

OREGON



WATER RESOURCES  
DEPARTMENT

# Groundwater Allocation Process Rulemaking

Oregon Water Resources Department

Rules Advisory Committee Meeting

April 19, 2023

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 section consists of rolling green hills with light beige outlines, suggesting a path or field.

# Welcome & Introductions

The background features a stylized landscape. The top portion shows a range of mountains in shades of brown and tan, with white snow-capped peaks. A large, white, fluffy cloud is positioned in the upper right. The middle section is a solid blue horizontal band. The bottom section consists of rolling green hills with light tan outlines, suggesting a valley or a path.

# Agenda Review & Meeting Guidelines

# Meeting Agenda

Schedule	Topic	Lead/Presenter
8:30 am	Welcome & Introductions; Agenda Review	Annette Liebe
	Agenda Review; Meeting Guidelines	Annette Liebe
	Rulemaking Process & Timeline; RAC Operating Guidelines	Laura Hartt
	Background and Rulemaking Objective	Justin Iverson
	Key Groundwater Concepts	Justin Iverson
	Current Allocation Process & Need for Updated Rules	Justin Iverson
	Break	
	Draft Rules - Overview <ul style="list-style-type: none"> <li>• Approach</li> <li>• Divisions 300, 400, 8, 410, 9</li> </ul>	Justin Iverson
	Divisions 300 & 400 Draft Rules - Review (time permitting)	Justin Iverson
	Break	
11:30 am	Public Comment	Laura Hartt
By noon	Wrap-up & Next Steps	Annette Liebe

# Please Remember To

- Treat others respectfully
- Remain “muted” when not speaking
- Use the “raise hand” feature to indicate you would like to speak
- RAC members: Please hold your questions/comments until the end of the presentation
- Other attendees: Please hold your questions/comments until the Public Comment Period



# Rulemaking Process & Timeline; RAC Operating Guidelines

# Overview of Rulemaking Process



Draft Rules & Statement of Need/Fiscal Impact



Rulemaking Advisory Committee (RAC)



Notice of Proposed Rulemaking



Public Comment Period & Hearing(s)



Staff Recommendation & Commission Decision

# Rulemaking Timeline





# RAC Operating Guidelines

## RAC Role

- Attend and participate in meetings
- Provide information/recommendations regarding draft rules and potential fiscal impacts

## OWRD Role

- Facilitate meetings
- Provide technical support and subject matter expertise
- Foster collaboration and consensus building



# Background



## **June 2021 – Groundwater Concerns Assessment**

- More than 70% of GW applications result in a permit
- Approx. 80% of applications in “Areas of Concern” receive permits
- The GW review cannot always determine whether the aquifer is over-appropriated given current definition (and policy around) that term

## **Dec 2021 & March 2022 – Commission Discussion**

- Protect existing users
- Apply the precautionary principle
- Make a positive finding that water is available

## **Oct 2022 – Groundwater Allocation Project Outreach Meetings Summary Report**

- Summarizes public input from Fall 2022 hybrid meetings

# Rulemaking Objective

Update groundwater allocation rules to be more sustainable and protective of existing water users, both instream and out-of-stream.



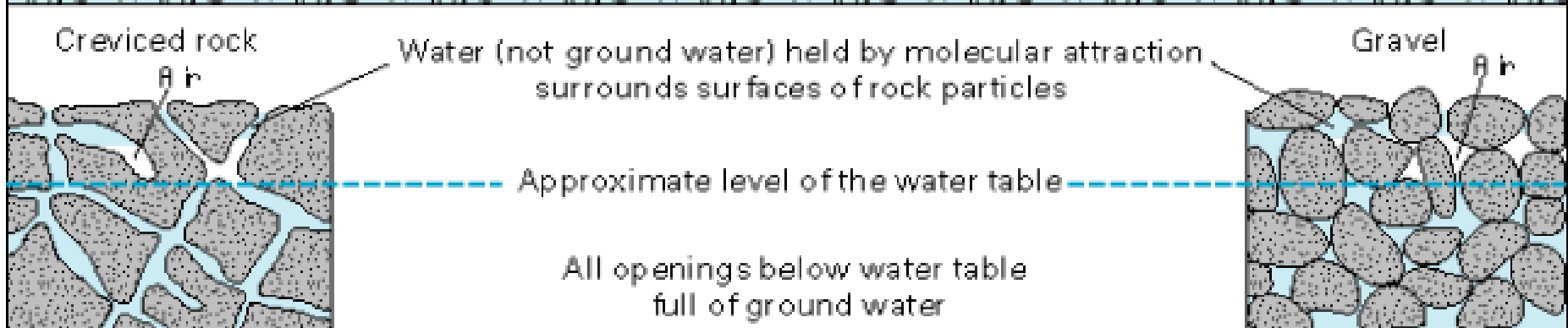
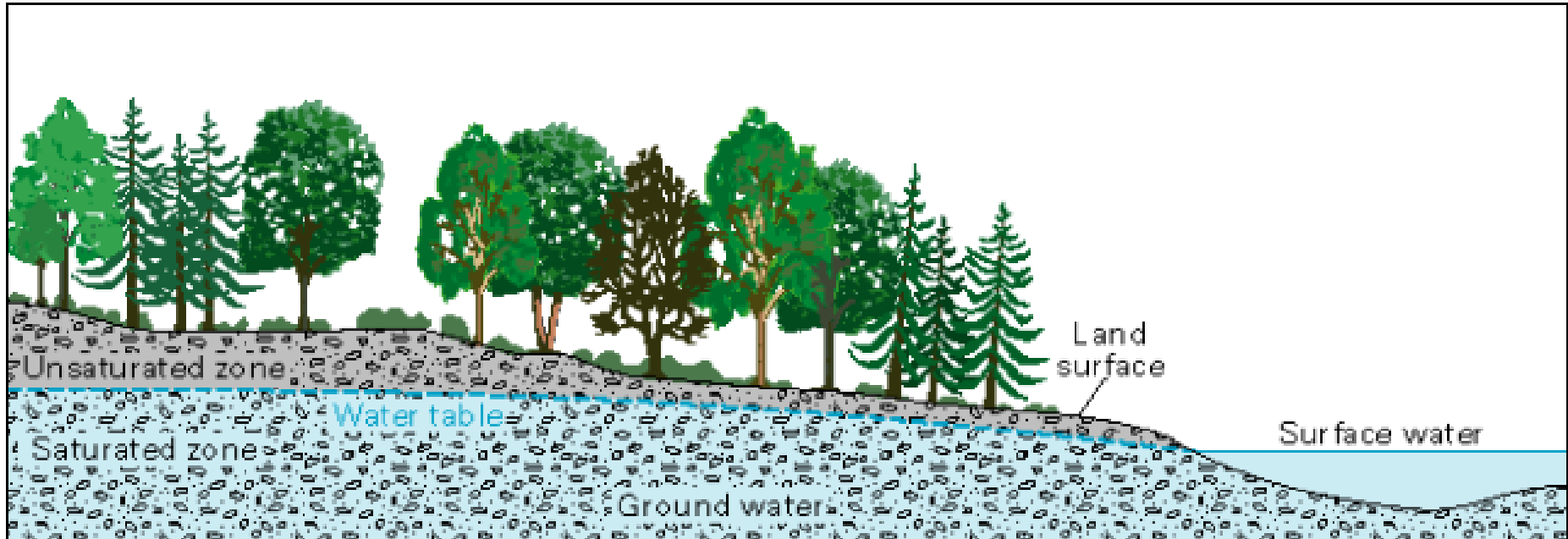
# Key Groundwater Concepts

# Key Concepts

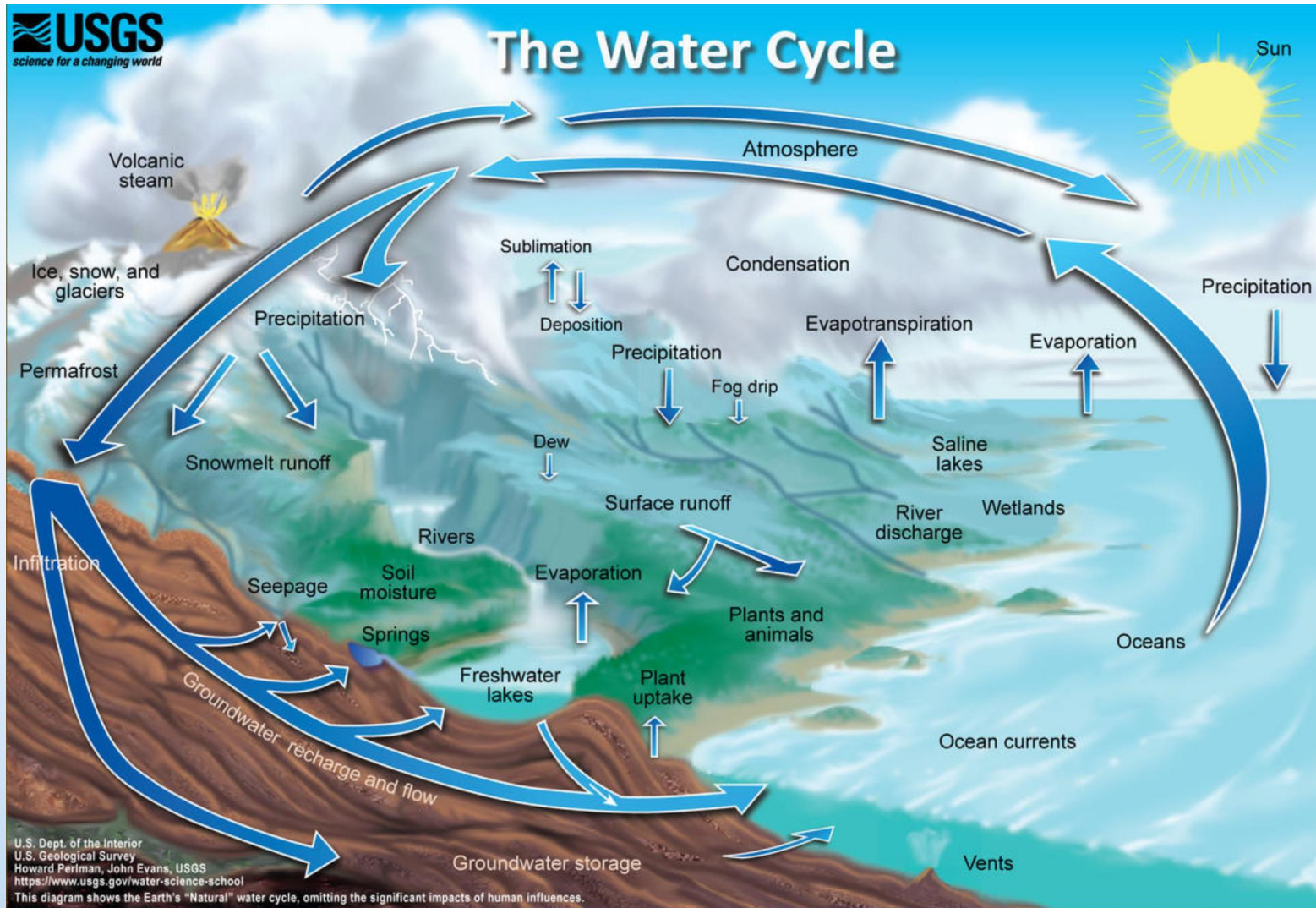
- Groundwater is a component of the water cycle
- The source of groundwater pumped from wells
  - storage
  - capture (streamflow depletion)



# What is Groundwater?



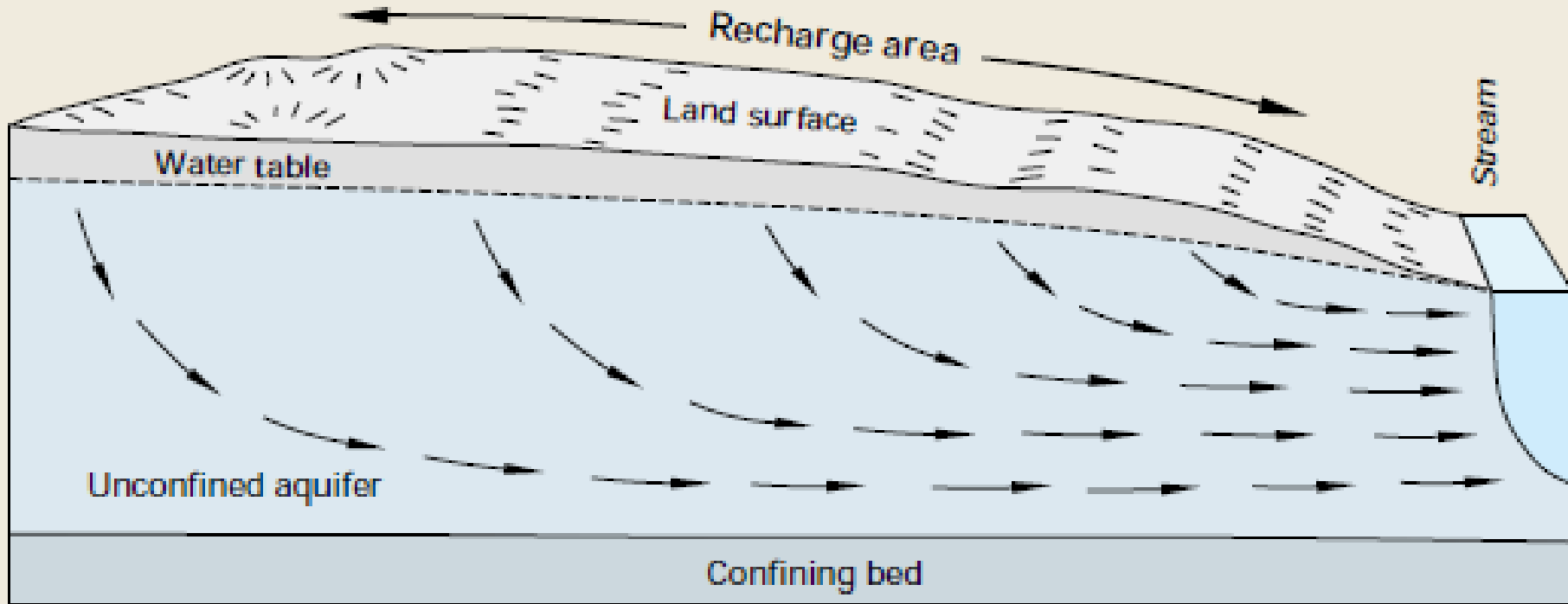
# Groundwater within Water Cycle





# Groundwater Flow to Surface Water

A

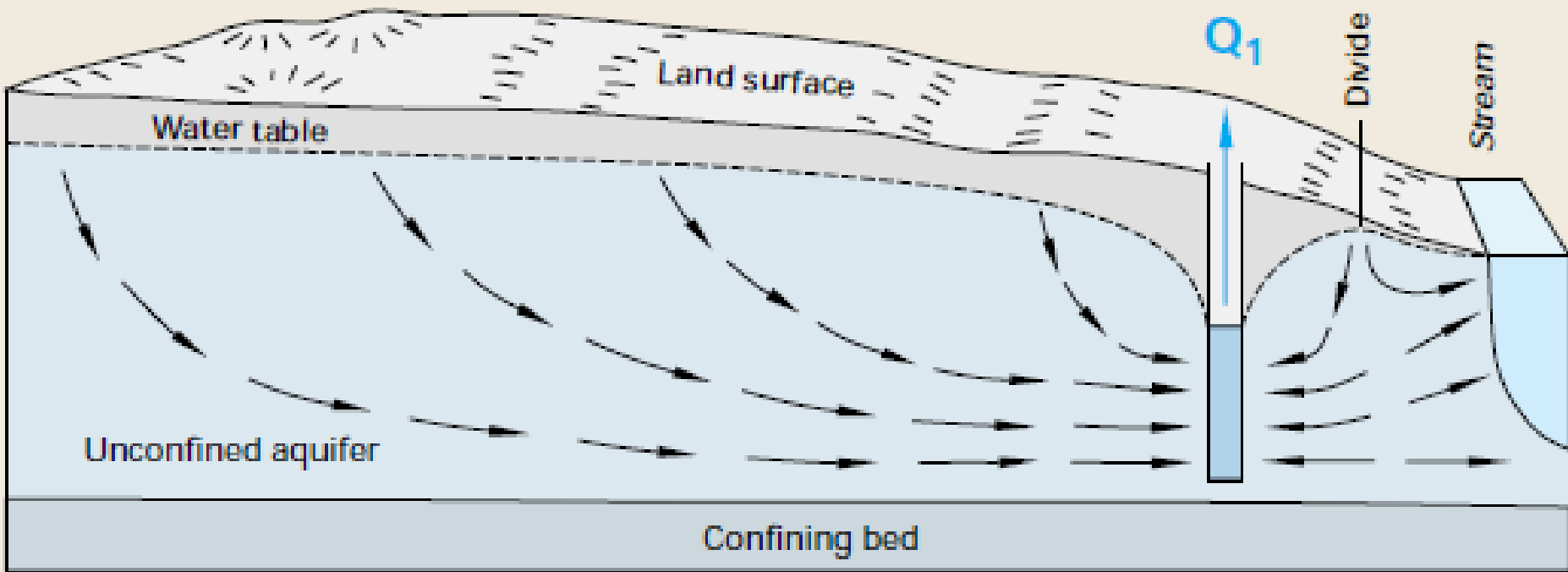


# Baseflow is Groundwater

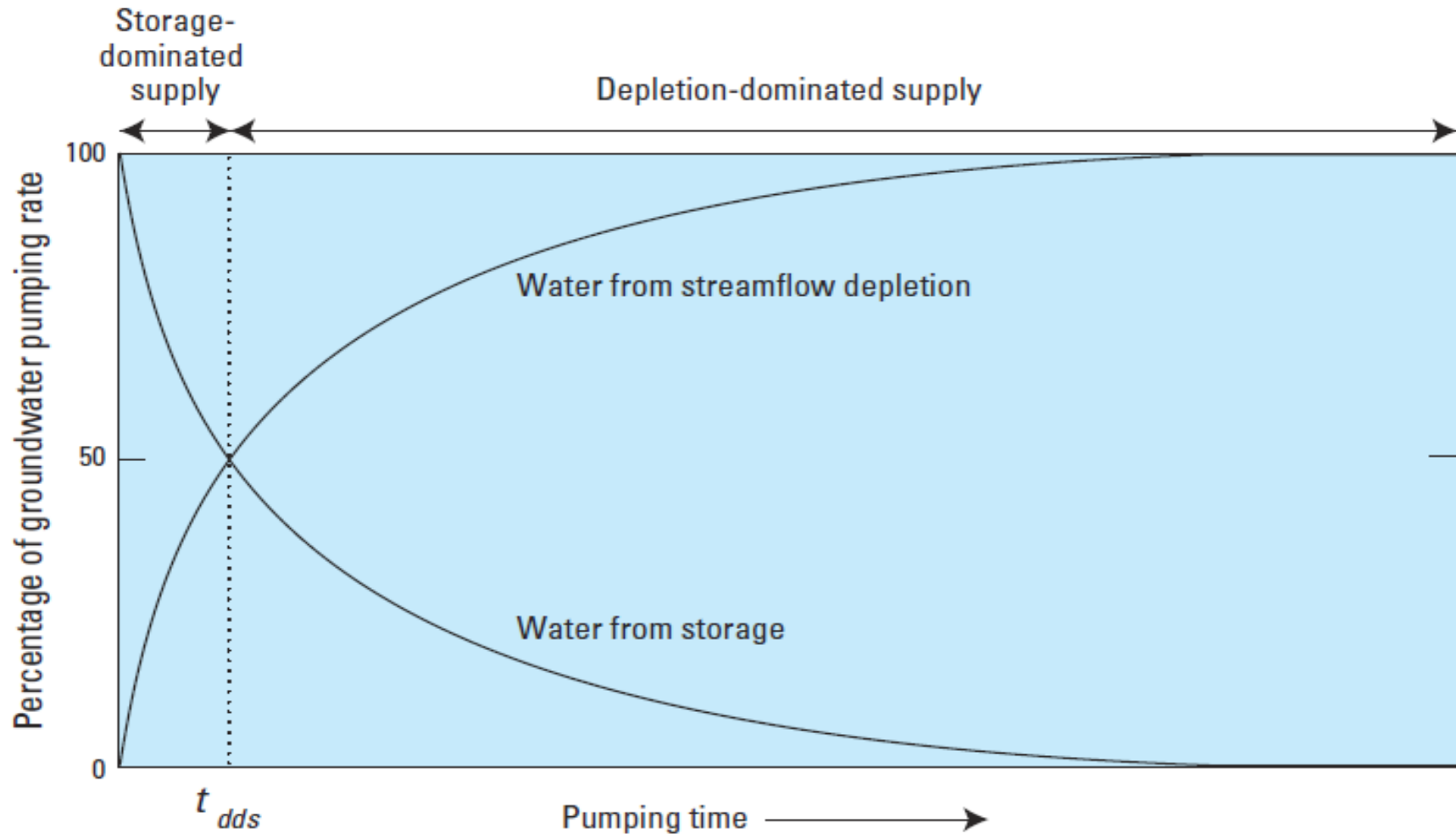


# Source of Groundwater From Wells

**B**



# Streamflow Depletion by Wells



# Source of Groundwater From Wells

“From the standpoint of groundwater conservation and statutory or other regulation, the following point should be emphasized: All water discharged by wells is balanced by a loss of water somewhere.”

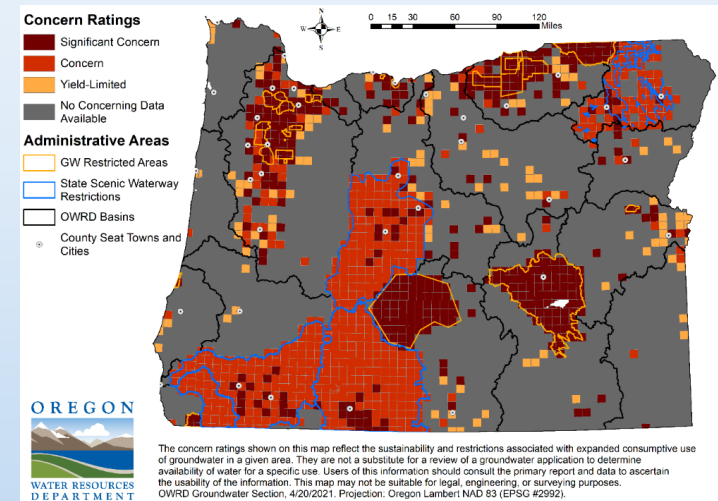
- C.V. Theis, 1940: The Source of Water Derived From Wells

# Current Status in Oregon

Groundwater allocation over the past 65+ years has contributed to:

- reduced surface water baseflow and
- groundwater level declines,

both at the expense of existing users.



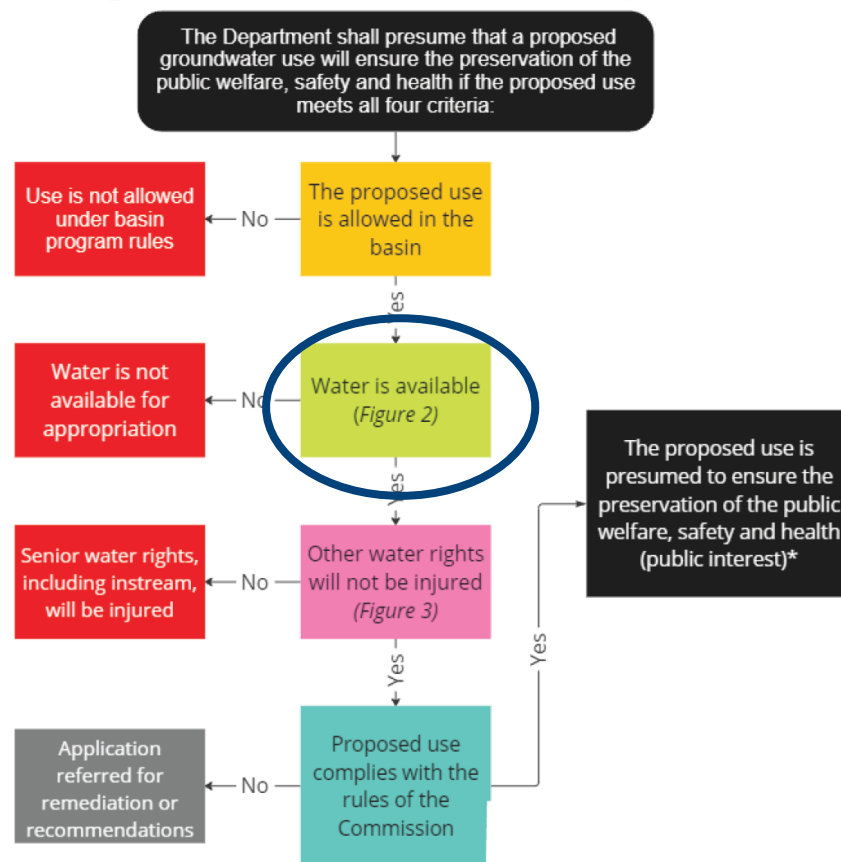


# Current Allocation Process & Need for Updated Rules

Proposed rule changes focus on the groundwater technical review process

- “Is water available?”

Figure 1. Public Interest Presumption



\*Permit may be conditioned based on basin program rules or other Commission standards and rules



# Is Water Available?

Division 300 defines “water is available” as:

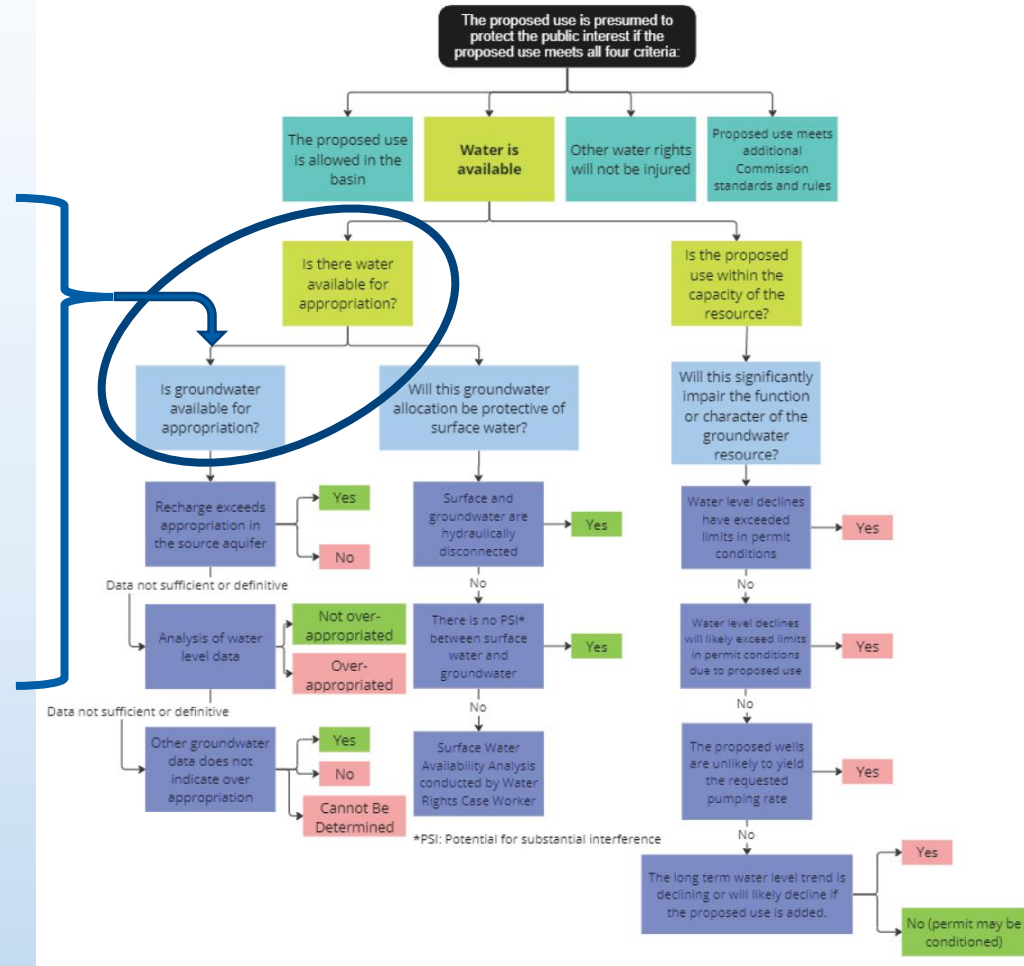
- Not Over-Appropriated
  - Groundwater Budget
  - Hydraulically Connected Surface Water
- Within the capacity of the resource

Figure 2. Water Availability



Division 400 (11)(a)(B)  
 “Over-Appropriated”  
 means condition of water  
 allocation in which:  
 (B) The appropriation of  
 groundwater resources by  
 all water rights exceeds the  
 average annual recharge to  
 a groundwater source over  
 the period of record or  
 results in the further  
 depletion of already over-  
 appropriated surface  
 waters.

Figure 2. Water Availability



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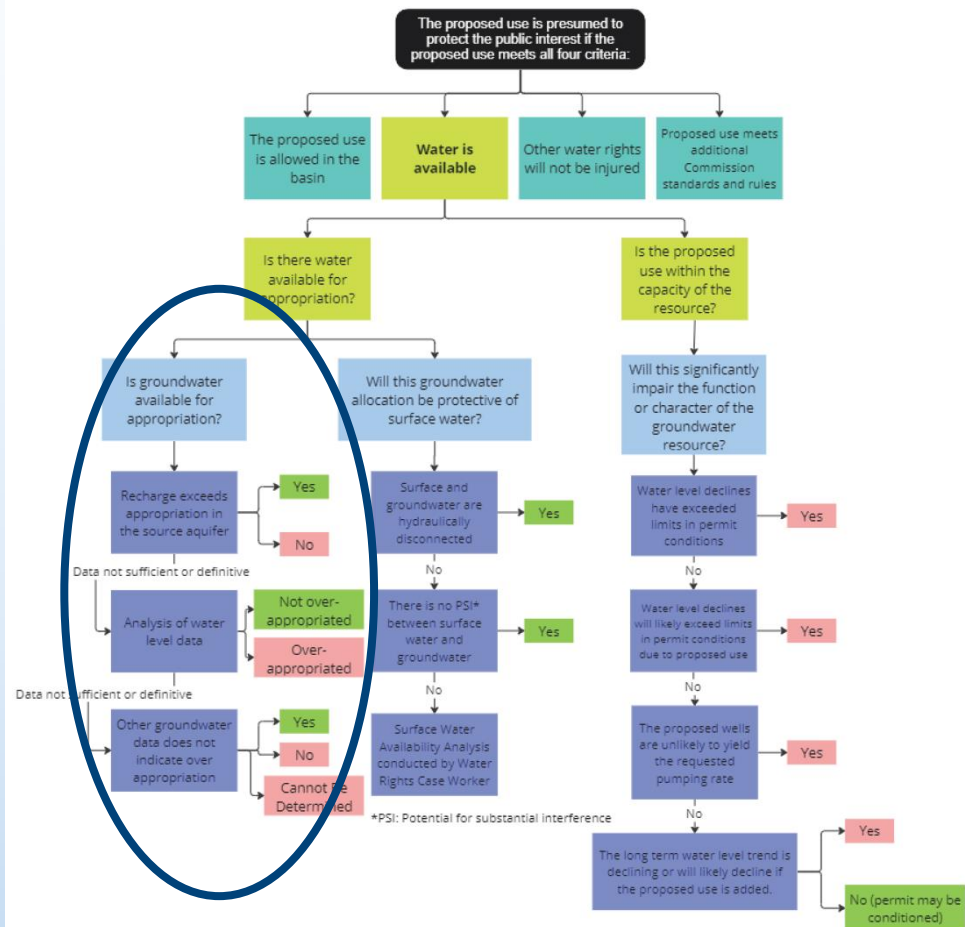
Figure 2. Water Availability



## Groundwater Over-Appropriation (Division 400)

- Recharge > appropriation?
- Water level data proxy for water budget assessment; declining excessively or excessively declined?
- Other data supporting over-appropriation finding?

Figure 2. Water Availability

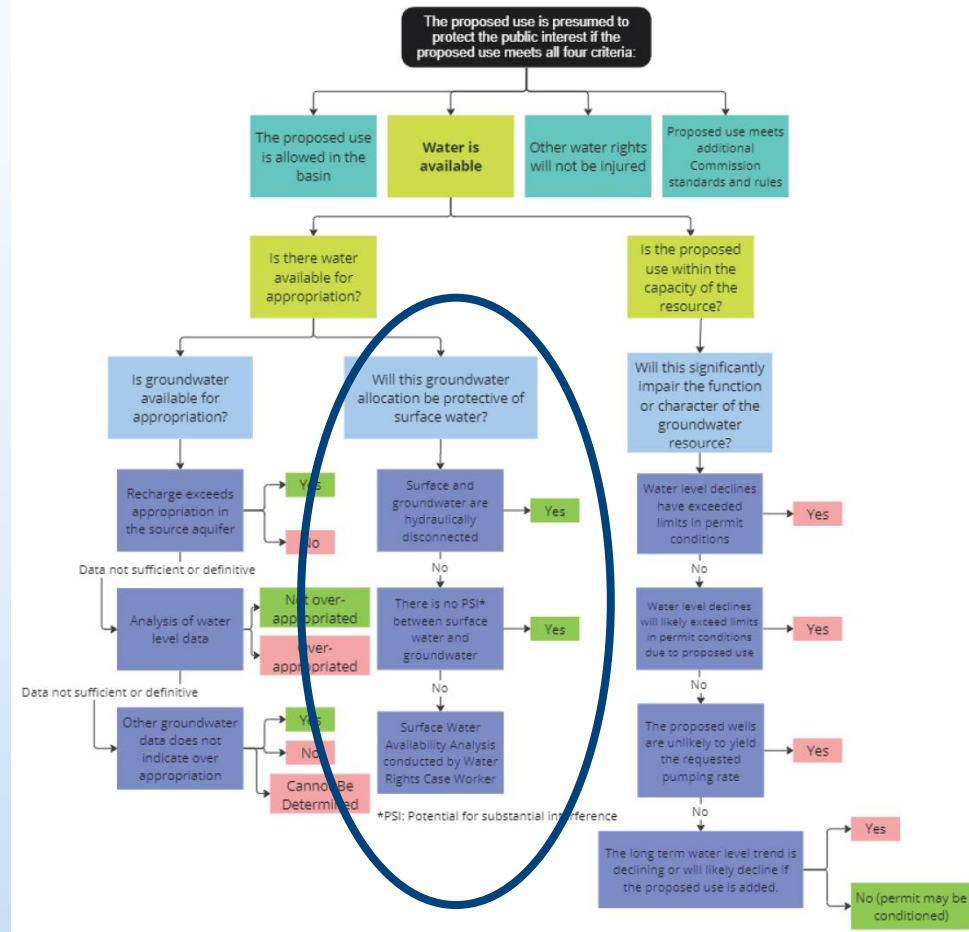


## Surface Water Over-Appropriation (Division 9)

### Potential for Substantial Interference (PSI) Assessment:

- Hydraulic Connection?
- Potential for Substantial Interference?
- Surface Water availability analysis

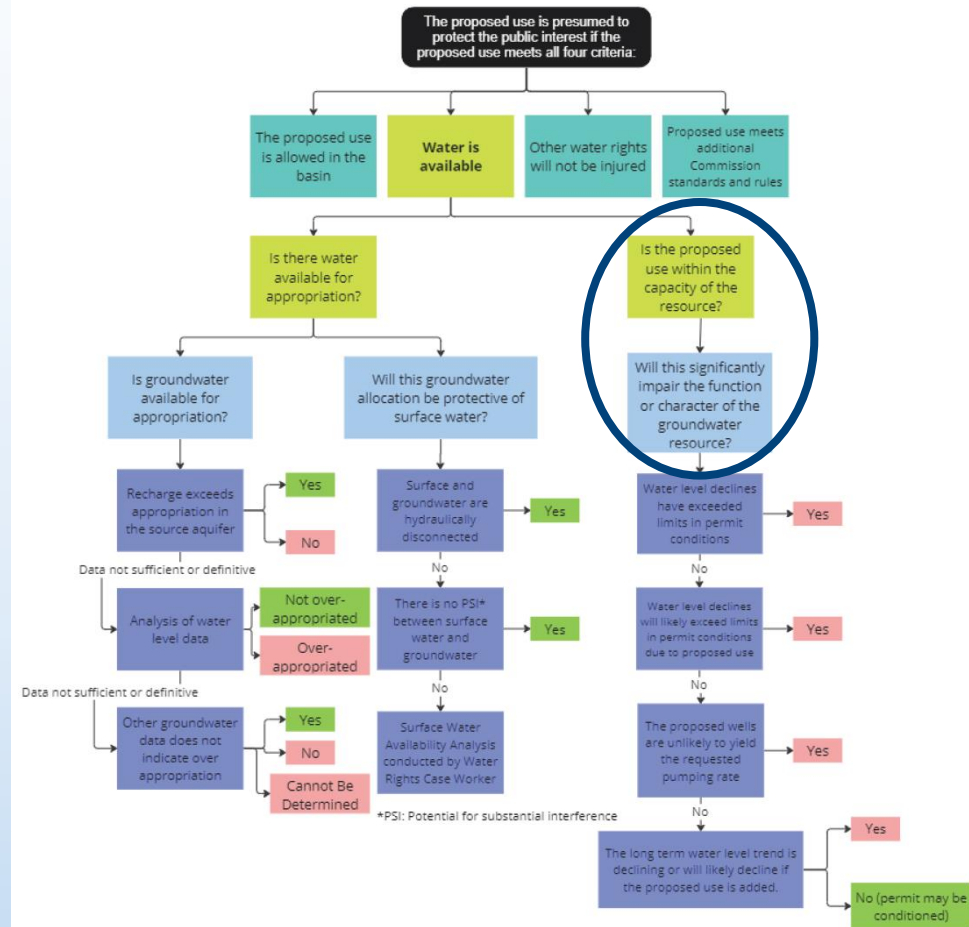
Figure 2. Water Availability



## Division 400 (4)

“Capacity of the Resource” means the ability of a surface water or groundwater resource to sustain a balance of public and private uses without causing over-appropriation or otherwise significantly impairing the function or character of the resource.

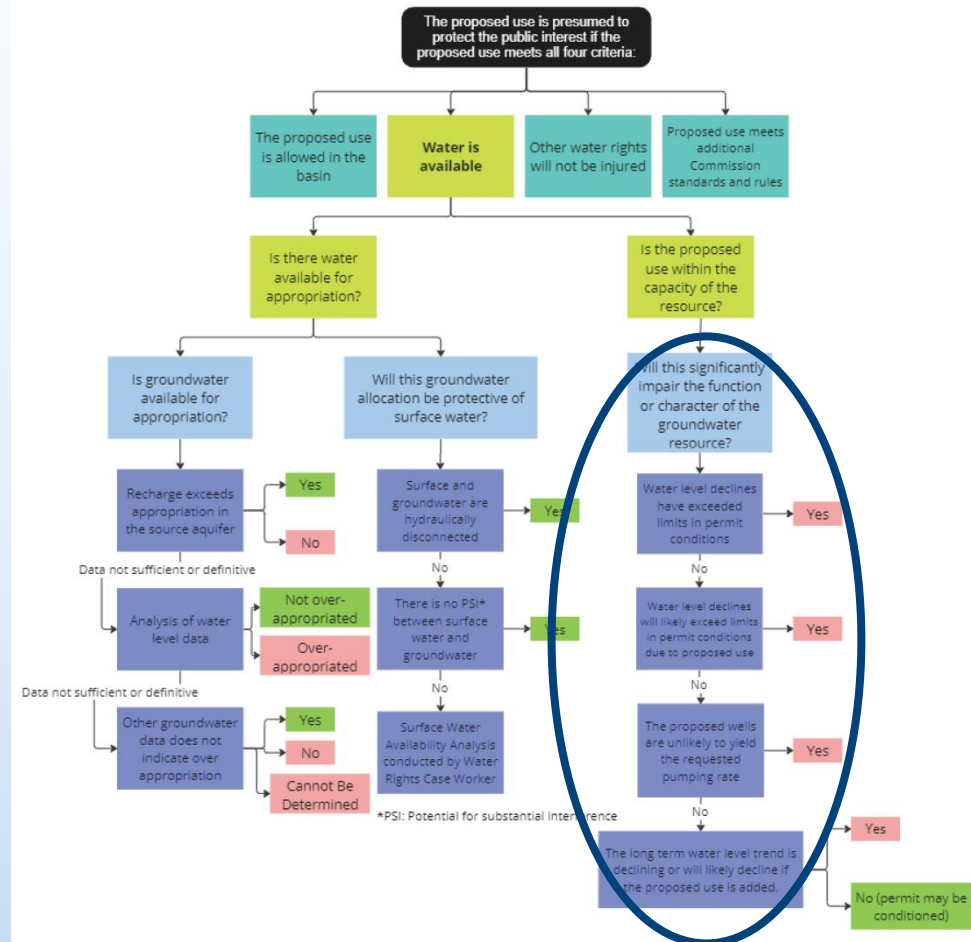
Figure 2. Water Availability



## Capacity of the Resource (Division 400(4))

- Permit Decline Conditions
- Expected aquifer yield sufficient for requested rate
- Long-term water level trends toward definition of excessive declines?

Figure 2. Water Availability



# Need for Updated Rules

## “Reasonably Stable Groundwater Levels”

- are not defined, therefore
- declined excessively is the default standard for assessing over-appropriation

## “Potential for Substantial Interference”

- provides limited protection to existing users and
- is not aligned with definition of over-appropriation







Break





# Draft Rules Overview

# Objective Reminder

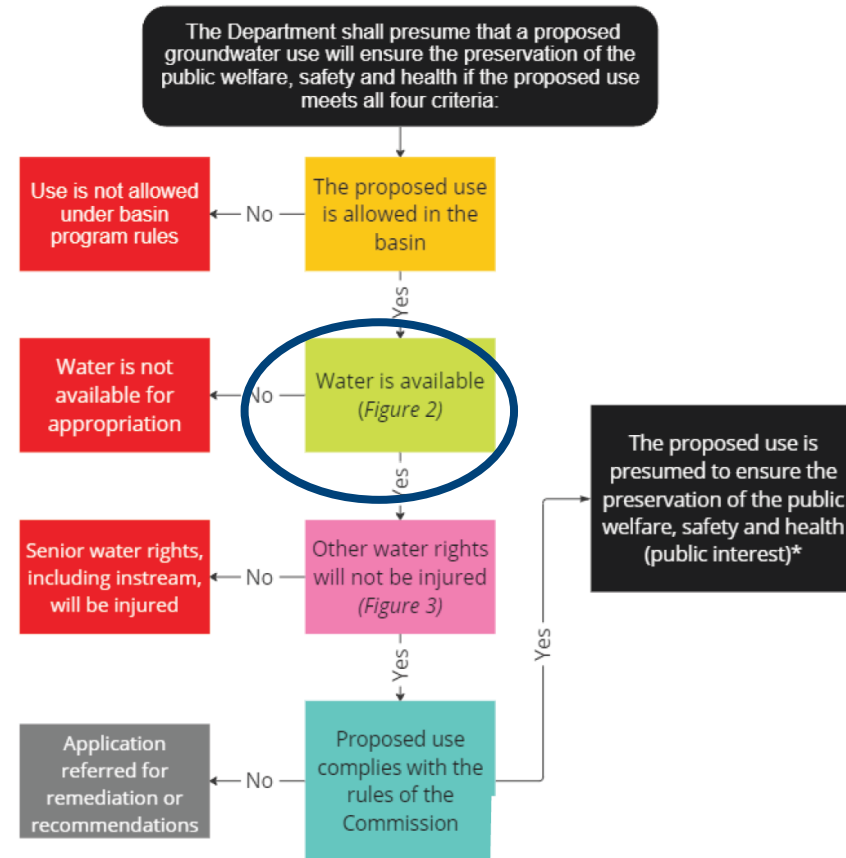
Update groundwater allocation rules to be more sustainable and protective of existing water right holders, both instream and out-of-stream.



# Rulewriting Framework

- Based in Law
- Based in Science
- Focused on groundwater allocation (availability) without affecting other rules
- Clear and concise language

Figure 1. Public Interest Presumption



\*Permit may be conditioned based on basin program rules or other Commission standards and rules

## ORS 537.621(2)

The four-part test:

- Basin program rules
- Water is available
- Will not injure
- Other rules

Positive finding that water is available

## ORS 537.780(2)

Determination that a groundwater use will

- Impair,
- Substantially Interfere, or
- Unduly Interfere

with a surface water source must be based on substantial evidence

## Storage & Capture

- “The Source of Water Derived from Wells” (Theis, 1940)

## Timing of water from storage & streamflow depletion (capture)

- “Streamflow Depletion by Wells” (Barlow & Leake, 2012)



## Define “Reasonably Stable Groundwater Levels”

- Address groundwater appropriation from storage

## Re-define “Potential for Substantial Interference” (PSI)

- Address groundwater appropriation from capture (or streamflow depletion)



# Additional Rulewriting Constraints

Retain as is

- Division 505 - Deschutes Basin Groundwater Mitigation Rules for impacts to scenic waterway flows and existing surface water rights
- Division 33 - Public interest with regard to sensitive, threatened, or endangered fish species





## General approach

- Be clear
- Edit surgically
- Edit at highest tier of dependent rules
- Remove redundancy where possible



# Reminder: Basis in Law

## ORS 537.621(2)

### The four-part test

- Basin program rules
- Water is available
- Will not injure
- Other rules

Positive finding that water is available

## ORS 537.780(2)

### Determination that a groundwater use will

- Impair,
- Substantially Interfere, or
- Unduly Interfere

with a surface water source must be based on substantial evidence

ORS 537.621: Review of an application for a permit to acquire a new water right

↳ Division 300 - definitions of water right application processing rules

↳ Division 400 - definitions of statewide water resource management rules

↳ Division 8 - definitions of statutory groundwater terms

## ORS 537.621: Four-part test includes “water is available”

- ↳ Division 300 – defines water is available as not over appropriated and within capacity
- ↳ Division 400 - definitions over-appropriated and within capacity
- ↳ Division 8 – defines statutory groundwater terms in over-approp. and capacity of the resource, among others

## ORS 537.780: Powers of the Commission

- ↳ Division 410 - Statewide water resource management
- ↳ Division 9 - Groundwater interference with surface water

## ORS 537.780: Powers of the Commission

- ↳ Division 410 – Reiterates gw allocation requires a positive finding water is available
- ↳ Division 9 – Aligns assessment of potential for substantial interference with definition of over-appropriation and prior appropriation doctrine



Break





# Division 300 Draft Rules - Review



# Division 300 Overview

<b><i>Rule</i></b>	<b>Revision Overview</b>
<b><i>690-300-0010(57)</i></b>  <b><i>Water is Available</i></b>	<ul style="list-style-type: none"><li>• Set existing definitions (a) - (c) for surface water only.</li><li>• New (d) defining groundwater as<ul style="list-style-type: none"><li>○ is not over appropriated and</li><li>○ is available w/in capacity of the resource.</li></ul></li><li>• Both defined in Division 400.</li></ul>

## 690-300-0010(57) Definitions

The following definitions apply in OAR chapter 690, divisions 15, 310, 320, 330, 340, and 350 and to any permits, certificates or transfers issued under these rules:

(57) "Water is Available," when used in OAR 690-310-0080, 690-310-0110 and 690-310-0130, means:

- (a) The requested surface water source is not over-appropriated under OAR 690-400-0010 and 690-410-0070 during any period of the proposed use; or
- (b) If the requested surface water source is already over-appropriated for any portion of the period of use proposed in a new application:
  - (A) The applicant can show the proposed use requires surface water only during the period of time in which the requested source is not already over-appropriated;
  - (B) The applicant has obtained or has shown the applicant can obtain authorization to use water from an alternate source to provide water needed during any period of use in which the source is over-appropriated; or
  - (C) If the applicant has shown they can obtain authorization to use water from an alternate source during the time water is unavailable, the department conditions the approval of the application to require that prior to diversion of water the applicant obtains authorization for use of water from the alternate source.

## 690-300-0010(57) Definitions (cont.)

(57) "Water is Available," when used in OAR 690-310-0080, 690-310-0110 and 690-310-0130, means:

- (c) For surface water applications received before July 17, 1992, the provisions of subsection (a) of this section shall apply except that the determination of whether a requested source is over-appropriated under OAR 690-400-0010 and 690-410-0070 shall be based upon whether the quantity of water available during a specified period is not sufficient to meet the expected demands for all water rights at least 50 percent of the time during that period.
- (d) The requested groundwater source:
  - (A) is not currently over-appropriated under OAR 690-400-0010, and
  - (B) is available within the capacity of the resource under OAR 690-400-0010.

The background features a stylized landscape. The top portion shows a range of mountains in shades of brown and tan, with white snow-capped peaks. A large, white, fluffy cloud is positioned in the upper right. Below the mountains is a solid blue horizontal band. At the bottom, there are rolling green hills with light tan outlines, suggesting a valley or a path.

# Division 400 Draft Rules - Review

# Division 400 Overview

<i>Rule</i>	<i>Revision Overview</i>
<b>400-0010(4)</b>  <i>Capacity of the Resource</i>	Align with Division 410 definition of over-appropriation (“contributes to” as opposed to “causes”).
<b>400-0010(4)(a-c)</b>  <i>Function or Character</i>	New supporting definitions for components of capacity of the resource, based on criteria in 537.525(9).

## 690-400-0010(4) Definitions

As used in the rules contained in divisions 400 and 410, unless the context requires otherwise:

- (4) “Capacity of the Resource” means the ability of a surface water or groundwater resource to sustain a balance of public and private uses without **causing contributing to** over-appropriation **as defined in OAR 690-400-0010** or otherwise significantly impairing the function or character of the resource, **which occurs when any of the following conditions, as defined in OAR 690-008-0001, exist or impend:**
- (a) **Groundwater levels are not reasonably stable; or,**
  - (b) **Substantial or undue interference exists among wells; or,**
  - (c) **The groundwater resource is overdrawn.**

# Division 400 Overview (cont.)

<b>Rule</b>	<b>Revision Overview</b>
<b><i>400-0010(11)(b)</i></b>  <b><i>Over-Appropriation (Capture)</i></b>	Links surface water interference to Impairment, Substantial Interference, or Undue Interference standards in Divisions 8 and 9.
<b><i>400-0010(11)(c)</i></b>  <b><i>Over-Appropriation (Storage)</i></b>	Replaces water budget standard with reasonably stable water level standard defined in Division 8.

# 690-400-0010(11) Definitions

As used in the rules contained in divisions 400 and 410, unless the context requires otherwise:

(11)(a) “Over-Appropriated” means a condition of water allocation in which:

- (Aa) The quantity of surface water available during a specified period is not sufficient to meet the expected demands from all water rights at least 80 percent of the time during that period; or
- ~~(Bb) The appropriation of groundwater resources by all water rights exceeds the average annual recharge to a groundwater source over the period of record or results in the further depletion of~~ A groundwater source is hydraulically connected to an already over-appropriated surface water source as per the definition in OAR 690-009-0020; or
- (c) Groundwater levels are not reasonably stable as defined in OAR 690-008-0001.
- ~~(b)~~d) The standards for determining over-appropriation described in paragraph (Aa) of this subsection shall apply to water availability determination for permit applications submitted after July 17, 1992.





# Public Comment

The background features a stylized landscape. The top portion shows a blue sky with white, fluffy clouds and several mountain peaks. The mountains are rendered in shades of brown and tan, with white snow-capped tops. Below the mountains is a solid blue horizontal band. At the bottom of the slide, there are rolling green hills with light tan outlines, suggesting a valley or a path.

# 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 by April 26, 2023
- Suggestions on how to improve meeting logistics

## Next RAC Meeting

- **When:** May 10, 2023, from 8:30 am - noon
- **Where:** Rogue Conference Room, 3<sup>rd</sup> Floor, OWRD, Salem & via Zoom
- **What:** Division 400, Division 8

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