

OREGON



WATER RESOURCES  
DEPARTMENT

# 2023 Integrated Water Resources Strategy (IWRS)

Board of Agriculture

August 16, 2023

Crystal Grinnell, IWRS Specialist

## Agenda

- IWRS Introduction
- Project Timeline
- Outreach & Engagement
- IWRS Content
- Questions & Discussion



## Water Management in Oregon...

- 18 state agencies
- 10 federal agencies
- 9 sovereign tribes
- Local governments
- Utilities



# IWRS Introduction

- Oregon's House Bill 3369 (2009)
- Oregon Revised Statute 536.220
- Oregon Water Resources Department leads development
- Include state & federal agencies, tribes, stakeholders, public

7th OREGON LEGISLATIVE ASSEMBLY-2009 Regular Session

Enrolled  
House Bill 3369

Sponsored by Representatives JENSON, J SMITH; Representatives BOONE, CANNON, CLEM, D EDWARDS, SCHAUFLEER, G SMITH, WITT, Senator MORRISSETTE

**instream and out-of-stream  
...quality, quantity & ecosystem needs  
...today and in the future**

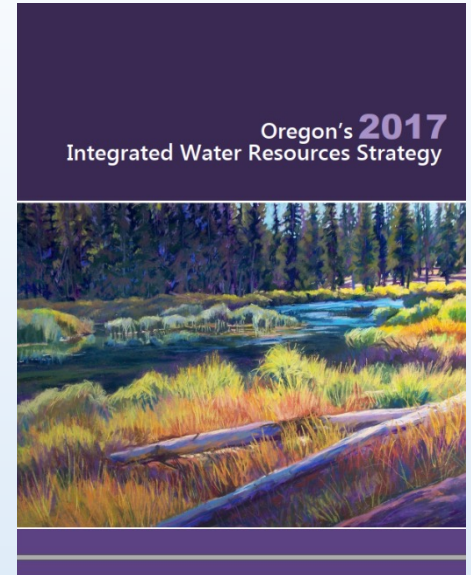
repealing ORS 541.755; appropriating money; and declaring an emergency.  
Whereas the western United States is projected to experience substantial population growth this century, including an additional one million people in Oregon before 2030; and  
Whereas climate change is expected to alter the timing and form of precipitation in Oregon; and  
Whereas surface water is almost completely allocated across Oregon during summer months, ground water levels have declined precipitously in several areas and the hydrological connection between surface water and ground water levels is significant; and  
Whereas Oregon needs to develop an integrated statewide water management plan to address existing and likely future in-stream and out-of-stream demands on Oregon's water supplies; and  
Whereas having coordinated plans and programs to address in-stream and out-of-stream water needs will make Oregon a more likely recipient of federal investments and give Oregon stronger standing in interstate water disputes; and  
Whereas water is a valuable economic commodity; and  
Whereas water development projects can be designed to simultaneously benefit commercial development, the natural environment and the fiscal responsibilities of the state; and  
Whereas it is the policy of the Water Resources Department to directly address Oregon's water supply needs and to restore and protect stream flows and watersheds; and  
Whereas it is desirable that the Water Resources Department and the Water Resources Commission have greater authority to issue loans and grants to public and private bodies, Indian tribes and others for the purpose of developing projects that will ensure the availability of a sufficient and sustainable water supply to meet Oregon's current and future water needs; and  
Whereas loan and grant moneys for developing projects that ensure a sufficient and sustainable water supply must be administered in a prudent and fiscally sound manner and used expeditiously; and  
Whereas water development projects that deliver mutual benefits for water users, the environment and the fiscal condition of this state should be funded or financed with public dollars; and  
Whereas all water within Oregon belongs to the public pursuant to law; now, therefore,

Be It Enacted by the People of the State of Oregon:

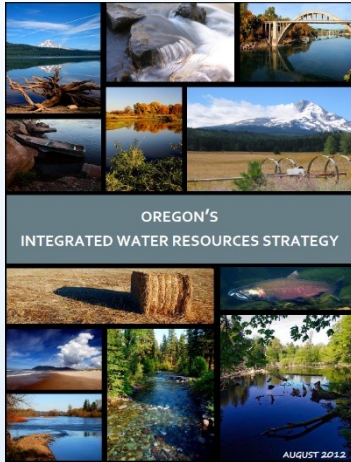
ADDING

## How is the IWRS Used?

- High-level descriptions of water issues and proposed solutions
- Information about agency programs
- Agencies and stakeholders reference **Recommended Actions** to support funding or policy requests
- Create agency work plans

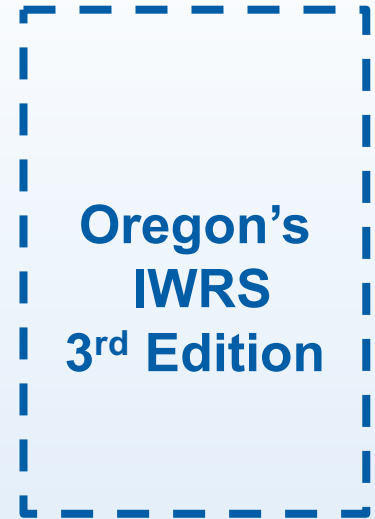


# IWRS Introduction



**2012**

**2017**



**2023**

# IWRS Update Timeline

**2023**

JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC

Public Input

Draft IWRS

Public  
Review

Revise  
Draft

**2024**

JAN FEB MAR APR

Public  
Review

Final  
IWRS

# IWRS Project Teams

## State Agency Project Team

- Dept of Agriculture
- Dept of Environmental Quality
- Dept of Fish & Wildlife
- Dept of Land Conservation & Development



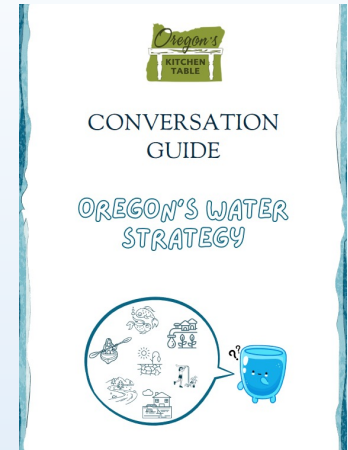
## Other

- Water Core Team
- Federal Liaison Team



# Outreach & Engagement

- Facilitated Engagement
  - 7 In-person Community Conversations
  - 1 Virtual Community Conversation
  - Culturally-specific conversations
  - 3 Youth-specific events
- Self-led Conversations
- Public Survey (9 languages)



**Oregon's  
Kitchen Table  
Summary  
Report**

**July 17<sup>th</sup>**

# Outreach & Engagement

- Agency Survey
- Outreach/Consultation with Tribes
- State Agency Boards / Commissions



## Public Survey (~1700 responses)

### *Themes*

- More demands than water available
- Significant concerns about water quality & safety
- Availability during natural disasters
- Ability of streams/rivers to support fish and other wildlife
- Water rights: change vs status quo
- Access to safe & sufficient water is not equitably distributed

## Agency Survey

### *Findings*

- Limited familiarity with the contents of the IWRS
- Underutilized for communication guidance
- Need more connections between agency programs & IWRS recommended actions
- Call for summary or overview
- Request for enhanced online/digital access to IWRS

## **Water Resources Commission Work Session**

### *Changes to the IWRS*

- Discussion about visionary vs specific actions
- Substantive change regarding climate, more emphasis
- Address how climate impacts are regionally different
- Accountability, identify the “who”
- Need for elevating the Strategy

IWRS  
Content  
Review

# Oregon's 2017 Integrated Water Resources Strategy

A framework for improving our understanding of Oregon's water resources and meeting our instream and out-of-stream needs, including water quantity, water quality, and ecosystem needs



## ( 1 ) Understand Water Resources Today

Further Understand Limited Water Supplies & Systems  
(groundwater, surface water, and their interaction)

Improve Water Quality & Quantity Information

Further Understand Our Water Management Institutions

### Understanding Water Resources / Supplies / Institutions

- 1.A Conduct additional groundwater investigations
- 1.B Improve water resource data collection & monitoring
- 1.C Coordinate inter-agency data collection, processing, and use in decision-making

← OBJECTIVES →

← CRITICAL ISSUES →

← RECOMMENDED ACTIONS →

## ( 2 ) Understand Instream and Out-of-Stream Needs

Further Define Out-of-Stream Needs / Demands  
(i.e., diverted water)

Further Define Instream Needs / Demands  
(i.e., left-in-place water)

### Understanding Oregon's Out-of-Stream Needs/Demands

- 2.A Regularly update long-term water demand forecasts
- 2.B Improve water-use measurement & reporting
- 2.C Determine adjudicated water right claims
- 2.D Authorize the update of water right records with contact information
- 2.E Regularly update Oregon's water-related permitting guide

### Understanding Oregon's Instream Needs/Demands

- 3.A Determine flows needed (quality & quantity) to support instream needs
- 3.B Determine needs of groundwater dependent ecosystems

← OBJECTIVES →

← CRITICAL ISSUES →

← RECOMMENDED ACTIONS →

## ( 3 ) Understand the Coming Pressures That Affect Our Needs and Supplies

Economic Development

Water & Energy

Climate Change

Extreme Events

Population Growth

Water & Land Use

Water-Related Infrastructure

Education & Outreach

### Water & Energy

- 4.A Analyze the effects on water from energy development projects & policies
- 4.B Take advantage of existing infrastructure to develop non-traditional hydroelectric power
- 4.C Promote strategies that increase/integrate energy & water savings

### Water & Land Use

- 6.A Improve integration of water information into land use planning (and vice versa)
- 6.B Improve state agency coordination
- 6.C Encourage low-impact development practices and green infrastructure

### Water-Related Infrastructure

- 7.A Develop and upgrade water and wastewater infrastructure
- 7.B Encourage regional (sub-basin) approaches to water and wastewater systems
- 7.C Ensure public safety/dam safety

### Education and Outreach

- 8.A Support Oregon's K-12 environmental literacy plan
- 8.B Provide education and training for Oregon's next generation of water experts
- 8.C Promote community education and training opportunities
- 8.D Identify ongoing water-related research needs

### Economic Development & Population Growth (See Actions 2A and 3A)

← OBJECTIVES →

← CRITICAL ISSUES →

← RECOMMENDED ACTIONS →

## ( 4 ) Meet Oregon's Instream and Out-of-Stream Needs

Place-Based Efforts

Water Management & Development

Healthy Ecosystems

Public Health

Funding

### Place-Based Efforts

- 9.A Continue to undertake place-based integrated, water resources planning
- 9.B Coordinate implementation of existing natural resource plans
- 9.C Partner with federal agencies, tribes, and neighboring states in long-term water resources management

### Water Management & Development

- 10.A Improve water-use efficiency and water conservation
- 10.B Improve access to built storage
- 10.C Encourage additional water reuse projects
- 10.D Reach environmental outcomes with non-regulatory alternatives
- 10.E Continue the water resources development program
- 10.F Provide an adequate presence in the field
- 10.G Strengthen water quantity & water quality permitting programs

### Healthy Ecosystems

- 11.A Improve watershed health, resiliency, and capacity for natural storage
- 11.B Develop additional instream protections
- 11.C Prevent and eradicate invasive species
- 11.D Protect and restore instream habitat and habitat access for fish and wildlife
- 11.E Develop additional groundwater protections

### Public Health

- 12.A Ensure the safety of Oregon's drinking water
- 12.B Reduce the use of and exposure to toxics and other pollutants
- 12.C Implement water quality pollution control plans

### Funding

- 13.A Fund development and implementation of Oregon's IWRS
- 13.B Fund water resources management activities at state agencies
- 13.C Invest in local or regional water planning efforts
- 13.D Invest in feasibility studies for water resources projects
- 13.E Invest in implementation of water resources projects

# Oregon's 2017 Integrated Water Resources Strategy

A framework for improving our understanding of Oregon's water resources and meeting our instream and out-of-stream needs, including water quantity, water quality, and ecosystem needs



## ( 1 ) Understand Water Resources Today

Further Understand Limited Water Supplies & Systems  
(groundwater, surface water, and their interaction)

**DATA, WATER  
SUPPLIES**

use in decision-making

← OBJECTIVES →

← CRITICAL  
ISSUES →

← RECOMMENDED  
ACTIONS →

## ( 2 ) Understand Instream and Out-of-Stream Needs

Further Define Out-of-Stream Needs / Demands  
(i.e., diverted water)

Further Define Instream Needs / Demands  
(i.e., left-in-place water)

**DATA, WATER  
DEMANDS**

Understanding Oregon  
2.A Regularly update I  
2.B Improve water-use  
2.C Determine unadju  
2.D Authorize the upd  
contact informati  
2.E Regularly update I

stream Needs/Demands  
ed (quality & quantity) to  
s  
oundwater dependent

## ( 3 ) Understand the Coming Pressures That Affect Our Needs and Supplies

Economic Development

Water & Energy

Climate Change

Extreme Events

Population Growth

Water & Land Use

Water-Related Infrastructure

Education & Outreach

**PRESSURES**

← OBJECTIVES →

← CRITICAL  
ISSUES →

← RECOMMENDED  
ACTIONS →

## ( 4 ) Meet Oregon's Instream and Out-of-Stream Needs

Place-Based Efforts

Water Management & Development

Healthy Ecosystems

Public Health

Funding

**SOLUTIONS**

### Place-Based Efforts

- 9.A Continue to undertake place-based integrated, water resources planning
- 9.B Coordinate implementation of natural resource plans
- 9.C Partner with federal agencies and neighboring states in water resources management

### Healthy Ecosystems

- 11.A Improve watershed health, resiliency, and capacity for natural resources
- 11.B Implement riparian zone management actions
- 11.C Enhance riparian habitat and habitat access
- 11.D Implement riparian zone protections

### Water Management & Development

- 10.A Improve water-use efficiency and water conservation
- 10.B Improve access to built storage
- 10.C Encourage additional water reuse projects
- 10.D Reach environmental outcomes with non-regulatory alternatives
- 10.E Continue the water resources development program
- 10.F Provide an adequate presence in the field
- 10.G Strengthen water quantity & water quality permitting programs

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- 13.B Fund water resources management activities at state agencies
- 13.C Invest in local or regional water planning efforts
- 13.D Invest in feasibility studies for water resources projects
- 13.E Invest in implementation of water resources projects

### Water & Energy

- 4.A Analyze the effects on water from energy development projects
- 4.B Take advantage of existing non-traditional hydro
- 4.C Promote strategies that save water

### Water & Land Use

- 6.A Improve integration of water information into land use planning (a)
- 6.B Promote water conservation practices

### Water-Related Infrastructure

- 7.A Develop and upgrade water and wastewater infrastructure
- 7.B Encourage regional (sub-basin) approaches to water and wastewater systems
- 7.C Ensure public safety/dam safety

### Education and Outreach

- 8.A Support Oregon's K-12 environmental literacy plan
- 8.B Provide education and training for Oregon's next generation of water experts
- 8.C Promote community education and training opportunities
- 8.D Identify ongoing water-related research needs

### Climate Change

- 5.A Support continued basin-scale climate change research efforts
- 5.B Assist with climate change adaptation & resiliency strategies

### Extreme Events

- 5.5A Plan and prepare for drought resiliency
- 5.5B Plan and prepare for flood events
- 5.5C Plan and prepare for a Cascadia subduction earthquake event

Economic Development & Population Growth  
(See Actions 2A and 3A)





# 2017 IWRS

## **Understanding Water Resources / Supplies / Institutions**

- 1.A Conduct additional groundwater investigations
- 1.B Improve water resource data collection and monitoring
- 1.C Coordinate inter-agency data collection, processing, and use in decision-making

Data & Public Access

Surface Water

Groundwater

Quantity & Quality

# 2017 IWRS

## **Understanding Oregon's Out-of-Stream Needs/Demands**

- 2.A Regularly update long-term water demand forecasts
- 2.B Improve water-use measurement and reporting
- 2.C Determine unadjudicated water right claims
- 2.D Authorize the update of water right records with contact information
- 2.E Regularly update Oregon's water-related permitting guide

Water Rights

Measurement

Water Use in  
Agriculture

Contributions of  
Irrigated Agriculture

## **Understanding Oregon's Instream Needs/Demands**

- 3.A Determine flows needed (quality and quantity) to support instream needs
- 3.B Determine needs of groundwater dependent ecosystems

Navigation

Hatcheries

Ecological  
Base Flows

Recreation

Need Instream  
Long-Term  
Forecast

Fisheries

Ecological-Elevated  
Flows

## **Water & Energy**

- 4.A Analyze the effects on water from energy development projects and policies
- 4.B Take advantage of existing infrastructure to develop non-traditional hydroelectric power
- 4.C Promote strategies that increase/integrate energy and water savings

Hydroelectric

Conduit  
Hydroelectric

Pumped Storage  
Systems

Water & Energy  
Conservation



# 2017 IWRS

## **Climate Change**

- 5.A Support continued basin-scale climate change research efforts
- 5.B Assist with climate change adaptation and resiliency strategies

## **Extreme Events**

- 5.5A Plan and prepare for drought resiliency
- 5.5B Plan and prepare for flood events
- 5.5C Plan and prepare for a Cascadia subduction earthquake event

Water  
Management  
&  
Healthy  
Ecosystems  
Recommended  
Actions

Agricultural-  
Related Impact

Drought  
Declarations

Drought  
Coordination Efforts

## **Water-Related Infrastructure**

- 7.A Develop and upgrade water and wastewater infrastructure
- 7.B Encourage regional (sub-basin) approaches to water and wastewater systems
- 7.C Ensure public safety/dam safety

Well Construction  
Program

Dam Safety  
Program

Levees

Funding Programs



# 2017 IWRS

## Education & Outreach

- 8.A Support Oregon's K-12 environmental literacy plan
- 8.B Provide education and training for Oregon's next generation of water experts
- 8.C Promote community education and training opportunities
- 8.D Identify ongoing water-related research needs

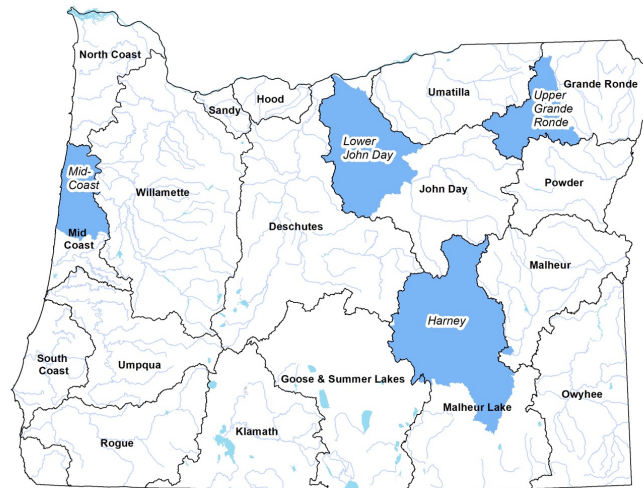
Locally-led  
Efforts

Soil & Water  
Conservation  
Districts

Watershed  
Councils

## Place-Based Efforts

- 9.A Continue to undertake place-based integrated, water resources planning
- 9.B Coordinate implementation of existing natural resource plans
- 9.C Partner with federal agencies, tribes, and neighboring states in long-term water resources management





## **Water Management & Development**

- 10.A Improve water-use efficiency and water conservation
- 10.B Improve access to built storage
- 10.C Encourage additional water reuse projects
- 10.D Reach environmental outcomes with non-regulatory alternatives
- 10.E Continue the water resources development program
- 10.F Provide an adequate presence in the field
- 10.G Strengthen water quantity and water quality permitting programs

Allocation of  
Conserved  
Water Program

Water Management &  
Conservation Plans  
(Municipal & Agriculture)

Storage

Water Quality  
Trading

## Healthy Ecosystems

- 11.A Improve watershed health, resiliency, and capacity for natural storage
- 11.B Develop additional instream protections
- 11.C Prevent and eradicate invasive species
- 11.D Protect and restore instream habitat and habitat access for fish and wildlife
- 11.E Develop additional groundwater protections

Oregon Plan  
for Salmon &  
Watersheds

Instream  
Water Rights

Invasive  
Species

Oregon  
Conservation  
Strategy

Instream  
Transfers &  
Leases

Fish Screens,  
Passage,  
Barriers

## Public Health

- 12.A Ensure the safety of Oregon's drinking water
- 12.B Reduce the use of and exposure to toxics and other pollutants
- 12.C Implement water quality pollution control plans

Source Water  
Protection

Water Quality  
& Domestic  
Wells

Water Quality  
Pesticide  
Management  
Plan

Pesticide  
Stewardship  
Partnership



# 2017 IWRS

## **Funding**

- 13.A Fund development and implementation of Oregon's IWRS
- 13.B Fund water resources management activities at state agencies
- 13.C Invest in local or regional water planning efforts
- 13.D Invest in feasibility studies for water resources projects
- 13.E Invest in implementation of water resources projects

State & Federal  
Funding Resources

## What is missing?

- Historical context
- Tribal collaboration
- Climate change emphasis, including environmental justice implications
- Affordability and access
- Accountability, metrics for progress
- Reports & Initiatives since 2017 (e.g., 100-Year Water Vision, Secretary of State Water Advisory Report, many others)



# Questions & Discussion

# IWRS Update Timeline

**2023**

JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC

Public Input

Draft IWRS

Public  
Review

Revise  
Draft

**2024**

JAN FEB MAR APR

Public  
Review

Final  
IWRS

# What's Next

- IWRS Draft development with inter-agency project team
- Review and comment on the 2023 IWRS Drafts (~October & ~January)
- Additional presentation to Board?

Contact: [Crystal.A.Grinnell@water.oregon.gov](mailto:Crystal.A.Grinnell@water.oregon.gov)



OREGON



WATER RESOURCES  
DEPARTMENT