

OREGON



WATER RESOURCES  
DEPARTMENT

# Groundwater Allocation Process Rulemaking

Oregon Water Resources Department  
Rules Advisory Committee Meeting #8

January 23, 2024



# Welcome & Introductions

# Meeting Agenda

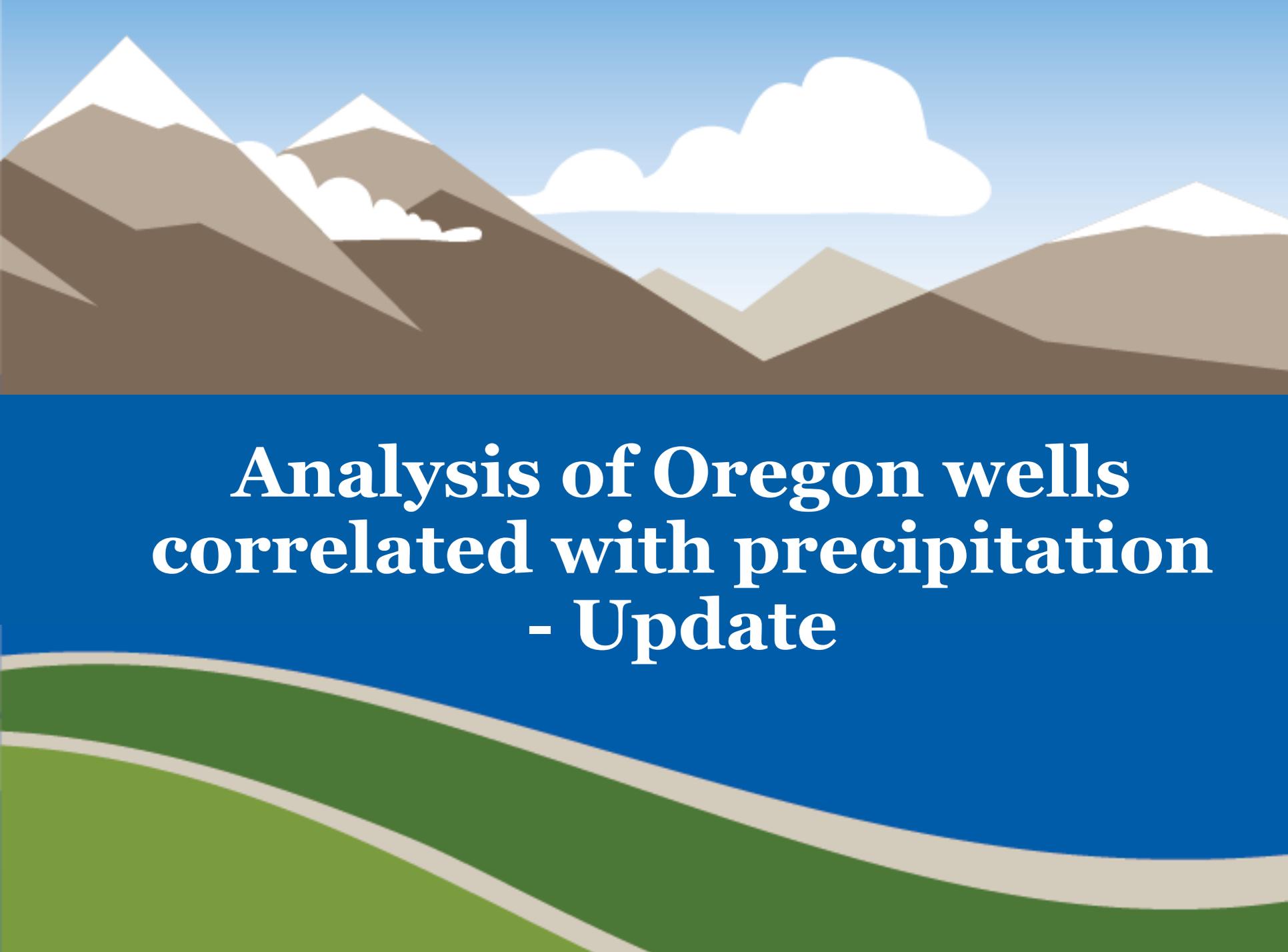
Schedule	Topic	Lead/Presenter
8:30 am	Welcome & Introductions	Annette Liebe
	RAC Meeting 7 – Draft Summary	Travis Brown
8:45 am	Analysis of Oregon wells correlated with precipitation (January 8/9 Technical Info Sessions) - Update	Ben Scandella
9:00 am	Susceptibility of Oregon wells to being dried by declining water levels (DRAFT Memo) - Discussion	Ben Scandella
9:15 am	Revised Proposed Rule Language (Division 8, 9, 300, 410)	Justin Iverson
10:00 am	Break (as needed)	
10:15 am	Statements of Need, Racial Equity Impacts, Fiscal & Economic Impacts - Discussion	Laura Hartt
11:15 am	RAC Roundtable – Discussion	Annette Liebe
11:30 am	Public Comment	Laura Hartt
By noon	Schedule/ Wrap-Up	Laura Hartt

The background features a stylized landscape. The top portion shows brown mountains with white snow-capped peaks and white, fluffy clouds against a light blue sky. The middle section is a solid dark blue band. The bottom portion consists of rolling green hills with light tan outlines.

# RAC 7 Meeting Summary

# RAC 7 Meeting Summary

*Any questions, comments, corrections?*



**Analysis of Oregon wells  
correlated with precipitation  
- Update**

# Process

- Draft 12/11/2023 sent to USGS and RAC
- Presented in RAC 7 on December 14, 2023
- Technical Info Sessions on Jan 8-9, 2024
- Received
  - Peer-review from USGS
  - Over 40 questions and comments from RAC
- Integrated feedback from USGS peer-review and RAC into 1/16/2024 memo

# Comments & Responses

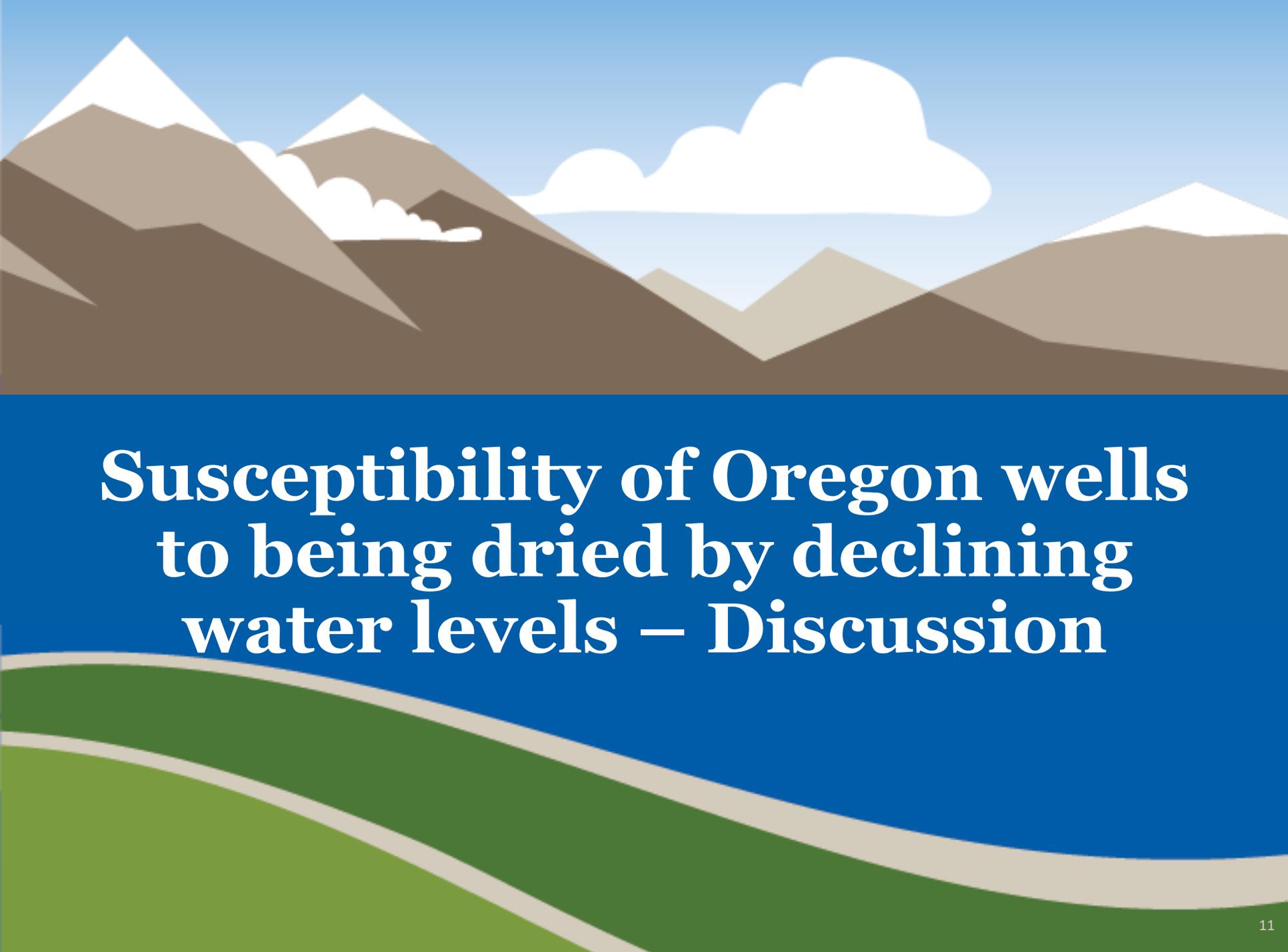
Comments	Responses
Concern that the sample set includes anthropogenic influence	Clarify that the sample should represent stable variations, not just natural ones
Concern about excluding wells by detrending before correlating with precipitation	Correlate with precipitation before detrending
Detrending may exclude water level trends that could be stable over longer periods	<ul style="list-style-type: none"> <li>- Added sensitivity analysis</li> <li>- Explained value of detrending</li> </ul>
Limit type II errors (classify unstable as stable) in addition to type I (classify stable as unstable)	Continue to exclude trends not apparently stable by detrending water levels before analysis

# Comments & Responses

Comments	Responses
Justify 0.5 ft/yr max rate of decline	Explained
Limited duration of precipitation averaging	Extended averaging from 10 to 50 years
Extend the minimum data span from 10 to 16 years	Extended to 13 years based on updated sensitivity
Detrend both declining and rising water levels	Implemented
Explain why detrending with least squares	Switch to Theil-Sen slope

# Updated Analysis

- Sample size grew:
  - Wells: 236 → 357
  - Clusters: 106 → 160
- 90<sup>th</sup> percentile values over period of record
  - magnitude of decline = 25 feet
  - rate of decline = 0.6 feet per year



# **Susceptibility of Oregon wells to being dried by declining water levels – Discussion**

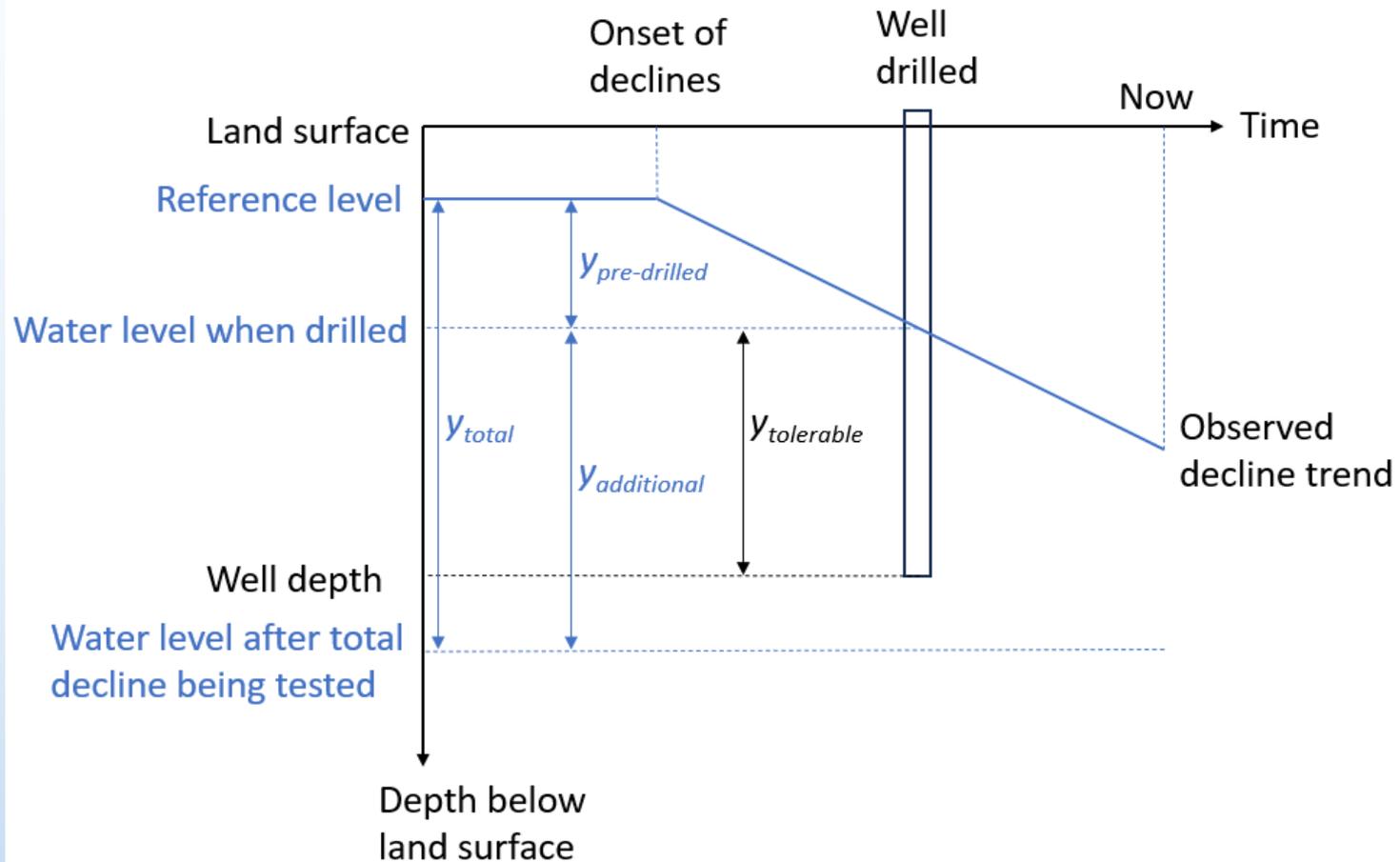
# Objectives

- Estimate susceptibility of wells to going dry following hypothetical declines of different magnitudes
- Align the analysis to the extent possible with the proposed definition of Reasonably Stable Groundwater Levels
- Acknowledge limited ability to predict actual declines

# Method Summary

- Test whether wells would go dry following different amounts of decline, considering well depth below water level
- Declines relative to highest known, considering declines before drilling
- Neglect seasonal declines
- Account for deepenings and abandonments given limitations of available data
- Scale up percentages of wells dried among wells with sufficient data using total well counts

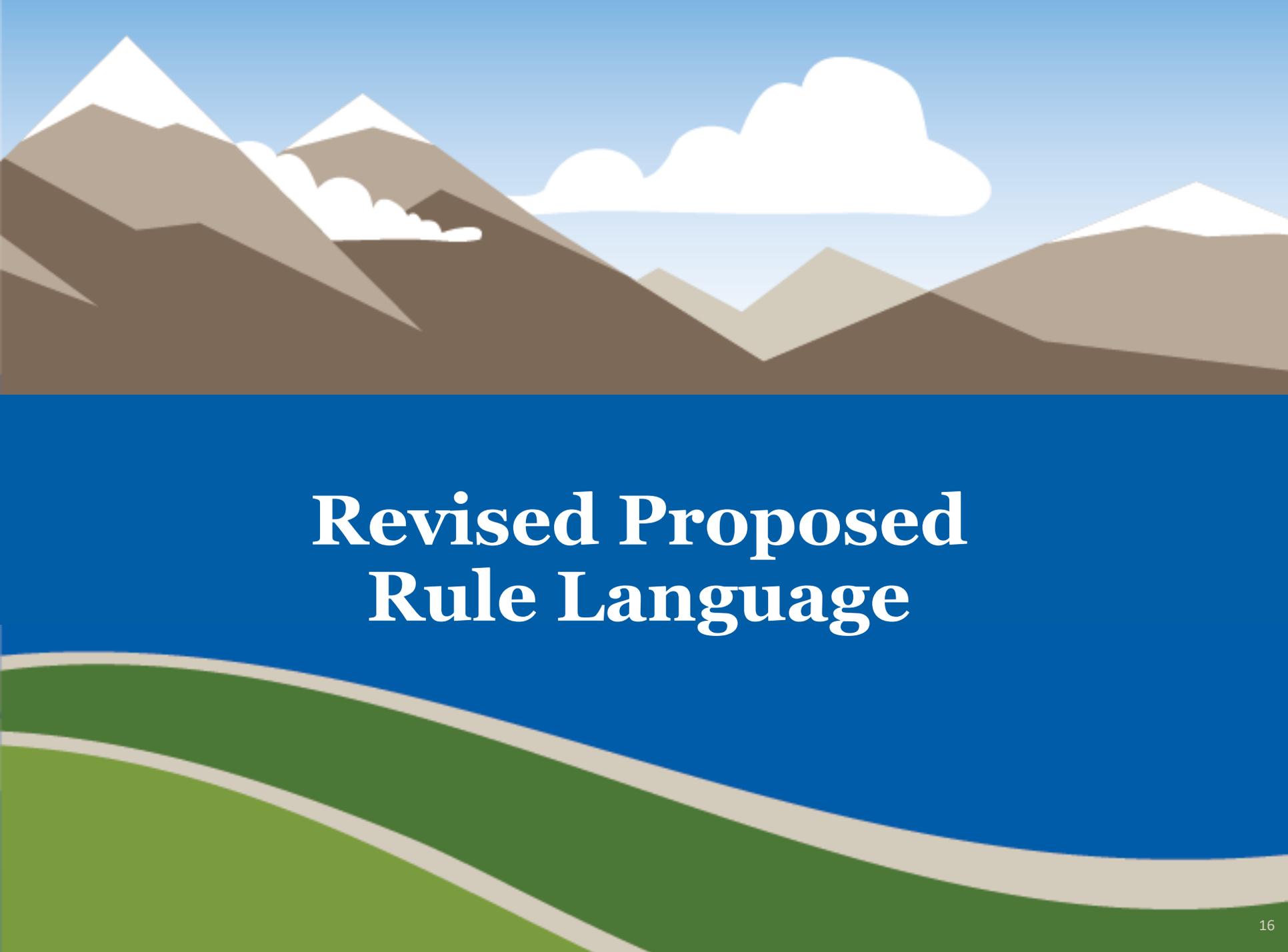
# Dry Well Method Schematic



# Results

Total decline (feet)	Number of domestic wells	Number of water wells (all)
25	12,000	15,000
50	47,000	55,000

- Approximately 1,600 additional wells dried per additional foot of decline

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# Revised Proposed Rule Language

# Divisions 9, 300, 410

No changes since RAC meeting 6 to Division 9, 300, or 410

- ***Any questions, comments, concerns?***

# OAR 690-008-0001(1) Annual High Water Level

(1) “Annual High Water Level” ~~in a groundwater reservoir or part thereof~~ means the highest elevation (shallowest depth) static groundwater level that exists **in a groundwater reservoir or part thereof** in a year. ~~In the absence of detailed analysis, the annual high water level may be assumed to be represented by the highest water level measured during the period from January through April. For some purposes and in some cases the annual high may be estimated using measurements made during other parts of the year.~~

## OAR 690-008-0001(9) Reasonably Stable Groundwater Levels

- (9) “Reasonably Stable Groundwater Levels” means:
- (a) The Annual High Water Levels as measured at one or more representative wells in a ground water reservoir or part thereof:
    - (A) indicates no decline or an average rate of decline of less than 0.65 feet per year over any immediately preceding averaging period with duration between 5 and 20 years. Four Annual High Water Levels are required to calculate the rate of change, and at least one of these must have been measured between 5 and 20 years before the year under evaluation. If either of these conditions is not met, then data are insufficient to perform this test, and the Department will presume that water levels are not reasonably stable; and

## OAR 690-008-0001(9) Reasonably Stable Groundwater Levels

(9) “Reasonably Stable Groundwater Levels” means:

(a) The Annual High Water Levels as measured at one or more representative wells in a ground water reservoir or part thereof:

(B) ~~compared with the highest known pre-development static water level, have not declined, or have declined by less than the smaller of 25 feet, and 8% of the greatest known saturated thickness of the ground water reservoir~~ compared with a reference level. The reference level shall be the highest known water level unless Annual High Water Levels have been measurably increased by anthropogenically-enhanced recharge, in which case the Department may set a different reference level using best available information.



**Break**





**Statements of Need,  
Racial Equity Impacts, and  
Fiscal & Economic Impacts -  
Discussion**

# Statement of Need

## **Statement of the Need (ORS 183.335(2)(b)(C))**

- Need for proposed rule
- How proposed rule is intended to meet need

## Key Components

- Statutory Authority & Directives
  - Manage groundwater sustainably
  - Preserve public welfare, safety, health
- Existing Rules Inadequate for Addressing
  - Groundwater level declines
  - Protecting existing uses
- New Rules
  - Add/clarify existing definitions
  - Best available science

# Statement of Racial Equity Impacts

## Statement of Racial Equity Impacts (ORS 183.335(2)(b)(F))

- Identifies how proposed rule will affect racial equity in Oregon

# Statement of Racial Equity Impacts

## Key Components

- RAC
  - Efforts to secure racially diverse RAC
  - RAC Input
- OWRD
  - Who is likely to be impacted by proposed rules?
  - How will proposed rules impact racial equity?

# Statement of Fiscal & Economic Impacts

## Statement of Fiscal Impact (ORS 183.335(2)(b)(E))

- Identifies state agencies, units of local government and the public that may be economically affected by proposed rule changes
- Estimates economic impact on those entities
- Uses available information to project significant economic effect of proposed rule changes on businesses, including cost of compliance effects on small businesses

## Small Business (ORS 183.310(10)(a))

- Corporation, partnership, sole proprietorship or other legal entity
- Formed for purpose of making a profit
- Independently owned and operated from all other businesses
- 50 or fewer employees.

## Cost of Compliance Effect on Small Business (ORS 183.336)

- Estimates number of small businesses subject to new rules
- Identifies types of businesses subject to new rules
- Briefly describes projected reporting, recordkeeping and other administrative activities required for compliance with new rules, including costs of professional services
- Identifies equipment, supplies, labor and increased administration required for compliance with new rules
- Describes how agency proposing rules involved small businesses in rule development
- Uses available information

# Statement of Fiscal & Economic Impacts

## Economic Impacts - Key Components

- Overview of economic value of water
- Benefits of acting to protect investment
- Costs of acting unpredictable due to unknowable intent of future applicants
- Costs of not acting (e.g. dry wells)

# Statement of Fiscal & Economic Impacts

## Cost of Compliance - Key Components

- Future costs for OWRD, other agencies, & local governments depend on future applications and available alternatives
- Some challenges for local governments to secure additional water supply to accommodate growth
- More certainty for local governments with existing water rights
- RAC input on impacts to well drillers

## Small Businesses - Key Components

- Includes examples subject to rules
- Some challenges for new and expanding businesses to secure water
- More certainty for existing businesses with existing water rights
- Reporting, recordkeeping, administrative costs not likely to change
- Professional services, equipment supplies, labor, etc. no likely to change
- RAC involvement

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# RAC Roundtable

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# Public Comment



# Schedule/Wrap-Up

# Schedule

## RAC Meetings #1-8

Input on Draft Rules; Input on Draft Statement of Need, Racial Equity Impacts, Economic & Fiscal Impacts  
**April 2023 - January 2024**

**Public Hearings**  
**April, May 2024**

**Review Public Comments**  
Revise Draft Rules as needed; Develop WRC Proposal  
**June/ July/ Aug 2024**

**Effective Date of Final Rule**  
**October 1, 2024**



**Notice of Proposed Rulemaking/  
Start of 90-day Public Comment Period**  
**March 1, 2024**

**Last Day of Public Comment Period**  
**June 1, 2024**

**WRC Decision on Proposed Rule Adoption**  
**September 12/13, 2024**

# Public Comments

## **Written Comments accepted**

March 1 – June 1, 2024

## **Informational Sessions (5:30-6:30 pm) & Public Hearings (7:00-9:00 pm)**

April 4, Bend

April 18, La Grande

May 16, Central Point

May 21, Salem (Hybrid)

# Wrap Up/Next Steps

**Email Rules Coordinator:** [laura.a.hartt@water.oregon.gov](mailto:laura.a.hartt@water.oregon.gov)

- Any additional input regarding today's draft rules, statements of Need, Racial Equity Impacts, and Economic & Fiscal Impacts, Technical Memos, and other meeting materials by **January 31, 2024.**
- Today's RAC meeting summary will be sent out separately at a later date.

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