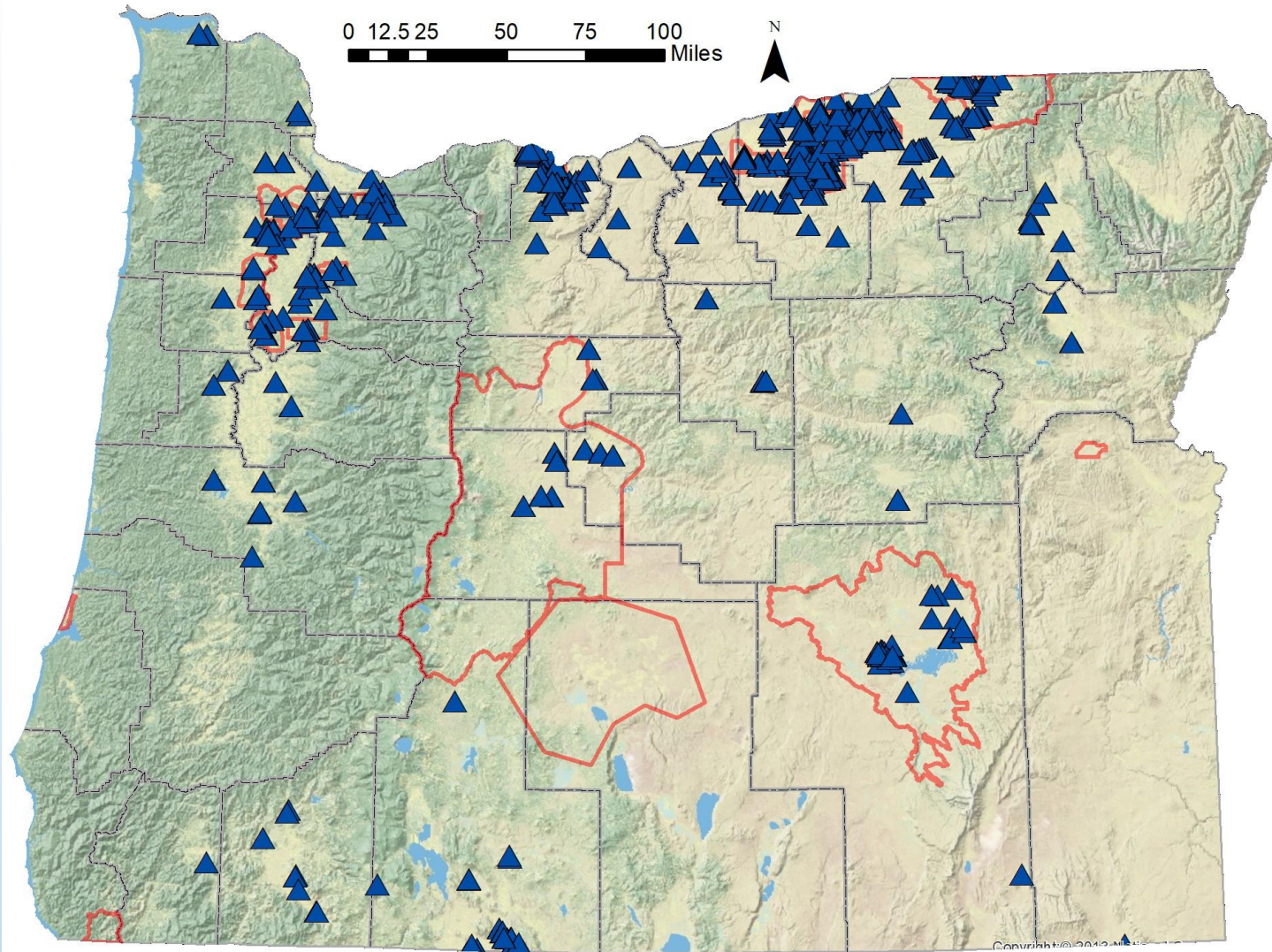
Impacts of Over-Allocation

- drying up of wells or increased pumping costs
- reduced streamflow
- deterioration of water quality
- curtailment of rights that people have invested in



Signs of Over-Allocation

Excessively
Declined
Water
Levels
(>50 ft
from
highest
known)

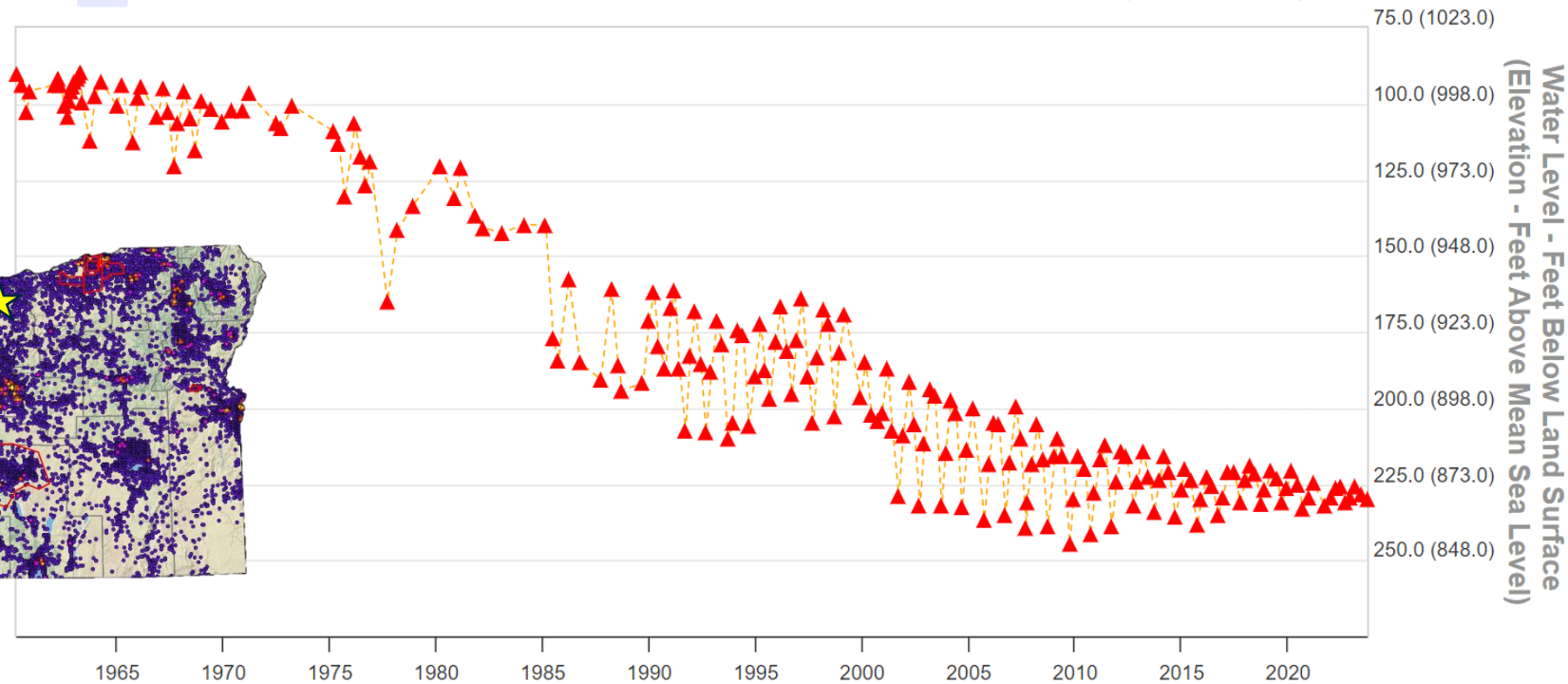


Over-Allocation: Excessively Declined Water Levels

Groundwater Levels for WASC 2672

Zoom All

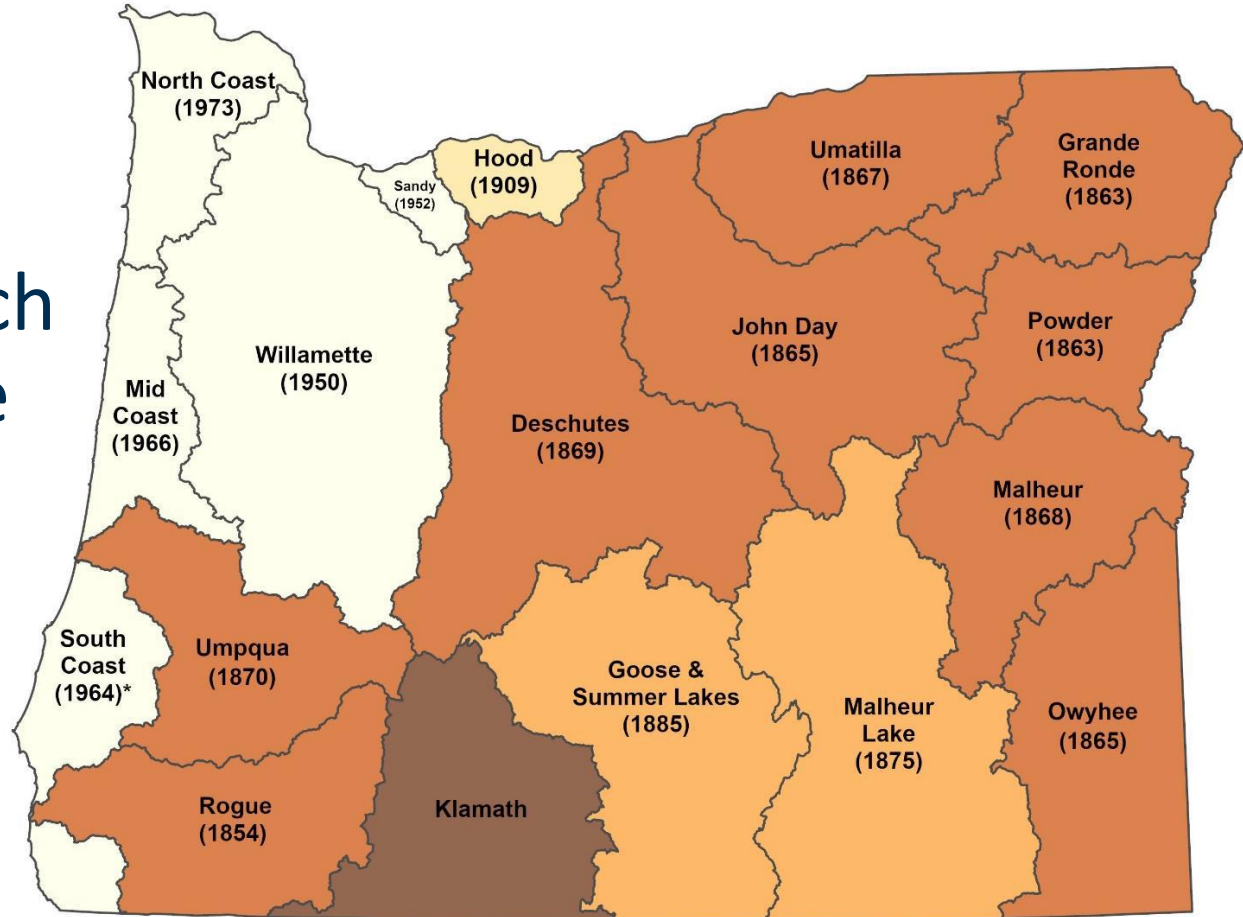
13 Apr 1960 → 19 Sep 2023



Development has led to 125 feet of water level decline over ~60 years in this area.

Signs of Over-Allocation

Surface Water Regulation
(earliest in each Administrative Basin)



Earliest Priority Date to Which Surface Water Rights Regulated (2018 - 2020)



Surface Water regulation by administrative basin

- 1854 - 1870
- 1871 - 1885
- 1886 - 1912
- 1913 - 1976

0 10 20 30 40 50 Miles
Oregon Lambert Coordinate Reference System (EPSG #2992)

Map prepared by OWRD GIS (rh), 9/26/2022
(state_2022_SWregulationdatebyAdminBasin.aprx)

*Regulatory years fall outside standard years selected for this map.

DISCLAIMER

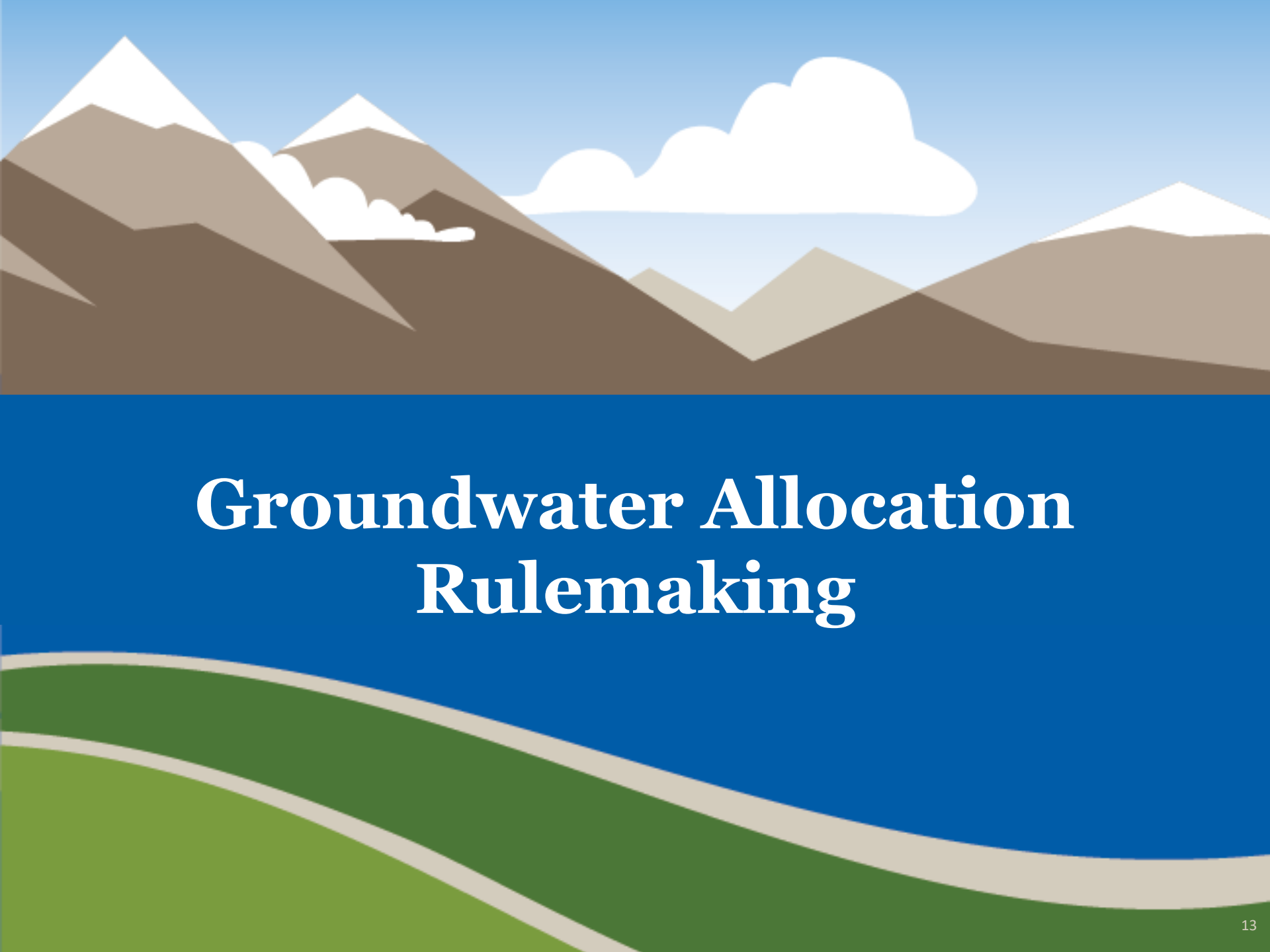
This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



Signs of Over-Allocation

Surface Water Availability in August





Groundwater Allocation Rulemaking

Allocation in Statute

ORS 537.621(2)(a), the “four-part test”:

- Use is allowed in the basin
- Water is available
- Existing rights will not be injured
- Meets additional Commission standards and rules

...and (2)(b) Other public interest criteria in statutory policy can be addressed as needed



Water is Available if...

Current Rules:

Requested source is available if not over-allocated:

- Allocate up to the full annual recharge volume
- Avoid short-term, acute impacts to surface water



Water is Available if...

Current Rules:

Requested source is available if not over-allocated:

- Allocate up to the full annual recharge volume
- Avoid short-term, acute impacts to surface water

Proposed Rules:

Requested source is available only if:

- Water levels are Reasonably Stable
- Hydraulically connected surface water is available for further appropriation

GW Allocation Rulemaking

Extensive Public Involvement:

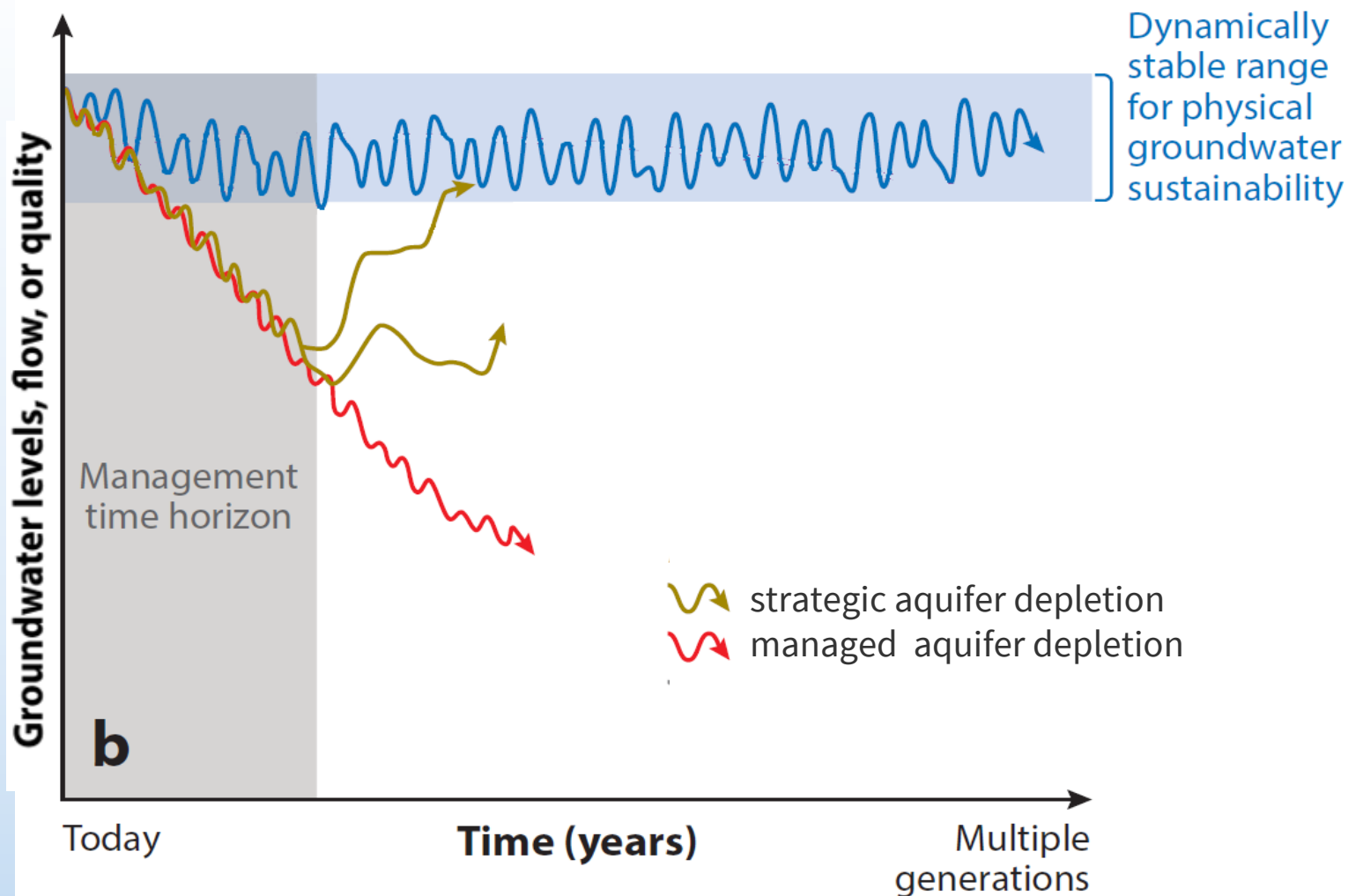
- Commission agenda items – since December 2021
- GWAC engagement - 7 meetings since March 2022
- Public outreach – 5 meetings in Fall 2022
- RAC meetings – 8 meetings since April 2023
- RAC technical information sessions – 2 meetings in January 2024
- Additional outreach and meetings as requested

All rulemaking information and public meeting recordings are available on the Department's website.

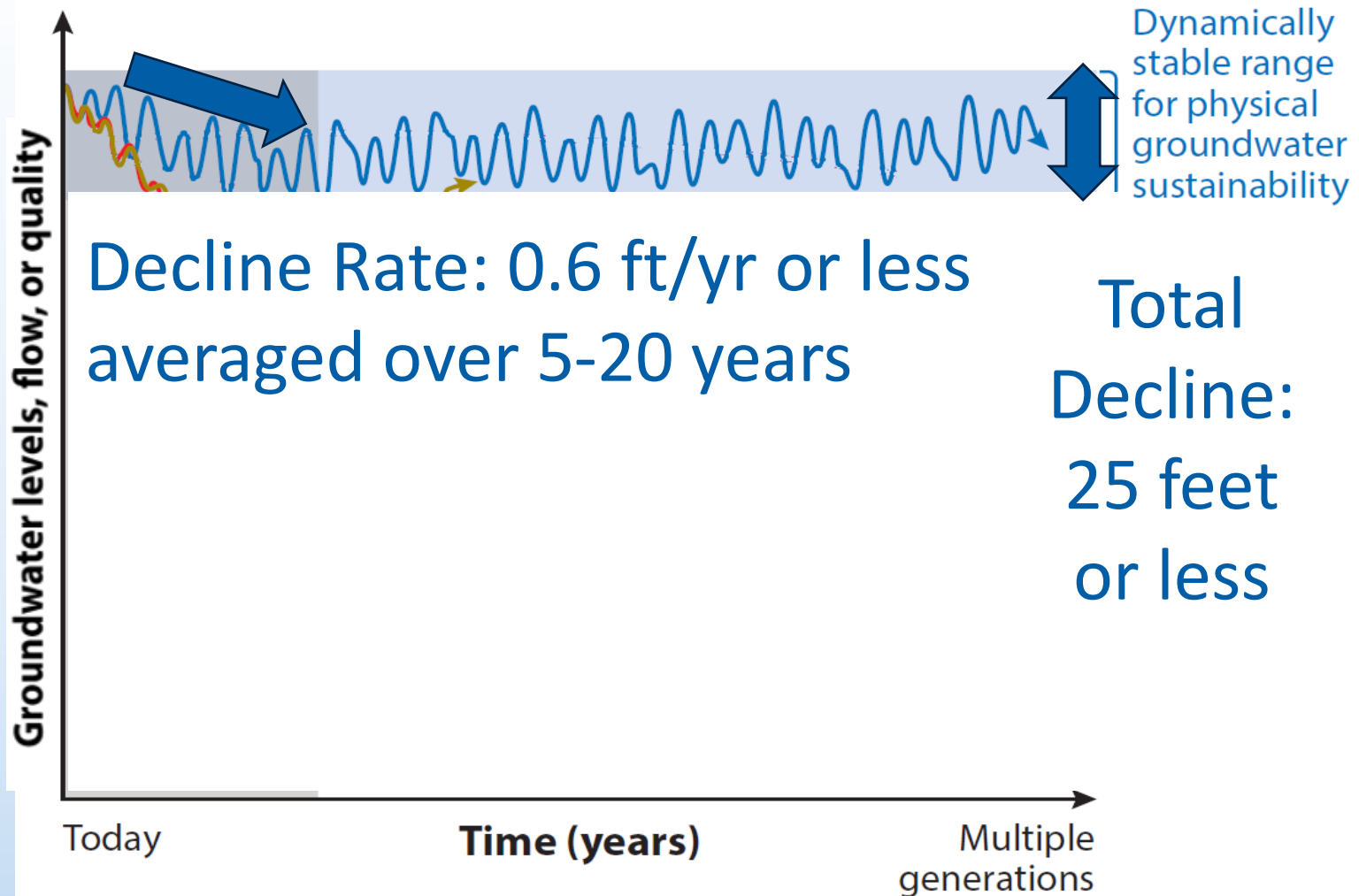


**Key Issue 1:
Defining “Reasonably Stable
Water Level”**

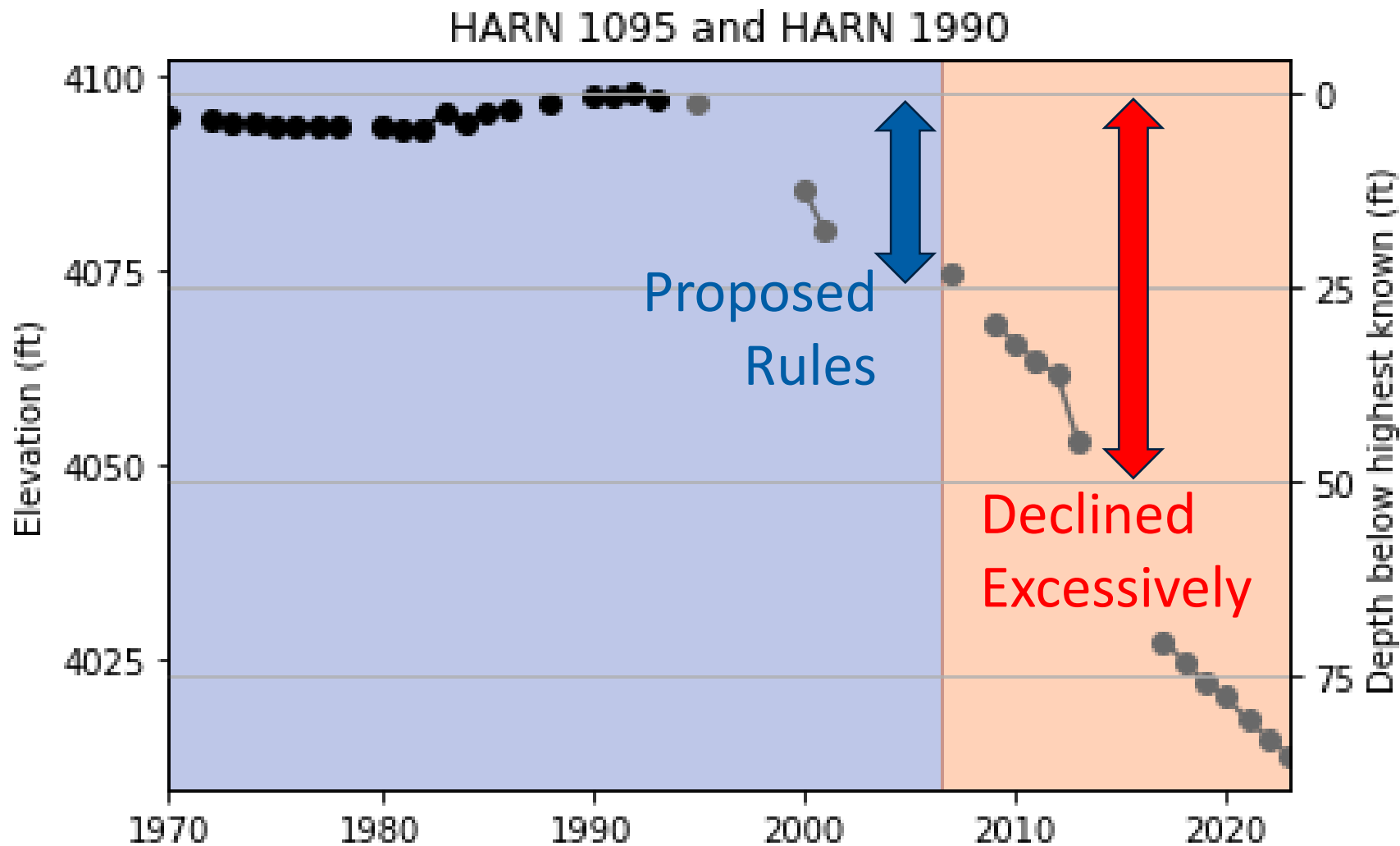
Reasonably Stable Water Levels Science-Based Framework



Reasonably Stable Water Levels Data-Driven Threshold Definitions



Reasonably Stable Water Levels Harney Basin Example



Impacts of Not Maintaining Reasonably Stable Water Levels

Domestic Dry Wells:

- 1,225 dry well complaints since July 2021
- Average cost to deepen a well is \$26,500
- \$8M+ spent to date from County, State, and Federal sources; and additional demand exists

State-Wide Risk (all water wells):

- Up to 15,000 wells may go dry given a water level drop of 25 feet
- Up to 55,000 wells may go dry given a water level drop of 50 feet

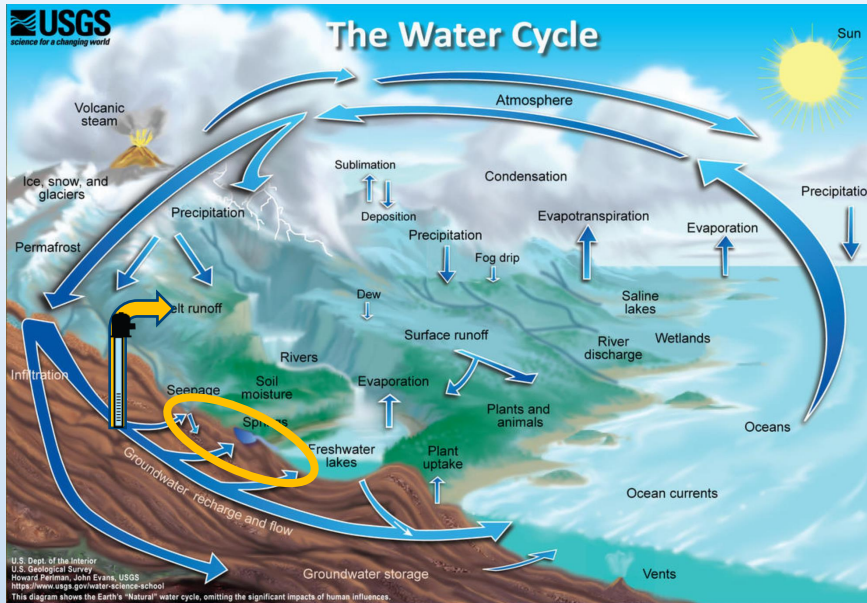


**Key Issue 2:
Redefining “Potential for
Substantial Interference” (PSI)
with Surface Water**

The Source of Water to Wells

“All water [pumped] by wells is balanced by a loss of water somewhere.”

- C.V. Theis, 1940: The Source of Water Derived From Wells



Streamflow in August comes from Groundwater



Sprague River Example



A stylized landscape illustration. The top half features a blue sky with white, fluffy clouds and brown mountains with white snow-capped peaks. The middle section is a solid blue horizontal band. The bottom half shows rolling green hills with light beige outlines. The word "Implications" is centered in the blue band in a white, serif font.

Implications

Meeting Future Needs

Existing Options:

- Conservation
- Aquifer Storage/Recharge
- Water Re-use
- Transfers

Potential New/Future Opportunities:

- Market based approaches
- Mitigation programs
- Outcomes from basin and regional planning

Benefits to Existing Users

Ensuring reasonably stable water levels exist will limit:

- Drying of shallower wells
- Increasing pumping costs due to water level declines
- Deterioration of water quality
- Curtailment of rights that people have invested in

Ensuring tributary surface water is available will limit:

- Existing surface water users being curtailed
- Instream water rights not being met

Supports management of water according to the prior-appropriation doctrine



What's Next



- Public Comment Period

- Written Comments accepted – March 1, 2024 – May 31, 2024

- Multiple public hearings held around state

- Bend - April 4, 2024
- LaGrande – April 18, 2024
- Central Point – May 16, 2024
- Salem (including online option) – May 21, 2024

Information Only Session Time: 5:30 p.m. to 6:30 p.m.

Hearing Time: 7:00 p.m. to 9:00 p.m.

- Presentation to Water Resources Commission for adoption

- September 2024

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