Oregon
Kate Brown, Governor

**Water Resources Department**
725 Summer St NE, Suite A
Salem, OR 97301
(503) 986-0900
Fax (503) 986-0904

**MEMORANDUM**

TO: Water Resources Commission

FROM: Alyssa Mucken, IWRS Coordinator
Brenda Bateman, Technical Services Division Administrator

SUBJECT: Agenda Item C, August17, 2017
Water Resources Commission Meeting

**Update on Oregon's 2017 Integrated Water Resources Strategy**

## I. Introduction

During this agenda item, Water Resources Department (Department) staff will provide a summary of comments received on the public review draft of the 2017 Integrated Water Resources Strategy (Strategy). The Commission will have an opportunity to discuss those comments and propose any changes to the public review draft.

## II. Background

The Department released the Public Review Draft of the 2017 Integrated Water Resources Strategy on April 19, opening a 60-day public comment opportunity. At the request of several organizations, the comment period was extended for an additional 30 days to July 19, 2017.

The Department received more than 285 comment submissions during this time frame, with more than 250 individuals and 35 organizations submitting comments. Several of the 2016 Policy Advisory Group (PAG) members also provided comments.

Attachment 1 of the staff report includes public comments submitted by individuals. Attachment 2 of the staff report includes public comments submitted by organizations, some of which chose to submit comments jointly.

Attachment 3 of the staff report combines comments from individuals and organizations into one summary document, grouped in tables by issue and recommended action. This document shows the commenter, page number (if noted), issue or topic, recommended action (if applicable), and a short comment summary.

Comments are grouped by the following topics, and follow the basic outline structure of the draft Strategy. Overarching comments are also grouped together, and general comments on each chapter are also organized similarly.

- Groundwater studies
- Improvement of data and monitoring
- Inter-agency data coordination
- Demand forecasts
- Water use measurement & reporting
- Adjudications, water right records, and permitting guide
- Instream flows
- Energy and water
- Climate change
- Extreme events (droughts, floods, earthquakes)
- Land-use and water
- Infrastructure
- Education and outreach
- Place-based planning, coordination, & partnerships
- Water-use efficiency and conservation
- Built storage
- Water reuse
- Non-traditional approaches
- Water resources development program
- Field presence
- Permitting
- Watershed health
- Instream protections
- Invasive species
- Instream habitat
- Groundwater protections
- Drinking water
- Water quality
- Funding

## III. Summary of Public Comments

Commenters were supportive of the new recommended actions included in the public review draft. These new actions include: preparing for drought (5.5A), floods (5.5B), and earthquakes (5.5C); public safety/dam safety (7.C); field presence (10.F); permitting (10.G); groundwater protections (11.E); and funding-related actions for planning (13.C) and projects (13.E).

Commenters continue to be very thoughtful and passionate about water and supportive of long-term planning, reinforcing the importance of developing and implementing the Strategy.

A large majority of the comments submitted by individuals used suggested talking points offered by conservation organizations. The Oregon Environmental Council, WaterWatch of Oregon, and The Nature Conservancy encouraged their members to submit comments on the draft document. These individual letters frequently touched upon pollution prevention, climate change adaptation, building drought resiliency for fish and wildlife, creating additional groundwater protections, improving water use measurement, and ensuring that demand forecasts account for instream uses. Several commenters also called for funding and associated timelines to complete work on instream flow studies and water use measurement.

Several comments also came from areas undertaking place-based planning or from individuals interested or supportive of such collaborative efforts. Planning partners from the Mid-Coast, Upper Grande Ronde, and the Malheur Lake Basin submitted written comments, along with a few others that had submitted letters of interest during the 2015 planning grant selection process.

***Requests for More Detail*** – Several commenters asked staff to expound on certain topics in more detail. Staff, with assistance from partner agencies, may clarify and better describe some state-level programs; however, the Strategy is intended to be a high-level document. Some of the more in-depth requests could be part of the implementation phase, in terms of developing a product or project, if agencies or partners have the time and expertise.

***Add Topics to Multiple Sections*** – Some commenters asked staff to emphasize their areas of interest by adding, for example, instream values, "protection of existing water rights," or "funding" into every section. As in the first version, the document attempts to describe the importance and current status of each issue within one section, with cross-referencing to other sections. This is so that the reader can more easily find the topic, and also because staff are sensitive to the overall length of document.

***Comments Regarding Missing Items*** – Some commenters noted items missing from the public review draft that were previously included in the 2012 Strategy. Some topics or items have been reorganized and placed in different sections. For example, many of the dam safety-related items were moved from the broader section on infrastructure because it now has its own recommended action (7.C) and associated narrative.

There are two exceptions, however, where concepts were deleted from the public review draft. The 2012 Strategy had a specific implementation bullet on "prioritizing agricultural water efficiency" under Recommended Action 10.A. In the Public Review Draft, staff moved this concept out of the bullet and into the main body of the document. After reviewing comments, staff plan to bring this concept back under Recommended Action 10.A.

The second deletion was regarding a call to "quantify and model the economic value of water (both instream and out-of-stream)" discussed in relation to Recommended Action 2.A, which calls for updating long-term demand forecasts. A similar implementation bullet exists under Recommended Action 3.A: Determine Flows Needed (Quality & Quantity) to Support Instream Needs." Staff plan to add this concept back into the relevant section under Action 2.A.

Some commenters stated that water conservation and climate change were not sufficiently considered as part of the update process. Climate change and water conservation were recommended actions in the 2012 Strategy, which have been carried forward into the 2017 draft document. Staff asked the 2016 PAG members if there were any additional language that the group should consider on these topics. The 2017 PAG supported adding the statement, "Establish a water-use efficiency and conservation program that provides technical assistance to water users in all sectors."

***Items Added*** – The public review draft incorporated updates on issues of national significance, for example, lead in drinking water. Commenters noted that the lead discussion was placed inappropriately in the draft document, noting that lead is not a source water issue. Staff note that it may be more appropriate to place it in the "infrastructure" or "public health" section of the Strategy. Staff plan to work with the Oregon Health Authority's Drinking Water Program to revise and move the lead discussion.

***Basin-Specific Issues or Topics*** – Several commenters expressed concerns regarding basin-specific water management issues. Typically, basin-specific issues have not been described in the Strategy, because there are local conversations, planning efforts, or negotiations currently underway. The Strategy will retain its state-wide approach and leave basin-specific issues to more local venues.

***Place-Based Planning*** – Similarly, some comments were not directly tied to the public review draft, but to place-based planning efforts currently underway. Several commenters offered improvements or suggestions for their particular planning efforts. These comments were shared with the Department's planning coordinators and sister agencies.

***Geared toward a Public Audience*** – Some comments suggested additional legal discussion. The 2012 Strategy and this updated version were written with a general audience in mind to help the public and others less familiar with water understand the issues and priorities facing the state. It serves as the state's strategic framework for better understanding and meeting Oregon's water needs; it is not a legal document, nor does it carry the force of law.

***Numbered Recommended Actions vs. Implementation Bullets*** – The numbered recommended actions were developed using a consensus process with the 2010 and 2016 policy advisory groups. The recommended actions provide high-level direction. The bullets listed below these numbered actions are examples of ways to implement these recommended actions, and are not exhaustive nor intended as firm commitments. The implementation bullets were developed by staff, based on public comments, agency discussions, and suggestions from advisory groups. Staff, as part of this update, did not highlight changes to the implementation bullets, as most of the bulleted lists were modified. Some commenters raised concerns over revisions to the bulleted items. To clarify the intent behind these bullets, project staff propose adding language to the Strategy better explaining the difference between numbered recommended actions and the examples of implementation-related items.

***Work plan / Implementation*** – Several commenters called for more specificity around implementation, inquiring or requesting a list of lead agencies, budget, timelines, and staffing commitments. The Department has committed to sketching out such details in another venue, through strategic planning and follow-up work plans.

***Looking ahead to the 2022 Strategy*** – Some comments called for a look ahead to the 10-year Strategy. Some noted that the 2017 draft Strategy advances water resources management, but does so using a 'timid' approach. The 2017 Update was meant to be limited in scope, in large part because of the strength of the 2012 Strategy and the desire to give time for implementation before considering a major change in approach. The Department plans to take a more comprehensive look at the 10-year update, engaging in deeper dialogue with stakeholders at that time.

## IV. State and Federal Agency Discussions

Following the close of the public comment period, the Department held a meeting of the State Agency Advisory Group to review and discuss public comments. State agencies are currently assisting with comment review and drafting new language or edits, where needed. Agencies will

also take this opportunity to review the public review draft and offer any suggestions or edits to better clarify programs or agency priorities. This will include addressing typographical or other editing errors as well.

The Department will also meet with our federal agency partners in mid-August to brief them on the draft Strategy. The Federal Liaison Group includes water resources, scientific, and land management agencies that have been engaged with various implementation or agency priority projects in recent years.

## V. Briefings with Boards and Commissions

The Department is required to notify the Board of Agriculture, Environmental Quality Commission, and the Fish and Wildlife Commission prior to adopting any revisions to the Strategy. Following the release of the public review draft, Department staff provided briefings to the following Oregon boards and commissions:

- Watershed Enhancement Board (April 24)
- Board of Agriculture (May 12)
- Land Conservation and Development Commission (May 19)
- Fish and Wildlife Commission (June 9)
- Environmental Quality Commission (July 13)

The Association of Oregon Counties' Water Policy Committee (May 8) and the Department's Groundwater Advisory Committee (June 30) were also briefed. In addition, local organizations in the Deschutes River Basin hosted a public community meeting in late May to talk about the draft Strategy and encourage public feedback. About 50 people attended that meeting and a few submitted written public comments, which can be found in Attachments 1 and 3.

## VI. Next Steps

The Project Team and Agency Advisory Group are currently working on revisions to the public review draft and will continue fine-tuning the document in August and September. The Commission will be presented with a final draft for adoption at its November 2017 meeting. Following adoption, staff will develop a final version for printing and distribution, along with an online version.

Attachment 1: Public comments from individuals
Attachment 2: Public comments from organizations
Attachment 3: Public comments organized by topic and recommended action

Alyssa Mucken
503-986-0911

Brenda Bateman
503-986-0879

**Public Comments from Individuals**
**Public Review Draft of Oregon's 2017 Integrated Water Resources Strategy**

*Note: Where possible, personal information has been removed from the following public comments, i.e., an individual's personal email addresses, physical address, and/or phone number.*

## Betty Abadia

**From:** Betty Abadia
**Sent:** Tuesday, July 18, 2017 6:59 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Betty Abadia
Durham, OR 97224

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Betty Abadia

## Laura Allen

**From:** Laura Allen
**Sent:** Monday, July 17, 2017 10:29 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Dear Water Resource Department,

I am writing in support of Oregon's rivers and aquatic ecosystems, and urge you to update the IWRS to protect and conserve the natural environment.

Specifically:
1) Develop Instream Demand Forecasts
2) Measure and monitor water (a) require full implementation of the Water Resources Measurement Strategy by 2020; (b) direct the state to seek broad reporting authority; (c) provide funding for the WRD measurement and reporting oversight; and (d) plan for measurement/reporting beyond significant diversions into the future.
3) require development of drought provisions which protect flows for fish and wildlife, and set minimum flows on ecologically significant streams.
4) include a specific directive to double current funds dedicated to instream water rights
5) Improve efficiency and aggressively enforce against waste, and develop basin-specific efficiency standards for agriculture

Laura Allen
Eugene, OR 97405

## Dan Altman

**From:** Dan Altman
**Sent:** Tuesday, July 18, 2017 6:00 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Hi –

Please do everything you can to preserve and improve our water resources in Oregon including protections for groundwater, protection for fish and wildlife, investments in climate change adaptation, and better measurement and reporting of water use.

Thanks much!

- Dan Altman

## Chris Anderson

**From:** Chris Anderson
**Sent:** Tuesday, July 18, 2017 12:47 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Nothing is more important to healthy human lives and a functional society than water. Oregon and the Pacific Northwest are blessed with an abundance of clean, fresh water, and we should do everything we can to assure that remains true~ for our lifetimes and those of many generations to come.
Thank you.

## Helen Anderson

**From:** Helen Anderson
**Sent:** Thursday, July 13, 2017 11:53 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Helen Anderson
Gladstone, OR 97027

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Helen Anderson

## Jack and Jane Anderson

**From:** jack / jane Anderson
**Sent:** Tuesday, July 18, 2017 10:21 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Wider buffers on logging next to streams fish bearing and not, cold water is needed to protect fish and people!!!!!

Sent from my iPhone

## Donna Andrews

**From:** Donna
**Sent:** Wednesday, July 19, 2017 3:53 PM
**To:** WRD_DL_waterstrategy
**Subject:** water resource stratgey

Oregon's rivers are the lifeblood of our state. They fuel our economies, grow our food, provide clean drinking water and sustain our fish and wildlife.

These are the critical updates and issues the strategy outlines that I think are the most important.

- Additional protections for groundwater
-
- Better protection for fish and wildlife
- Investments in climate change adaptation
- Better measurement and reporting of water use

Sincerely,

Donna Andrews
Grants Pass, Or. 97526

## Anonymous #1 (pjk71drw69)

**From:**
**Sent:** Tuesday, July 18, 2017 11:36 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

We all need clean water to survive, do what's right for Oregonians, fish, wild life and America. Protect ground water, stop the polluting of rivers and streams, find better ways to monitor use and limit waste.

Sent from Yahoo Mail on Android

## Anonymous #2 (seasaj777)

**From:** seasaj777
**Sent:** Tuesday, July 18, 2017 10:26 AM
**To:** WRD_DL_waterstrategy
**Subject:** Save salmon

Please save salmon & other fish in a clean river system. Clean water & clean air is vital. Money is not.
Sent from my iPhone

## Anonymous #3 (UGR planning member)

**Upper Grande Ronde River Watershed Partnership: Integrated Water Resources Strategy 2017**

***Comments:*** *Please write down your thoughts on these questions. Copies of the revised strategy are available in the back for review, but general answers are fine too. If you would like your comments submitted individually, write your name and organization at the bottom of this sheet. If you want them submitted with our group comments, feel free to leave that part blank.*

What is important to your community?

1) Further synthesis of current information in regards to ground water resources and clear justifications of when and why ground water is being used.
2) Water use needs to be measured to create a clear picture of the basin's water needs and whether or not water needs are being met for long-term sustainability. Water planning should be done through the lens of "seven generations."

Where should the state focus its resources?

1) The state should focus money on scenario planning for future water use that includes a strong balance between irrigators, ecological-in-stream values (fish, aquatic biota, and wildlife), and municipal use. This should also include clear guidelines for groundwater use.

   There are many unknowns in regards to groundwater and surface-groundwater interactions. Each basin should be taking a close look at these interactions with specific questions in mind that will help citizens manage water. Climate change scenarios should also be given consideration in these efforts.

2) The state should focus on hiring employees that are equally versed in the science of water resources as well as science communication. Communication and clear outreach are critical to the future of our state's water resources and all the life that depends upon them. The state should consider bringing in more people versed in the human dimensions of natural resources.

How can we better foster an integrated approach to water management?

1) Use human dimensions frameworks. Use highly qualified professional facilitators to hold conversations and develop futures scenarios that result in on the ground action. The action should be having a measurable influence on a sustainable water future basin by basin.

How is your community helping to make progress on the recommended actions in the IWRS?

1) Place based planning and starting conversations about the region's water future.

Any other comments on the revised strategy or why water in the Upper Grande Ronde Watershed important to you?

1) Neutral professional facilitators are crucial to functioning collaboratives. These can be balanced by technical teams, diverse stakeholder teams etc. Professional facilitators are crucial to bring groups to positive end goals.

(Optional) Name: _____

(Optional) Organization: _____

## Anonymous #4

**From:** jergensjovy
**Sent:** Tuesday, July 18, 2017 4:17 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Please preserve and protect Oregon’s natural waterways!

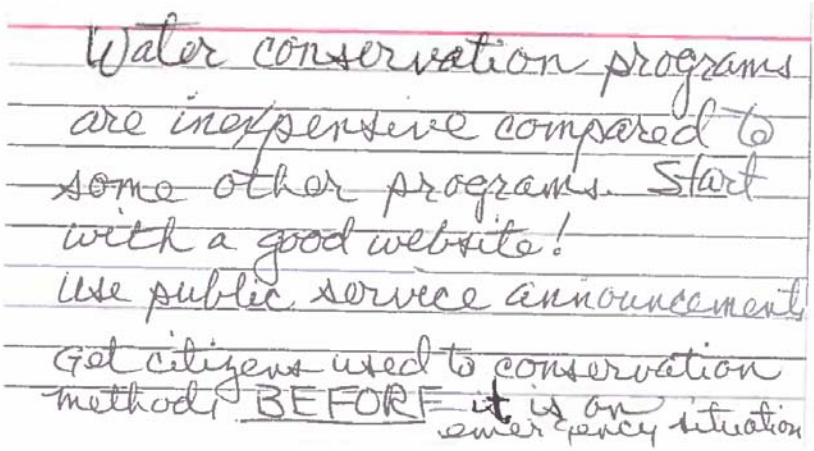
Sent from Mail for Windows 10

## Anonymous #5

**From mailed postcard:**

Water conservation programs are inexpensive compared to some other programs. Start with a good website! Use public service announcement. Get citizens used to conservation methods, BEFORE it is an emergency situation.

**Postcard:**


Water conservation programs are inexpensive compared to some other programs. Start with a good website! Use public service announcement. Get citizens used to conservation methods, BEFORE it is an emergency situation

RECEIVED BY OWRD
JUN 05 2017
SALEM, OR

## Anonymous #6 (turtleislandlodge)

**From:** turtleislandlodge
**Sent:** Tuesday, July 18, 2017 11:31 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy

We can not survive for long without clean water and with the planet heating up it is going to become critical.

**Susanna Askins**

**From:** Susanna Askins
**Sent:** Tuesday, July 18, 2017 5:14 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy public comment

# We need:

# Additional protections for groundwater

- **Better protection for fish and wildlife**
- **Investments in climate change adaptation**
- **Better measurement and reporting of water use**

# Sincerely,

# Susanna L. Askins

•

## Gary B

**From:** Gary B
**Sent:** Thursday, July 13, 2017 7:44 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Gary B
Lake Oswego, OR 97035

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Gary B.

## Stephen Bachhuber

**From:** Stephen Bachhuber
**Sent:** Thursday, July 13, 2017 12:23 PM
**To:** WRD_DL_waterstrategy
**Subject:** Spring Creek Coal EIS/Irma Nansel

Stephen Bachhuber
Portland, OR 97202

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Stephen Bachhuber

## Terry Barber

**From:** Terry Barber
**Sent:** Wednesday, July 19, 2017 11:56 AM
**To:** WRD_DL_waterstrategy
**Subject:** Water is life.

Dear Member,

In Eugene, we enjoy two rivers that bring water, water birds, recreation, and cooling to the area during a hot summer day. Such water plus the rainfall that we typically get, makes Oregon the beautiful state it is.

Please do continue to upgrade and improve water quality standards by your review of the state's water systems and regulations, making certain that Oregon is in control as the Federal regulations are diminished or cancelled.

Oregon was one of the first states to clean up its rivers in the 70's (possibly earlier). Living in California, I recall hearing about it and thinking the clean-up a fine thing. Maintaining clean water is a must.

Sincerely,

Terry Barber

Sent from my iPad

## Rianne BeCraft

**From:** Rianne BeCraft
**Sent:** Wednesday, July 19, 2017 8:47 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Public Comment | Place-Based Planning

Dear OWRD,

Upon reviewing the Place-Based Planning (PBP) section of the 2017 IWRS revision, I would like to express my enthusiasm and support for this program. I am pleased that funding has been secured and dedicated to developing concrete and location-specific water resource plans in basins that are willing and able to lead the way in this type of effort. **The collaboration with government agencies and technical assistance provided to the communities should continue to be prioritized.**

After hearing Director Tom Byler present at the Hydrophiles Water Research Symposium this year, it is clear that this program is one of the key ways OWRD is engaging and mobilizing community members in strategically planning and sustainably managing water resources. I believe one of the most important components of the PBP program is the "on-the-ground" feedback that OWRD can receive from participants regarding challenges, opportunities, and goals from different sectors and regions regarding current and future water resources management. **It would be helpful to see a brief explanation in the IWRS about how OWRD plans to apply what it learns from the PBP communities to its more general, higher-level water resource planning and management.** There will certainly be lessons learned and success stories from these case studies that can be utilized elsewhere.

Within the PBP section of the IWRS, I did not see any mention of how the program will be evaluated. **I think it is important to at least reference existing plans for evaluating the success of the PBP to help the public understand how the results of agency staff's and community members' time and effort will be measured.** This is especially important for securing future funding and stakeholder participation.

Finally, I am curious to what extent the PBP communities are focusing on groundwater in their discussions and planning. **It is important for the public to understand how the PBP supports or relates to the groundwater-related goals outlined in other parts of the IWRS.** One or a few sentences on this should be added to the 2017 revision.

I appreciate your consideration of my comments. Please feel free to contact me with any questions or follow up.

Sincerely,
Rianne BeCraft

**Rianne BeCraft**
M.S. Candidate | Oregon State University
Water Resources Policy and Management
becraftr@oregonstate.edu | (541) 360-1695

## Laura Belson

**From:** Laura Belson
**Sent:** Tuesday, July 18, 2017 9:27 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Hi!

I would like to weigh in on the Integrated Water Resources Strategy. Here is what is important to me:

- Additional protections for groundwater
- Better protection for fish and wildlife
- Investments in climate change adaptation
- Better measurement and reporting of water use

Thank you!
Laura Belson
Portland, OR 97215

--
Sent from Postbox

## Adrian Bergeron

**From:** Adrian Bergeron
**Sent:** Thursday, July 13, 2017 5:34 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Adrian Bergeron
Halfway, OR 97834

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Adrian Bergeron

## Ken Bierly

July 19, 2017

Oregon Water Resources Department
c/o Alyssa Mucken
North Mall Office Building
725 Summer Street NE, Suite A
Salem, Oregon 97301

RE: Oregon's 2017 Integrated Water Resources Strategy Public Review Draft

I applaud the Oregon Water Resources Commission and Department in their efforts to build the Integrated Water Resource Strategy in 2012 and to update it as proposed in the 2017 draft. Oregon has been a leader in the western states in water resource management, even with a diminished staff.

The inherent conflict between western water law (the prior appropriation doctrine) that clings to historic uses and demands and the future of water demands from significantly different economic, cultural, and physical conditions cannot be resolved by a plan using current limitations. Other Countries have taken significantly different approaches to address the future. Australia adopted a revised water law in 2007 following 20+ years of drought. South Africa adopted a new water law that reflects the arid nature of the country and the integrated nature of surface and ground water. New Zealand has recognized rivers as "persons" as has India. These are major changes in the view of water resources that are more future-looking than that possible for Oregon; however we should be looking at these management approaches to help us understand alternative futures.

The advances made in the 2012 strategy in the improvement of information and handling and updating data is only a start on the significant need for adequate information to effectively manage water resources and to inform citizens of the status of the water resources they use and depend on. The paucity of groundwater information is a significant inhibition to effective water resource planning. There also appears to be a significant difference in geographic priorities between OWRD and DEQ when looking at groundwater quantity and quality. The connection between groundwater and surface water needs to be effectively examined for each basin in the state.

Chapter 1-Page 21 - The 2017 draft emphasizes partnering with USGS for groundwater studies which has been an effective approach in the past; however adding DEQ to the partnership could help to elucidate water quality issues at the same time and would provide additional information for management of Oregon's water resource more holistically. I would suggest adding to Recommended Action 1.A "Integrate water quality monitoring in groundwater studies to the extent possible."
Chapter 1-Page24 - I would suggest adding to Recommended Action 1.B "Conduct at least one basin scale groundwater-surface water interaction study each biennium."

Out-of-stream use of water can jeopardize the aquatic ecosystem, both groundwater dependent ecosystems and fluvial ecosystems. Compiling complete information on out-of-stream use by timing

and amount is critical to understand the potential effects on the aquatic ecosystems. Requiring measurement and creating incentives for more efficient use are critical for managing water under scarcity conditions ( future increased demand, erratic supply, etc.). As the OWRD data shows, nearly all basins are over allocated for out-of-stream uses. Developing policy and incentives such as the purchase of "water entitlements" or developing "sustainable diversion limits" (using Australian terms) or other methods to reduce demand through efficiency should be a priority for the near future.

Chapter 2-Page41 -The Recommended Actions 2.B are all passive and related to OWRD infrastructure and do not speak to the issue of lack of information and lack of accountability for permitted use. If the critical issue is to "Further Define Out-of-Stream Needs / Demands", the first need is to have an accurate measurement of the current use.

Chapter 2-Page 44 and Page 48 -The critical issue of "Further Define Instream Needs / Demands" does not have a recommendation to prioritize and conduct ecological flow needs and groundwater dependent ecosystem needs in a systematic manner. This could be added as a Recommended Action to both 3.A and 3.B.

Chapter 3-Page 61, and 68 - Preparing for extreme events (drought and high flows or floods) is an important activity for Oregon. The proposed actions in response to drought appear to be passive, involving study, documentation, and preparing to respond (Recommended Action 5. 5A). There should be at least some clear action that can be accomplished to further management of water in Oregon to address the reality and certainty of future drought conditions.

Chapter 3 – Page 68 and 70 - To "Plan and Prepare for Flood Events" seems to ignore the federal lawsuit settlement over the interaction between FEMA regulations and ESA protections (U.S. District Court Case 3:09-cv- 00729-HA: Settlement Agreement and Court Order). To effectively implement this requirement involves the mapping and regulation of floodplains in a new way. The implementation of this requirement seems to be an appropriate action to address the concern about preparing for flood events. Again the Recommended Actions 5.5B are all passive. A commitment to comply with the Biological Opinion and accomplish the outcomes required should, at a minimum, be a commitment of the State.

Chapter 3 - Page 81 - The Draft includes a policy to "Improve Oregon's Levees" which could be more effectively connected to the concern about coastal flooding. The strategy of "planned retreat" or setback levees is a common strategy to address coastal flooding and increasing the resiliency of coastal ecosystems. The Recommended Action 7.A should include an action such as "Evaluate appropriate locations to remove or set back levees to alleviate coastal and stream flooding".

Chapter 3 – Page 85 - In a similar manner the appropriate consideration of dam safety needs to consider fish passage along with the potential for catastrophic failure. Safety for aquatic species is an important consideration, especially when considering upgrades to dams at risk. You might consider adding to Recommended Action 7.C "Ensure fish passage in proposals to retrofit dams for safety upgrades".

Chapter 4 – Page 98 - Place–Based Water Resource Planning is a significant novel effort by Oregon. Continuing this trial effort by continued funding and provision of technical assistance is critical to determine the potential of this effort. Developing models or examples from other areas to share with the communities struggling with the planning could help to envision what a product might look like. There are examples from Australia and other areas that could be used as models for Oregonians to use.

In many areas of the state the upland areas are managed by the federal government, either the U.S. Forest Service or the Bureau of Land Management. Ensuring water management plans are reflective of the consequences of land management practices will require a level of coordination not often available given staffing limitations and agency responsibilities.

Chapter 4 – Page 120 - Recommended Action 11.A should include "Restore tidal inundation to estuarine lands as land uses change to build resiliency for coastal sea level change and tidal flooding."

Chapter 4 – Page 120 - Recommended Action 11.A could also include, "Work towards basin or catchment management programs that integrate upland and aquatic resource management actions."

Chapter 4 – Pages 121 & 122 - To further the strategy to "Develop Additional Instream Protections for Oregon's Rivers and Streams" the Strategy could include recognition of the recent action by the Oregon Environmental Quality Commission to adopt rules for designating the North Fork Smith River as "Outstanding Resource Waters".

Chapter 4 – Page 125 - An addition to Recommended Action 11.B could be "Work with DEQ and other state agencies to identify Outstanding Resource Waters in Oregon".

Chapter 4 – Page 125 - Connecting Recommended Action 11.D with 7.C would help to make the Strategy more integrated. The recommendations to "Protect and Restore Instream Habitat and Habitat Access for Fish and Wildlife" could include restoring floodplain and estuarine tideland access for juvenile salmon rearing.

Chapter 4 – Page 127 - Recommendations (11.E) to provide better protection for groundwater resources; "Develop Additional Groundwater Protections" should be couched in terms of catchment management and developing a prioritized approach to developing the tools and authorities to provide better protection. All the Recommended Actions are passive and have no expected completion schedules.

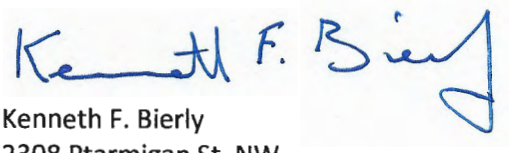
As a general comment, the Strategy is organized and framed around the disparate authorities of Oregon State agencies rather than on the integrated functions of a catchment. For example, the effects of climate change and sea level rise have implications for levee management, estuary management, coastal aquifer protection and extreme events. These topics are scattered throughout the Strategy but not linked in any clear way. Likewise the critical connections between surface and groundwater are discussed separately as is water quality when they are directly and often complexly linked.

As the Strategy is developed in the future, there is an opportunity to move in the direction of integration and catchment management which is more than agency coordination. The experience from other places can be quite useful in looking at opportunities for effective river basin management in Oregon. The evolution of water management from allocation to prior appropriators to basin management can be instructed by reviewing the experience of others. The important first step of place-based water resource planning is a good start but could be expanded to a catchment or basin management program that integrates wetland conservation, forest and range management and is integrated with federal land use management programs.

In sum, the 2017 Strategy Update advances water resource management in Oregon but is a timid approach. The strengths of the update include commitments to: improve water use measurement, improve management of groundwater, address climate change adaptation, and provide additional protections for aquatic ecosystems. The area of special consideration to continue and support the place-based water planning is an important trial effort that deserves support to ensure there are outcomes that can be evaluated. I also strongly urge the Commission to work towards integration at the basin or catchment scale in the next update and use the place-based planning effort to help advance basin management and integration.

Thank you for the opportunity to comment on this important policy document. If you have any questions about my comments, please feel free to contact me at either bierlykenneth@gmail.com or (503) 362-6860.

Sincerely,



Kenneth F. Bierly
2308 Ptarmigan St. NW
Salem, OR 97304

## Barbara Birney

**From:** Barbara Birney
**Sent:** Tuesday, July 18, 2017 11:02 AM
**To:** WRD_DL_waterstrategy
**Subject:** Healthy water sources

Access to clean water is the biggest world-wide concern of this century. Please let's do our very best here at home to make sure all of our public has the best, healthiest, and responsibly-used water of anywhere in the United States.

Cheers,

Barbara Birney
Newberg, Oregon

**Tim Blankenship**

**From:** Tim Blankenship
**Sent:** Wednesday, July 19, 2017 7:43 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

- **To whom it may concern**

  **It seems we are at a critical point of what we should do to protect our resources. In my mind water is at the center of what we should protect to ensure the survival of our planet.**

  **It seems that Oregon does a lot to protect our water resources, but we can do more.**

  **We need to have more protections for the critical groundwater, as we rely on this resource for everything.**

  **We need to do more to stop climate change. This is the most important part in my mind to protect our water.**

  **We need to protect the fish and wildlife. It is super important to protect these species from extinction, and we should do everything in our power to save fish and wildlife.**

  **Please believe in the science and make changes that will save our water.**

  **Tim Blankenship**
  **Joseph, Oregon**

-

## Cathy Bledsoe

**From:** Cathy Bledsoe
**Sent:** Tuesday, July 18, 2017 8:50 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Cathy Bledsoe
Portland, OR 97225

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Cathy
Cathy Bledsoe

## Geneva Bliss

**From:** geneva bliss
**Sent:** Tuesday, July 18, 2017 5:49 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

geneva bliss
Gresham, OR 97080

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

geneva
geneva bliss

## C. Born

**From:** C Born
**Sent:** Tuesday, July 18, 2017 5:59 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

C Born
Hillsboro, OR 97124

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
C Born

## Tracy Boyer

**From:** Tracy Boyer
**Sent:** Tuesday, July 18, 2017 10:06 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

To Whom it May Concern ~

The Rivers of Oregon are truly the lifeblood of our State. They provide clean drinking water, ecosystems for fish and wildlife and countless opportunities for recreational activities. We need every State agency to work to protect the Groundwater, make sure climate change is taken into consideration when planning for water use in the future and most of all a better way of measuring water use and reporting on wasteful water practices.

I stand with the Nature Conservancy, WaterWatch of Oregon, Oregon Wild and numerous other environmental groups in asking that you do everything possible to protect Oregon Rivers.

Thank you,

Tracy Boyer

541/241.0931 (m)

## Katherine Bragg

**From:** Katherine Bragg
**Sent:** Tuesday, July 18, 2017 5:40 PM
**To:** WRD_DL_waterstrategy
**Subject:** Water Management in OR

- Additional protections for groundwater
- Better protection for fish and wildlife
- Investments in climate change adaptation
- Better measurement and reporting of water use

## Bartholomew Brandner

**From:** Bartholomew Brandner
**Sent:** Tuesday, July 18, 2017 10:00 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Bartholomew Brandner
Cornelius, OR 97113

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Bartholomew Brandner

## Ken Brinich

**From:** Ken Brinich
**Sent:** Thursday, July 13, 2017 12:59 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Thank you for the opportunity to comment.
I support management of rivers and streams that preserves stream flows and water temperatures conducive to thriving fish populations. Minimum stream flows have been ignored in favor of diversion for agricultural, municipal, and residential growth use. There has to be a limit on how much water can be diverted. The failure to manage for healthy fish populations is a violation of the public trust. As noted in your strategy cold water is vital to fish habitat. Free flowing water that stays cold longer, and benefits fish habitat is every bit as bucolic as an impoundment that creates slack water for a water feature. Let the water flow.

Here are my priorities:
DEMAND. The department's policy must promote instream flow and cold water temperatures. I appreciate your efforts to implement policies that promote these goals.
To these ends you must forecast instream water demand. Your forecast for out of stream demand establishes a data point without reference to instream demand. Revise to identify all demands, including instream flows necessary to sustain and support fish habitat.
MEASURE. You cannot study what you do not measure. By 2002 you should implement the Water Resources Measurement Strategy. Measure Measure Measure. How else can you know the impacts of your policies.
RESILIENCY. Have a plan for drought. Instream flows must be protected during drought. Municipalities that rely on growth for a healthy economy must be put on notice that water supplies will be drawn back during drought years. This is especially important east of the Cascades where the climate is dry and demand for growth is high.
INSTREAM FLOW STUDY. Fund studies for establishing minimum instream flows for a variety of scenarios (drought, demand for residential growth, municipalities, fisheries).
PRICING. Economic incentives drives efficiency. Without an economic tail wind efficiency doesn't happen. The current prior appropriations and beneficial use doctrines promote waste. "Beneficial use" is, at best, an inaccurate term. Redefine beneficial use so that efficient water use is less costly than wasting water. Those who waste water are stealing from the public trust. There needs to be a penalty for economic inefficiency. Pricing must be part of the solution to inefficient use.

Those are my thoughts. I appreciate your consideration of my views.

Ken Brinich
Bend, OR 97703

Ken Brinich
Bend, OR
97703

## John Brinkley

**From:** John Brinkley
**Sent:** Tuesday, July 11, 2017 9:49 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

My specific concerns about Oregon's watersheds and rivers: 1) Improve management of the water releases from Pelton dam to the lower Deschutes. Water is too warm and is having a very negative effect on the fishery. 2) Work with Watershed Councils to restore river floodplains wherever possible to create habitat for migrating anadromous fishes. 3) work out ways to protect stream banks from cattle grazing. 4) remove remaining useless and outdated dams on the Rogue River.

John Brinkley
EUGENE, OR 97405

## Mark Brocker

**From:** Mark Brocker
**Sent:** Wednesday, July 19, 2017 10:01 AM
**To:** WRD_DL_waterstrategy
**Subject:** Water!

Water is essential to the well-being of human life and all life. Thank you for your efforts to preserve and protect it here in Oregon.

Sent from my iPhone

## Jerry and Anne Brown

**From:** Jerry and Anne Brown
**Sent:** Tuesday, July 11, 2017 9:54 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

The Integrated Water Resources Strategy adopted in 2012 provides a blueprint for meeting Oregon's water needs. Please make sure updates include 1) instream demand forecasts, 2) water use measurement and reporting, 3) a drought resiliency plan for rivers, 4) new instream water rights and, 5) funding to improve water use efficiency.
Thank you,
Jerry & Anne Brown

Jerry and Anne Brown
Portland, OR 97212

## Clint and Candace Brumitt

**From:** Clint and Candace Brumitt
**Sent:** Monday, July 17, 2017 11:18 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

The article last year in the Oregonian speaks volumes to the need to plan and implement water usage into the future. As the agency charged with that action, it is most important that you do what is necessary to make sure there is water for both instream and withdrawal usage.
Waterwatch has a series of points that I am sure you will see. They are excellent guidelines to follow.

As the state grows the need for long term planning really becomes evident.
Attack this idea with vigor and enthusiasm so the our kids and grand kids can enjoy the Oregon we have all experienced.

Clint Brumitt
Eugene, OR

Clint and Candace Brumitt
Eugene, OR 97401

## Megan Burns

**From:** Megan Burns
**Sent:** Thursday, July 13, 2017 1:03 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Megan Burns

Portland, OR 97217

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Megan Burns

## Michael Cairns

**From:** Michael Cairns
**Sent:** Wednesday, July 19, 2017 7:47 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Michael Cairns

Independence, OR, 97351

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Michael
Michael Cairns

## Maurine Canarsky

**From:** Maurine Canarsky
**Sent:** Tuesday, July 18, 2017 3:39 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

I am deeply concerned about our water here in Oregon. With droughts and loss of wildlife and fish habitat, this can only continue to degrade our environment.

Please consider the following:

Additional protections for groundwater;
Better protections for fish and wildlife; Investment in climate change adaptation; and Better measurement and reporting of water use.

With an approach emphasizing conservation, sustainability and judicious strategies based on the best available science, we can assure restoration of clean water now and in the future.

Thank you for your consideration.

Sincerely,

Maurine Canarsky
Portland, OR 97214-4851

## Nancy Carl

**From:** Nancy Carl
**Sent:** Thursday, July 13, 2017 12:23 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Nancy Carl
Carlton, OR 97111

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Nancy
Nancy L Carl

## Carleen

**From:** Carleen
**Sent:** Wednesday, July 19, 2017 11:16 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

We need our water for so many reasons

Sent from my iPhone

## P.J. Carter

**From:** P.J. Carter
**Sent:** Thursday, July 13, 2017 1:03 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

P.J. Carter

Corvallis, OR 97333

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

To: Tom Byler, Director
Oregon Water Resources Department

Clean water is essential for Oregonians and for our state's ecosystems. As a Native Oregonian, I take great pride in Oregon's commitment to sound environmental practices. I expect your Department to do all that it can to maintain and protect our clean waters.

Please make sure we are on the right path by adding the following to the updated Integrated Water Resources Strategy:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated IWRS.

Sincerely,

P.J. Carter
Corvallis, OR

Sincerely,

## Ken and Sandra Catlett

**From:** sandra
**Sent:** Tuesday, July 18, 2017 11:54 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Historically Oregon has established the standards in protecting our environment - starting with our water. The proposals set forth are necessary and can be achieved. Thank you for addressing the need to upgrade.

Ken and Sandra Catlett

## Eileen Chieco

**From:** Eileen Chieco
**Sent:** Wednesday, July 19, 2017 1:40 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Eileen Chieco

Ashland, OR 97520

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Eileen
Eileen Chieco

## Jane Civiletti

**From:** jane Civiletti
**Sent:** Tuesday, July 18, 2017 10:30 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

jane Civiletti

Oak Grove, OR 97267

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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Jane
Jane Civiletti

PLACESTUDY TESTIMONY **6/22/17**

I am writing to support the Placestudy approach to water resource planning and policy. I share my experience doing a Placestudy in Oregon, and my opinion on Placestudies based on extensive research in environmental issues, policies, and controversies.

Why Place Is important

In the words of Rebecca Solnit, in A Field Guide to Getting Lost, 2005, page 117, when describing Country Western songs and landscape,

> But the territory in which these dramas played themselves out were evoked in detail over and over again and if they were tragic songs about the failure of human love, they were also love songs about places, whose names were recited like incantations and caresses. The names or just the facts of bridges, mountains, valleys, towns, states, rivers, highways were recalled in reverie…So though they were overtly love songs, in most of them the landscape was a deeper anchor for being and the object of another, more enduring love. …you can not go back in time, but you can return to the scenes of a love, of a crime, of happiness, and of a fatal decision; the places are what remain, are what you can possess, are what is immortal. They become the tangible landscape of memory, the places that made you, and in some way you too become them.

My research points to Placestudies as the next evolution of truly effective environmental policy and processes. Most effective and practical environmental problems are solved in a Place. Localities often observe a given environmental issue first and last. The historical ecology and culture are major parts of an effective environmental policy because of the identification we all have with Place.

Experience with the IWRS Placestudy

The Water Resources Department has released guidelines to facilitate place-based approaches to integrated water resources planning. These initial guidelines received the study and engagement of knowledgeable Oregonian water consumers. In 2014, the Department examined local and regional water planning approaches in neighboring states, took public comment, and participated in stakeholder workshops to help shape Oregon's place-based planning guidelines. I attended a

stakeholder workshop in Salem It was well attended by local business and industry who were well represented. Several Oregon natural resource agencies also assisted as part of this process. Recently I just finished an advisory appointment with Oregon on the Integrated Water Resources Strategy, Policy Advisory Committee on water policy approaches including Place studies. The 20 or so committee members were some of the most experienced scientists, agency managers, and lobbyists from all over Oregon. We had excellent facilitation. The Water Resources Department has a publicly accessible record on the whole process.

National Experience of Placestudies in Oregon

I have done a Placestudy in Oregon as part of a federal advisory committee to the US EPA. It was part of a set of 5 we looked at, and among the first times the term was used in US environmental policy. To choose those first Placestudies we reviewed about 150 potential sites from Superfund National Priority lists, Base Realignment and Closure communities, and USEPA Brownfield grant recipients. We evaluated challenges and limitations to the implementation of a federal Placestudy policy. I think that the Oregon Placestudies have mitigated some of the challenges. The Oregon Placestudy was Albina. The report is too lengthy for this comment but is attached.

Attached is the National Environmental Justice Advisory Committee Placestudy Report "Unintended Impacts of Redevelopment and Revitalization in Five Environmental Justice Communities "

The Oregon and National Placestudy approaches Compared and Contrasted

The Oregon approach to Placestudies while new relies on basic principles of community planning.

Oregon builds a collaborative and inclusive process with the state agency as the convening stakeholder. This is one of the strengths of the Placestudy approach. With the support of a Project Team partners representing diverse interests are assembled, including other state agencies. Having a Project Team and including relevant state agencies was one of NEJAC'S recommendations. The Oregon approach has refined the Placestudy approach with practical, action-oriented processes. A communication and outreach strategy is developed to ensure an open and inclusive process. Oregon develops a governance agreement that describes

collaboration and decision-making; as also develops a work plan focused on immediate next steps. The Oregon Environmental Justice Task Force won a national award for collaboration from the USEPA the year I chaired it. Collaboration is a theme in most of my books and articles on environmental decision making. Oregon's approach to collaboration in this Placestudy approach is one of the most practical approaches in the US.

One big difference between theory and practicality is cost. Project Teams, communication and outreach teams, governance agreements and work plans cost money and resources, even though they incorporate volunteers. It is money well spent if the goal is to solve environmental problems without litigation. Water resources in Oregon have been the subject of expensive and acrimonious litigation for years. Because of growing population and water scarcity cycles these conflicts will inevitably grow. Which approach solves environmental problems? Endless litigation, or threat thereof, or Placestudies? Litigation involves 2 stakeholders who are conflicted by a narrow and legally defined set of issues. The decision may or may not inform public policy, and may or may not be enforced. Both the judicial decision making process, and the decision, are not transparent. The judicial decision may be precedent for other stakeholders with very different environmental controversies than covered in the judicial decision. It is awkward, expensive, and does not solve public policy issues of environmental conflict, especially Water. A community based, collaborative approach is worth it if the goal is to solve environmental conflicts efficiently, economically, and ecologically.

The Oregon approach is focused on Water, and its place in the local ecosystem. Information is designed to ne shared and developed. An advantage of including community is local knowledge. Because local knowledge differs from place to place a Placestudy approach fits well. The Oregon approach here is also action oriented because a goal here is to develop strategies to fill information gaps. This is very important for water resource decisions based on water basins. It facilitates the incorporation of land use, climate change, and population growth as they affect water resources. No other policy of environmental decision making does this, and in my view, it is a reason why modern US environmental policy is ineffective solving environmental conflicts. The NEJAC Placestudy was designed to catch any unintended impacts of urban environmental redevelopment, or in other words, to fill information gaps. The contribution of actual, real time knowledge to environmental policy and planning is very valuable, no matter what the environmental issue.

The Oregon approach to Placestudies goes beyond the NEJAC experience in its action focus. Identifying and prioritizing solutions to multiple water needs is sorely needed in Water resource decisions. This is the essence of water controversies everywhere, and is the point where litigation begins. This stage will require experienced facilitation, which is an expense.

One concern with the Placestudy approach is that the local community will deplete the resource. This is a risk if the process is not transparent, inclusive and diverse. The Oregon Placestudy approach, while action oriented, does have an important check on this risk in that any water resources plan must be approved by the Water Resource Commission, and other state agencies.

When Placestudies are developed across state agencies, and processes for intergovernmental relations between state agencies are in place I believe that the overall costs to the state and community for practical environmental policy will be less than the multiple agencies with conflicting missions, unfunded mandates, and litigation.

Environmental Justice Perspective

Environmental Justice (EJ) refers to the disproportionate impacts of environmental burdens. It is not a subset of US environmentalism. The Oregon Environmental Justice Task Force was legislatively designed to assist state natural resource agencies and report to the governor on environmental justice issues in Oregon. One recent product was a "Best Practices" handbook for state agencies to handle EJ issues. Attached. The EJTF, and the history of EJ in Oregon, is discussed specifically in the Oregon context in my attached law review article on point.

One of the many strengths of EJ is community. It is also the strength of the Placestudies Approach. I strongly suspect the Oregon rural and urban Placestudies will have EJ issues. Some of the EJ issues addressed in the NEJAC report may be useful here.

Evaluation

It is very important that each part of the Placestudy be evaluated in terms of improvement of its processes, and its impact on the environment. Lessons Learned, Best Practices, and Guidance will be needed. This evaluation group will need to represent diverse interests and practice inclusion, including EJ.

Respectfully Submitted

Robert Collin

Retired professor Environmental Studies, Law), author and founding Oregon Environmental Justice Task Force member

Author of 5 encyclopedias and numerous law review articles on Environmental Controversies (2 volumes), Energy with Professor Robin Morris Collin (2 volumes), Sustainability with Professor Robin Morris Collin (3 volumes), and Trash Talk: Waste and Recycling Around the World.

Attachments

Environmental Justice Best Practices Handbook

National Environmental Justice Advisory Committee Placestudy Report "Unintended Impacts of Redevelopment and Revitalization in Five Environmental Justice Communities

Environmental Justice In Oregon, Lewis and Clarke Law Review

## Frank Conte

**From:** Frank Conte
**Sent:** Saturday, June 10, 2017 12:41 PM
**To:** MUCKEN Alyssa M * WRD
**Subject:** Re: [IWRS] IWRS Public Comment Period Extended to Wednesday, July 19, 2017

Dear Altssya,
I am enclosing copies of my book on Climatic Drought Impact on Our saline lake Lake Abert to be used by your group
as an educational material that has been collected over twenty years by various investigators. YOUR GROUPS PRELIMINARY
PUBLICATION DOES NOT HAVE MUCH MATERIAL ON THIS LAKE (YOUR TWO LAKES OF SUMMER LALE AMD GOOSE LAKE AND
MALHEUR LAKE DOES NOT HAVE ANYTHING ON LAKE ABERT. WE CANNOT BE AT YOUR JULY MEETING DUE TO OUR PROJECT0
AT SUTTLELAKE IS TAKING UP ALL OF OUR TIME. PLEASE KEEP US IN THE LOOP OF EDUCATION AND INFORMATION THAT YOUR
GROUP IS PERFORMING FOR THE STATE OF OREGON. THANKS FOR ALL OF THE INFORMATION THAT YOU HAVE SENT ME. KEEP
UP THE GOOD WORK.
CHEERS FRANK.
(See our email adjuncts attached to this letter.

Frank P. Conte, PhD
High Lakes Aquatic Alliance Foundation
Camp Sherman, OR 97730

## Wendy Cook

**From:** Wendy Cook
**Sent:** Tuesday, July 18, 2017 10:07 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy input

The Nature Conservancy has long been a voice of rational reason and responsible stewardship for our land and water, ensuring our enjoyment of today's natural resources is balanced against preservation for tomorrow's needs. As you contemplate the future of our water reserves, please know that I join The Nature Conservancy in advancing these priorities (especially in the face of special interests who may have big pocketbooks, but little vision for Oregon's vibrant future):

- Additional protections for groundwater
- Better protection for fish and wildlife
- Investments in climate change adaptation
- Better measurement and reporting of water use

Thanks,

Wendy

Wendy J. Cook Communications, LLC

| Eugene, OR 97405 |

## Rebekah Creswell

**From:** Rebekah Creswell
**Sent:** Wednesday, July 19, 2017 12:10 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Rebekah Creswell

Portland, OR 97217

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Rebekah Creswell

## Nancy Crumpacker

**From:** Nancy Crumpacker
**Sent:** Wednesday, July 19, 2017 7:11 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Nancy Crumpacker

Portland, OR 97210

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Nancy Crumpacker

## Steven D.

**From:** Steven d
**Sent:** Tuesday, July 18, 2017 11:48 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

here's what I consider most important:

- **Additional protections for groundwater**
- **Better protection for fish and wildlife**
- **Investments in climate change adaptation**
- **Better measurement and reporting of water use**

Clean and plentiful water is the foundation of everything cherished about Oregon.

## Stacey Daniel

**From:** Stacey Daniel
**Sent:** Tuesday, July 18, 2017 5:09 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Stacey Daniel

Cottage Grove, OR 97424

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Stacey Daniel

## Mike Darck

**From:** Mike Darck
**Sent:** Monday, July 17, 2017 6:40 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please write your comments here:

Hello, let's not let a few wet winters defer the truth; that water is our most precious resource. How we respect this fact, will create our destiny.

Sincerely,

Mike Darck

Mike Darck
Medford, OR 97501

## Dawn Dauble

**From:** Dawn Dauble
**Sent:** Tuesday, July 18, 2017 4:59 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Dawn Dauble

Otis, OR 97368

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Dawn Dauble

## Mariah Davis

**From:** Mariah Davis
**Sent:** Friday, July 14, 2017 10:37 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Mariah Davis

Portland, OR 97202

July 15, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Mariah Davis

## Genevieve DeGuzman

**From:** Genevieve DeGuzman
**Sent:** Tuesday, July 18, 2017 11:07 PM
**To:** WRD_DL_waterstrategy
**Subject:** Comment on the Integrated Water Resources Strategy

Hello,

I am a resident of Portland, Oregon and live in St. Johns. I just want to commend the Water Resources Department on efforts to adopt actionable strategies that specifically add additional protections for groundwater reserves, fish and wildlife, and investments in the effects of climate change, such as drought mitigation. I also hope that priority will be given to better ways of measuring and reporting water use in the state. Clean, safe, and healthy water systems are the life blood of our natural bounty in Oregon.

Thank you for taking my comment.

Sincerely,

Genevieve DeGuzman
member of The Nature Conservancy
Portland, OR 97203

## Susan Delles

**From:** susan delles
**Sent:** Thursday, July 13, 2017 2:13 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

susan delles

rogue river, OR 97537-9771

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
susan delles

## Suzanne DeLorenzo

July 19, 2017

Oregon Water Resources Department
c/o Alyssa Mucken
North Mall Office Building
725 Summer Street NE, Suite A
Salem, Oregon 97301

**Subject: Integrated Water Resources Strategy 2017 Update**

Dear Oregon Water Resources Department staff,

I appreciate the opportunity to comment on the 2017 update to Oregon's Integrated Water Resources Strategy (IWRS). As a member of the IWRS Policy Advisory group and the HB 4113 Drought Task Force, former Chair of the Oregon Water Utility Council, and Water Quality and Conservation Manager at Clackamas River Water I take a great interest in our water resources from source to tap. The addition of new sections is encouraging and overall I am very pleased with the outcome of the IWRS 2017 update.

The Update integrated several issues into the Strategy that are important to Oregonians, including the addition of sections on extreme events, dam safety, groundwater protection, and investment in local or regional water-planning efforts. These issues, and the projects that stem from them, can all fall under the umbrella of Place-Based Planning if encouraged and warranted. The emphasis on Place-Based Planning in Chapter 4 is a welcomed addition building upon efforts and ideas set forth in the 2012 recommended actions and the 2015 Planning Guidelines and will become integral to local and regional water-planning efforts providing the program is properly funded, nurtured, and developed. Progress, although slow, is being made on taking Place-Based Planning from idea to reality. This is an encouraging and exciting time from a water resources standpoint.

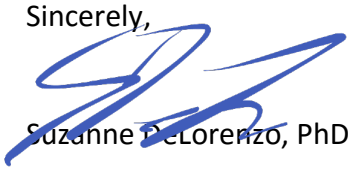
Without financial and technical assistance, however, most projects started under the Place-Based Planning guidelines will become unsustainable. The Update states that it is important that the current projects succeed in developing place-based plans that lead to implementation of local solutions. This is true for the Pilot programs, and for future of place-based pioneers. A primary focus should be not only on the success of current pilots, but sustainability of programs that can facilitate the building of a place-based culture for water management statewide. Stakeholders need to see that these programs produced viable, lasting results. Only then will it inspire others to take the leap and come to the table with water users once viewed simply as competing interests. The Update does a decent job of laying out the challenges that many communities may face, but sustainable funding seems to be an underlying theme among issues facing the pilot programs. How will OWRD help these programs overcome such a hurdle?

Switching gears, the addition of the section on Lead in Public Drinking Water (Chapter 1, p. 30) is of concern. Although lead in finished drinking water may be related to water quality it is not

inherently a source water issue, but rather an issue with chemical reactions between water and plumbing components. This section seems disjointed and out of place in the IWRS, particularly when most other issues mentioned under the "Understand How Public Health is Protected" section are issues dealing with source water contamination. The section should be re-examined, rewritten to be more relevant in the context of the Update, or removed.

In closing, I appreciate the continued focus of OWRD and the Oregon State Legislature on updating and implementing this critical element of a statewide strategy to manage Oregon's water resources. If I can provide any additional assistance or if there are questions, please feel free contact me at 503-722-9241.

Sincerely,



Suzanne P. LoRenzo, PhD

Water Quality and Conservation Manager
Clackamas River Water

## Sarah Deumling

**From:** Sarah Deumling
**Sent:** Monday, July 17, 2017 9:45 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Water is perhaps our single most important resource. Without adequate water most of our other issues don't matter. The state would be wise to fund all water conservation and water management projects generously. I am particularly concerned about habitual wasteful habits with water on individual, household and industrial/agricultural levels and would favor public campaigns and incentives to encourage thriftiness with water.

Also with changing climate patterns funding of water storage projects are important.

I am a rural household of one person and have used an average of 5 gallons of water/day over the last three years in my household while living a very comfortable and happy life. Very happy to share my tricks.

Sincerely,
Sarah Deumling

Sarah Deumling
Rickreall, OR 97371

## Sarah Deumling (Comment #2)

**From:** Sarah Deumling
**Sent:** Tuesday, July 18, 2017 8:50 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Sarah Deumling

Rickreall, OR 97371

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Sarah Deumling

## A Michael Dianich

**From:** A Michael Dianich
**Sent:** Wednesday, July 19, 2017 7:21 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

A Michael Dianich

Corbett, OR 97019-8774

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
A Michael Dianich

## Loye Dice

**From:** Loye Dice
**Sent:** Tuesday, July 11, 2017 11:26 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please write your comments here. To whomever it may concern, I firmly believe and insist on maintaining the current regulations on the use of our water from the river, and continue to conserve water when necessary, and not drain the river during the winter or summer ! We must maintain the current flow to sustain plants,vegetation and animals that depend on the river.sincerely Loye R. Dice

Loye Dice
Bend, OR 97702

## Margaret Dillender

**From:** Margaret Dillender
**Sent:** Monday, July 17, 2017 2:04 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Margaret Dillender

Portland, OR 97215

July 17, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Margaret Dillender

## Joan Downey

**From:** Joan Downey
**Sent:** Thursday, July 13, 2017 11:44 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Joan Downey

Milwaukie, OR 97267

July 14, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

joan
Joan

## Gene Downs (blank)

**From:** Gene Downs
**Sent:** Wednesday, July 12, 2017 9:22 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please write your comments here.

Gene Downs
Salem, OR 97305

## Jennie Sue Dunn-Dixon

**From:** Jennie Sue Dunn-Dixon
**Sent:** Wednesday, July 19, 2017 4:51 AM
**To:** WRD_DL_waterstrategy
**Subject:** Water in Oregon

Hello,

I have been enjoying kayaking Oregon rivers this summer along with all the wonderful wildlife I see along the way.
I also have the most wonderful well water to drink at my home.

I would like my grandchildren to enjoy these same delights!
I am writing to you to remind you to prioritize clean, unpolluted rivers and safe drinking water.
Please continue protecting fish and wildlife, and managing our water resources to balance current and future needs in a sustainable manner!

Thank you for your efforts!
Jennie Sue Dunn-Dixon
McMinnville, OR 97128

## Jean Edwards

**From:** Jean Edwards
**Sent:** Tuesday, July 11, 2017 8:31 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

For several years, we have been watching and supporting the strategy which will be a blueprint for meeting instream and out-of-stream water needs. We are berry farmers who understands the importance of clean, sufficient water flows for food irrigation. We support policies and legislative funding of this effort. Please help by adopting this sensible and necessary plan.
thank you
Jean Edwards
Hillsboro, OR

Jean Edwards

Hillsboro, OR 97124

**Paul Engelmeyer**

**From:** Paul Engelmeyer
**Sent:** Wednesday, July 19, 2017 11:59 AM
**To:** WRD_DL_waterstrategy
**Subject:** Comments ie the Draft IWRS

**I would like to submit comments concerning Oregon's 2017 Draft Integrated Water Resource Strategy.**

**- It is essential the document incorporates the latest information i.e. the needs for fish, water quality and recreational needs. In-stream minimum flows needed to support healthy populations of salmon are essential if we are going to recovery our ESA listed coho salmon. This effort may keep the other species from becoming more depleted like the ESA listed eulachon and the sensitive species pacific lamprey. How we can develop forecasts for projecting water demands for all of our needs will be a challenge. But, one thing we can expect is to have increased storm events as well as droughts throughout the region as a result of climate changes.**

**Understanding the current condition of the water table as well as the current uses will need a fully funded program to implement a credible plan for the future. I endorse the direction of developing a new strategy to deal with drought resiliency. This comes back again to understanding current flows and the needs of the fish. We must set minimum flows and have a better understanding of existing water rights and uses. Currently, we could more to truly protect rivers and fish populations. And I am concerned that the 2017 draft does not adequately establish and protect flows for fish and wildlife.**

**In the document, Figure 1-7 concerning water quality acknowledges the 21,000 miles of streams do not meet Clean Water Act standards - but the map is dated 2010. I would think that would be an easy update to share a current up-to-date map with the public. Include the known streams on the 303dlist and the watersheds that have completed TMDLs. There is a direct link from water quantity to quality and there are a number of actions that could and should be incorporated in the strategy.**

**With regards to Critical issues page 19 - it does not include ecological processes and water quality and quantity. I would urge a more complete story about the value of the beavers to store water naturally as well as improve water quality. As well as, the potential to secure forests to protect municipal watershed as a tool.**

**In regards to groundwater issues the story facing the Triangle Lake community is a perfect example of existing uses in a forested landscape having a significant impact as a result of the forestry spraying program. Again, a direct link from the uplands to the health of small rural community. Groundwater monitoring program is essential and should be fully funded.**

**In Chapter 1, page 32 the document calls out the value of the Steam Team - an interagency effort. While I agree with the concept the reality is something different. Look at the existing buffers on forestry and agricultural lands and water quality issues identified earlier in this chapter. There is a disconnect - the legal challenge concerning the water quality on the coast has yet to get this Team to develop a credible program to protect water quality on forestry or agricultural lands. Buffers in CA/WA are much stronger on both forestry and ag lands. Why is there not a consistent buffer widths region wide based on the best science?**

**In Chapter 3 page 74 the draft shares the statewide planning goals - which are excellent goals. But, these goals should be linked to need to acknowledge that existing rules are inadequate to protect water quality. Earlier in the document there is an acknowledgement of the 20K stream miles that do not meet Clean Water Act standards but the need to make changes to existing rules is not included in the draft plan.**

**I totally support the draft's direction to include funding to better understand in-stream flow studies with a directive to adopt new in stream water rights. Additional gauges and analysis to better develop models to quantify the economic, social, and cultural value of in-stream uses is essential. This effort will dove-tail with the ODFW minimum in-stream flows for fish directive that is much needed**

**The section on the investments made by OWEB on watershed restoration is very impressive. The commitment to improve watershed health is truly impressive. But, if one discusses this effort of watershed restoration with**

**the US Forest Service and their investments in the past decades they are clear that we should focus our efforts on protection and restoration, with and emphasis on restoring ecological processes - we need to change the way our forests/unstable slopes and riparian zones are managed. This means changes to existing managements programs - both forestry and agricultural lands.**

**Another issue that must be articulated is the need to improve efficiency and conservation as a priority. Audits and evaluations linked to transitional programs should be developed for agriculture and industries. Who uses the most water and can it be better used and re-used to improve efficiency would be beneficial.**

**I support the concept of 'green infrastructure and low impact development'. Sharing this information about updating codes and developing concepts of natural infrastructure will be very important as this strategy plays out into the future. We need examples or success stories from other regions to help with developing these newer concepts.**

**I appreciate this opportunity to comment on the draft Strategic plan and hope to help move some of these issues forward into the future.**

**Paul Engelmeyer**

I

## Madeleine Fabris

**From:** Madeleine Fabris
**Sent:** Tuesday, July 18, 2017 12:09 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Water

As a resident of the state of Oregon I stand with the Nature Conservancy

- Additional protections for groundwater
- Better protection for fish and wildlife
- Investments in climate change adaptation
- Better measurement and reporting of water use

Madeleine Fabris
Grants Pass, OR 97527

## James Fenner

**From:** James Fenner
**Sent:** Tuesday, July 11, 2017 4:27 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

As a "native" Oregonian and avid user of OUR water resources--both for household use and outdoor recreation (such as angling, swimming, and boating)--I urge you to implement a strategy for Oregon that improves the following:

(1) Using Water Wisely and Efficiently:
The draft 2017 fails to include a priority on wise and efficient farm water use. Since farm use is a major drain on Oregons water resources, I strongly urge you to regulate water use by all users; to enforce those strong regulations to reduce (and eventually stop) water waste; and to develop basin-specific efficiency standards for agriculture.

(2) Measuring, Reporting, and Controlling Water Use: The "average" person knows that you cannot manage or control anything unless you measure it. Unfortunately, Oregon has yet to implement full measurement of either its water resources or water use! Therefore, I strongly suggest The 2017 Strategy should be updated to require full implementation of the Water Resources Measurement Strategy by 2020; to direct the state to seek broad reporting authority; to provide funding for the Water Resources Department measurement and reporting oversight; and to plan for and implement measurement and reporting not just for the most significant users and diversions but for all "major" users within ten years or so.

(3) Instream "Water Rights" and Water Demand: The 2012 Strategy included in- and out-of-stream demand forecasts and instream water rights for wildlife and fish. Little has been done, and the draft 2017 Strategy does little or nothing more. I strongly urge you to require Oregon to set adequate "water rights" in all streams, rivers, and wetlands in Oregon for fish and other wildlife dependent on those water resources; to require the 2015 Demand Forecast Report to include water demands for not only water users, but also for "instream" needs for fish, wildlife, other water recreation, and to provide adequate water quality, and to require adequate staff and funding to do so.

(4) Lastly, Drought Resiliency: I strongly urge you to require the new Strategy to require Oregon to development drought provisions in all plans and regulations to protect flows for fish, wildlife, and other non-consumptive water use, and to set adequate minimum flows on ecologically significant streams.

Thank you,

James H Fenner, PhD, PE
Colonel, USAF (Ret)
Registered Professional Engineer (Retired)

James Fenner
Lake Oswego, OR 97035

## Patti Ferry

**From:** Patti Ferry
**Sent:** Monday, July 17, 2017 2:54 PM
**To:** WRD_DL_waterstrategy
**Subject:** RE: Public Review Draft of Oregon's 2017 IWRS

I have only been able to briefly skim Chapter one but wonder the following:
Is there an incentive/rebate/tax advantage to farms/well water users to reclaim/filer water systems?
Are there studies into decontamination of pollutants or recycling this water into gray water usage?
I agree with the idea to set all ground water permitting to an annual date i.e. April 1st of your 5th year.
What about using interns from local universities in gathering/processing information from gaging stations?
I just received notice of Toledo's 2016 Annual Water Quality report being available form Toledo's City Hall Facebook page. Do other cities do the same and is there a coordinated way in which the information is delivered to the public?

Patti Ferry
Office Manager/Leadership Lincoln Coordinator
Newport Chamber of Commerce
Newport, OR 97365
Web: www.newportchamber.org

## Linda Firestone

**From:** linda firestone
**Sent:** Tuesday, July 18, 2017 10:29 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Please protect freshwater resources.
Sent from Mail for Windows 10

## Elizabeth Garleigh

**From:** elizabeth.garleigh
**Sent:** Tuesday, July 18, 2017 3:16 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

This is such a vital part of sustaining our lives and promoting good health. It is very important to address this issue and do something about it.

Elizabeth Garleigh

Sent from my T-Mobile 4G LTE Device

## Rebecca Geisen

**From:** Geisen, Rebecca
**Sent:** Thursday, June 01, 2017 9:32 AM
**To:** MUCKEN Alyssa M * WRD
**Cc:** Petrocine, Sara
**Subject:** IWRS Comments

Hi Alyssa,

I have some minor comments on the IWRS regarding groundwater protection. Chapter 4, page 126 talks about "groundwater policy set forth in rule" and goes on to list all OWRD's rules related to GW under OAR 690. It seems if this section discusses groundwater policy it should include DEQ rules as well.

Here are the OAR 340 divisions I'd suggest adding to identify the major existing state groundwater protections.

040 – GW Quality Protection
044 - UIC/Waste Disposal Wells
045 – Discharge Permitting
071 – On-site Wastewater Systems
073 – Construction Standards
122 – Remedial Actions
150 – UST Rules

There are some other, use-specific sections that might also be included but in which groundwater is less of a core issue.

050 – Land Application of Biosolids/Wastes
051 – Concentrated Animal Feeding Operations
053 - Graywater Reuse

Page 63 and 151 refer to the EPA's Climate Ready Water Utilities Program – the name has changed to "Creating Resilient Water Utilities" Program. https://insideclimatenews.org/news/27022017/epa-climate-change-donald-trump

I may have more broad comments later, but these seemed like they could be handled in a quick e-mail.

Thanks, Rebecca

Rebecca Geisen

Project Manager | Intergovernmental Coordination
Portland Water Bureau | Regional Water Providers Consortium
Portland, OR 97204
www.portlandoregon.gov/water | www.regionalh2o.org

## G. Gibson

**From:** G. Gibson
**Sent:** Sunday, July 16, 2017 1:40 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

G. Gibson

Portland, OR 97202-4530

July 16, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

G.
G. Gibson

## David and Sharon Goldstein

**From:** David Goldstein
**Sent:** Tuesday, July 18, 2017 3:10 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

We wish to express our support for the updated Integrated Water Resources Strategy, which will provide additional protections for groundwater, and for fish and wildlife, and provide for better measurement and reporting of water use. Thank you for allowing us to notify you of our support.

David and Sharon Goldstein

## Wanda Graff

**From:** Wanda Graff
**Sent:** Wednesday, July 19, 2017 1:20 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Wanda Graff

Canby, OR 97013-9725

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Wanda
Wanda Graff

## James and Rita Grauer

**From:** Rita & Jim Grauer
**Sent:** Tuesday, July 18, 2017 9:32 PM
**To:** WRD_DL_waterstrategy
**Subject:** Please delete previous message - read this one re: Oregon's Integrated Water Resources Strategy

To Whom it May Conern;

We undertsand that the State of Oregon is updating its Integrated Water Resources Strategy and that public comments are being accepted at this time. We are writing to let you know we believe clean, plentiful water is the foundation of everything we cherish about our great state.

We urge you to include the following in your update:

- Better protection for fish and wildlife

- Additional protections for groundwater

- Investments in climate change adaptation

Sincerely,
James & Rita Grauer
Ashland OR 97520

## Mike Gross

**From:** Mike Gross
**Sent:** Saturday, July 15, 2017 7:07 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Protect our water supplies. No stream should be used to the point of temperature or environmental degradation.

Mike Gross
CASCADIA, OR 97329

## Penny Guinther

**From:** Penny Guinther
**Sent:** Tuesday, July 18, 2017 10:36 AM
**To:** WRD_DL_waterstrategy
**Subject:** Water in Oregon

Clean and plentiful water is one of the beauties of Oregon. It sustains us and so much of the flora and fauna that makes the state so beautiful and such a wonderful place to live and enjoy the bounty of nature. I am writing to request

- Additional protections for groundwater
- Better protection for fish and wildlife
- Investments in climate change adaptation
- Better measurement and reporting of water use

The ecosystem is fragile and it is is our responsiblity to protect this beautiful state, not interfere with the ecosystem or destroy it by our actions or inactions as humans.

Thank you,
Penny Guinther

--
There is no safety in I know, no discovery, or curiosity, or exploration. What if not knowing is a more interesting way to live? What would you find, where would your life go, what miracles would unfold? What if life is in the questions?

PennyG

## Candice Guth

**From:** Candice, David Guth, Pogel
**Sent:** Wednesday, July 12, 2017 2:26 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

We all benefit from healthy rivers, for fish and clean water and recreation. I ask that you consider the following priorities for Oregon's waters. Develop instream demand forecasts, measure and report water use, develop drought provisions that will protect fish and wildlife, adjust instream water rights to what will protect waters and improve water efficiency. Oregon counts on a healthy environment with fish and wildlife and we have neglected these resource for too long.

Thank you,

Candice Guth

Candice, David Guth,
Pogel  Portland, OR 97214

## Neal Hadley

**From:** Neal Hadley
**Sent:** Tuesday, July 18, 2017 12:18 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

As a citizen of Douglas County, Oregon, I am very concerned for the health of our waterways and the plant and animal species that depend on them as we face the uncertainty of climate change. Please allow sufficient instream flow to allow for the unpredictable rainfall patterns we're likely to face. This should be accomplished with tools such as scientific forecasting and monitoring, efficient water use, and establishing instream water rights. Thank you.
Neal Hadley

Neal Hadley
Roseburg, OR
97471

## Corinne Handleman

**From:** Corinne Handelman
**Sent:** Thursday, July 13, 2017 12:13 PM
**To:** WRD_DL_waterstrategy
**Subject:** Prevent water pollution at the source

Corinne
Handelman
Portland, OR 97218

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Corinne Handelman

## Frankie Harvey-Shea

**From:** Frankie Harvey-Shea
**Sent:** Tuesday, July 18, 2017 6:29 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Frankie Harvey-Shea
Redmond, OR 97756

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
F.Harvey-Shea

## Dora Haslett (blank)

**From:** Dora Haslett
**Sent:** Tuesday, July 18, 2017 10:02 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

**Gloria Hatrick**

**From:** Gloria Hatrick
**Sent:** Tuesday, July 18, 2017 10:24 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon

I am writing in support of Oregon water. As a hiker, camper, nature lover, dog walker and drinker of water, I know so much is at stake.
I travel around Oregon and feel pride when I view its rivers and streams running free and unpolluted.
As a dog walker, I am dismayed at the state of local streams outside Portland. Dairy Creek is one. I am worried about the overuse of water by big corporations, especially here in the Silicon Forest.
We need to protect our groundwater. Preserve our wetlands to support fish and wildlife.
We need to be on top of where our water goes and how it is used.
Above all, we need to invest in the future of water. Life depends on it.

Thank you.

Gloria E. Hatrick
Hillsboro, Oregon

## Helen Hays

**From:** Helen Hays
**Sent:** Tuesday, July 18, 2017 10:40 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy

Dear Government Official,

Please develop strategies for the freshwater in our state so this critical resource will help all our citizens. It should include additional protections for groundwater, better protection for fish and wildlife, investments in climate change adaptation, and better measurement and reporting of water use. With careful planning, the needs of both nature and of people can be balanced to the benefit of both.

Thank you for your attention,
Helen Logan Hays

## Dennis Hebert

**From:** Dennis Hebert
**Sent:** Tuesday, July 11, 2017 5:58 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please make sure that the state commits to strong instream protections, smart management directives, and adequate funding for this critical work.

Dennis Hebert
Eugene, OR
97405

## Zechariah Heck

**From:** Zechariah Heck
**Sent:** Wednesday, July 12, 2017 9:31 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please support strong instream protections, progressive management directives, and, most importantly adequate funding for this critical work. I am concerned about the growth of central Oregon and the amount of water being drawn from the aquifer here.

Zechariah Heck
Grants Pass, OR 97526

## Zechariah Heck (Comment 2)

**From:** Zechariah Heck
**Sent:** Tuesday, July 18, 2017 7:40 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Zechariah Heck

Bend, OR 97701

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Zechariah

## Stephanie Henning

**From:** Stefanie Henning
**Sent:** Tuesday, July 18, 2017 10:40 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Stefanie Henning

Portland, OR 97206

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely, Stefanie
Stefanie Henning

## Annabelle Herbert (blank)

**From:** Annabelle Herbert
**Sent:** Tuesday, July 18, 2017 9:56 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

## Michael Heumann

**From:** Michael Heumann
**Sent:** Wednesday, July 19, 2017 3:30 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Michael Heumann

Portland, OR 97212

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Michael Heumann

## Sandra Hise

**From:** Sandra Hise
**Sent:** Wednesday, July 19, 2017 10:08 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Thank you for asking for input from the people of Oregon. I grew up in small towns like Oakridge (Willamette River and Salt Creek) and Winchester Bay (Pacific Ocean and Umpqua River). I cherish the memories of playing, swimming, boating and fishing in the water. In the 50s and 60s the water was cleaner and safer to drinking and to recreate in. Since then I been alarmed by the increasing degradation of our waterways.

I support wise and focused action to keep these valuable waterways abundant and safe for the people and future generations. Many people are seriously disconnected from the land in this generation. Let’s find a way to renew and heal that connection.

From the heart,

Sandy Hise
Beaverton, OR

## David and Marcia Hohler

**From:** David and Marcia Hohler
**Sent:** Tuesday, July 11, 2017 7:09 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

As a lifelong resident of the west and professional aquatic scientist I have witnessed the problems Oregon faces in dealing with water issues. I believe that it is imperative that we become more knowledgeable and prepared for the critical discussions and decisions that we have before us. I have reviewed the 4/19/17 draft Water Resources plan and want to encourage staff to:

A) Develop Instream Demand Forecasts that include the needs of commercial, municipal, and agricultural interests as well as fish, wildlife, water quality, and recreation. Not only are these resources critical to all oregonians but understanding the ecological needs of our rivers in a changing climate will determine how well we all adjust to the future demands. Without this data, the state cannot plan for and protect instream needs into the future. The 2017 Strategy should include a clear directive to determine instream demand forecasts in the face of our changing climate, and allocate the staff and resources necessary for this job.
B) Develop and implement a Water Use Measurement and Reporting System: The 2017 draft strategy needs to incorporate critical measurement goals. Measurement and reporting of water diversions are the cornerstones to effective water management. The 2017 Strategy should reflect: (a) require full implementation of the Water Resources Measurement Strategy by 2020; (b) direct the state to seek broad reporting authority; (c) provide funding for the WRD measurement and reporting oversight; and (d) plan for measurement/reporting beyond significant diversions into the future.
C) Drought Resiliency for Rivers: The Governor¹s office has directed that the new strategy include drought resiliency provisions. The new strategy should require development of drought provisions which protect flows for fish and wildlife, and set minimum flows on ecologically significant streams.
D) Instream Water Rights: The 2017 Draft includes a directive to conduct instream flow studies, and needs increased funding to do this work (appropriate funding might be double what is in current budgets).
E) Improve Water Use Efficiency: The new Strategy should work closely with all users, but especially farmers, to improve water use efficiency and water conservation. Beneficial use of water without waste is a basic tenet of Western water law, and a condition of use on most permits, and the state needs to step up its efforts to regulate wasteful water use.

David and Marcia
Hohler Corvallis, OR
97330

## Derek Holmgren

**From:** Derek Holmgren
**Sent:** Saturday, July 15, 2017 10:08 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Derek Holmgren

Portland, OR 97239

July 15, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Derek

## Michael Horenstein

**From:** Michael Horenstein
**Sent:** Thursday, July 13, 2017 12:23 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Michael Horenstein

Portland, OR 97219

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Michael
Michael Horenstein

## Karen Horton

**From:** Karen Horton
**Sent:** Tuesday, July 18, 2017 6:27 PM
**To:** WRD_DL_waterstrategy
**Subject:** FUTURE OF FRESH WATER

After moving from Louisiana after 46 years to Oregon in 2005, I can tell you that this state is like the Garden of Eden. The water here is so beautiful compared to the dirty, swampy water of Louisiana. Please make sure we keep our water clean and beautiful for the sake of all living creatures. It should be a source of PRIDE for our state. Thank you.

## Celeste Howard

**From:** Celeste Howard
**Sent:** Thursday, July 13, 2017 12:13 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Celeste Howard

Hillsboro, OR 97124

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Celeste
Celeste M Howard

## Linda Howie

**From:** Linda Howie
**Sent:** Tuesday, July 18, 2017 11:33 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

As an Oregonian what I am asking for is:

- 
- Additional protections for groundwater, better protection for fish and wildlife, investments in climate change adaptation, better measurement and reporting of water use, after all, clean and plentiful water is the foundation of everything we cherish about Oregon. Thank you for reading my email.

**Linda Howie |** Payroll Coordinator
**Xenium HR** |
d.

## Judy and Lester Hoyle

**From:** Judy and Lester Hoyle
**Sent:** Tuesday, July 18, 2017 5:09 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Judy and Lester Hoyle

Cave Junction, OR 97523

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Dear Director Byler,

We can't distribute more water than we actually have. Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on PREVENTING water pollution at the source. (Much easier than attempting a cleanup after the damage is already done!) We especially need to address the agricultural chemicals that contaminate rivers and drinking water sources, and excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must REMAIN in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan MUST assure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring ALL water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies NOW to ensure the long-term sustainability of our ecosystems, economy and quality of life.

Please STRENGTHEN these components of the updated Integrated Water Resources Strategy.

Sincerely,
Judy and Lester Hoyle

***Comments:*** *Please write down your thoughts on these questions. Copies of the revised strategy are available in the back for review, but general answers are fine too. If you would like your comments submitted individually, write your name and organization at the bottom of this sheet. If you want them submitted with our group comments, feel free to leave that part blank.*

What is important to your community? a balanced approach to all needs and users of natural resources.

Where should the state focus its resources? we feel the focus should be on water storage, above and below ground. New sources as all current sources and volumes are allocated.

How can we better foster an integrated approach to water management? assure valley residents ~~to~~ get involved as they all benefit in one way or another

How is your community helping to make progress on the recommended actions in the IWRS?

they as a whole are not.

Any other comments on the revised strategy or why water in the Upper Grande Ronde Watershed important to you? Restated - focus the effort on new unallocated water opportunities

(Optional) Name: Rodger H. Huffman

(Optional) Organization: Union Co. Cattlemen

## Kevin Hughes

**From:** Kevin Hughes
**Sent:** Monday, July 17, 2017 6:17 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please ensure that the 2017 update commits to strong instream protections, smart management directives, and calls out adequate funding for this critical work.

Kevin Hughes

Anacortes, WA 98221

## Michael Iaquinta

**From:** Michael Iaquinta
**Sent:** Tuesday, July 18, 2017 3:59 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Please consider every contingency before you meddle with Oregon's waterways.
Thank you
Michael iaquinta

Sent from my iPhone

## Dan Jaffee

**From:** Dan Jaffee
**Sent:** Monday, July 17, 2017 4:37 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Dan Jaffee

Portland, OR 97211

July 17, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

I urge you to add the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Thank you very much for your attention

Yours Sincerely,
Dan Jaffee

## Joel Johnson

**From:** Joel Johnson
**Sent:** Thursday, July 13, 2017 12:03 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Joel Johnson

Vancouver, WA 98661

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Joel
Joel V. Johnson

## Georgia Johnston

**From:** Georgia Johnston
**Sent:** Thursday, July 13, 2017 12:13 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Georgia Johnston

Beaverton, OR 97008-9404

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Georgia
Georgia Johnston

## Doug Jones

**From:** Doug Jones
**Sent:** Wednesday, July 19, 2017 8:37 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Doug Jones

Oak Grove, OR 97267

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Doug Jones

## Sandra Joos

**From:** Sandra Joos
**Sent:** Thursday, July 13, 2017 10:24 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Sandra Joos

PORTLAND, OR 97239

July 14, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Sandra Joos

## Denise Kalakay

**From:** KALAKAY Denise A
**Sent:** Tuesday, July 18, 2017 4:05 PM
**To:** WRD_DL_waterstrategy
**Subject:** comments on integrated strategy

Thank you for providing the opportunity to comment on the revised integrated water resource strategy. In particular I would like to support the Place-based planning portion of the strategy. There is a common understanding that water is and will continue to be a primary concern for the state which has a growing population, and heavily dependent economy. Our region, in particular is eager to initiate place-based planning to effectively address the unique combination of factors and interests in the Willamette River headwaters. A place-based planning process would allow a dialogue and integrated planning process to understand resource complexities and address regional water resources issues to support the common purpose of maintaining healthy watersheds.

Place-based planning would address our local challenges by providing a context-specific venue through which to analyze cumulative effects and opportunities. This results in multiple objective designs across agency/stakeholder efforts achieving efficiencies and ensuring effectiveness. Stakeholders can articulate mutual interests, address issues of common concern, and identify near and long term solutions for the benefit of multiple entities and programs (drinking water, TMDL, agriculture, industry, floodplain, etc.).

Strategies related to provisions of State funding and technical assistance are critical to achieve successful regional water resource planning efforts.

Thank you,

Denise Kalakay
Principal Planner
Lane Council of Governments

## Ann Kalish

**From:** Ann Kalish
**Sent:** Tuesday, July 18, 2017 10:26 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Hello,

I deeply care about the future of our freshwater resources which are vital to Oregon's future.

The following are what's most important to me:

- **Additional protections for groundwater**
- **Better protection for fish and wildlife**
- **Investments in climate change adaptation**
- **Better measurement and reporting of water use**

Clean and plentiful water is the foundation of everything we cherish about Oregon.

Sincerely,

Ann Kalish

*Compassion is language the deaf can hear and the blind can see.*
*~Mark Twain~*

## Cyndi Karp (Comment #1)

**From:** Cyndi Karp
**Sent:** Monday, July 17, 2017 12:42 PM
**To:** BURRIGHT Harmony S * WRD; MUCKEN Alyssa M * WRD
**Cc:** WRD_DL_waterstrategy
**Subject:** 2017 OWRD/IWRS Draft Comments Chapter 1-3

OR Water Resource Dept Integrated Water Resources Strategy

OWRD/IWRS 2017 Draft comments

Chapter 1

Page 10 "The 2017 Strategy introduces five new areas with supporting recommended actions." Need to add "Water Conservation" to make it six. Water Conservation is a critical area for the future of Oregon water.

Page 16 Groundwater "Water percolates into the ground from rainfall, snowmelt, man-made projects, such as irrigation systems, and other sources. Add: natural lakes, beavers ponds and other sources.

Page 18 Water Quality "Temperature, sedimentation, and nutrients are the leading causes of pollution that impair Oregon's rivers and streams." How can you make this statement of leading? When there is human pollution from chemicals caused by Timber, Agriculture, Industry and Pharmaceuticals.

"Water temperature is a critical water quality parameter because it directly affects the survival of sensitive species such as salmon and trout.
Add: Lamprey

"Stream temperatures can increase as a result of air temperatures, low streamflow, loss of riparian vegetation, channel modification, or warm discharge." Add: loss of native species, like beavers.

"For lakes, ponds and reservoirs, dissolved oxygen and algal growth are the two most common water quality issues." Add: Many times caused by water areas being surrounded by homes & septic systems during high summer use.

Page 19 4th paragraph- "Improving our knowledge of water resources requires investments in inter-agency work, scientific modeling tools and platforms to share information with the public and other partners." Add: (after tools) comprehensive water quality testing,

Page 19 6th paragraph - Streams that serve as a drinking water source trigger more stringent forestry protections.
Add (after source) or critical habitat for listed fish

Page 30 Third paragraph While found naturally in the earth's surface, lead can also leach from plumbing fixtures into drinking water in homes, schools, correctional facilities, and businesses.
Add (after surface,) sports recreational use of lead sinkers and ammonition,

Chapter 2 Page 47
Understand Base Flows and Elevated Flows
Add: Low or Drought Flows Whether low flows from over draws of available water or drought caused low flows.

Last paragraph, last sentence.
The state can begin studies of elevated flow needs by developing criteria to determine what is needed in each water basin/watershed.
Add: /ecosystem. water basin/watershed/ecosystem

Chapter 3

Page 51 Critical Issue Recommended Action Chart
Add: Water Conservation 8.E Plan and Implement Outreach for Statewide Water and Energy Conservation program.

Page 53 Expand Oregon's Non-Traditional Hydroelectric Portfolio
End of the paragraph Add: Some locations on the west coast are installing generators in Municipalities domestic water lines producing energy for local use and main feed lines with the ability to generate power when wanted.

Page 54 Gain Water and Energy Savings (add) Through Conservation.

Page 59- 62 Beaver are a critical restoration species that can store water for climate change. There is not one word about Beavers in this section. I am extremely disappointed Beaver were not included as a Climate change actions for solutions. Beavers should be includes in several areas of this OWRD IWRS document. They are a mega Keystone Species and should be honored as such. Beavers can help save Oreogn from Droughts, Climate Change, Above and Underground Water Storage, releasing when sorely needed water for irrigation and baseline water is needed for all species. Beavers can catch the rare summer rains. Beavers store the winter rains for summer. Understand the importance of what Beaver water storage was before Europeans Executed 99.9% of the Beavers in Oregon. Even worse, we keep doing it. Oregon has some the Weakest Trapping Laws on Beaver in the Country. Oregon should hand it head in shame the way Beavers are treated in Oregon. Beavers are a Mega Keystone Species for many reasons.
Beaver maintain summer waterflows, refill underground aquifers and provide year around water for threaten and endangered species in many stages of life. Beaver's are a mega keystone species that provide water for all species, including human for irrigation and to drink. Impact to Coastal Systems is where Beaver can help the most. Beings there is very little underground aquifer for water storage to be released gradually, Beaver's ability for water storage, especially when a large family of Beavers develope in an area.

Curl Creek on the upper Estuary of the Salmon River has signs of Eight old Beaver Dams in less than a mile. Before Curl Creek habitat and Native Fish run was destroyed by an artifical Dam/Waterfall, can you image what that mile of Beaver dams did for summer water storage, native fish & animals. Provided summer water source that young native fish had food to eat and grow. Oregon ecologic waterways system is broken due to lack of Beavers.

Lack of Beaver is an Oregon Critical Issue that continues to be ignored by all State Agencies. Oregon must recover Beavers to bring back a holistic Ecosystem that is in balance for all species. Humans can not continue to devastate Native Species. Ignoring the importance of Beavers

is the continued abuse of Native species. Oregon needs a implementable plan for Beaver Recovery. Give them tax breaks on their harvested logs for helping to recover Beaver Habitats and Active Beaver Families with Multiple Ponds.

Curl Creek is an excellent example of Beaver Families and their Habitat destroyed. All the Beavers were killed in a few days. Then, the dams were chain sawed and destroyed. No more Native Endangered Habitat for multiple species. And it continue today. OWRD and ODFW continue to play back and forth on Curl Creek. OWRD did declare that it is a Fish Passage Block. OWRD did say that the Dam/Waterfall is not permitted in Curl Creek.

Now what for Curl Creek? How many more years is it going to take? We already lost funding for a TA Grant to repair mouth to headwaters restoration, including Beaver Habitat and Families. When does the State of Oregon get off the can and solve the Curl Creek issue. Curl Creek on the upper Estuary of Salmon River is listed as a Critical Habitat for Threatened and Endangered Species. This is the highest status that a waterway can receive. I sent you a copy of the Federal document that has USA Critical Habitat listing.

Page 65
Fishing Related Impacts In 2014 & 2015 Drought, Coastal Rivers had high fish mortality of many species, including Coastal Coho.

Page 69 Understanding Oregon's Flood Risk
Add: Clearcut Timber Harvesting with the use of chemicals adds to flood and landslide risk. This fact has been determined by the Federal Courts.

Page 70
OSU HMSC in Newport has precipitation records for Newport, OR.
USGS has some river level and water gauges on select location in the Mid Coast area.

Page 72 In heavy septic systems area, discharge water loads the under ground surface water causing higher rates of landslide failures and liquifaction.
For instance, south of Beverly Beach area, north of Newport.

Page 73 Critical Issue - Water and Land Use Identify Local Superfund Cleanups and monitor water outputs for contamination.

Page 78 1st paragraph "Since that time, only two state agencies have updated their State Sgency Coordination Program." Identify Agencies.

Senate Bill 815 did not pass out of committee.

Last paragraph *"Low Impact Development in Western Oregon: a Practical Guide for Watershed Health*." Error 404 occurred when trying to link to document. Link Bad

Page 85 Monitoring High Hazard Dams "The Water Resources Department is not authorized to require monitoring on high hazard dams, even those in poor or unsatisfactory condition." OWRD Director should make a direct request to the Legislators to write a bill to fix the Dam Breach with High Risk to Safety of Oregonians. Legislator's should provide protection to Oregon Citizen's by directing OWRD to monitor with authority to Take Immediate Action.

Page 87  Outdoor School  More funding is needed, so every Oregon School Child can attend Outdoor School and Children's Clean Water Festival.

Chapter 4-5  Page 90-160 comments forth coming.

Cyndi Karp
Ecosystem Advocate

## Cyndi Karp (Comment #2)

| | |
|---|---|
| **From:** | Cyndi Karp |
| **Sent:** | Tuesday, July 18, 2017 11:01 PM |
| **To:** | MUCKEN Alyssa M * WRD; BURRIGHT Harmony S * WRD |
| **Cc:** | OR Rep. David Gomberg; OR Sen. Arnie Roblan; WRD_DL_waterstrategy |
| **Subject:** | 2017 OWRD/IWRS Draft Comments Chapter 4 & Conclusion |
| **Attachments:** | 2017_04_19_2017_IWRS_Public_Review_Draft.pdf |

OR Water Resource Dept Integrated Water Resources Strategy

OWRD/IWRS 2017 Draft comments Chapter 4 & Conclusion

Chapter 4

Page 90
Include Water Conservation some where on this page.

Page 97
End of third paragraph. "out of stream interests (agriculture, municipalities, industry), Add: household. There are a few number of individuals that draw water directly from waterways for household use.

Page 98
Challenges faced by Oregon Communities. "The need has been intensified by five consecutive years of drought, recent floods, and aging infrastructure." Add Forest Fires.

Lack of information or knowledge - Add: there are many sources of data, including multiple State Agencies, Watershed Councils, NGO's and Local Agencies.

For Place Bases Planning to work, State and Local Agencies are required that know the laws and regulations to make it work. There is also an advantage for Agencies to request Legislative changes. Whether, it be financial or changes to laws and regulations. Legislator's listen to agencies wants/needs. It takes all of the parties working together in collaboration to get planning to work. It is absolutely necessary that multiple State Agencies and the Legislators be involved in the Place Base Planning. Without all of us working together in collaboration, there would be in-fighting and failure of our goals.

Page 101
First Paragraph Add: Both US and Canada should work together for Fish Passage on all dams for Native species. There are hundreds of miles of Fish Habitat that could be recovered for Native Speices.

Page 102
Add a section Water Conservation within Industries. Regarding Industry need to conserve water. Examples Paper Mills could recycle water. Hotel / Motel conservation by reducing linen washing and using Grey Water to water landscaping plants.

6th paragraph Add after "Land management techniques, such as" Xeriscaping and removal of grass,

Add after "watering landscapes and plant when temperatures are cooler" and installing drip irrigation for shrubs and plants and grey water use.

Page 104
Water Management and Conservation Planning - Agricultural and Municipal Uses  Municipalities can conserve great amounts of water with management of Water and Wastewater Facilities.

Page 108
Identifying Non-Traditional Storage Sites
Second Paragraph before last sentence.  There are possible storage sites available above waterfalls with the right terrain for storage.  Other areas that are too steep for fish to migrate, but have an upper valley for water storage.  There are some native fish species in upper regions, so caution should be used.

Page 110
Finding More Reuse Opportunities
Water Reuse needs comprehensive water quality testing should be done for Pharmaceutical, Chemicals, Household products, Plastic Mirco-Beads, Personal Care Products and other contaminants that could be present.  Proof of Clean Water will bring the public to accept Reuse of Water.

Page 111
Last sentence of page.  Add:  Upland Riparian protection is needed to help keep Fish Bearing waterways cooler.  Water is already warm from the upland reaches being stripped of vegetation, then flowing into protected streams raising the temperatures where there is cool waters.

Page 114
Recommended Action 10.F  First Bullet  Add:  Additional Staff should be hired, when needed to accomplish targeted goals.

Page 115
"Meeting the terms and conditions of a water use permit or transfer is needed in order to obtain a water right certificate.  Early, up front customer service at permit-issuance will help water users avoid compliance issues later on."  Outreach materials should be written in common man language with all technical jargon defined.

Page 117
Water Quality Permits 1st paragraph
Is National Pollutant Discharge Elimination System (NPDES) Water Quality Permits testing for Pharmaceuticals, Household Chemicals, and Micro-Beads?

2nd paragraph  "Full Report is available online."  Bad Link "online" Error 404

Recommended Action 10.G

- "Create stronger linkages among partner agencies"  Add: Watershed Councils and NGO's.
- "Develop and implement a long-term workplan"  Add Short-term.  There should be both a short and long term workplan.  Keeps you on track better.

Page 119

Figure 4-10: Beaver Dams Add: Mitigation is available for pond level controls, tree protection and culvert blockage. Council for help. Live Trapping and Relocation is preferred to killing Beavers. Contact local Watershed Councils for information.

Beaver Workshop materials and videos USFWS
https://www.fws.gov/oregonfwo/articles.cfm?id=149489624

Page 120
Forests Older Forests hold more water for summer time release. Less Water runs off of Older Forests, reducing flooding. Not all Forests are created equal. Tree Farms are not Forests. They are Tree Farms.

Clearcutting with all native species vegetation removed does not retain water.

Page 121
"About 911 instream water rights....." Oregon in under Federal Court Order to Protect Instream Water Rights for Threatened and Endangered Fish. Most Instream water rights for Fish should stand up in Federal Court.

"Current instream flow studies" could use technology to help solve lack of staffing. Oregon must develop Comprehensive Water Quality and Quantity instream diagnostic equipment reporting in real time. OSU with the help of the USGS could design and implement equipment into service.

Page 124
Second to last paragraph about fish barriers. Watershed Councils can help.

Page 125
ODOT and Oregon Counties need more funds to fix Fish Passage. When I spoke to ODFW Fish Passage Coordinator Greg Apke, he stated that he is still expecting for Fish Passages to take 75 years or long to get repaired. This is an unacceptable length of time for Native Fish Passage completions.

Page 127
Recommended Action 11.E Develop Additional Groundwater Protections
All Groundwater wells should be metered to know how much water is being used at all times.

Page 128
Figure 4-14: Environmental Justice Tools and Resources
"handbook of best practices on environmental justice.23" Link not working

Page 129
Drinking water should be tested for contaminates, for instance, pharmaceuticals and agricultural/timber chemicals. This testing is extremely important in high population area that draw water from a major river like the Willamette River. Treated Wastewater should be tested before going into the waterway especially for Pharmaceuticals and Household Chemicals.

Page 130
"Drinking Water Emergencies" Public Outreach needs to be done to teach the public what to do to make clean water after an emergency. Does Clorox clean water enough to drink, how much or does water need to be boiled? What to do to have toilet serves? Dig a hole and build an outhouse. A bucket with shreaded newspapers or wood chips. Is urine keep seperate?

Recommended Action 12.A  Ensure the Safety of Oregon Drinking Water
No Clearcut Log and use of chemicals in Drinking Water Basins.

Page 131  "DEQ Toxics Reduction Strategy" document.  Bad Link

Pesticide users should have to pay for the Comprehensive Water Quaility Testing through Independent Contractors reporting directly to DEQ and other agencies.  Should be considered Public Record available to Watershed Councils, Water extraction Municipalities and all other interested public.  Chemical users should also have to test through Independent Contractors of Local Residential Wells to prove that the Drinking Water Wells are not contaminated from spraying chemicals.

Page 132
end of page "2014 report by U.S. Environmental Protection Agency Region 10 download link not working.

Page 133
Oregon needs to establish Pharmaceutical  Take-Back location at Phamacies, where it is very convienent for Customers to Take-Back Drugs.

Contaminated or Hazardous Sites declared by EPA and DEQ should be cleaned up and not left sitting for many years with nothing done to protect the Public or the Waterways and Threatened or Endangered Species.  These contaminated sites should have comprehensive water quality monitoring does on-site and below the site to check for contaminated water locations.

Page 134
Oregon Beaches and Lakes need more test down for the safety of Visitors. Oregon Coastal visitors attend year around.  Water Quality should be tested year around at popular beaches.

Key Actions:  Add:  Septic systems converted to Sewer systems reduce Algal during the heavy use periods in the summer.  For instances, Devil's Lake in Lincoln City.

Page 136
Third paragraph first sentence:  Some Federal & State Agencies are using Best Ecosystem Management Practices.  Looking at a complete picture for the whole ecosystem management.

Oregon Forestry Practices Act is one of the worst in the Country.  The Governor should appoint a Forestry Practices Act Task Force to re-evalute and compare forestry practices of other states.  Chemicals should Stop being used to Kill Native Species.  Oregon Native Species have developed over thousand of years to help Conifers grow fast and tall.  Conifers like the shade of the Native Species to have shade in the Summers.  Native vegetations collects moisture from the foggy clouds in the summer.  Killing the Native Species is the worst thing one could do for the Ecosystem, besides the Chemical Pollution to the Ecosystem.

Native species provide a wealth of nutrition for multitudes of species.  Pollinators depend on a variety of plants from spring to fall in bloom.  Invertebrates need many species of trees, plants and shrubs falling in the streams to be healthy and abundant for Native Species. The heavy use of Chemicals and Mono-Species planting by the Timber Industry has imbalanced the Forest's Native Ecosystem.  Oregon should re-evaluate the complete effects on the Ecosystem with the current Oregon Forestry Practices Act.

Conclusion

Page 148
Science-based, Flexible Approaches
"Base decisions on best available science ^...^ and local input."
Add: using an ecosystem based management system

Page 155  11 Healthy Ecosystems
11A 2nd Bullet  Add:  Habitat Restoration for Beavers would increase water storage above and underground.  Beavers provides summer waters for all species, including man to irrigate when most needed in the summer.

Cyndi Karp
Ecosystem Advocate

## Kevin Kasowski

**From:** Kevin Kasowski
**Sent:** Tuesday, July 18, 2017 4:49 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Kevin Kasowski

West Linn, OR 97068

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Kevin Kasowski

## Neal Keefer

**From:** Neal Keefer
**Sent:** Thursday, July 13, 2017 2:53 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Neal Keefer

Portland, OR 97232-3429

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Neal Keefer

## Hank Keeton

**From:** Hank Keeton
**Sent:** Tuesday, July 18, 2017 10:51 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Greetings,

My wife and I live in the foothills of the Cascades, east of Silverton, and we have several springs on our property that feed into the creeks that supply drinking water for the town of Silverton.

We do NOT use chemicals on our farm, and we try to avoid contaminating the water that flows into the water sources below us.

We feel it is our obligation as fellow citizens, and as human beings to protect our earth and its resources.

Please support nurturing our resources, and NOT contaminating them!

Thank you.

Best regards,

Hank

HANK KEETON - President

**KEETON CORPORATION**
CONSTRUCTION MANAGEMENT SERVICES
- Scotts Mills - OR - 97375
www.KeetonCorp.com

## Dick Kellogg

**From:** Dick Kellogg
**Sent:** Tuesday, July 18, 2017 2:43 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

To whomever,

All water rights were established long ago when the only concern was water usage. Conservation of natural resources, fish, wildlife and recreation were not considered.

Times have changed and these are now valued by our citizenry.

**Please give these precious resources a high priorities in addressing Integrated Water Resource Strategies.**

Thank You,

Dick Kellogg
Camp Sherman, OR
97730

## Deborah Pearson Kennedy

**From:** Deborah Pearson Kennedy
**Sent:** Wednesday, July 19, 2017 3:50 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy

The future of our freshwater resources is imperative. I stand with the recommendations the Nature Conservancy proposed in reviewing the Integrated Water Resources Strategy. I must add that clean water and plentiful water is the basis for survival of the human and flora and fauna, and we must do all we can to protect our water resources for our children and grandchildren and generations to come.

Sincerely,
Deborah Pearson Kennedy

## Paul Keough

**From:** Paul Keough
**Sent:** Tuesday, July 18, 2017 12:07 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

The Strategy outlines critical issues and recommends actions for addressing them. I have reviewed the Strategy, and here's what's most important to me:

- Additional protections for groundwater
- Better protection for fish and wildlife
- Investments in climate change adaptation
- Better measurement and reporting of water use

Clean and plentiful water is the foundation of everything we cherish about Oregon

Sent from Mail for Windows 10

## Gregg Kleiner

**From:** Gregg Kleiner
**Sent:** Tuesday, July 18, 2017 9:50 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Gregg Kleiner

Corvallis, OR 97333

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Thanks much,
Gregg Kleiner

## Clair Klock

**From:** Clair Klock
**Sent:** Wednesday, July 19, 2017 5:00 PM
**To:** WRD_DL_waterstrategy
**Subject:** comment integrated resources strategy

Date: July 19, 2017

Commissioners and staff at Oregon Water Resources Department

I'm Clair Klock, retired farmer from Corbett, OR and semi-retired conservation specialist with Clackamas Soil and Water Conservation District.
I have read through the draft 2017 Integrated Water Resources Strategy. As a farmer and owner of property with a groundwater right and a declining static water level I'm personally concerned about the management of water in Oregon . As a conservation specialist, I and the rest of our technical staff work with people that use groundwater and surface water for agricultural purposes. The conservation district has an active program for water conservation and particularly conversion from overhead to drip irrigation. We also deal with problems related to stormwater and resulting erosion.

1. I totally agree with new additions to the strategy. It makes the strategy a robust document.
2. I however, did not see the use of rainwater harvesting (RWH) spelled out as a practice that should be use for an alternate source of water. This is especially important in rural areas to relieve the pressure on groundwater and surface water withdrawals.
    a. Rainwater harvesting is a viable cost effective alternative to well drilling and well deepening
    b. It is a viable alternative for small farms that do not have a water right
    c. RWH can be used as an active practice to recharge the groundwater aquifers.
3. Rainwater harvesting is a viable practice to alleviate stormwater problems. In viable parts of the US rainwater harvesting is use only for stormwater control without using it as irrigation or a potable source of water. Oregon was the pioneer in stormwater groundwater recharge, however other areas of the US have surpassed us with more large scale applications.
4. Rainwater harvesting (from roofs) is of superior water quality compared to rivers and streams and in some cases groundwater. It lack to volume of sediment and bacteria.
5. Section 1 - Recommended Action 5.5A and 5.5B and 5.5C RWH is a viable practice that can help in all these actions.
6. RWH can provide for the source of water for wildlife when spring and stream go dry because they do not have a required instream flow. This is especially true for "non-fish (salmonids) bearing stream"

I appreciate your work and thoughtfulness in updating this plan and the chance to express my opinion.
Thank you
Clair

Clackamas Soil and Water Conservation District
Oregon City, OR 97045

"Everyday is a Great Day, Just that Some are Greater than Others"

## Patti Knighton

**From:** Patti Knighton
**Sent:** Tuesday, July 18, 2017 12:01 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Clean water- YES Protect our enviroments  protect our Parks

Sent from my iPhone

## Karl & Laura Konecny

**From:** Karl & Laura Konecny
**Sent:** Monday, July 17, 2017 8:57 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please write your comments here.
I am concerned that your update of the Integrated Water Resources Strategy does not adequately address in-stream water needs. In particular, your drought plan appears to make it easier for water users to access more scarce water which greatly harms salmon, trout, and steelhead. I saw large fish kills in the Umpqua river system in 2015. That impact is felt this year when smolts from that year should be coming back. If, as predicted, drought and warm water will be more common; our native fish will not thrive or even survive without help in drought years.

Karl & Laura Konecny
Glide, OR 97443

## Kimberly Kosa

**From:** Kimberly Kosa
**Sent:** Tuesday, July 11, 2017 4:09 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please prioritize in-stream flows for fish and adequate water quality! If we fail to support these two things, we will still be in trouble with our out of stream needs and strike the death knell for our struggling fish. And please slate adequate funding to STUDY and to MONITOR our water usage, including groundwater usage. This work and the data will only be more important over time - and quicker than we think. Thank you!

Kimberly Kosa
Portland, OR 97217

## Mary Ann Kruse

**From:** Mary Ann Kruse
**Sent:** Tuesday, July 18, 2017 10:12 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy

To Whom It May Concern:

Please consider these issues when updating the Oregon Integrated Water Resources Strategy guidelines:

* Additional protections for groundwater
* Better protection for fish, amphibians, reptiles, wildlife, flora
* Investments in climate change adaptation
* Better measurement & reporting of water usage

Thank you for your consideration.

Mary Ann Kruse
Bend, OR

"That best portion of a good man's life, his little, nameless, unremembered acts of kindness & of love." William Wordsworth

## Dylan Lamar

**From:** Dylan Lamar
**Sent:** Tuesday, July 18, 2017 9:00 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Dylan Lamar
Eugene, OR 97405

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Dylan Lamar

## Cheryl Laos

**From:** Cheryl Laos
**Sent:** Thursday, July 13, 2017 12:53 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Cheryl Laos

Portland, OR 97202

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Cheryl Laos

## Pam Larsen

**From:** pam larsen
**Sent:** Tuesday, July 18, 2017 6:49 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

pam larsen

hood river, OR 97031

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

This is an important time to protect our state. Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
pam larsen

## Hank LaVigne

**From:** hankfish
**Sent:** Tuesday, July 18, 2017 11:09 AM
**To:** WRD_DL_waterstrategy
**Subject:** Public comment on water resource strategy

To whom it may concern,

I support the concerns and suggestions of the Nature Conservancy in regards to the Integrated Water Resources Strategy plan for Oregon rivers.

Thanks,

Hank LaVigne
Corvallis

## Chris Lazarus

**From:** Chris Lazarus
**Sent:** Tuesday, July 18, 2017 6:39 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Chris Lazarus

Portland, OR 97203

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please add the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Chris Lazarus

## Linda LeBaron

**From:** Linda LeBaron
**Sent:** Tuesday, July 18, 2017 10:00 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Linda LeBaron

Newport, OR 97365

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Linda LeBaron

## Evelyn Lee

**From:** Evelyn Lee
**Sent:** Monday, July 17, 2017 4:02 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Comments

Thanks for the opportunity to comment on the draft IWRS.
I live in a small rural community (South Benton County in the hills near Alpine) that is experiencing diminishing groundwater resources for domestic wells. We see wells running low or dry, and new wells not finding water.
I recently re-read the Place-Based Planning section of the IWRS.
I appreciate the scope and intent of the document.
For now, I am stuck on a fundamental question.
How is our "place" defined?
Our water concerns here in the Alpine area are generally thought of
as based on the underlying geologic structure
of these hills - fractured marine sediment at the west edge
of the Willamette Valley. We have never come to terms with
a boundary for the "place" we are attempting to
study or mitigate. It is not based on a watershed
or a municipality, it is based on a geologic formation
that is generally known to yield little groundwater.
That leaves us unable to focus on any of the steps in
the planning process.
There is little infrastructure for us here,
including the absence of any local government,
any large industry, any organized
agricultural infrastructure, or watershed council that share this
geologic underpinning that could provide
some form of coordination or leadership.
How do we get to the first step, which is not
mentioned in your document?
How do we define our "place"?
We feel we are in trouble and headed for
worse, even though we cannot provide data that points
directly to conclusions that would lead to solutions.
Our South Benton Citizens Advisory Committee has a strong
interest but a different overall mission.
Nevertheless, it is committed to community education and involvement.
We are in the process of forming a separate local leadership group to respond to challenges and opportunities around land and water resources – this group will continue the work of the CAC to actively seek input and feedback from the broader community about water.
The CAC already has invited WRD staff to attend several meetings to provide information on our groundwater resources – at least one meeting in particular was very well attended which indicates that people in our community really want to know more about their situation.
The CAC already began actively seeking assistance from many partners, including the County and OWRD.
We are interested in creating opportunities for citizens to know more about the resource, which has led to a small-scale citizen science project with OWRD to test WellIntel sonic devices – this is something we are actively seeking to expand because it seems to be the only source of date we can find that demonstrates the concerns we have and could be officially sanctioned.

Many in the community are interested in the intersection between land resources (county codes and regulations, development) and water resources – we want to make sure there is sufficient water to meet the needs of existing rural residents and we want to continue to encourage integration between citizens and the different entities that affect how water is managed. We see accelerating pressure to develop the many properties here locally zoned as Rural Residential which were never developed in the past because it was general acknowledged that there was little or no water on those properties.

Our community is struggling to provide leadership, to provide community organization, and to find or create sources of data that would be acceptable to deciders who evaluate our situation. This all takes time while at the same time pressure mounts to develop vacant RR properties. Meanwhile wells on existing rural residential properties continue to decline.

Already the situation feels like a race between finding information and solutions, and responding to development pressure.

Evelyn Lee LLC

## Judy Lee

**From:** Judy Lee
**Sent:** Tuesday, July 18, 2017 9:40 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Judy Lee

Talent, OR 97540

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Judy Lee

## Joyce Leggatt

**From:** Joyce Leggatt
**Sent:** Thursday, July 13, 2017 12:23 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Joyce Leggatt

Portland, OR 97211

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
joyce Leggatt

## Amie Leon

**From:** Amie Leon
**Sent:** Thursday, July 13, 2017 12:53 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Amie Leon

Aloha, OR 97006

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Amie Leon

## Beth Levin

**From:** Beth Levin
**Sent:** Tuesday, July 18, 2017 10:00 AM
**To:** WRD_DL_waterstrategy
**Subject:** rivers in Oregon

Hi,
Here's my public comment:

- Additional protections for groundwater
- Better protection for fish and wildlife
- Investments in climate change adaptation
- Better measurement and reporting of water use

Thanks!
-Beth Levin
Portland, OR 97213

## Elianne Lieberman

**From:** Elianne Lieberman
**Sent:** Tuesday, July 18, 2017 7:10 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Elianne Lieberman
Portland, OR 97202

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

With the current situation of climate deniers, and folks who prioritize businesses over everything else in charge of the EPA and in the White House, and our State legislature's lack of action, it is more important than ever that we the people and the state of Oregon take care of, and prioritize, our environment. Oregon has many users of our waterways. Wildlife, people and businesses rely on our clean healthy streams and rivers. Climate change and the resulting frequency and intensity of droughts make it imperative that we have good long-range plans for sustaining our waterways health.

Our updated IWRS should include the following 3 components.( I used the language articulated by the Oregon Environmental Council, because it reflects my sentiments so nicely):

1. Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

2. Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

3. Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

Thank-you for your attention to this matter.

Sincerely,
Elianne Lieberman

## Judith Lienhard

**From:** judith lienhard
**Sent:** Thursday, July 13, 2017 11:43 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

judith lienhard

portland, OR 97225-2567

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
judith lienhard

## Yancy Lind

**From:** Yancy Lind
**Sent:** Thursday, July 13, 2017 12:12 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Objection

Oregon Water Resources Department
c/o Alyssa Mucken
North Mall Office Building,
725 Summer Street NE, Suite A,
Salem, Oregon 97301

Ms. Mucken,

Water is precious in Central and Eastern Oregon. Rivers are over appropriated and often are low enough to endanger fish and wildlife. As an angler I see the devastation caused by mismanagement of our water far too often. I believe that water belongs to all Oregonians, as well as fish and wildlife, not just consumptive holders of senior water rights. I also understand the looming shortage that must be addressed as Oregon continues to grow but that growth cannot sacrifice the qualities that makes Oregon so attractive.

I am dismayed to once again see instream needs be given little serious consideration in the 2017 Integrated Water Resources Strategy. Once again, the strategy betrays WRD's bias with clear targets set for municipal, agricultural, industrial, and similar consumptive uses but only glosses over recreational and wildlife needs. Even following the critical audit by Oregon's Secretary of State, WRD largely ignores current and well understood instream needs. It is past the time to study instream needs, it is time to meet them.

A good start would be to give seniority to the junior instream water rights granted to ODFW. No one is senior to the fish and wildlife that rely on these minimum flows. Without minimum flows in our streams as codified in ODFW's rights, not only will wildlife and recreational users suffer, we will sacrifice very quality of life that makes Oregon so desirable and imperil the growth that WRD seems so intent on fostering.

Respectfully,

Yancy Lind

Bend OR 97703

## Tui Lindsey

**From:** Tui Lindsey
**Sent:** Tuesday, July 18, 2017 10:32 AM
**To:** WRD_DL_waterstrategy Protecting
**Subject:** our waters

Water is our life blood and Oregon is blessed with plenty of it, but we have dammed it and polluted it and used it for agriculture with total abandoned over the last century.
It's time to get CONSCIOUS and stop abusing this resource Over logging and sloppy treatment of drainage and stability at post- logged sites borders on crimes against the environment and it's never stopped.
It's up to Leaders like you
So let's see what history says about what you do!
Let's see what our grandkids live with

Sent from my iPhone

## Wendy Little

**From:** Wendy Little
**Sent:** Wednesday, July 19, 2017 1:00 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Wendy Little

Oc., OR 97045

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Wendy Little

## Cynthia Loewer-Torrez (blank)

**From:** Cynthia Loewer-Torrez
**Sent:** Tuesday, July 18, 2017 9:07 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please write your comments here.

Cynthia Loewer-
Torrez San Jose, CA
95121

## Jessica Nischik Long

**From:** Jessica Nischik Long
**Sent:** Tuesday, July 18, 2017 11:50 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Jessica Nischik Long

Portland, OR 97211

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Jessica Nischik Long

## Diane Luck

**From:** Diane Luck
**Sent:** Thursday, July 13, 2017 11:43 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Diane Luck

Portland, OR 97212

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Diane Luck

## Debra Lutje

**From:** Debra Lutje
**Sent:** Thursday, July 13, 2017 5:54 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Debra Lutje

The Dalles, OR 97058-3079

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Debra Lutje

## Gordon R. Lyford

**From:** Wild Rivers Water Rights
**Sent:** Monday, May 15, 2017 8:07 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Comments

**Follow Up Flag:** Flag for follow up
**Flag Status:** Flagged

Here are my comments on the draft Integrated Water Resources Strategy report.

Pg 11 - The vision should include industries as part of a healthy economy.

Pg 15 - The effects of salt water intrusion on surface supplies should be mentioned such as for Harbor on the Chetco river in Curry county. This could affect many coastal communities.

Pg 18 - Salt water intrusion for wells near the coast should be mentioned.

Pg 18 - Land subsidence should be mentioned from groundwater over drafting such as occurs in California's San Joaquin valley.

Pg 48 - Darlingtonia fens in Curry county and Josephine county should be mentioned as a GDE.

Pg 53 - Oroville dam in California should be mentioned as an example of a large scale pump storage system.

Pg - 69 - Figure 3-8 should be updated to a 2016 example.

Thanks-

Gordon R. Lyford
CWRE #341

## Gordon R. Lyford Comment 2

**Subject:** FW: IWRS Comments

**From:** Wild Rivers Water Rights
**Sent:** Tuesday, May 16, 2017 1:27 PM
**To:** MUCKEN Alyssa M * WRD
**Cc:** WRD_DL_waterstrategy
**Subject:** Re: IWRS Comments

Hi Alyssa-

I have one more comment that I forgot.

Pg 14 - Where it says "Oregon receives a majority of its precipitation in the winter." It should say in the fall and winter.

Thanks-

Gordon R. Lyford
CWRE #341

## Karyn Lynch

**From:** Karyn Lynch
**Sent:** Tuesday, July 18, 2017 8:47 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Please protect our fresh water resources.

## Dale Madden (blank)

**From:** Dale Madden
**Sent:** Monday, July 17, 2017 8:18 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please write your comments here.

Dale Madden

Maupin, OR 97037

## Christine Mallar

**From:** Christine Mallar
**Sent:** Wednesday, July 19, 2017 6:31 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Christine Mallar

Portland, OR 97218

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Christine Mallar

## Randall Mallory

**From:** Randall Mallory
**Sent:** Tuesday, July 18, 2017 10:00 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Randall Mallory

Hermiston, OR 97838-9616

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Randall Mallory

## Stacey Malstrom

**From:** Stacey Malstrom
**Sent:** Monday, July 17, 2017 8:07 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Stacey Malstrom

Portland, OR 97202

July 17, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Stacey

## Barbara Manildi

**From:** Barbara Manildi
**Sent:** Friday, July 14, 2017 8:07 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Barbara Manildi

Lake Oswego, OR 97035

July 14, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Barbara Manildi

## Erica Maranowski

**From:** Erica Maranowski
**Sent:** Thursday, July 13, 2017 2:33 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Erica Maranowski

Portland, OR 97213

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Erica
Erica Maranowski

## Curtis Martin

**Subject:** FW: Place Based Planning Comment

**From:**
**Sent:** Tuesday, July 18, 2017 10:39 AM
**To:** WRD_DL_Director
**Cc:** BURRIGHT Harmony S * WRD
**Subject:** Place Based Planning Comment

To: Director Thomas M. Byler and Oregon Water Resources Commission Members,

I appreciate this chance to have my comments considered as you review the Place Based Water Planning initiative, called for in the 2012 Integrated water Resources Strategy, and funded by the 2015 Legislative session.

My vocation is production agriculture, namely beef cattle operations located in Malhuer, and Baker Counties. I am a lifelong Oregon resident and entirely based in Eastern Oregon. Personally I have been involved in water issues, beginning in the early 1990's. Dealing with the scarcity of water on our side of this great State, I've always been keenly aware of the absolute vital importance of this life sustaining resource.

Most recently I was asked and able to participate in the Policy Advisory Group, charged with reviewing/updating the IWRS. One of the key beneficial factors of the original "Strategy" was the implementation of Place Based Planning. The PBP effort is one of the most positive and beneficial aspects to come out of the overall IWRS.

This Place Based Planning effort has the mission of utilizing the localized knowledge, experience and wisdom of stakeholder entities within these dynamic, complex watersheds, with the end directive of addressing current as well as future water needs. This is the absolute correct approach. Combining the multiple interests and goals of the communities within these Basin's, with the technical expertise of agency's, it realistically has the capacity to positively address water management strategies going forward. The Place Based Planning Initiative moves all of us forward from the past contentious ideas that to benefit one interest, it most likely meant a negative action imposed upon an historical, adjudicated use. In other words this effort realizes that to meet the multiple beneficial needs (Environmental AND Economic, etc.) it is not a zero sum game!

In closing, when I first started to be politically engaged with water issues, it was to protect of my personal business, namely beef production sustained by irrigated agriculture. I have evolved much through the decades, to realize that all interests must be recognized, with the honest belief that if we can have straight forward discussions with integrity, and respect, we can collaborate to advance solutions that WILL revitalize our rural communities, sustain an economy, while enhancing the environmental aspects we all enjoy.

Please continue your wholehearted support of the Place Based Planning efforts.

Sincerely,

Curtis W. Martin

Sent from Mail for Windows 10

## Jeana Martin

**From:** jeana martin
**Sent:** Thursday, July 13, 2017 3:03 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

jeana martin

White City, OR 97503

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Jeana Martin

## Patti Martin

**From:** Patti Martin
**Sent:** Friday, July 14, 2017 11:46 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Patti Martin

Portland, OR 97217

July 14, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely
Patti Martin

## Marilyn Mays

**From:** Marilyn Mays
**Sent:** Tuesday, July 18, 2017 2:52 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy

I am writing to share my concerns about keeping Water, in particular Rivers, Clean, cool, and a place to support the diverse wildlife found near rivers and streams. I grew up in Hood River in the 50's and 60's, loving the beauty of the places people did not fish, thankful for the power and intensity of the River (the Hood River)in spring, and I am thankful that more and more farmers and orchardists are aware of the importance of clean water.

In developing policy about Rivers, please remember how important those places left to the wild things are, and how important clean water is to our future.
Thank you,
Marilyn

**Marilyn Mays**
Keller Williams Real Estate Professionals
Portland OR 97225
Licensed Realtor in Oregon
2015 5 Star Professional
Earth Advantage Broker

## Annie-Francoise McCuen

**From:** Annie Francoise
**Sent:** Tuesday, July 18, 2017 12:15 PM
**To:** WRD_DL_waterstrategy
**Subject:** Our precious water

Rivers, streams and ground water must be protected from agricultural waste, corporate farming, horrible dairies with thousands of abused, miserable cows, creating horrible urine ponds which ooze and seep in our aquifers, so much need to be corrected in order to restore our fish and wildlife balance, our streams, culverts and river banks. Water is much too precious to ignore as we are marching toward climate change. Southern population will be moving north as it cannot sustain its lifestyle under the scorching heat. So, please, be honest and diligent. Do not cater to abusers, should they be only motivated by profit and other personal rewards. Thank you for reading my letter.
Annie-Francoise McCuen

Sent from my iPad

## Mary McGaughey

**From:** Mary McGayghey
**Sent:** Sunday, July 16, 2017 10:11 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Mary McGaughey

Gresham, OR 97030

July 17, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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Sincerely,
Mary McGaughey

## Mary McGaughey (Comment 2)

**From:** Mary McGaughey
**Sent:** Wednesday, July 19, 2017 1:57 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

We must assure that Oregon's forest management practices are of the 21st century. Our forests, especially our old growth forests, greatly influence and maintain our fresh ground water hydrology. We must keep accurate measurement of our fresh water stores and usage.

We should store excessive precipitation runoff--wetlands, temporary ponds, cisterns. We can no longer squander any fresh water. All roadway runoff must be filtered through bioswales so it may be used for irrigation, not poisoning our rivers, lakes, streams.

Respectfully suggested, Mary McGaughey, Gresham, Oregon

Sent from my iPad

## Donlon McGovern

**From:** Donlon McGovern
**Sent:** Tuesday, July 18, 2017 9:20 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Donlon McGovern

Portland, OR 97211

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Donlon McGovern

## Wendy McGowan

**From:** Wendy McGowan
**Sent:** Tuesday, July 18, 2017 10:40 PM
**To:** WRD_DL_waterstrategy
**Subject:** Comments on Refinery Expansion Draft EIS

Wendy McGowan

Eugene, OR 97404-1718

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Wendy McGowan

## Connie Meadows

**From:** Connie Meadows
**Sent:** Friday, July 14, 2017 7:57 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Connie Meadows

Portland, OR 97213

July 14, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Connie
Connie Meadows

## Deb Merchant

**From:** Deb Merchant
**Sent:** Tuesday, July 18, 2017 5:49 PM
**To:** WRD_DL_waterstrategy
**Subject:** 2017 IWRS Comments

Hello OWRD!

Nice work on the strategy. I found it informative given my distant relationship (i.e., not a pilot group or otherwise involved in water resource planning directly or even indirectly…just an interested party), so I'm at a disadvantage to be able to provide direct and critical feedback. I will, however, provide you with general comments on the 50,000 foot level strategy, and thank you for your understanding given my lack of direct knowledge:

.

Page 97: include NGOs or at least watershed councils in your list of pilot planning groups

Page 98: Challenges faced…if you can, please include land-use practices - I'm willing to bet that land use development is having an impact on water resources.

Page 99: just a question: does OWRD have any ideas about entities that represent the private sector? If so, is it possible to name a few types of entities (not company names)?

Page 99: last sentence in Coordinate Existing Natural Resource Plans - "…the state should dedicate financial and human resources for implementing actions…"

Page 99: hate to say it, but the Recommended Action 9.B bullet points designed to describe "how" are simply a reiteration of the Recommended Action - not enough detail to really know "how"

Page 101: Recommended Action 9.C: this all sounds like way, way too much to be realistic (but, I don't work for government so perhaps OWRD has the horsepower to protect, negotiate and partner). Also, I'm not reading how these actions would - as described on page 100 - "…resolve pre-1909 water right claims, including unresolved tribal claims." Partnering with neighbors and tribes is just too soft to address this critical and long-overdue tribal issue.

Page 139: the funding strategy isn't clearly articulated…doesn't seem to have any teeth. Given the research that's been done to investigate other models, I would be inspired by a more innovative strategy - perhaps the OR Legislature will approve the 2017 bill - looking forward to hearing the results.

Page 140: Recommended Action 13.C - too general in nature to know what's different from past years, i.e., will OWRD allocate *new funding sources* for water management/conservation, hazard mitigation, and basin-planning updates? Or, will OWRD *continue* to fund these efforts?

Page 141: Feasibility Study questions; who or what entities receive funds for the studys? Recommended Action 13.D describes review/update the program, but does nothing to describe sharing program results thus far with the public. Will study results be available publicly?

Page 141: wow! how will the State of OR fund 9.89 billion in estimated infrastructure with a history of funding resources that provide only millions? Figure 4-17 on page 142 reflects a total of less than 500 million over the

course of 9 years…not sure how funding our infrastructure is going to work. Hopefully I'm not seeing it and there really is a model of funding that works.

Thank you!

Deb

**Deb Merchant**
Executive Director
Marys River Watershed Council
Corvallis, OR 97339

## Lynn Merrick

**From:** lynn merrick
**Sent:** Thursday, July 13, 2017 12:33 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

lynn merrick

Portland, OR 97215

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Lynn Merrick

## Lori Minor

**From:** lori minor
**Sent:** Tuesday, July 18, 2017 1:37 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

To whom it may concern,please keep in mind to protect our wildlife and our forests and trees when working on this waterway system,thank you Lori Minor-Swensen

## The Moissant Family

**From:** Helena Moissan
**Sent:** Tuesday, July 18, 2017 7:56 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

We need to protect our water in Oregon. You can't put a price on it. What matters to us is:

- **Additional protections for groundwater**
- **Better protection for fish and wildlife**
- **Investments in climate change adaptation**
- **Better measurement and reporting of water use**

Sincerely
The Moissant Family
Central Point

## Joe Moore

**From:** Joe Moore
**Sent:** Monday, July 17, 2017 9:50 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

My name is Joe Moore. I'm a registered voter in Washington County, Oregon. I'm writing to tell you to do all you can to protect Oregon's waters, both surface and underground.

I understand that the 2015 Demand Forecast Report neglected to include forecasts for the water demands of fish, wildlife, water quality, and recreation. This, I feel, is an unconscionable omission. Clean water is a right for all creatures. The 2017 Strategy must determine and take into account the needs of fish and wildlife, not just factories and lawns. If you don't know how much water needs to stay in the river, how can you determine how much you can take out?

I also understand that the 2017 Strategy leaves out the requirement to install measuring devices at water diversions. I ask that you install all the devices required in the Water Resources Measurement Strategy, and more. If you don't know how much water is being taken out of the river, how do you know if too much is being taken out?

I understand the 2017 Strategy does little to protect fish and wildlife from drought. I ask that drought resiliency provisions to be put in to protect fish and wildlife, and minimum in-stream flows be protected.

I ask that you work to establish new water rights to protect fish, wildlife, water quality, and recreation. I ask that the in-stream flow studies be continued, and that additional and adequate funding be provided for those studies.

I strongly encourage you to aggressively work to cut down on wasteful agricultural water practices. I encourage you to prioritize efficient water use on farms. Agriculture is the biggest user of water in Oregon (probably in all other states too), and farmers need to be much more diligent and mindful of their water use.

I urge you to demand and provide full and adequate funding for all this work.

I've used talking points from the WaterWatch of Oregon group, which I support, and I urge you to implement their ideas.

I grew up on a farm in Arkansas, and I've also paddled a whitewater canoe on rivers all across the US. I've seen firsthand and nosefull what can happen when water quality is not given the importance it is due. I urge you to give the water of Oregon, and the natural world that depends on that water, all the respect that it demands.

Sincerely,

Joe Moore

Joe Moore
Portland, OR 97229

## Merry Ann Moore

**From:** Merry Ann Moore
**Sent:** Wednesday, July 19, 2017 4:06 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Merry Ann Moore

Portland, OR 97202

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Merry Ann Moore

## James Moos

**From:** James Moos
**Sent:** Tuesday, July 18, 2017 6:53 PM
**To:** WRD_DL_waterstrategy
**Cc:** member@tnc.org
**Subject:** Oregon's Integrated Water Resources Strategy

I find it difficult to believe there is any need to remind legislators of how important and how necessary it is for OREGON to LEAD when it comes to protecting our Natural Resources. There is something strange happening when people whose personal agendas are being forced onto the majority populace.
We all love the outdoors and the opportunity to envision our world in an unspoiled condition. Most of us enjoy the experiencing the seasonal cycle of life. Personally, I believe taxes paid to state agencies for managing our public lands and protecting private property are a very good value.
Last year Oregon was subjected to radical activist taking over a wildlife refuge that we have all paid taxes to protect for our and future generations to enjoy. Try to see through the hyperbole and stay true to your sworn duty representing everyone. Please represent us and future generations in recognizing all of what the great naturalist realized "It is up to us to protect and preserve the wild places". Long term destruction for short term profit is truly the most important social issue we face.
Study upon study have proven the value of our natural resources. Oregon's wild heritage is world famous. The legacy of nature's spirit we want to project, not that of special interest.

In all
earnestness,

James Moos
Bend, Or 97708

## Robert Moser

**From:** Robert Moser
**Sent:** Monday, July 17, 2017 11:38 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Dear Sirs,
I am a very concerned Oregonian concerning our protection of our most valuable resource- Water!
It is a complex and multifaceted situation and must be approached in that way.
I hope you strongly consider the suggestions of the group Water Watch:
Develope instream demand forecasts,
Measure water use and report that use,
Assure drought resiliency for our water sources, Establish new instream water rights, and Improve water use efficiency.
And, start with getting an accurate measurement of the ground water reservoirs in Oregon. How can we protect this resource if we know how our ground water is being depleted?!
This is our most valuable resource and
Must be protected now! We cannot pas the issue on to future generations action now to preserve and protect our water sources is much too of an important issue!
Thank You for your serious consideration for the preservation and protection of this most valued resource of all Oregonians.

Robert Moser
Eugene, OR 97405

## Bill Mosser

**From:** Bill Mosser
**Sent:** Monday, July 17, 2017 11:10 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

In Whom It May Concern,
I was born in Portland in 1955. Growing up in Oregon I took water for granted - it was everywhere! My father, John Mosser, worked with Governor Tom McCall to try and restore water quality in the Willamette River. We had dinner conversations about oxygen levels in the river, fertilizer run off, and healthy fish habitat.
Today, water is one of the most important resources we have in Oregon. Wise management of our waterways and watersheds is a priority, not just for commercial, municipal and agricultural needs, but for the instream needs of fish, wildlife, water quality and recreation. Demand Forecast Reports should address this in order to plan for and protect instream needs for the future.
Measurement of water is necessary to understand management of it. The 2017 Strategy should be updated to require full implementation of the Water Resources Management Stategy by 2020 and provide funding for the WRD measurement and reporting oversight.
The new strategy should require development of drought provisions which protect flows for fish and wildlife, and set minimum flows on ecologically significant streams.
The 2017 strategy should also direct the state to aggressively enforce against waste, and develop basin-specific efficiency standards for agriculture.
Sincerely,
Bill Mosser

Bill Mosser
Ashland, OR 97520

## Bryan Mullaney

**From:** Bryan Mullaney
**Sent:** Tuesday, July 11, 2017 9:51 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Hi There,

Please consider the following point when reviewing the Integrated Water Resource Strategy:

Instream Water Rights: The 2012 Strategy called on the state to establish new instream water rights to protect flows for fish, wildlife, recreation, and water quality. The completion of instream flow studies is critical to this work. (These studies are different from instream demand forecasting mentioned earlier). The 2017 Draft does include a directive to conduct instream flow studies, but does not call for increased funding to do this work. Please support the inclusion of instream flow studies in the plan and the directive to adopt new instream water rights, but urge the state to include a specific directive to double current funds dedicated to this work.

Drought Resiliency for Rivers: The Governor¹s office has directed that the new strategy include drought resiliency provisions. Oregon's existing drought laws do little to nothing to protect rivers and fish; unfortunately the 2017 draft Strategy doesn't either. The new strategy should require development of drought provisions which protect flows for fish and wildlife, and set minimum flows on ecologically significant streams.

Water Use Measurement and Reporting: To manage water, we must measure water. The 2012 Strategy called on the state to fully implement Oregon's sixteen-year-old Water Resources Measurement Strategy, which requires installing measurement devices on significant water diversions statewide. Unfortunately, progress has been slow, and the state recently reduced its annual goals. Worse, the 2017 draft strategy leaves these critical goals out entirely. Measurement and reporting of water diversions is the cornerstone to smart water management. The 2017 Strategy should be updated to: (a) require full implementation of the Water Resources Measurement Strategy by 2020; (b) direct the state to seek broad reporting authority; (c) provide funding for the WRD measurement and reporting oversight; and (d) plan for measurement/reporting beyond significant diversions into the future.

Bryan Mullaney
Portland, OR 97229

## Suzanna Nadler

**From:** Suzanna Nadler
**Sent:** Thursday, July 13, 2017 11:43 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Suzanna Nadler
Talent, OR 97540

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Suzanna
Suzanna T Nadler

## Kris Nelson

**From:** Kris Nelson
**Sent:** Tuesday, July 11, 2017 11:56 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please write
Develop Instream Demand Forecasts: The 2012 Strategy asked the state to define instream and out-of-stream demands. In response, the Oregon Water Resources Department produced a 2015 Demand Forecast Report projecting water demands for commercial, municipal, and agricultural needs until the year 2050, but did not include any information on water needs for fish, wildlife, water quality, and recreation. This makes no sense. Instream demand forecasts are critical for understanding ecological needs in a changing climate. Without this data, the state cannot plan for and protect instream needs into the future. The 2017 Strategy should include a clear directive to determine instream demand forecasts in the face of our changing climate, and allocate the staff and resources necessary for this job.
Water Use Measurement and Reporting: To manage water, we must measure water. The 2012 Strategy called on the state to fully implement Oregon's sixteen-year-old Water Resources Measurement Strategy, which requires installing measurement devices on significant water diversions statewide. Unfortunately, progress has been slow, and the state recently reduced its annual goals. Worse, the 2017 draft strategy leaves these critical goals out entirely. Measurement and reporting of water diversions is the cornerstone to smart water management. The 2017 Strategy should be updated to: (a) require full implementation of the Water Resources Measurement Strategy by 2020; (b) direct the state to seek broad reporting authority; (c) provide funding for the WRD measurement and reporting oversight; and (d) plan for measurement/reporting beyond significant diversions into the future.
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Improve Water Use Efficiency: The 2012 Strategy asked the state to improve water use efficiency and water conservation, including prioritizing efficient water use on farms, which use the lion’s share of Oregon’s water resources. Unfortunately, the Draft 2017 strategy drops efficient farm use as a priority. Using water beneficially without waste is a basic tenet of Western water law, and a condition of use on most permits, yet the state still does little to regulate wasteful water use. The 2017 strategy should direct the state to aggressively enforce against waste, and develop basin-specific efficiency standards for agriculture. your comments here.

Kris Nelson
Portland, OR 97206

## Lark, Mark Brandt, Nelson

**From:** Lark, Mark Brandt, Nelson
**Sent:** Monday, July 17, 2017 8:26 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Most important work is to take accurate inventory of what we have. At some point there will not be enough water to support population growth, farming and fish. How close are we to that point? Stealing water from any river to support over-population is not an answer!

Lark, Mark Brandt, Nelson
Hillsboro, OR 97123

## Randall Nerwick

**From:** Randall Nerwick
**Sent:** Friday, July 14, 2017 10:47 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Randall Nerwick

Milwaukie, OR 97222

July 15, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Randall Nerwick

## Nancy Nichols

**From:** Nancy Nichols
**Sent:** Monday, July 17, 2017 10:06 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Water demand for fish and wildlife until 2050 needs to be identified. Additional funding support for identifying in-stream needs should be included

Water use measurement is crucial to allocating water in the fairest possible way. Monitoring of water use needs to increased. This is particularly important with climate change on the horizon.

Education and enforcement of the requirement for efficient use of water should be a priority.

Nancy Nichols
Eugene, OR 97401

## Sonja Nisson

**From:** Sonja Nisson
**Sent:** Monday, July 17, 2017 8:02 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Instream demand forecasts leave out the most important resource, our fish and wildlife. Not only is this vital to our way of life, but, in Oregon tourism secondary to recreational fishing is a mainstay of our economy.
Why consider municipal and agriculture needs and leave out the one thing we are known for?
Drought laws also leave out our fish and wildlife during drought considerations.
Among the most archaic of laws are the in stream water rights from over a century ago. These allow gentlemen farmers to water huge lawns while our wildlife dies and farms suffer. So far, there is not even funding to do studies that are preliminary to making progress.
If big business is allowed to run our water resources, we will lose our most vital resource, our rivers and streams and the wildlife they support.

Sonja Nisson
Rogue River, OR 97537

## William Obrien

**From:** William Obrien
**Sent:** Thursday, July 13, 2017 3:13 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

William Obrien

Beaverton, OR 97005

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

William
William Obrien

## Laura M. Ohanian

**From:** Laura M. Ohanian
**Sent:** Tuesday, July 18, 2017 12:38 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

I care about the future of Oregon's rivers! I support additional protections for groundwater, better protection for fish and wildlife, investments in climate change adaptation, and better measurement and reporting of water use. The better that we protect our resources for the next generation, the more we all win.
Thank you for your consideration.
Laura M. Ohanian
Eugene, OR 97440

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## Linda Rothchild Ollis

**From:** Linda Rothchild Ollis
**Sent:** Tuesday, July 18, 2017 12:08 PM
**To:** WRD_DL_waterstrategy
**Subject:** Fresh Clean Water Resources

Please take action to protect our water resources. Please regulate businesses that dump chemicals into our water, use chemicals in the air, and pollute our water resources.
Thank you,
Linda Rothchild Ollis

Sent from my iPhone

## Maureen O'Neal

**From:** Maureen O'Neal
**Sent:** Tuesday, July 18, 2017 8:00 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Maureen O'Neal

Portland, OR 97223

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Maureen
Maureen O'Neal

## Alycen Ozawa

**From:** True Vessel
**Sent:** Tuesday, July 18, 2017 11:57 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy

I stand to protect Oregon waters, therefore, the following organization has requested my support. The critical topics are following.

"The Strategy outlines critical issues and recommends actions for addressing them. The Nature Conservancy has reviewed the Strategy, and here's what's most important to us:

- **-Additional protections for groundwater**
- **-Better protection for fish and wildlife**
- **-Investments in climate change adaptation**
- **-Better measurement and reporting of water use"**

I would like to add that human impact, advocacy, and action are ways we can preserve our beautiful state. "Clean and plentiful water is the foundation of everything we cherish about Oregon." You have been given the position to act responsibly to protect future generations of life, please act accordingly! The future will depend on what you chose to do today.

Thank you for your time and commitment to making our natural resources clean, preserved, and plentiful.

Sincerely,

Alycen Ozawa

## Lara Pacheco

**From:** Lara Pacheco
**Sent:** Wednesday, July 12, 2017 9:17 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Develop Instream Demand Forecasts: The 2012 Strategy asked the state to define instream and out-of-stream demands. In response, the Oregon Water Resources Department produced a 2015 Demand Forecast Report projecting water demands for commercial, municipal, and agricultural needs until the year 2050, but did not include any information on water needs for fish, wildlife, water quality, and recreation. This makes no sense. Instream demand forecasts are critical for understanding ecological needs in a changing climate. Without this data, the state cannot plan for and protect instream needs into the future. The 2017 Strategy should include a clear directive to determine instream demand forecasts in the face of our changing climate, and allocate the staff and resources necessary for this job.

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Improve Water Use Efficiency: The 2012 Strategy asked the state to improve water use efficiency and water conservation, including prioritizing efficient water use on farms, which use the lion’s share of Oregon’s water resources. Unfortunately, the Draft 2017 strategy drops efficient farm use as a priority. Using water beneficially without waste is a basic tenet of Western water law, and a condition of use on most permits, yet the state still does little to regulate wasteful water use. The 2017 strategy should direct the state to aggressively enforce against waste, and develop basin-specific efficiency standards for agriculture.

Lara Pacheco
Portland, OR 97218

## Jitesh A Pattni

**From:** Jitesh A Pattni
**Sent:** Tuesday, July 18, 2017 8:37 AM
**To:** waterstrategy@wrd.state.or.us
**Subject:** Comments for draft of the 2017 Integrated Water Resources Strategy (IWRS)

The ODFW Mid Coast District staff are participating in the place-based planning exercise and are encouraged with the process. By bringing together all of the interested parties who have a stake in securing water for all in to the future a truly collaborative approach is unfolding. We look forward to continuing with the process in to the future and anticipate implementable outcomes.

Jitesh
Assistant District Fish Biologist
Mid-Coast Fish District
Oregon Department of Fish and Wildlife

## W.G. Pearcy

**From:** wm pearcy
**Sent:** Monday, July 17, 2017 12:53 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Yes. we need better permitting rules and regulations for both ground water extraction and for protecting instream water for healthy aquatic ecosystems.

In general, OWR plans will help Oregon with its present and future water issues.

thanks,

W.G.Pearcy, fish biologist

wm pearcy
philomath, OR 97370

## Daniel Pebbles

**From:** Daniel Pebbles
**Sent:** Tuesday, July 11, 2017 9:43 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

I fully support the following points outlined by Water Watch. 1) Develop Instream Demand Forecasts: The 2012 Strategy asked the state to define instream and out-of-stream demands. In response, the Oregon Water Resources Department produced a 2015 Demand Forecast Report projecting water demands for commercial, municipal, and agricultural needs until the year 2050, but did not include any information on water needs for fish, wildlife, water quality, and recreation. This makes no sense. Instream demand forecasts are critical for understanding ecological needs in a changing climate. Without this data, the state cannot plan for and protect instream needs into the future. The 2017 Strategy should include a clear directive to determine instream demand forecasts in the face of our changing climate, and allocate the staff and resources necessary for this job.
2) Water Use Measurement and Reporting: To manage water, we must measure water. The 2012 Strategy called on the state to fully implement Oregon's sixteen-year-old Water Resources Measurement Strategy, which requires installing measurement devices on significant water diversions statewide. Unfortunately, progress has been slow, and the state recently reduced its annual goals. Worse, the 2017 draft strategy leaves these critical goals out entirely. Measurement and reporting of water diversions is the cornerstone to smart water management. The 2017 Strategy should be updated to: (a) require full implementation of the Water Resources Measurement Strategy by 2020; (b) direct the state to seek broad reporting authority; (c) provide funding for the WRD measurement and reporting oversight; and (d) plan for measurement/reporting beyond significant diversions into the future.
3) Drought Resiliency for Rivers: The Governor¹s office has directed that the new strategy include drought resiliency provisions. Oregon's existing drought laws do little to nothing to protect rivers and fish; unfortunately the 2017 draft Strategy doesn't either. The new strategy should require development of drought provisions which protect flows for fish and wildlife, and set minimum flows on ecologically significant streams.
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5) Improve Water Use Efficiency: The 2012 Strategy asked the state to improve water use efficiency and water conservation, including prioritizing efficient water use on farms, which use the lion’s share of Oregon’s water resources. Unfortunately, the Draft 2017 strategy drops efficient farm use as a priority. Using water beneficially without waste is a basic tenet of Western water law, and a condition of use on most permits, yet the state still does little to regulate wasteful water use. The 2017 strategy should direct the state to aggressively enforce against waste, and develop basin-specific efficiency standards for agriculture.
ease write your comments here.

Daniel Pebbles
Bend, OR 97703

## Nancy Phillips

**From:** Nancy Phillips
**Sent:** Thursday, July 13, 2017 6:04 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Nancy Phillips
La Pine, OR 97739-8935

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Nancy Phillips

## Charlie Plybon

**From:** Charlie Plybon
**Sent:** Wednesday, July 19, 2017 5:02 PM
**To:** WRD_DL_waterstrategy
**Cc:** Briana Goodwin
**Subject:** Surfrider Foundation Comments Oregon's 2017 IWRS

Thank you for the opportunity to comment on the 2017 IWRS. As a participant within the Place-based Planning effort on the Mid-Coast, I'm strongly supportive of the underlying philosophy of these efforts, but have some recommendations on the approach and offer the following comments:

In general, I think the place-based model jumps ahead of itself in process a little by putting the resource issue first and building a collaborative audience around that issue (in-stream and out-of stream demands). This seems to be a common approach in government processes for addressing natural resource issues - "we have X problem and we want people to "collaborate" on a process to fix it". In my work on natural resource issues, I feel there should be a really big effort up front to define the values of audiences as they relate to those resource needs rather than trying to build a collaborative around the "issue" - that can feel a little divisive from the start. In this "people before policy/issue model", it's more common to gather really diverse interests around common values and needs for an issue, which can really help build a team effort to solve a resource issue. So, if I were to rework the step-wise process, I might spend a little more time up-front collecting social data on values and potentially some more time as well gathering technical data. That can really help establish some common ground for building a collaborative local effort.

Cheers,

Charlie Plybon | Oregon Policy Manager | Surfrider Foundation

## Eleanor Ponomareff

**From:** Eleanor Ponomareff
**Sent:** Tuesday, July 18, 2017 9:10 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please regard climate change, and protect fish and wildlife

Eleanor Ponomareff
Talent, OR 97540

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

It is imperative that we protect add the following to the updated IWRS:

1. Do not ignore climate change. Climate change produces overall global warming - yes. But it also increases the frequency and intensity of drought. Oregon needs to step up and implement strategies to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these parts of the updated Integrated Water Resources Strategy.

2. Prevent pollution at the source: Please address the problem of agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

3. Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

Thank you for listening.

Sincerely,
Eleanor Ponomareff

## Craig Pope

**From:** Pope, Craig
**Sent:** Monday, June 26, 2017 11:29 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Public comment

I wish to support all recommended action items on the 2017 IWRS and lend continued support to the integrity of the principles, goals and objectives of the 2012 IWRS that is the foundation of this updated document.

--

*Craig A. Pope, Board Chair*
*Polk County Commissioner*
*Association of Oregon Counties 1st VP*
*Association of O&C Counties Sec/Treas.*

## Delores Porch

**From:** Delores Porch
**Sent:** Saturday, July 15, 2017 5:23 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please write your comments here.
My biggest concern is that Oregon has no idea of the amount of its water resources. How can you plan for water use when you don't know how much you have to begin with and how much you are using. There must be money appropriated to install measuring devices in all critical areas of use.

Next, all forecast of water use need to include water needs for fish, wildlife, water quality and recreation.

With climate change already upon us Oregon needs to have a plan of how it will protect fish and wildlife with set minimum flows on streams of ecological importance.

Also, money needs to be appropriated to study the establishment of new instream water rights.

Delores Porch
Corvallis, OR 97330

## Becky Powell

**From:** Becky Powell
**Sent:** Wednesday, July 19, 2017 1:13 PM
**To:** WRD_DL_waterstrategy
**Subject:** public concern

My husband and I are very concerned about the health of our rivers

Because of outdated water allocation and laws, flexible planning for evolving uses: as cities grow; climate change changes patterns of water inflow; waste water contamination of surface water; overallocation of ground water resources; or misapplied resources or wasted water; increasingly precious water is being misused.

We support comprehensive planning with cities, irrigation districts, public and private stakeholders such as the BSWG planning group in the Deschutes. Study, sharing of concerns and consensus building is so much better than having each interest group maneuvering to appropriate all that they can without sharing. We support an educated and involved community and not just through the media unless a truly balanced account is broadcast.

We are appalled at the low flows in the Deschutes that on two occasions have stranded fish and in some reaches lead to low flows and a murky warm (in summer) river.

In planning for the health of a river the first consideration should be the support of a healthy aquatic and riparian environment. The needs of wildlife should be given equal consideration with the needs of people or other resource users.

We applaud all efforts to conserve water.

Water is essential to life and must be available to all people regardless of the ability to pay! While water delivery and sewers are expensive to build and maintain, the needs of people who cannot afford to pay must be accounted for.

Thank you for this opportunity to share our concerns.

Yours sincerely

Mary B. Powell
Bend, Oregon. 97702

## Mallory Pratt

**From:** Mallory Pratt
**Sent:** Tuesday, July 18, 2017 6:59 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect our rivers, streams and waterways

Mallory Pratt
Portland, OR 97211

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Mallory Pratt

## August Rain

**From:** August Rain
**Sent:** Wednesday, July 19, 2017 12:02 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Hi there! I just wanted to say. Thank you for all that you do. And I hope that you can come around to see the importance of our rivers lakes oceans. Our ecosystem relies on us to keep it around. And share a home we call Earth.

Sent from my iPhone

## Carol Ramage

**From:** Carol Ramage
**Sent:** Tuesday, July 18, 2017 3:04 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Save the rivers of Oregon. They are the "lifeblood" of our state. Protect yhem ftom polution and misuse.

They are a wonderful resource that provide drinking water and a multitude of other purposes in our homes, irrigation for our crops, are a necessity for industries, and water sources for our livestock and wildlife.

And best of all, they beautify our world and provide a place for recreation.

Thank you.

## Julianne Ramaker

**From:** Julianne Ramaker
**Sent:** Thursday, July 13, 2017 11:53 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Julianne Ramaker

Bend, OR 97701

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Julianne Ramaker

## Fran Recht

**From:** Fran Recht
**Sent:** Tuesday, July 11, 2017 10:28 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Dear Ms. Mucken:
Thanks for the opportunity to comment on the update to the Integrated Water Resources Strategy.

I came to the Newport meeting in June 2016 and submitted comments on the strategy then as well. My concerns and comments remain relevant. Please incorporate that letter into your record for this public comment period as well. Thank you.

The problem remains that if we want ODFW to conduct instream flow studies and instream water rights (as per your strategy), we must provide an increased, dedicated source of funding for those studies, or the same problem will remain- a way way too slow pace for instream flows versus the pressure to extract. The Strategy must also call for at least a doubling or tripling of current funds that are dedicated to establishing instream flow.

Instream demand forecasts also need to be included in this plan to assure the ecological health of our waters. This is especially critical with climate change changing the hydrological patterns and temperatures of our streams and further stressing sensitive and listed species. It is not sufficient to only project water needs for extractive uses/users. Similarly drought resiliency plans must acknowledge and plan for the protection of water quality and quantity for fish and wildlife and ecological needs

Instead of assuring that water withdrawals be measured, especially by the biggest users (agriculture) and other significant users, this Strategy actually goes backwards. We can't adequately manage our most critical public resource if we don't measure it's use. WRD had long ago developed a good Water Measurement Strategy plan, but that plan has been sorely ignored. This Strategy document needs to call for the full implementation of that Measurement Strategy by 2020 and call for the needed funding for implementing it. Reporting to the public on this must be included.

This Strategy also seem to be going backward when it comes to assuring beneficial use without waste. I sure hope it was an oversight that efficiency and conservation plans for big water users, especially agriculture were left off. The State must protect our water resources by fighting wasteful use of this must precious resource.
The Strategy must call for the resources needed to aggressively enforce efficiency and conservation.

As noted in the Newport meeting, a healthy watershed with older trees, well protected riparian areas, beaver ponds, side channels and wetlands stores more water in the ground and vegetation and releases water throughout our dry season. The Strategy must call for continued work to improve healthy watershed conditions.

Thank you for your attention

Fran Recht
Depoe Bay, OR 97341

## Maryanne Reiter

**From:** Reiter, Maryanne
**Sent:** Monday, July 17, 2017 4:40 PM
**To:** WRD_DL_waterstrategy
**Subject:** Review of Oregon's 2017 Draft IWRS

To whom it may concern; this email is regarding public comments to the 2017 draft Integrated Water Resource Strategy. First, I want to commend you on a thorough and thought-provoking strategy for Oregon's water resource management both now and in the future. The addition of planning for extreme events was a critical addition and mirrors the concerns of other water providers across the country. Also including public safety/dam safety was important given the aging of the state's infrastructure.

As a hydrologist, I feel you accurately characterized the water resources, climate and data availability, or lack thereof, for Oregon. We have lost numerous USGS gages which hinders our ability to fully assess the timing and magnitude of runoff trends throughout the state. I commend the ORWD for your current monitoring network and making the data publicly availability and for proposing further monitoring.

I am a participant in the Mid-Coast Place Planning and represent a large, private forest landowner. To date the experience has been positive and refreshing after being involved in the Mid-Coast TMDL regulatory process, which is not a cooperative effort at problem solving. What has been truly impressive with the Place-Based planning is the effort that goes into outreach and giving voice to all the participants. I am glad to see that the ORWD supports its continued effort in the 2017 strategy. My only comment for the process is provide more foundational watershed science so that participants fully understand the hydrology of a given area since it is the primary constraint on water quantity.

My only other public comment is the overuse of the word "Health" or "healthy" to describe ecosystems. Health is a value-driven term, not a scientific one and as such can be difficult to measure or define. What "healthy" ecosystem is the basis against which to compare the current state? Before white settlers? A wilderness area? If the state wants to be able to assess trends in watershed parameters, it needs to define those and not just rely on a difficult to measure term like "healthy".

Thank you for the opportunity to review the document.

Maryanne Reiter
Hydrologist, Weyerhaeuser NR Company
Springfield, OR 97478

## Jack Remington

**From:** Jack Remington
**Sent:** Tuesday, July 11, 2017 1:40 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

water need forecasts should include recreation uses (swimming, boating, fishing) and needs for water quality, fish and wildlife. The waste of water in canals and farm fields should be eliminated with efficient distribution systems

Jack Remington
Bend, OR 97701

## John Richen

**From:** John Richen
**Sent:** Tuesday, July 11, 2017 10:58 AM
**To:** WRD_DL_waterstrategy
**Subject:** Regarding Integrated Water Resources: Public Review Draft Comment

The 2017 Strategy should include a clear directive to determine instream demand forecasts in the face of our changing climate, and allocate the staff and resources necessary for this job.

The 2017 Strategy should be updated to: (a) require full implementation of the Water Resources Measurement Strategy by 2020; (b) direct the state to seek broad reporting authority; (c) provide funding for the WRD measurement and reporting oversight; and (d) plan for measurement/reporting beyond significant diversions into the future.

The new strategy should require development of drought provisions which protect flows for fish and wildlife, and set minimum flows on ecologically significant streams.

The new strategy should include instream flow studies in the plan and the directive to adopt new instream water rights, but urge the state to include a specific directive to double current funds dedicated to this work.

Finally, using water beneficially without waste is a basic tenet of Western water law, and a condition of use on most permits, yet the state still does little to regulate wasteful water use. The 2017 strategy should direct the state to aggressively enforce against waste, and develop basin-specific efficiency standards for agriculture.

John Richen
Portland, OR 97219

## Michele Riley

**From:** Michele Riley
**Sent:** Thursday, July 13, 2017 11:43 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Michele Riley
Depoe Bay, OR 97341

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Michele Riley

## Dean Robb

**From:** Dean Robb
**To:** WRD_DL_waterstrategy
**Subject:** IWR strategy draft - comments
**Date:** Thursday, June 01, 2017 8:38:52 AM

I attended Allyssa's talk in Bend.
I live on the Deschutes river and am a frequent user of various Oregon rivers. And will focus on that river as an example.
The IRW draft is useful. But I think it may be too broad, defuse and inclusive of competing and inconsistent river uses. And it thus loses some focus. The draft is something for everyone, but not much or enough in the end for the river. But the only thing that matters in the long run is the health and ecology of the river, especially the much abused Deschutes.
There should a very clear sense of priority, focus and direction in the draft. It is nice to talk about climate change earthquakes and drought. But we have immediate problems that must be addressed now, or we won't have much of a river eco system to worry about during and earthquake or climate change. And that should be with no if ands or buts that the river's health trumps all. Now. Period. All uses of the rivers must fit into and conform with that priority. If a particular use or action adversely affects the river - like irrigation draws that drastically reduces flows- then that simply cannot be tolerated.
The draft does not go there. And it needs to to have any consequence.
We now have much cleaner air because standards were set and compliance with those standards were legally required. Same in most cases for clean water. The same approach is needed for the Deschutes and its flow. Standards need to be set recording max and minimum flows. All uses must conform and adjust to these standards or face legal penalties.
Time to serious folks

Sent from my iPad

## Ron Robinson

**From:** Ron Robinson
**Sent:** Wednesday, July 19, 2017 8:35 AM
**To:** WRD_DL_waterstrategy
**Subject:** Comment on Integrated Water Resources Strategy

Thank you for this opportunity. I would like to recommend that under “Implementing and Monitoring Water Quality Pollution Control” in addition to post monitoring of nonpoint source of pollution That pre-treatment of large scale fertilizer and pesticide application be monitored. In essence DEQ would require permits and independent water quality testing of streams directly related to and effected by such treatment BEFORE as well as after treatment. This would need to be during low flow periods the season before as well as the following year at the same time period. This needs to be practiced in order to accurately determine and verify where and what is so adversely effecting our water quality. Recent alga blooms where they have never happened before in a drainage where aerial applications of fertilizer occurred last winter have brought this to my attention and it is my responsibility to pass this recommendation on to you folks.
Thanks again.
Sincerely, Ron Robinson

Sent from Mail for Windows 10

## Rolando Rodriguez

**From:** Rolando Rodriguez
**Sent:** Thursday, July 13, 2017 8:24 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Rolando Rodriguez

Port Orford, OR 97465-1277

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Rolando Rodriguez

## Laura Rost

**From:** Laura Rost
**Sent:** Monday, July 17, 2017 1:18 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Hi,
I would like to see the Integrated Water Resources Strategy include a strong emphasis on instream protection and adequate funding to protect our water from threats.
We need an instream demand forecast, more efficient use, better measurement and reporting, and we need to prepare for the effects of climate change.

Thank you for your time,
Laura

Laura Rost
Portland, OR 97202

## Jacki Fox Ruby

**From:** Jacki Fox Ruby
**Sent:** Tuesday, July 18, 2017 8:41 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Please consider the following:

Additional protections for groundwater

Better protection for fish and wildlife

Investments in climate change adaptation

Better measurement and reporting of water use

Clean and plentiful water is the foundation of everything we cherish about Oregon. Please do all you can to ensure Oregon's water for Oregon's people.

## Jasmine Saavedra

**From:** Jasmine Saavedra
**Sent:** Wednesday, July 19, 2017 9:24 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy
**Attachments:** 84524.jpeg; 84492.jpeg; IMG_20170618_122314787.jpg

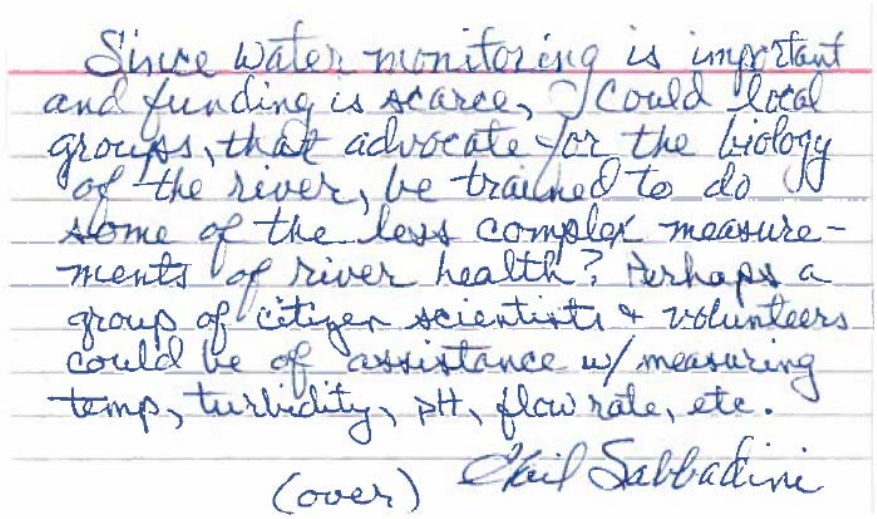
PLEASE help save and conserve Oregon's fresh water!

## Gail Sabbadini

**From mailed postcard:**

Since water monitoring is important and funding is scarce, could local groups that advocate for the biology of the river, be trained to do some of the less complex measurements of river health? Perhaps a group of citizen scientists and volunteers could be of assistance with measuring temp, turbidity, pH, flow rate, etc.

**Postcard:**




## John Sarna

**From:** John Sarna
**Sent:** Sunday, June 18, 2017 5:34 PM
**To:** MUCKEN Alyssa M * WRD
**Subject:** Comments on Oregon's Integrated Water Resources Strategy

To: Oregon Water Resources Department
C/O Alyssa Mucken
North Mall Office Building
725 Summer Street NE, Suite A
Salem, Oregon 97301.

From: Dr. John E. Sarna
Philomath, OR 97370

Thank you for mailing me a copy of Oregon's Integrated Water Resources Strategy. It seems well-written, but I would like to submit a couple potential corrections as my comments.

- On page 107 under the Section "Federal Reservoir Systems, the third paragraph describes the ongoing feasibility study by the Corps of Engineers. It is stated that "The study's goal is to determine if existing storage can meet long-term needs in the basin." This is incomplete. It would be helpful to add its second, action-oriented, strategic goal, specifically, "to examine whether operational changes or modifications in the storage allocation from the Willamette Valley Project reservoirs would better serve present and future water needs in the basin," as copied from: State of Oregon, Willamette Basin Review Study Project Update, dated February 10, 2017.

- On page 149, Recommendation 1A is to "locate and document water wells." It would be good to also cover abandoned wells, by changing it to "locate and document existing and abandoned water wells." While it is important to document existing water wells, abandoned wells are also a concern due to the potential for contaminant migration into pristine ground water. A similar change should be made to Recommendation 7A in the Strategy, "to properly abandon wells at the end of their useful life." This should also be generalized to: "to properly abandon both wells at the end of their useful life and wells which have been improperly abandoned."

## Debra Saude

**From:** Debra Saude
**Sent:** Thursday, July 13, 2017 6:14 PM
**To:** WRD_DL_waterstrategy
**Subject:** Prioritize clean air, protect Clean Fuels

Debra Saude

Lincoln City, OR 97367

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Debra Saude

## Diana Saxon

**From:** Diana Saxon
**Sent:** Thursday, July 13, 2017 1:03 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Diana Saxon

Salem, OR 97301

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Diana Saxon

## Rob Schab

**From:** Rob Schab
**Sent:** Saturday, June 10, 2017 6:11 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Comment

Alyssa...I hope you are doing well. I have pursued the Draft IWRS update. Looks to be a very good product. I like the new addition of information on earthquakes and the need to build resilience in infrastructure and supplies.

While the 2013 Oregon Resilience Plan focused on the impacts of a 9.0 or greater CSZ earthquake. The significance of a lesser 8.0+ should not be underplayed. Following is an excerpt from the ORP:

"Geologists have assembled a ten thousand year record of past Cascadia earthquakes (see Figure 1.3) by studying sediments in coastal marshes and on the ocean floor. This record shows that past earthquakes have occurred at highly variable intervals and can range widely in size and in which parts of the Pacific Northwest they affect. About half of the past earthquakes have been very large (estimated magnitude 8.3 to 8.6) and centered on the southern Oregon coast, while the other half have been great (estimated magnitude 8.7 to 9.3) and extending from northern California to British Columbia. The most recent event occurred on January 26, 1700 AD, and was a great earthquake with a magnitude of 9.0. The time interval between previous earthquakes has varied from a few decades to many centuries, but most of the past intervals have been shorter than the 313 years since the last event.
It is simply not scientifically
feasible to predict, or even estimate, when the next Cascadia earthquake will occur, but the calculated odds that a Cascadia earthquake will occur in the next 50 years range from 7-15 percent for a great earthquake affecting the entire Pacific Northwest to about 37 percent for a very large earthquake affecting southern Oregon and northern California. The likelihood of a M 9 Cascadia earthquake during our lifetimes and the consequences of such an earthquake are both so great that it is prudent to consider this type of earthquake when designing new structures or retrofit of existing structures, evaluating the seismic safety of existing structures, or planning emergency response and preparedness."

Taking in view all previous CSZ earthquakes, most intervals are shorter than 317 years since the last major earthquake. I think this information might be included in the IWRS as well as the cited probabilities of occurrence in the next 50 years. As reported above, the chance for Southwestern Oregon to experience a great quake is quite high.

Thanks for the chance to comment

Rob Schab
Utility Management Consulting, LLC

## Meg Schaefer

**From:** Meg Schaefer
**Sent:** Wednesday, July 19, 2017 9:53 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

We NEED clean and plentiful water!

Sent from my iPad

## Barbie Scott

**From:** Barbie Scott
**Sent:** Thursday, July 13, 2017 1:23 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Barbie Scott

Portland, OR 97219

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Barbie Scott

## Mel Scott

**From:** Mel Scott
**Sent:** Thursday, July 13, 2017 3:33 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Mel Scott

Portland, OR 97224-4424

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Mel Scott

## Pat Sharp

July 16, 2017

Oregon Water Resources Department

c/o Alyssa Mucken

725 Summer Str. NE, Suite A

Salem, Oregon 97301

Re: Public comment of the *Draft Oregon's 2017 Integrated Water Resources Strategy:* ***Place Based Efforts.***

The following comments reflect my experiences as a member of the Harney County Watershed Council in implementing the first year of our Place Based Planning Grant (Malheur Lake Basin Pilot Area.)

The *2015 Daft Planning Guidelines* provided our community with a framework to address the critical issue of groundwater availability, allowing us the opportunity to take the first steps in planning for our own water future. While our county is often recognized for addressing problems and finding solutions through the collaborative process, without the financial assistance provided by Oregon Water Resources Department, our efforts to build a locally initiated and led collaborative would have been stalled.

Equally important to the initial financial assistance is the technical assistance our group has received through OWRD in the coordinator position. Harmony Burright has offered our group necessary and needed guidance throughout this process. By guiding us through early, sometimes contentious, community meetings to connecting different planning sub-groups with access to scientists and other expertise, to holding us accountable to our commitment to the process, to simply gauging our groups' perception of progress, our coordinator is invaluable to the work. The position of coordinator is critical to the success of the Place Based Planning Process.

Finally, by involving local communities in the development of place based plans to address their critical water issues and to collaboratively come up with solutions for their communities, the Oregon Water Resources Department has the potential to be viewed as a partner and not an adversary or regulator. The Place Based Planning Process is not a short-term commitment. It will require ongoing financial and technical assistance. Place Based Planning must continue as an integral part of the *Integrated Water Resources Strategy.*

Sincerely,

Pat Sharp – Board member, Harney County Watershed Council

## Dan Sherwood

**From:** Dan Sherwood
**Sent:** Tuesday, July 18, 2017 1:04 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy

Hello,

I'm writing to urge the State to add additional protections for groundwater and better protection for fish and wildlife as part of the Integrated Water Resources Strategy.

Sincerely,
Dan Sherwood

## Sandra Siegner

**From:** Sandra Siegner
**Sent:** Friday, July 14, 2017 7:27 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Sandra Siegner

Portland, OR 97219

July 14, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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Sincerely,
Sandra Siegner

## Dresden Skees-Gregory

**From:** Dresden Skees-Gregory
**Sent:** Thursday, July 13, 2017 11:43 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Dresden Skees-Gregory

Hillsboro, OR 97124-9411

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Dresden Skees-Gregory

## Gwendolyn Sky

**From:** Gwendolyn Sky
**Sent:** Thursday, July 13, 2017 12:13 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Gwendolyn Sky

Cave Junction, OR 97523

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Gwendolyn Sky

## John Smeraglio

**From:** John Smeraglio
**Sent:** Wednesday, July 19, 2017 12:40 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

The update of the Integrated Water Resources Strategy which was originally adopted in 2012, is extremely important in maintaining our most valuable resource, water. I feel it is paramount to continue to strive for the utmost goal of not just maintaining our natural resources, but improving them!

Projecting water demands is for everything, not just commercial, municipal, and agricultural use. It is absolutely essential to include needs for fish, wildlife, water quality, and recreation.

With today's technology, installing measurement devices on significant water diversions statewide should not be difficult. The 2017 Strategy should be updated to: (a) require full implementation of the Water Resources Measurement Strategy by 2020; (b) direct the state to seek broad reporting authority; (c) provide funding for the WRD measurement and reporting oversight; and (d) plan for measurement/reporting beyond significant diversions into the future.

The new strategy should require development of drought provisions which protect flows for fish and wildlife, and set minimum flows on ecologically significant streams.

The directive should adopt new in-stream water rights, which include a specific directive to double current funds dedicated to this work.

Lastly, using water beneficially without waste is a basic tenet of Western water law, and a condition of use on most permits, yet the state still does little to regulate wasteful water use. The 2017 Strategy should direct the state to aggressively enforce against waste, and develop basin-specific efficiency standards for agriculture.

John Smeraglio
Maupin, OR 97037

## Julie Smitherman

**From:** Julie Smitherman
**Sent:** Wednesday, July 19, 2017 4:43 PM
**To:** MUCKEN Alyssa M * WRD
**Subject:** RE: Reminder: Public Comments due Today, Wednesday, July 19

Hi Alyssa,

It's obvious that a tremendous amount of effort went in to preparing this document. It's outstanding. Thank you for all the work that you do!

Thank you,

Julie Smitherman, CLIA
Water Conservation Specialist
City of Ashland

Ashland, OR 97520

www.ashlandsaveswater.org



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**From:** IWRS [mailto:iwrs-bounces@listsmart.osl.state.or.us] **On Behalf Of** MUCKEN Alyssa M * WRD
**Sent:** Wednesday, July 19, 2017 7:54 AM
**To:** IWRS Mailing List (iwrs@listsmart.osl.state.or.us) <iwrs@listsmart.osl.state.or.us>
**Subject:** [IWRS] Reminder: Public Comments due Today, Wednesday, July 19

Good Morning,

A final reminder that comments on the public review draft of Oregon's 2017 Integrated Water Resources Strategy are due **today, Wednesday, July 19**.

Public comments can be sent electronically to waterstrategy@wrd.state.or.us.

Please let me know if you have any questions.

Alyssa

**Alyssa Mucken, Program Coordinator**
Integrated Water Resources Strategy (IWRS)
Oregon Water Resources Department
725 Summer St. NE, Suite A, Salem, OR 97301

## Valerie Snyder

**From:** valerie snyder
**Sent:** Friday, July 14, 2017 12:46 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

valerie snyder

forest grove, OR 97116

July 14, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
valerie snyder

## Craig Soule

**From:** Craig Soule
**Sent:** Thursday, July 13, 2017 4:43 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Craig Soule

Terrebonne, OR 97760

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Craig Soule

## Julie Stanley

**From:** Julie Stanley
**Sent:** Tuesday, July 18, 2017 10:38 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

I underwrite the Oregon's strategies of integrated water and encourage all that promote measures to be good stewards of what makes Oregon great the land the air and water.

## Donna Steadman

**From:** Donna Steadman
**Sent:** Wednesday, July 12, 2017 10:09 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please write your comments here.

Water is the life-blood of all living things.
Both underground reserves and all above-ground rivers and streams must be protected for current and future generations and wildlife that depend on these.

Strong in-stream protections and adequate funding to carry out management directives are needed.

Donna Steadman
Durham, OR 97224

## Laura Stevenson

**From:** Laura Stevenson
**Sent:** Thursday, July 13, 2017 5:03 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Laura Stevenson

Eugene, OR 97405

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Laura Stevenson

## Karen Stingle

**From:** Karen Stingle
**Sent:** Tuesday, July 18, 2017 9:30 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Karen Stingle

Eugene, OR 97401

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Karen Stingle

## Richard Taeubel

**From:** Richard Taeubel
**Sent:** Tuesday, July 18, 2017 10:16 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Please protect our water - it is more important than oil.

Sent from my iPad

## Mike and Kellee Taylor

**From:** Mike Taylor
**Sent:** Wednesday, July 12, 2017 8:03 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Comment

Hi Alyssa,

My wife and I own home on the Deschutes River near Pringle Falls. We are very supportive of efforts to better manage flows in the upper Deschutes, including reserving water for the good of fish and wildlife. We believe that the irrigation districts who currently control the flow in the upper Deschutes are now paying real attention to the destruction of the resource by the fluctuating flow levels that are driven by irrigation demands. That said, we feel that the federal, state and local governments, as well as conservation groups and the public need to continue to put pressure on the irrigation districts to upgrade their systems and to be sensitive to needs beyond agriculture.

We sincerely hope that the IWRS takes this concern seriously and includes it in your strategic planning.

Sincerely,
Mike & Kellee Taylor
---
Mike & Kellee Taylor
La Pine, OR 97739
savethedeschutes@gmail.com

## Steve Templar

**From:** Steve Templar
**Sent:** Tuesday, July 18, 2017 2:01 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Please do more to protect ground water. Maintain natural water ways for fish.

## Amanda Thomas

**From:** Amanda Thomas
**Sent:** Tuesday, July 18, 2017 5:19 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Amanda Thomas

Amity, OR 97101

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes. Being on a small parcel of land where we continually experience ag runoff, this is my reality.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift. As fish is a key species in my diet, I value this priority!

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature. Experiencing California's dire failure to do so recently was painful to witness and experience.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy and demonstrate Oregon's committed leadership.

Thank you for your public service and for ensuring Oregon is the great state it is for generations to come! The future depends on clean and plentiful water!

Kindly,
Amanda

## Catherine Thompson

**From:** Catherine Thompson
**Sent:** Monday, July 17, 2017 9:24 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please write your comments here.
I am pleased to see some of the enhanced monitoring recommended in this draft. It is critical for implementation that adequate funding for monitoring in the field be provided. without monitoring regulations are well meaning but unenforceable.
Please adequately fund the stipulations of this draft.

Catherine Thompson
Portland, OR 97201

## Lauren Thompson

**From:** Lauren Thompson
**Sent:** Thursday, July 13, 2017 2:23 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Lauren Thompson

Oregon City, OR 97045

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Lauren Thompson

## Sandra Thompson

**From:** Sandra Thompson
**Sent:** Tuesday, July 11, 2017 10:51 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Oregon's future depends on commitment to strong instream protections, smart management directives, and adequate funding for these measures. Please insure that we have protections, funding, and management in place.
Thank you,

Sandra Thompson

Bend, OR 97703

## Sandra Thompson, Comment 2

**From:** Sandra Thompson
**Sent:** Monday, July 17, 2017 1:00 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

Please ensure that any update to the Integrated Water Resources Strategy commits to strong instream and out-of-stream protections, workable management directives, and adequate funding. All parts must be in place or our essential water resources are at risk.
Thank you,

Sandra Thompson

Bend, OR 97703

## Delcy Tibbetts

**From:** Delcy Tibbetts
**Sent:** Wednesday, July 19, 2017 2:38 PM
**To:** WRD_DL_waterstrategy
**Cc:** TIBBETTS Barry
**Subject:** Integrated Water Resources Strategy

Oregon's rivers are the lifeblood of our state. They fuel our economies, grow our food, provide clean drinking water and sustain our fish and wildlife. But, our rivers are at risk.

With climate change and our growing communities, there will be increased demands on this critical resource. Many of Oregon's rivers are over-allocated during the summer and most of the state is experiencing groundwater decline.

**By planning ahead, we can better balance the water needs of nature and of people. I urge you to consider the following strategies:**

- **Provide additional protections for groundwater including addressing runoff from agriculture**
- **Increase protection for fish and wildlife**
- **Implement investments in climate change adaptation**
- **Develop and implement better measurement and reporting of water use**

Clean and plentiful water is the foundation of everything we cherish about Oregon and the planet. Please ensure future generations have the same access to fresh water as we enjoy. Water is life!

*Delcy Tibbetts*

*Medford Oregon 97501*

## Michael Tribble

**From:** Michael Tribble
**Sent:** Thursday, July 13, 2017 2:13 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Michael Tribble

Myrtle Point, OR 97458

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Michael Tribble

## Cheryl Trosper

**From:**
**Sent:** Tuesday, July 18, 2017 12:21 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Please support:

- **Additional protections for groundwater**
- **Better protection for fish and wildlife**
- **Investments in climate change adaptation**
- **Better measurement and reporting of water use**

Clean and plentiful water is the foundation of everything we cherish about Oregon.

Thank you,

Cheryl Trosper

## Kady Tucker

**From:**
**Sent:** Wednesday, July 19, 2017 10:18 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Kady Tucker

Portland, OR 97217

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Kady Tucker

## Susanne Twight-Alexander

**From:** Susanne Twight-Alexander
**Sent:** Tuesday, July 18, 2017 10:22 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

I am delighted that Oregon continues to pay attention to water resources of the state.

My concerns:

Funding to make sure that the plans can be carried out. Oregon spends less on water resources than most other western states.

Overuse of groundwater can deplete underground reserves quickly so it is important to have adequate measurement of what is there.

In-stream use should have equal standing with out of stream use. Fish and other creatures (invertebrates, etc.) that are dependent on water must have enough unpolluted water to live and reproduce. This also means paying attention to water temperature through such means as providing adequate shade. Stream protection zones are important.

Many of our streams and rivers provide drinking water for both urban and rural areas. Mining, logging and waste production of any kind near streams, lakes or rivers should be closely monitored.

With climate change, water resources will become more scarce. Not only that, people from warmer states may want to move to Oregon, increasing the pressure on our water supply.

All the business plans in the state cannot make up for a lack of adequate, clean water.

Again, funding seems to be fundamental to this problem--for studies, for enforcement, for storage, for cleanup. Cooperation among various agencies and even with border states will also be helpful.

Sincerely,

Susanne Twight-Alexander

## Robin Vesey

**From:** Jack Liskear & Robin Vesey
**Sent:** Tuesday, July 18, 2017 5:03 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

As a 40+ year resident of Oregon, I care deeply about our natural resources, native animals and plants.
In that 40 years, I've seen our population double. That increase in human population has put a huge stress on our water resources, in addition to other natural resources. I'm asking that you enact the following goals:

-Prioritize water for fish and wildlife; it's up to us to protect all of our vulnerable and indigenous animals.

-Enact better measurements for household and farm water use. I've seen farmers watering their land in the middle of the hottest days near Klamath Falls. Surely we can manage watering our crops better by watering at night where less water evaporation occurs.

-Everyone's home water use should be measured and charged accordingly. I know of areas in California where they have no water meters so no one knows how much water is being used, let alone being charged for what has been used. I hope this is not the case in Oregon

-protect our ground water by banning any fracking in Oregon, ever!

Thank you.
Sincerely,
Robin Vesey

## John Wadsworth

**From:** John Wadsworth
**Sent:** Tuesday, July 18, 2017 4:49 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

John Wadsworth

Portland, OR 97219

July 18, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely
John Wadsworth

## Carol Wagner

**From:** Carol Wagner
**Sent:** Thursday, July 13, 2017 12:23 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oil trains

Carol Wagner

Canby, OR 97013

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Carol Wagner

## Mary Wahl

7/9/2017

TO: Oregon Water Resources Commission
c/o Alyssa Mucken, OWRD
FR: Mary Wahl

Comments on Public Comment Version: Updated IWRS

I appreciate the chance to comment, and do so as a member of the 2016-2017 IWRS Policy Advisory Group "PAG," and as a 4th generation co-owner, with my siblings, of two Oregon ranches. Results of the PAG discussion are extensively reported to you by OWRD staff; my comments will skip repeats of those portions, and will focus instead on areas of concern I hope you will consider.

**General Comments:**

1. The PAG was a good committee, though it just got to the point of content knowledge, and trust among PAG members, where we could have tackled the tough questions, issues and potential solutions when the PAG work stopped.
2. The PAG worked on a "consensus" basis, which means that only the items where easy consensus was possible have been forwarded to you. Controversial or difficult issues and solutions, by definition, could not get quick consensus, so those were either not discussed, or were set aside for want of consensus.
3. Basic and critical water resource questions Oregon currently faces on which the PAG provided little or no advice to decision-makers, because we did not address them are:
    a. How can we assure demand does not exceed water supply, especially groundwater supply?;
    b. What can we do to conserve our water resources, and to make conservation of that resource a focus?;
    c. How can we "right the ship" in terms of the current imbalance between instream and out-of-stream water uses, both in the context of allowed or protected uses, and in the context of which is getting the bulk of the agency focus and resources?;
    d. How can we know our water resources, especially groundwater resources, well enough to make informed decisions about use of those resources?; and
    e. What changes to its water resources management Oregon needs to make in the face of climate change. It is difficult to explain why conservation received so little focus in the recent process, but even more unacceptable that steps to address climate change were not part of the discussion and process.

**Specific Comments:**

1. Agriculture is by far the biggest use of Oregon's water resources. Opportunities such as assuring we consider water conservation as an integral part of any request for out-of-stream use, especially in agricultural operations that are ripe with integrated solution options, were identified several times by agricultural and conservation members, but not discussed in the PAG process. This is a significant loss, particularly in light of the push to do "place-based plans" for water management, where such integrated actions can be advanced. This is also a major loss because these integrated solutions hold the promise of making agricultural operations more sustainable by finding ways to meet water demand in ways that prioritize water conservation.
2. Conservation was not seriously considered in the PAG deliberations, in spite of multiple requests

to do that.

3. State policy is that instream and out-of-stream parts of the IWRS be considered together and be in balance. That is not the case, and if anything, that was made less the case by the 2016 process. Examples:
    a. Protecting instream flows is central to aquatic health, assuring adequate flows for fish and other wildlife. Oregon is woefully far behind (~450 stream segments were identified YEARS ago as needing flow protection; those haven't moved forward). ODFW staff are determined to make headway on the backlog, but need resources and management/ policy direction to do that, or have a chance of identifying other critical segments for flow protection.
    b. The state did a demand analysis to forecast water needs, but only agriculture and municipal needs were analyzed. Instream needs were not. This only digs a deeper hole (forgive the unintended pun) for meeting instream flow needs.
    c. Measurement and reporting were brought up at each PAG meeting and in all review documents, but this was not addressed in the WRD process.

**Recommendations:**

1. Take advantage of OWRD's response to the recent Secretary of State's Office audit by using it to address the basic water resource questions (five of which are identified in "General Comments" item #3 above).
2. Make it a priority to develop profiles of Oregon aquifers, including their recharge rates, by 2020.
3. Make it a priority to balance instream and out-of-stream uses, and to seriously consider the solutions conservation of water resources can provide.
4. Make a serious effort to incorporate addressing climate change impacts into the IWRS strategy! This should be a high priority, rather than a sidelined issue.

Thank you for your consideration, and the opportunity to comment!
Mary Wahl

## Jeriene Walberg

**From:** Jeriene Walberg
**Sent:** Thursday, July 13, 2017 7:34 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Jeriene Walberg

Bend, OR 97701

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Jeriene Walberg

## Robert Wallace

**From:** Robert Wallace
**Sent:** Wednesday, July 19, 2017 4:13 PM
**To:** WRD_DL_waterstrategy
**Cc:** Denny Ross (ddross@centurytel.net) 2017
**Subject:** IWRS Comments - WyEast RCD

I'd like to provide comments on the 2017 IWRS.

First of all I like the Place-Based Planning efforts, I feel this approach can work to improve integrated planning of water and work to keep key decisions at the local level.

- Concerns about this process
    - There needs to be structure and local success. As Place-Based Planning (Phase I – Pilot Areas) is successfully complete in the identified areas, others can learn from these experiences. I see this as a similar approach as the Forest Collaborative movement. It may be best to have a few trained Facilitators to assist each local area with the process.
    - Need Key Technical People – We often times let geographic boundaries limit how we work throughout Oregon. This may be by County, Region, Watershed, District, ect….There are key technical people that understand water issues, allow proven professionals with this knowledge to cross those geographic boundaries to support the effort.
        - Technical Assistance (TA) – We have very limited technical assistance available throughout Oregon. We need to identify the types of TA needed and who would be best providing this assistance. Sometimes this may be best coming from a Government Agency, often times there are non-profit or private contractors that already have the established relationships with the local partners.
    - Funding – Place-Based planning is not going to just happen. This needs to be supported financially to be successful.
        - Project Funding – Developing a plan is important to make sure you are headed the right direction. But we also need to follow-up these plans with actions. How do we fund the actions needed to better manage our water resources. Most of these actions require large amount of funding to be completed.
            - Ground/Surface Water Studies
            - Feasibility Studies
            - Water Storage Solutions
            - Infrastructure Improvements
            - Technical Assistance
- Needed Education –
    - Water Rights - I feel there are several water rights beliefs that are false. I'd like to see a OWRD create some education series to share information about water rights.
    - Funding Opportunities – There are several funding opportunities with Private, Local, State, and Federal Organizations. This is a moving target that very few people understand.
    - Best Practices – Share information about the successful projects that are being completed in Oregon and Neighboring States. Information on the strategies that are working. Also new information & funding to support new technology(s).

- Energy Water Nexus – When we talk about water infrastructure projects for Irrigation Districts and On-Farm we need to take into consideration the Energy Water Nexus. Often times if we are saving water we are also saving energy. There are also energy related funding that can help to support water quantity/quality projects.

- Several of the piping projects for water conservation also have potential for small hydroelectric generation. Local clean energy generation.

Here is a link from Oregon Environmental Council's report titled Making Water Work, this report has a lot of useful information about water usage in Oregon and ties into the Place-Based Planning concept.
http://oeconline.org/wp-content/uploads/2014/12/Making-Water-Work_web.pdf

We support the Place-Based Planning mission and look forward to working with the various partners. The ultimate goal is to identify projects that will allow for improved water management practices and infrastructure that allows us to be most efficient with our water.

Take Care,

**Robert Wallace CEM**
Executive Director | Energy Program Innovator
**WYEAST RESOURCE CONSERVATION AND DEVELOPMENT**
WyEast-RCD.org |

## Denise Walters

**From:** WALTERS Denise
**Sent:** Tuesday, July 18, 2017 3:53 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Comment

Thank you for the opportunity to provide input on the draft strategy. Integrated water management is essential for the health and well-being of the State. In a context where everything feels critical and essential, I will limit comment to one component.

**Place Based Planning**
We view this approach as critical since it provides a venue and a forum through which to work on all other strategies and priorities identified. From gathering and analyzing data, to collaborative processes, to project/program/effort design and implementation, a place based approach provides unparalleled nuance to established scientific knowledge greatly improving outcomes.

The hard work of OWRD staff is evident in the draft strategy and is greatly appreciated.

Best,
Denise

Denise Walters | Senior Planner | Lane Council of Governments | Eugene, OR 97401 | www.lcog.org

## Judith Warren

**From:** Judith Warren
**Sent:** Tuesday, July 18, 2017 10:46 AM
**To:** WRD_DL_waterstrategy
**Cc:** oregon@tnc.org; Barb Morris
**Subject:** Oregon's Integrated Water Resources Strategy

I am writing to you to share my concern as you update Oregon's Integrated Water Resources Strategy.

As a contributor to the Nature Conservancy, I support the Conservancy's concerns, and request that you protect and conserve our natural resources as you consider the Strategy – please ensure that your strategy includes the following items:

- **Additional protections for groundwater**
- **Better protection for fish and wildlife**
- **Investments in climate change adaptation**
- **Better measurement and reporting of water use**

Clean and plentiful water is the foundation of everything we cherish about Oregon – your decisions will impact our resources and our state's residents, both now and in the future.

I urge you to consider well the impact of your decisions in this matter. We all must be good stewards of the resources we have, many of which are finite and unrecoverable. Please do not allow decisions to be made based on financial gains for a privileged few.

Judy Warren

## Debbi Weiler (blank)

**From:** Debbi Weiler
**Sent:** Tuesday, July 18, 2017 4:05 PM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Sent from my iPhone

## Ray West

**From:** Ray West
**Sent:** Wednesday, July 19, 2017 8:17 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Ray West

Astoria, OR 97103

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Ray West

## Judy Wilcox

**From:** Judy Wilcox
**Sent:** Thursday, July 13, 2017 12:03 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Judy Wilcox

Troutdale, OR 97060

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Judy Wilcox

## Wednesday Wild-Wilson

**From:** Wednesday Wild-Wilson
**Sent:** Wednesday, July 19, 2017 10:48 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Wednesday Wild-Wilson

Portland, OR 97217

July 19, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Wednesday Wild-Wilson

**Martin and Carolyn Winch**

July 17, 2017

Alyssa Mucken, Program Coordinator
Oregon Water Resources Department
725 Summer St. NE, Suite A, Salem, OR 97301

RE: Integrated Water Resources Strategy

Dear Ms. Mucken:

We've lived in Oregon most of our lives, on both sides of the Cascades. We visit Eastern and Central Oregon regularly, as well as locations in Western Oregon. We frequent Oregon's rivers and lakes on our walks. We have long involvement with Deschutes Basin Land Trust, and for some 40 years had an irrigation "right" and a well permit. One of us was on the Tumalo Irrigation District Board of Directors and wrote the history of that District. We've been members of OEC and WaterWatch since their founding.

We give you this background so you'll see that we care and that we have some breadth and depth of experience, as we're confident that you do, as well.

We support the following points, summarized from the WaterWatch email that recently advised us of this opportunity to comment:

1 - The 2017 Strategy should include a clear directive to determine instream demand forecasts in the face of our changing climate, and allocate the necessary staff and resources.
2 - The 2017 Strategy should be updated to: (a) require full implementation of the Water Resources Measurement Strategy by 2020; (b) direct the state to seek broad reporting authority; (c) provide funding for the WRD measurement and reporting oversight; and (d) plan for measurement/reporting beyond significant diversions into the future.
3 - The new strategy should require development of drought provisions which protect flows for fish and wildlife, and set minimum flows on ecologically significant streams.
4 - Please support the inclusion of instream flow studies in the plan and the directive to adopt new instream water rights, but urge the state to include a specific directive to double current funds dedicated to this work.
5 - The 2017 Strategy should direct the state to aggressively enforce against waste, and develop basin-specific efficiency standards for agriculture.

Thank you for your work, and for your willingness to consider these comments.

Sincerely,

Martin & Carolyn Winch
7176 SW Laview Dr.
Portland 97219

## Martin and Carolyn Winch (Comment 2)

**From:** Martin & Carolyn Winch
**Sent:** Monday, July 17, 2017 8:49 AM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Please protect fish and wildlife

Martin & Carolyn Winch

Portland, OR 97219

July 17, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

RE: Integrated Water Resources Strategy

Dear Tom Byler,

We live at 7176 SW Laview Dr in Portland and have been Oregon residents most of our lives. We've lived in rural Central Oregon and in Portland, frequently walk/hike along and to Oregon rivers and lakes, and frequently visit Eastern and Central Oregon.

We're responding to the alert from OEC that we have this opportunity to communicate our priorities to you.

We support adding the following language to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

We do thank you for your work on behalf of Oregon's water resources!

Sincerely,

Martin and Carolyn Winch

## Marj Winzenried

**From:** Marj Winzenried
**Sent:** Tuesday, July 18, 2017 11:33 AM
**To:** WRD_DL_waterstrategy
**Subject:** Oregon's Integrated Water Resources Strategy

Please protect our water resources for future generations, human, and all others.
Thank You,
Marj Winzenried

Sent from my iPad

## George Wisner

**From:** george wisner
**Sent:** Monday, July 17, 2017 2:00 PM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy comments

Harmony:

Thank you for sending the water resources strategy document. A very thorough document, but one that presents the residents of the Alpine area with some rather challenging questions -- primarily defining this "place." While our concerns focus on water reliability around here, drawing a line around problem areas has proven difficult. How do we come up with a suitable definition of "place" when, geologically, the fractured rock aquifer we share would seem to spread along the length of the Coast Range foothills, a broad reach for "place" definition. Residents on the valley floor don't share our water concerns as their sand and gravel aquifers differ remarkably from ours and they don't experience the water scarcity we often do in the dry months. In short, where, and how, do we draw a line to define our "place?" That issue does not seem very well defined in the document. We do have watershed committees, but they are very broad in scope, when we are seeking to more narrowly define our particular "place." The local citizens advisory committee has a broad geographical reach,encompassing both fractured rock aquifer and sand and gravel aquifer areas which, as earlier noted, have differing water concerns that further muddy the drawing of representative boundary lines.

That's my primary comment on the paper.

Thank you for the opportunity to review and comment.

Sincerely,
George B. Wisner
Monroe, OR

## Sandy Young

**From:** Sandy Young
**Sent:** Thursday, July 13, 2017 12:03 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prevent water pollution at the source

Sandy Young
Portland, OR 97202

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Sandy Young

## Gloria and Bob Ziller

**From:** Gloria & Bob Ziller
**Sent:** Friday, July 14, 2017 1:48 PM
**To:** WRD_DL_waterstrategy
**Subject:** Please Stop the Drain on Oregon's Groundwater

Dear Oregon Leaders,

We are writing today to ask Oregon Governor Kate Brown, the Oregon Department of Water Resources, and the Oregon State Legislature to take action now on key measures to help solve our state's growing groundwater crisis and protect our waterways, fish, wildlife, economy, and people.

We were moved to act after reading The Oregonian's landmark special report "Draining Oregon" which highlighted the state's often maddeningly shortsighted management of our crucial groundwater supplies and the widespread problems created by Oregon's outdated, spottily applied, or underfunded groundwater protections.

Here are the key actions I believe Governor Kate Brown and state water regulators should undertake immediately to address this groundwater issue:

1. Stop Digging the Hole Deeper. Oregon's groundwater may be in crisis, but you wouldn't know it from the speed at which regulators say "yes" to new groundwater pumping applications. Instead of defaulting to "yes" when the state isn't certain that there is enough groundwater to support the new pumping, regulators should default to "no" when the information on groundwater in a specific area is absent or inadequate. At a minimum, the Department should stop issuing new permits unless they can determine additional pumping won't harm fish, wildlife, and other water users.

2. Take Stock of Existing Groundwater Resources. In the past, the state has passed up matching federal funds to help pay for needed groundwater studies. We cannot afford to let this happen again. Governor Brown should ask legislators for increased funding on studies to rapidly improve our understanding of the current condition and future resiliency of our state's groundwater resources. The state should be required to have comprehensive studies completed for key watersheds by a set date.

3. Zero Tolerance for Unlawful Groundwater Use. The Oregonian series exposed the practice of water users digging new wells first, then asking the state for permission later. This practice has become common in some parts of Oregon because it's an open secret that regulators will reward such scofflaws with permits after the fact. This practice must end if we are to stop Oregon's growing groundwater crisis and secure our water supplies.

Here are the key actions I believe our state legislators should start working on immediately to accomplish next session:

1. Get Serious About Funding Water Management. There's no way around it - protecting vast and incredibly valuable public resources such as water costs money. Despite this, the state has always relied on a shoestring budgeting approach to water management, with predictable results. In 2017, legislators should ask water users to pay a nominal annual fee to help pay for the ongoing management and enforcement necessary to protect this vital public resource – and prevent the kind of underfunding and neglect that results in lawful groundwater permit holders seeing their rights being drained away from under them.

2. Take Stock of Existing Groundwater Resources. As noted above, the legislature should increase funding for studies to rapidly increase our understanding of the current condition and future resiliency of our state's groundwater supplies. The state's goal should be to have comprehensive studies completed for key watersheds in the near future. These studies are not only needed as soon as possible to protect fish and wildlife, but also existing water users.

3. To Manage Water, We Must Measure Water. The state must require and fund actions to achieve measurement and reporting on all water use, including pumping at existing wells. Again, having a better handle on water use will not only protect water supplies, waterways, and wildlife, it will also protect existing users, communities, and economic activity dependent upon reliable water supplies.

We urge you to please take action now to protect Oregon's threatened groundwater supplies – along with the waterways, fish, wildlife, and people dependent on healthy aquifers!

Thank you for your attention to Oregon's groundwater crisis. We look forward to your response.

Gloria & Bob Ziller
O'Brien, OR 97534

## M. Lee Zucker

**From:** M. Lee Zucker
**Sent:** Thursday, July 13, 2017 12:33 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

m. lee zucker
eugene, OR 97403

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

Please make sure we are on the right path by adding the following to the updated IWRS:

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--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
m. lee zucker

**Public Comments from Organizations**
**Public Review Draft of Oregon's 2017 Integrated Water Resources Strategy**



*Note: Attachment 2 does not include comments submitted by WaterWatch of Oregon.*
*Those comments are included as an addendum to this staff report and begin on Page 489 of this PDF document.*

AOC | Association of Oregon Counties

**DATE:** **MAY 15, 2017**

**TO:** **OREGON WATER RESOURCES COMMISSION AND DEPARTMENT**

**FROM:** **THE ASSOCIATION OF OREGON COUNTIES**

**SUBJECT:** **2017 INTEGRATED WATER RESOURCES STRATEGY, PUBLIC REVIEW DRAFT: COMMENTS.**

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The Association of Oregon Counties has been directly involved in the creation of the Oregon Integrated Water Resources Strategy since its beginning, through membership and active participation in policy advisory groups and successful efforts to fund several of its key proposals. From adoption of the original IWRS in August 2012 to the end of 2016, the Oregon Legislative Assembly sharply changed its course from inaction on water development and cuts to the Water Resources Department budget to one of significant appropriations for water resources studies, planning, and project-related activities by nearly $30 million in lottery bonds, $40 million in general obligation bonds, and $3,345,000 in general funds. This new legislative direction was supported by the existence of the IWRS as well as the work of AOC and other like-minded stakeholder partners.

The public review of the IWRS has begun, and AOC continues its direct participation in Policy Advisory Group discussions and recommendations and public hearing opportunities.

AOC is pleased that the IWRS Review Draft continues to support innovative locally based programs such as place-based planning and grants for water project feasibility studies. AOC understands that the IWRS is a blueprint for the wide array of water-related issues, and the 2017 Public Review Draft has been filled out to reflect that purpose.

AOC is in full support of the 2017 Public Review Draft of the Integrated Water Resources Strategy as a critical foundation for providing for Oregon's growing water needs.

*Inspiring people to love & protect nature since 1902.*

5151 NW Cornell Road
Portland, Oregon 97210

Tel 503.292.6855
Fax 503.292.1021

www.audubonportland.org

Alyssa Mucken
Water Resources Department
725 Summer Street N.E., Suite A
Salem, OR 97301-1271

July 19, 2017

**Re: Draft 2017 Integrated Water Resources Strategy**

The Audubon Society of Portland, representing over 15,000 members in Oregon, appreciates the opportunity to comment on the Draft 2017 Integrated Water Resources Strategy (IWRS).

The Audubon Society of Portland is the oldest conservation group in Oregon established in 1902. For over a century we have worked to protect wildlife and habitats in Oregon and were instrumental in helping protect some of Oregon's iconic landscapes including in what is today Malheur National Wildlife Refuge and the Klamath Refuges. These landscapes are incredibly important to migratory birds that use the Pacific Flyway and yet are increasingly stressed by water shortages that are exacerbated by a warming climate. The Klamath Refuges alone supports up to 80% of Pacific Flyway waterfowl that flock to these sites during migration, as well as other waterbirds and sensitive wildlife species that are highly dependent on an adequate water supply.

Below we provide specific recommendations to improve the draft:

- Retain the language originally included in the 2012 IWRS and deleted from the 2017 IWRS regarding "investing in science and scientific modeling tools". It is important to stress the investment in such tools and the corresponding inter-agency coordination on data collection, processing, and ultimate decision making will inform the best water use decisions (Recommended Action 1C).
- We support the inclusion of updates in the 2017 IWRS regarding Action 3.A (determine flows needed to support instream needs) that elucidate the need for funding for Oregon Department of Fish and Wildlife to conduct in-stream needs studies. These studies should include components that assess ecological health for aquatic communities (e.g. fish, fresh water invertebrates, amphibians) as well as for terrestrial species dependent on in-stream water usage (e.g. waterfowl, waders, etc.).
- WRD should restore specific language regarding studies that examine the connection between groundwater ecosystem health and understanding groundwater resources (See Action 3.B). These

recommendations were in the 2012 IWRS but deleted from the 2017 draft.

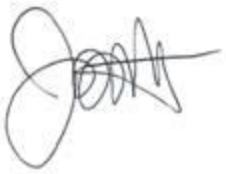
- Climate Change: IWRS should include specific goal of understanding the effects of climate change on streamflows (add to Action 5.A), restore language deleted from the IWRS 2012 version regarding Assistance with Climate Change Adaptation and resiliency strategies (Action 5.B).



We are aware of WaterWatch of Oregon's comments to WRD regarding this draft plan and we are in agreement with and supportive of their recommendations as well.

Thank you for your consideration.

Joe Liebezeit, M.S.



Avian Conservation Program Manager
Audubon Society of Portland
5151 NW Cornell Road
Portland, OR 97210

Oregon Water Resources Department
North Mall Office Building
725 Summer Street NE, Suite A
Salem, Oregon 97301

July 19, 2017

Dear Ms. Mucken and Water Resources Department (WRD) Staff,

Thank you for the opportunity to provide comments on the draft Integrated Water Resources Strategy (draft Strategy). We appreciate the efforts made by staff and others who contributed to the 2017 draft.

We wholeheartedly support the draft Strategy's stated priority of additional investment in analyses that will help us understand and meet Oregon's in-stream and out-of-stream needs/demands. Just as critical is the continued if not increased investment in WRD's place-based integrated water resources planning grants. In order for Oregonians to come together and devise workable approaches to meeting diverse water requirements under an uncertain future, we must have the time and resources necessary to convene and plan together.

Various sections of the draft Strategy refer to outreach and public engagement requirements on an ad hoc basis but provide little detail. Oregon desperately needs an accessible, outward-facing communications platform for sharing water-related data, trends and policy information. At present, these data and policy trends are typically summarized and presented by a range of advocacy organizations who serve specific constituencies. This can unnecessarily politicize water-related communications and make the task of forging collaborative solutions much more difficult. WRD is best situated as a neutral body to carry out this critical role, and in order for that to occur, this should be reflected as a priority in documents like the 2017 draft Strategy. We hope you will consider adding a full section to this draft that outlines a comprehensive public communications strategy.

Thank you again for the opportunity to provide these comments.

Sincerely,

Kathleen Guillozet, Ph.D.
Director, Willamette Model Watershed Program

bonneville environmental foundation

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## Central Oregon Flyfishers

**From:** Lee Ann Ross <rossleeann@yahoo.com>
**Sent:** Thursday, July 13, 2017 2:56 PM
**To:** WRD_DL_waterstrategy
**Subject:** WRD IWRS Letter from Central Oregon Flyfishers

Oregon Water Resources Department
c/o Alyssa Mucken
North Mall Office Building,
725 Summer Street NE, Suite A,
Salem, Oregon 97301

Ms. Mucken:

Central Oregon Flyfishers is an angling club of almost 400 individuals based in Bend, Oregon (www.coflyfishers.org). We are an active club with monthly meetings, fishing outings, education classes, youth angling programs, classroom education in the Bend La Pine School District, etc. We consider ourselves stakeholders in the appropriation, use, and management of water in Oregon.

Water is precious in every part of the state but especially so in the drier areas of the state. Rivers are over appropriated and often are low enough to endanger fish and wildlife. As anglers we see the devastation caused by mismanagement of our water far too often. We believe that water belongs to all Oregonians, as well as fish and wildlife, not just consumptive holders of senior water rights. We also understand the looming shortage that must be addressed as Oregon continues to grow. However, as we grow, we believe that we cannot and should not sacrifice the qualities that make Oregon so attractive.

We are dismayed to once again see instream needs be given little serious consideration in the 2017 Integrated Water Resources Strategy. Once again, the strategy demonstrates a bias with clear targets set for municipal, agricultural, industrial, and similar consumptive uses but only glosses over recreational and wildlife needs. Even following the critical audit by Oregon's Secretary of State, WRD largely ignores current and well understood instream needs. By ignoring these, WRD is ignoring the enormous impact the tourism and recreation sector has on the economy of Central Oregon. It is past the time to study instream needs, it is time to meet them.

A good start would be to give seniority to the junior instream water rights granted to ODFW. No one is senior to the fish and wildlife that rely on these minimum flows. They were here well before any municipal, agricultural, industrial, and similar consumptive user. Without minimum flows in our streams as codified in ODFW's rights, not only will wildlife and recreational users suffer, we will sacrifice very quality of life that makes Oregon so desirable and imperil the growth that WRD hopes to foster.

We also hope that WRD will provide funding to develop new instream demand forecasts, provide for water use measurement and reporting, protect rivers in droughts, and fund improved water conservation. These efforts should be implemented in the current biennium.

Respectfully,

Lee Ann Ross
President, Central Oregon Flyfishers

**Comments on "Oregon's 2017 Integrated Water Resources Strategy" Public Review Draft, April 19, 2017.**

**Comments by: Billie Jo Smith, Mayor, City of Toledo**

My comments will be focused on the section of the document entitled "Critical Issue – Place Based Efforts." I have been a participant in the Mid-Coast Region Place-Based Planning Partnership, so I will be mostly critiquing my experiences with the process being used here. If funding is being provided for this valuable planning, I believe that it should be used in an *efficient* way and that the process should be constantly focused on the end goal of developing a local *integrated* water resources plan that has the support of as many of the stakeholders as possible. I have experience leading diverse groups in the development and implementation of planning in the area of education, and am not at all impressed with the process I am experiencing in our Planning Partnership.

- Page 96, Figure 4-1: Key Planning Principles.
    - Locally-initiated and led collaborative process- In our case, the "locally led" part of this process doesn't seem to be leading us to any results. I believe that the actual leaders of the group should be experienced facilitators that come to us with a process that has been shown to organize and include the talents and contributions of the stakeholders – one that brings together not only the ideas of the group, but brings in and shares the information and reports that have already been developed on the topics. The partnership has essentially wasted at least 6 months trying to create a partnership agreement that all could support. The wordsmithing and other details of this have been painful and a waste of time for the talented and knowledgeable members of the group. The State should have a process ready (or maybe a couple of options) that are given to and adopted by the group. This shouldn't take more than one meeting!
    - The "local" leadership has seemed to be threatened by ideas and suggestions that they haven't already determined to be the direction they want to go. To really get public participation and have an open process the facilitators must be more transparent and be sure the larger group hears and considers the ideas. In our situation a person on the planning committee, through his contacts with OSU, developed a proposal that would involve environmental engineering graduate students in the development of proposed plans for water systems in our area for 50 years from now. A professor, former engineering department head, and other faculty were excited to be involved in this project. The project would have started in the fall of 2017 and continue for up to 3 years, with reports to the partnership at intervals. This would not have produced "the plan" that our group would necessarily adopt, but it would certainly have provided creative and innovative options that could be considered. The local leadership of our partnership decided that this project didn't fit their timeline (it was too soon) and cancelled it. This was done at a planning committee meeting when the initiator of the project was not present. The reasoning of the leadership was incorrect, but the project was never brought to the larger group for consideration. To be successful, we must have true facilitators that make sure all ideas and views are at least considered! We have some outside facilitators, but they just conduct the actual large group meetings and are not really in charge of the ideas that are presented.
    - The process must be open and foster public participation. When the input of non-government employee members of the group is given, it must be considered and valued. The incident above has caused an important public member of the group to withdraw from the process. The only input that has actually been considered, so far, is details on the partnership agreement – over and over and over!
    - Builds on and integrates existing studies and plans. Nearly every city and Water District in the County has a conservation plan and other studies on their water needs and water systems. It would be pretty reasonable to ask them to present their information to the group to compile the needs and possible plans for the entire area. Instead, the partnership is divided into 3 pre-determined groups and asked to research the needs. Unless they are working from the existing studies, this is, again, not a productive use of the time and/or the dollars dedicated to the project.

- The Five Planning Steps presented are fine.
    - Step 1, should not take 6 months to accomplish.
    - Steps 2 and 3 should begin within a few months, and should definitely utilize existing studies and plans.
    - Step 4 – "Develop and prioritize strategic, integrated solutions to meet multiple water needs" should and could be the most time-consuming and important step in the process. This is where "out-of-the-box" creative and innovative thinking must occur. The powerful mix of talented people in the group, including the public, is a wonderful resource and here is where they will shine. (This is also where the group could benefit from the OSU study.) I'm afraid that some leaders already have their plans and will not be open to really entering this part of the process. Because some of our communities have water, yet need infrastructure assistance, others have infrastructure and need more water, and some need both, we need to be open to regionalization of our water systems. The facilitators must make sure these options are fully developed, as some in leadership don't want to consider regionalization. We must consider many "possibilities" for solutions, then look at "probabilities" before we prioritize the recommendations for the plan. Everyone must keep an open mind during this part of the process. We need strong facilitators to make this step successful.
    - Step 5 – Create and approve a local integrated water resources plan. This step should be emphasized throughout the process. This is why we are working together and spending the planning funding. This outcome must truly reflect the wishes and decisions of the many public and agency individuals in the group. This plan is being developed for the entire area of our County.

I hope my comments are useful. I truly believe in regional planning and appreciate that so many agency people are involved in our community and the process. Right now it seems like my time has not been valued in the meetings, and that it's very possible that the group is being used to show that there has been "community involvement" to simply justify pre-determined projects so that they will qualify for grant funding. Even though so much time has been devoted to the partnership agreement, the leadership seems to be top-down. I'm hoping that we will soon be compiling and analyzing the information from existing studies, plus other input from our areas, and move into Step 4.

As for what should the State do: Provide excellent, trained facilitators for the place-based planning partnerships. They must come in with the collaborative processes ready to go, make sure all stakeholder ideas and viewpoints are considered, and prevent the domination of the process and decisions by one or two local leaders/stakeholders.

Thank you for the opportunity to share my comments.

Billie Jo Smith
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541-336-9578

**Confederated Tribes** *of the*
**Umatilla Indian Reservation**
Department of Natural Resources
Administration

46411 Timíne Way
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Phone 541-276-3165 Fax: 541-276-3095

July 19, 2017

Oregon Water Resources Department
c/o Alyssa Mucken
North Mall Office Building
725 Summer Street NE, Suite A
Salem, Oregon 97301

Transmitted via e-Mail: waterstrategy@wrd.state.or.us

Re: 2017 Integrated Water Resources Strategy Public Review Draft

Dear Ms. Mucken,

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources (DNR) appreciates the opportunity to provide comments on the 2017 Integrated Water Resources Strategy (IWRS) Public Review Draft. We offer the following general comments:

1. CTUIR's paramount interest in water resources is achieving a Umatilla Basin water rights settlement. DNR urges Oregon to maintain and prioritize its commitment, authority, and resources necessary to negotiate, settle, and enforce tribal water rights.

2. With increasing emphasis on groundwater use, the proposed increased emphasis on groundwater studies, field presence, instream needs and values determinations, and funding are consistent with the original IWRS. With groundwater declines in multiple areas of the state, groundwater studies to inform groundwater management and co-management are needed to understand groundwater and surface water interactions, and manage both responsibly.

3. CTUIR also has off-Reservation water right claims to support treaty-reserved fishing rights. DNR urges Oregon to maintain, enhance, and prioritize its commitment to ongoing collaborative and data-driven efforts to quantify and meet needed stream flows.

4. DNR also supports enhanced planning for "extreme events," dam safety, and permitting but has concerns that those recommendations may be weakened by similar data gaps and budgets and staff that will be spread even more thinly.

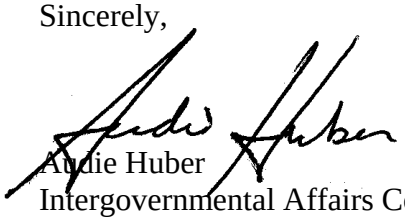
5. DNR agrees that revisions are timely and appropriate, particularly in light of acknowledged water management data and staffing inadequacies inhibiting transparent and responsible decisions and the increasingly important role the IWRS plays in funding decisions.

6. Based on the stated purpose of the revisions to bolster and address gaps missed in the original IWRS, our comments are focused on the new recommended actions. Recommendations from the original IWRS and their intent should be retained during this revision process (although DNR does not support all of them).

7. We are also aware of and have reviewed the Oregon Secretary of State Audit of the Oregon Water Resources Department, and suggest it may be productive to identify which audit recommendations are addressed in the IWRS (i.e. mid and long term) and which recommendations may be addressed in other regional and/or statewide groundwater management planning efforts.

The CTUIR thanks you for your attention to our comments and looks forward to working with Oregon to implement the revised IWRS. If you have any questions or would like to discuss these issues further, please contact Chris Marks at ChrisMarks@ctuir.org or 541.429.7213.

Sincerely,



Audie Huber
Intergovernmental Affairs Coordinator
CTUIR DNR

DESCHUTES RIVER CONSERVANCY

July 19, 2017

Oregon Water Resources Department
c/o Alyssa Mucken
725 Summer Street NE, Suite A
Salem, Oregon 97301

**Re: 2017 Integrated Water Resources Strategy Public Review Draft**

Dear Oregon Department of Water Resources:

Thank you for the opportunity to provide comments on the 2017 public review draft of the Integrated Water Resources Strategy (IWRS). The Deschutes River Conservancy (DRC) appreciates the work of the Oregon Water Resources Department (Department or OWRD) and the Policy Advisory Group in updating the IWRS and commends their effort to continue to emphasize instream as well as out-of-stream needs and encourage the use of science in the decision-making process. The DRC offers the following specific comments on new and revised recommended actions in the 2017 IWRS public review draft.

1. **Understanding Oregon's Out-of-Stream Needs and Demands**
   The DRC acknowledges that accurately understanding and quantifying the state's water needs and demands is a critical component of planning to meet these needs now and in the future. The DRC supports recommended actions 2.A and 2.D as means to better understand Oregon's out-of-stream needs and facilitate Department processes.

   *2.A Regularly Updating Long-Term Water Demand Forecasts*: Updating out-of-stream demand projections with new population, per capita water demand, industrial demand, crop water use, and climate projections will help the Department and partner agencies develop accurate recommendations for addressing water shortages now and in the future. This recommended action is critical to place-based planning efforts and the Department should coordinate with and provide assistance to groups undertaking these efforts to ensure they have they latest water demand forecasts.

   *2.D Authorizing the Update of Water Right Records with Contact Information*: In addition to helping facilitate Department processes, updating water right records with contact information will help organizations like the DRC in researching and mapping water rights to improve streamflows through voluntary means.

2. **Extreme Events**
   The DRC is pleased to see the IWRS revision includes important topics, such as building drought resiliency, not captured in the original 2012 IWRS. The DRC strongly supports

recommended action 5.5.A and 13.C as important steps to responding to drought and mitigating for the impacts of water scarcity.

*5.5.A Plan and Prepare for Drought Resiliency:* The DRC sees the restoration of streamflow through voluntary means as an important tool for mitigating the impacts of water scarcity on instream needs and feels that flexibility is key in using this tool to effectively respond to and minimize the impacts of drought. The DRC is supportive of the Department's willingness to "allow innovation in adopting and implementing policies, procedures, regulations, and zoning that allow flexibility . . ." and sees this as critical to ensuring that instream systems can withstand drought.

The DRC recommends the Department consider adopting language in the IWRS to further promote this innovation to accommodate for emergency drought response, particularly the exploration of incentives that erode barriers to participation in voluntary streamflow restoration. These may include: the establishment of a drought emergency fund for instream needs, allowing multiple water uses within the same season (provided proper measurement of water use), and allowing a split-duty so that water user's may protect a portion of their water right instream while continuing to irrigate with the remainder. Allowing policy and regulatory flexibility in times of drought allows water users to better respond to changing circumstances within an irrigation season.

*13.C Invest in Local or Regional Water Planning Efforts*: Planning and preparing for hazard mitigations, such as drought, is best initiated at the local and regional level and where possible, integrated into larger place-based water resource plans. Providing funding to support the development of these plans is essential as they can be expensive and time-intensive.

**3. Place-Based Efforts**

The DRC and the Department are partners in streamflow restoration in the Deschutes basin and the DRC is currently a coordinator of the Upper Deschutes Basin Study, supported in part by Department funding. The DRC strongly supports place-based planning efforts and the Department's development, financial, and technical support of these efforts throughout the state through recommended actions 9.A and 13.C.

*9.A Continue To Undertake Place-Based Integrated, Water Resource Planning*: As a participant in a Department-supported place-based planning effort, the DRC understands the importance of building a collaborative with diverse representation to provide a meaningful plan that balances current and future instream and out-of-stream needs. For local areas where diverse representation cannot be achieved, the Department should consider developing accountability standards that all plans must meet, to ensure the plan reflects the representation of all water interests. Additionally, the state may also consider playing the role of convener in areas where participation is low or where balanced representation is a barrier to the development of a balanced plan that can meet state standards for both instream and out-of-stream water needs.

Like our comments for recommended action 5.5.A, the DRC believes that flexibility is key to developing or using existing tools to meet current and future instream and

out-of-stream needs. In the development of the Upper Deschutes Basin Study, the DRC and its partners are identifying areas where innovation in state water resource law and policy could be useful in identifying solutions. DRC recommends the Department provide state policy representation to place-based planning efforts entering Step 4 of the planning guidelines. As groups begin to discuss solutions to meet multiple water needs, they may run into issues with developing actions that "are consistent with the existing state laws concerning the water resources of this state and state water resources policy." A state policy representative could provide guidance in developing solutions to comply with state water law and policy or may be able to help groups identify processes for leading changes in these areas.

*13.C Invest in Local or Regional Water Planning Efforts*. Place-based planning efforts are instrumental to balancing the multiple current and future water needs of our state and cannot happen without the contribution of state financial and technical resources. The Department should prioritize funding for local and regional water planning efforts and develop ways to contribute additional resources (i.e. technical and policy assistance) to both state-supported and independent local planning efforts.

**4. Water Management and Development**

Oregon is fortunate to have a variety of tools at its disposal to help meet multiple water needs including a strong Department field presence for regulating water rights and a water resources development program that awards loans and grants to evaluate, plan, and develop instream and out-of-stream water development projects. The DRC supports the continued and further development of these tools in recommended actions 10.E, 13.D and 10.F.

*10.E Continue the Water Resources Development Program*: The Water Resources Development Program provided critical funding to the development of the Upper Deschutes Basin Study and will also provide funding to projects recommended by the Study. Supporting difficult-to-fund feasibility studies, in addition to implementation, this Program is a valuable resource for funding water development projects that also meet instream water needs.

*13.D Invest in Feasibility Studies for Water Resources Projects:* As mentioned above, funding to help determine the environmental, engineering, economic, and social implications of proposed water supply projects is difficult to procure. The Department's support of these project feasibility studies is essential to generating balanced projects that meet multiple needs and is critical to implementing recommendations made through place-based planning efforts

*10.F Provide an Adequate Presence in the Field*: Department field staff are invaluable partners to the DRC in restoring streamflow in the Deschutes basin, providing streamflow measurement, water management, and surface and groundwater analyses. Increasing OWRD field presence will improve the DRC's ability to restore streamflow and monitor compliance. The DRC recommends providing information on streamflow restoration to Department field staff so that they can integrate this into outreach and education efforts.

5. Healthy Ecosystems
   The DRC knows firsthand that importance of protecting groundwater resources. In the Deschutes basin, a 1998 U.S. Geological Survey groundwater study concluded that "groundwater use in the Deschutes Groundwater Study Area had the potential for substantial interference with surface water" and could "measurably reduce" state scenic waterway flows of the Deschutes River. To mitigate for this effect, the Department created a mitigation program, providing a set of tools that applicants for new ground water permits can use to establish mitigation and, thereby, obtain new permits from the Department.

   As development increases and climate change alters precipitation patterns, the demand on the state's groundwater resources will increase. The DRC supports recommended action 11.E and the Department's efforts to better monitor and regulate groundwater use and mitigate for the effects of groundwater withdrawal where appropriate.

   > *11.E Develop Additional Groundwater Protections:* Developing a long-term plan for groundwater management is an essential step in ensuring the sustainability of our groundwater resources. The DRC particularly supports the exploration and development of groundwater mitigation programs where needed and we are happy to collaborate with the Department on sharing our experience with the Deschutes Groundwater Mitigation Program with other communities. The Department should contemplate how best to integrate the long-term groundwater management plan with local and regional planning efforts on water use.

Thank you for the opportunity to comment on the 2017 public review draft of the IWRS. The DRC looks forward to reviewing the final draft and helping with its implementation in the Deschutes basin.

Sincerely,

/s/ Natasha Bellis

July 19, 2017

Oregon Water Resources Department
c/o Alyssa Mucken
North Mall Office Building,
725 Summer Street NE, Suite A,
Salem, Oregon 97301

Dear Ms. Mucken,

We appreciate the opportunity to comment on Oregon's 2017 Integrated Water Resource Strategy. Our members of the private sector believe that in general, climate change is a significant threat to Oregon's economy, our environment and communities. Unabated climate change and its impact on our state's water resources poses a significant threat that must be monitored regularly if we are to inform both resiliency measures and policy solutions toward climate change mitigation.

We support recommended actions highlighted in Section 5, particularly those focused on additional research, climate adaption and resiliency strategies, plans and preparedness for drought and flood.

We offer the following observations pulled from E2's 2016 report *Oregon: Changing Climate, Economic Impacts and Policies for our Future* (the report is attached to our comment email):

- Oregon's agriculture sector contributes $5.4 billion in commodities to the economy.
- The cumulative effects of extreme events (e.g. flooding, heat, drought) cost the agriculture sector over $275 billion between 1980 and 2011 across the U.S. – or nearly $9 billion a year.
- By 2080 the risk of a water short year may increase from 14% to 77% in Oregon
- ECONorthwest's 2009 publication on climate change economic impacts in Oregon estimated losses due to reduced beef production of $7 million and $11 million in 2020 and 2040, respectively, based on 2007 production and value.
- Due to a smaller snowpack from drought and higher elevation snow, ECONorthwest's 2009 estimate for Oregon snow-based recreation losses amounted to $124 million in 2040.
- ECONorthwest also estimated Oregon losses for cold-water angling at $266 million in 2040.

- With a 20% increase in extreme precipitation and a 13% increase in days with over one inch of precipitation, flooding and landslides will occur more frequently and incur greater costs. Closing I-5 for 24 hours costs an estimated $7.5 million.

- Again, due to climate related drought and snowpack changes, there is a region-wide seasonal hydropower reduction of 18-21% projected by the 2080s.

Thank you for considering our feedback. We look forward to continuing to engage with the State of Oregon and others to craft, adopt and implement carbon pricing strategies in support of a healthy water systems and a thriving Oregon.

Sincerely,

Mike Mercer, E2 Consultant

RESOURCE SOLUTIONS FOR RURAL COMMUNITIES

fca

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Oregon Water Resources Department
c/o Alyssa Mucken
North Mall Office Building,
725 Summer Street NE, Suite A,
Salem, Oregon 97301

19 July 2017

Oregon Water Resources Department,

Farmers Conservation Alliance (FCA) is pleased to submit its comments on Oregon's draft 2017 Integrated Water Resources Strategy (IWRS). As a nonprofit organization focused on realizing agricultural and environmental benefits through the modernization of irrigation systems, FCA is invested in assuring that the 2017 IWRS update best reflects contemporary water resource realities and critical needs that FCA and its partners encounter daily.

FCA's involvement in water resource work began in 2005 when the organization brought to market the Farmers Screen – an innovative fish screen technology that reduces operation and maintenance for irrigators while at the same time protects fish. Through this work, FCA built a network of public and private partners consisting of individual farmers, irrigation districts, resource agencies, tribal members, nonprofits, and foundations. As the Farmers Screen program expanded, FCA identified the need to accelerate the modernization of irrigation infrastructure throughout Oregon. FCA, with the support of Energy Trust of Oregon, launched the Irrigation Modernization Program (IMP) in 2015 to meet this need.

FCA's IMP demonstrates the benefits to agriculture, the environment, and communities from modernizing irrigation infrastructure. FCA provides a one-stop shop for farmers, ranchers, and irrigation districts to navigate the complex world of agricultural priorities, regulatory requirements, water rights conflicts, renewable energy production, energy conservation, project funding, and environmental concerns. The IMP develops a unique modernization strategy for each irrigation district participating in the program. Each strategy identifies short- and long-term irrigation goals, assesses opportunities and risks, identifies partnerships, evaluates and communicates the associated economic, ecological, and social benefits of modernization, secures project financing, and facilitates project implementation. FCA also works at the community, state, and federal levels to advocate for broader awareness and support for modernizing irrigation districts' systems.

FCA's IMP directly addresses the IWRS goal to meet Oregon's instream and out-of-stream needs. Irrigation districts lose 20-60% of their water through leaking canals. When they modernize their infrastructure, they eliminate leakage and make that water available for both instream and out-of-stream needs. The IMP also aligns with other IWRS goals and objectives such as empowering agriculture communities to adapt to climate change and increasing resiliency to extreme events such as drought, flood, and seismic events, as well as enhancing public safety. As the State utilizes the IWRS to inform future water resource policy and infrastructure funding, FCA looks forward to supporting this process through the IMP.

When irrigated agriculture's water needs and instream flow demands are recognized as common, mutually beneficial goals, Oregon wins. FCA's preference for actions focused on the elimination of irrigation losses is based on the fact that irrigation accounts for 86% of all surface water withdrawals in Oregon. Accordingly, the greatest return on water resource investments, as particularly well described in Chapters 2 and 4 of the IWRS, will be realized through properly planned and fully implemented irrigation modernization strategies.

FCA offers the following three suggestions to help realize an integrated and applied-side water resource management strategy for Oregon:

**1. Infrastructure Policy, Planning, Design, Construction, and Funding**

IWRS recommended action *10.A (p. 105) Improve Water-Use Efficiency and Water Conservation* aligns with the vision of the IMP. New tools for irrigated agriculture via instream flow optimization, water policy reform, and the establishment of an OWRD-managed water rights bank might also help achieve this optimistic yet highly effective irrigation modernization goal. We know from decades of experience with irrigated agriculture that recommended action *10.D (p. 106) Reach Environmental Outcomes with Non-Regulatory Alternatives* provides the most viable long-term strategy to success.

Beyond developing effective policy, proper planning, and cultivating healthy relationships, projects ultimately can only move forward when there is available funding. Typically, external grants or loans, along with revenue from the sale of irrigation system hydroelectricity, are necessary to complete modernization projects that benefit agriculture, the environment, and local communities. Oregon Department of Environmental Quality's Clean Water State Revolving Fund (CWSRF) loan program provides an example of a flexible match fund with a low barrier to entry. CWSRF offers the flexibility of a rolling application process and ensures that sufficient program grant match dollars are available. FCA supports expanded project funding through OWRD with similar flexibility and low barrier to entry to help realize the IWRS' vision.

Finally, FCA supports the IWRS recommended actions *6.C (p. 79): Low Impact Development and Green Infrastructure*, *7.A (p. 81) Development and Upgrade Water and Wastewater Infrastructure*, and *13.E (p. 144) Invest in Implementation of Water Resources Projects.* Equally important are the recommended actions *7.C (p. 85) Ensure Public Safety/Dam Safety* and *10.B (p. 109) Improve Access to Built Storage.*

**2. Surface Water Flow Measurements, Instream Flow Studies, and Water Conservation**

In concert with the IWRS Policy Advisory Group's 2016 observations and given that growing demands are making scarce water a reality in Oregon, we agree that water-related decisions should rest on a thorough analysis of supply and demand with an eye to increasing water use efficiencies and conservation. As suggested in several sections of the IWRS, including recommended actions *1.B (p. 24)*

*Improve Water Resource Data Collection and Monitoring, 1.C (p. 33) Coordinate Inter-Agency Data Collection, and 10.F (p. 114) Provide an Adequate Presence in the Field*, further dedicated funding including ongoing General Fund support will improve OWRD-based water flow measurements and protocols. Water loss assessments in partnership with the USGS via a well-funded OWRD-based program will ensure a high level of professionalism couched in a single, unified protocol endorsed by OWRD. The data from this program can then be available to corroborate water savings claims for banked water, restored instream flows, optimized irrigation, and ultimately provide justification to use public funds for water infrastructure projects.

**3. Renewable Energy and Energy Conservation**

Renewable in-conduit hydroelectricity production is an often overlooked aspect of strategic water resource planning. As such, FCA supports IWRS recommended action *4.C (p. 55) Promote Strategies that Increase/Integrate Energy and Water Savings*. Small-scale, in-conduit hydroelectricity production can be an especially effective means to fund irrigation modernization while conserving water and producing significant quantities of clean, low-carbon energy. In the existing successful models of these irrigation modernizations projects in Oregon, hydroelectric revenue was used to cover debt service on low-interest CWSRF loans, the proceeds from which were used to fund modernization project design and construction.

While hydroelectricity production for these projects must be secondary to irrigation flow demand so that increased diversion from instream flow is not incentivized, the generation potential from irrigation modernization is still significant. Total allowable diversion from the Deschutes Basin irrigation districts alone offers a potential hydroelectric capacity of over 32 MW with an associated estimated annual power production of 95,000 megawatt hours, avoiding over 45,000 tons of carbon emissions per year.

Modernizing irrigation infrastructure from open canals to piped and pressurized systems also results in large energy savings from reduced pumping, further supporting IWRS recommendations to increase energy savings. Across the Deschutes Basin irrigation districts this energy conservation potential is over 68,000 megawatt hours annually with associated cost savings to district patrons of approximately $5 million per year, avoiding over 32,000 tons of carbon emissions per year. Renewable energy generation and energy conservation from irrigation modernization will continue to play an important role in managing Oregon's water resources.

Thank you for the opportunity to comment on the 2017 IWRS and enhance the future of Oregon's water resources for the benefit of communities, agriculture, and the environment. We look forward to continuing to improve the management of this vital resource.

Sincerely,

Julie O'Shea

Farmers Conservation Alliance

July 17, 2017

Water Resource Commission
Oregon Water Resource Department
725 Summer St NE # A
Salem, Oregon 97301

Re: Comments on the 2017 Integrated Water Resource Strategy (IWRS)

Dear Commission:

Thank you for taking the time to update the IWRS. Water is the conversation of today and into the future of all Oregonians. It is the one natural resource that is completely publicly owned in the state of Oregon. There is no other r natural resource that affects the economy, ecological functioning of our landscapes and the lives of Oregonians more than water. This public resource is coming under increased demand with population growth and climate change. An updated IWRS is critical for the continued management of this public resource.

Currently we are co-conveners of the Place Based Planning effort progressing in Malheur lake basin in Harney County. We would like to offer a few comments on this effort in how it relates to the IWRS. We were compelled to apply for the pilot project funding because community members in Harney County have been successful in other collaborative planning efforts. We believe in our community members to find suitable outcomes to challenging issues and trusted in our community to complete this important plan.

The 2015 draft planning guideline offers 5 planning steps for pilot projects to progress through in order. Water planning is a complex problem and a plan developed using a collaborative process takes time to build the important relationships in the community. In a truly collaborative effort, community members are making the decisions using a neutral facilitator. We have found that it is not always a step-by-step process. Planning effort steps need to run in parallel. Taking the time to build the inclusive collaborative with diverse interests is important to keep all engaged. This planning effort in our basin will take up to 5 years with none of our stake holders being compensated to participate. Currently we are finding that we need to have flexibility when stakeholders enter into voluntary agreements as this will help keep up interest and build energy as this group of committed community members develop a plan to be implemented and not put on a shelf.

Legislative funding will be crucial to the continued efforts that are underway and to allow other communities to have this opportunity. We have recently finished several grant applications to continue to fund our planning process. Our annual budget just for this planning effort is a $145,000 a year. Without the initial pilot project funding and commitment of OWRD staff resources we would not have been as successful in our attempt to fund this effort. The legislature will need to approve continued funding in 2019 in order to see these projects to successful implemented plans.

In addition to the need of additional funding, our other challenges include the need for local facilitation and project coordination capacity in our community. With a total population in our county of 7,400 people, spread out in 10,000 square miles we, finding professionals that understand the issues of our community and are available regularly for the many conversations and working groups that are happening around the water planning efforts continues to be challenging for us. One approach would

be to have the OWRD assist with finding and placing coordinators/ facilitators for this planning effort. Ideally, this would be with individuals that perform these services and packaging them together for those that are successful in securing a Place Based Planning grant. Helping communities with coordination and facilitation throughout this effort will be key to developing an implementable plan.

We will need some flexibility when it comes to implementation of the plan we develop. One area of concern is for the collaborative to have the opportunity to review basin rules. Having the ability to address some of the issues that will come forward under the umbrella or authority of basin rules will allow a voluntary agreement adequate authority to be successful in implementation. Exploring this option in the next couple of years will allow Harney County to produce a plan to provide a sustainably managed supply of quality water for people, the economy, and the environment.

Finally, we would also like to express our full support of the IWRS update. It is needed and is a well-crafted document put together with a broad spectrum of input. Something we are striving toward in our planning efforts in Harney County.

Sincerely,

Mark Owens
Harney County Commissioner

Brenda Smith
Harney County Watershed Council Vice Chair

INTERMOUNTAIN WEST
JOINT VENTURE
*conserving habitat through partnerships*

July 19, 2017

Oregon Water Resources Department
c/o Alyssa Mucken, North Mall Office Building
725 Summer Street NE, Suite A,
Salem, Oregon 97301

**Comments for Oregon's 2017 Integrated Water Resources Strategy**
**PUBLIC REVIEW DRAFT**

The Intermountain West Joint Venture is a public-private partnership focused on the conservation of bird habitats in the Intermountain West, including eastern Oregon. We help facilitate and collaborate with conservation partnerships in Oregon where wetland and working lands are a priority, particularly in southeast Oregon. We are encouraged to see the values of irrigated agriculture summarized on page 37 of the draft:

> "The contribution of agriculture to Oregon's environmental health is also significant. Many agricultural fields serve as viewsheds of open, green landscapes, and can provide a sanctuary for migratory birds. Well-managed agricultural lands can support a variety of wildlife, providing food, shelter, and habitat. Irrigation can multiply these benefits, further contributing to soil conservation, biodiversity, wildlife habitat, recreational opportunities, scenic vistas, watershed protection, flood control, and groundwater recharge."

However, we believe the values of flood-irrigated agriculture are particularly important and warrant specificity. Our comments below are intended to highlight and further specify the ecological and agricultural values that traditional flood-irrigation provides in Oregon.

Water and wetlands are scarce resources in the Intermountain West. For over a century, agricultural producers have relied on the practice of flood-irrigation to irrigate pastures, crops, and support livestock. Many flood-irrigated fields occur in historical wet meadow and wetland footprints in Oregon (1). These flood-irrigated fields, particularly perennial pasture and haylands in the historical floodplain, serve as surrogate wetlands that largely mimic the historical ecological function of natural flooding in the floodplain. In the closed basins of southeast Oregon, floodwaters from the melting snowpack in the surrounding mountains are diverted into fields and pastures, creating shallow ponding among short grasses with an abundance of seeds and invertebrates for wetland birds to feed on. During spring migration, several million ducks, geese, and swans pass through here stopping to feed and prepare for the long journey to their northern breeding grounds. Consequently, the practice of flood-irrigation provides valuable wildlife habitat on working lands in this region where water is a scarce and often ephemeral commodity. Flood-irrigated fields provide important foraging habitat for migratory and breeding wetland birds including Sandhill Cranes, White-faced Ibis, Wilson's Phalaropes, and dabbling ducks in Oregon and elsewhere in the Intermountain West (2,3,4,5,6). Flood-irrigated fields may

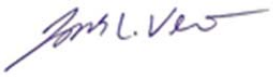
also provide important brood-rearing habitat during summer for sage-grouse (7,8,9). Loss of flood-irrigation in Oregon is of concern that has continental significance for migratory birds. USDA's Natural Resources Conservation Service has adopted measures to limit its financial assistance for irrigation conversion on high-value floodplain habitats in Klamath, Lake, and Harney counties, and in 2015 the Oregon Watershed Enhancement Board designated Oregon closed basin wetlands, including the region's flood irrigated hay pastures and meadows, as a priority for its Focused Investment Partnerships program (10).

Over 135,000 acres of flood-irrigated habitat have been lost across southern Oregon over the last two decades while sprinkler irrigated acres have increased by over 188,000 acres (11). A growing body of science in western states is demonstrating the overturning of local water balance, through the exchange from aquifer input (e.g., surface water and flood-irrigation) to output (e.g., groundwater pumping), contributes to the depletion of respective aquifers. This instability not only threatens both natural and agricultural freshwater habitat resources for fish and wildlife, but is also imposing adverse effects on agricultural sustainability as water availability has consequently decreased. Dramatic conversion from flood to sprinkler irrigation in other western states has resulted in significant loss of migratory bird habitat and threatens agricultural sustainability from groundwater depletion. The livestock and hay industry in Klamath, Lake, and Harney Counties accounts for a $170 million agricultural economy serving as the socioeconomic foundation for these eastern Oregon rural communities (12).

In short, flood-irrigation by agricultural producers provides important foraging habitat for birds and other wildlife in southern Oregon. Sustaining flood-irrigation will also be important to securing long-term viability of agriculture production here by way of maintaining historical surface and groundwater interactions that recharge aquifers communities rely on. We encourage the State to continue and increase investments to better understand total water balance, particularly in bird priority and agriculture landscapes such as the Harney, Christmas Valley/Summer Lake/Chewaucan, and Klamath Basins.

We appreciate the opportunity to comment on the 2017 Integrated Water Resource Strategy and thank you for your consideration. Please do not hesitate to contact me with questions or the IWJV can be of service.

Sincerely,



Josh L. Vest, PhD
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Intermountain West Joint Venture
406-549-0354
josh_vest@fws.gov

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To: Alyssa Mucken, Oregon Water Resources Department

From: Mark Landauer, Special Districts Association of Oregon

Tracy Rutten, League of Oregon Cities

Date: July 19, 2017

RE: Comments on Oregon's 2017 Integrated Water Resources Strategy – Public Review Draft

On behalf of the League of Oregon Cities and Special Districts Association of Oregon, we appreciate the opportunity to provide comments on the public draft review document. We further would like to express our appreciation to the members of the IWRS Policy Advisory Group (PAG) for their time and effort.

The Public Review Draft was very challenging to follow in terms of changes that were made including new language and revisions to previous IWRS language. For example, the summary of recommended actions starting on page 149 outlines in colored text which actions are new and which actions have been revised. There is no indication that actions listed under Recommendation Action 1.B have changed, however, we discovered that there were changes made including a new recommended action regarding TMDLs. This issue appears to be consistent throughout the Public Review Draft with revised or new recommended actions in many areas that are not indicated as having been revised. This requires the public and stakeholder organizations to do a side-by-side comparison of the current IWRS with the Public Review Draft. It is incredibly challenging and we do not feel fully confident that our comments reflect all changes as we do not have the time to compare such sizable documents side-by-side.

We have significant concerns with new language included under the section "Understanding How Public Health is Protected" (see page 30). The subsection entitled "Lead in Public Drinking Water" uses terminology and phrasing that does not accurately depict the issue of lead leaching into treated drinking water from *older* residential and commercial pipes, plumbing and fixtures. It is our understanding that this issue was not adequately discussed by the PAG and potentially not discussed at all. We share concerns over recent findings of lead in school drinking water fountains and other fixtures. It is an incredibly serious issue that warrants careful and thoughtful dialogue to accurately educate the public and take any necessary actions to prevent unnecessary lead exposure.

Our municipal water providers have worked diligently to educate the public and ensure that water delivered to their customers is safe and meets all state and federal drinking water standards and

protections. Our members provide lead testing services, often free of charge, and calibrate their water to minimize potential leaching from residential and commercial plumbing. If the department is going to keep this new subsection, we recommend the inclusion of additional information from the Environmental Protection Agency to better inform the reader of how lead gets into drinking water, including information on corrosion from pre-1986 plumbing; 2014 updates to the Safe Drinking Water Act that reduced the maximum allowable content of lead in pipes, plumbing and fixtures; and information regarding the implementation of and revisions to the Lead and Copper Rule.

In addition, we appreciate your consideration of the following comments pertaining to specific pages of the Public Review Draft document:

- Chapter 1, Page 13: We would encourage the incorporation of language to reflect that water is managed simultaneously for public health and safety, as well as for economic development and for environmental protection. Drinking water and water for fire suppression is critically important but not reflected in the current draft language.
- Chapter 1, generally: The previous version of the Integrated Water Resources Strategy included a subsection in Chapter 1 entitled "How We Use Water". It appears that section has been deleted in the Public Review Draft document. We think the information is relevant and helpful to readers of this document and should be restored.
- Chapter 1, page 15: Under the subsection "Surface Water Availability", we encourage the inclusion of language to reflect that the water available for live flow allocation in August (as shown in Figure 1-3) is largely a result of the eleven dams located in the basin and regulated through the U.S. Army Corps of Engineers.
- Chapter 1, Page 18: The water quality subsection should include some information on impacts to water quality, including drinking source water, that is a result of failing or failed septic systems.
- Chapter 1, Page 19: The previous IWRS included a subsection entitled "Impacts to Ecosystems". The updated Public Review Draft has changed that title to "Impaired Ecosystems". While there are ecosystems in Oregon that may be considered as impaired, we think the change in title does not fairly reflect numerous efforts made to improve ecosystem health in Oregon. No other title in this section assigns an adjective in this manner.
- Chapter 1, Page 24: Under Recommended Action 1B, we would recommend deletion of the recommended action for "updating water quality standards and implementing additional TMDLs as necessary." It is redundant to recommended actions included under Recommended Action 12.C and there is not adequate language in Chapter 1 to explain how the action fits into this chapter.
- Chapter 3, Page 55: We respectfully suggest that the subsection on "Saving Water and Energy in the Home" be expanded to reflect the many efforts of municipal water suppliers including: providing free leak-detection kits; rebates for appliances such as toilets, washers and irrigations systems; free conservation devices; and public media campaign efforts such as the Regional Water Providers Consortium.
- Chapter 3, Page 62: We agree that there will need to be significant investments made to accommodate infrastructure needs to better mitigate against potential impacts from climate change. In a 2015 survey, the League of Oregon Cities projected over $9 billion in water and wastewater infrastructure needs over the next 20 years. While we appreciate the reference to the LOC survey on page 141, there needs to be some recognition that to implement aspects of

climate resiliency-related infrastructure improvements, the state will need to provide significant additional funding.

- Chapter 4, Page 117: The language regarding the consultant report on Oregon's NPDES permitting program indicates that "eliminating the NPDES permit backlog and achieving a sustainable permitting program is dependent on addressing the recommended actions in all topic areas, not all of which are under DEQ's control." We were extensively involved in the process which led to that report and are unclear about the language indicating that not all recommended actions are under the control of DEQ. We imagine many IWRS readers would be similarly confused by this language without further detail provided. We recommend deleting that language.

Again, we want to express our appreciation for the efforts that went into this update and for the opportunity comment.

I am writing on behalf of the MidCoast Watersheds Council (MCWC) to provide public comments on Oregon's 2017 Draft Integrated Water Resources Strategy. The MCWC is a private nonprofit organization dedicated to the health of central coast watersheds between Cascade Head and Heceta Head. We work with willing landowners to protect and restore salmon habitat, and to improve stream water quality. We greatly appreciate the opportunity to comment on the Draft Strategy.

In these comments we will provide recommendations on the following subjects: 1) early completion of adjudication for all non-adjudicated basins, 2) development of Instream Demand Forecasts, 3) Water Use Measuring and Reporting, including enforcement of adherence to allocations, 4)Community and Regional Planning Efforts, 5) Extreme event planning and response, including drought resiliency for instream needs, 6) Adoption of Instream Water Rights, 7) improved Water Use efficiency, and 8) Urban Rainwater Capture and Treated Wastewater Use. Some of the things MCWC and others are advocating for will require legislative modification of existing statutes, as well as changes in budget requests and allocations, so we request that the Strategy include or be accompanied by a detailed analysis of which strategy elements would require legislative action.

1. Early Completion of Adjudication. According to Figure 2-5 on P. 42 of the Draft Strategy, adjudication has not been completed for most of western Oregon, and according to the accompanying text, some adjudications east of the Cascades did not include all Native American treaty allocations. Additional challenges to Oregon's water rights prioritizations may come from other federal actions. For example, court-mandated spill from federal dams to benefit endangered salmon might compromise long-standing state water rights. The MCWC requests that the 2017 Strategy include acceleration of adjudication efforts, and increased staffing as necessary to accomplish that. Until adjudication is complete, planning for environmentally sensible allocation of water to meet public needs will be more difficult and subject to possible unpleasant surprises.
2. Instream Demand Forecasts. The 2017 Strategy should include explicit directions for developing Instream Demand Forecasts, and these forecasts should cover differences in demand based on different climate change scenarios, and different land-use scenarios (e.g. instream flows needed to maintain adequate water quality and native biota may differ between possible forested, agricultural, rural residential, and urban futures for a particular watershed).
3. Water Use Measuring and Reporting. Any substantial withdrawals need to be measured and reported. Reporting needs to include both volume and timing (e.g., daily volume, not just seasonal or annual totals). The Strategy needs to accelerate installation of measurement devices, and development of staff resources to manage the reported data. Part 1B of the Summary of Recommended Actions (P.149) should be amended to include language specific to withdrawal-volume monitoring. The Strategy also needs to outline procedures for responding to violations. If necessary to accomplish this accelerated completion, OWRD should consider asking the legislature for funds to assist water users in purchasing and installing monitoring systems.
4. Community and Regional Planning Efforts. The MCWC is participating in the Central Coast Pilot planning effort convened by OWRD and the City of Newport. To date we are finding the process

promising and substantive, but we recommend that the Strategy include a commitment to conduct an analysis of the 4 pilots, to assess how well the process worked, and how it might be improved for other communities. Basically, pilot studies are wasted if they are not fully analyzed in the spirit of adaptive management to capture all information on the successes and of the challenges encountered. We are finding that the initial appropriation for the pilots is inadequate to complete them, at least using the current planning process, so OWRD needs to report to the Legislature in the actual costs of the process, and request additional appropriations. The Central Coast Pilot has not progressed enough to make overall recommendations, but some issues have emerged. First, the process, as used here, has appeared too rigid, and overly front-loaded with logistic and bureaucratic efforts. Community participants come to the process with very different levels of pertinent expertise and different interests, so would be good to embark immediately on educational activities for those with less expertise, and at the same time move more quickly to get the participants with more expertise engaged in constructive work, preferably at a subgroup level. Second, the process needs to be more flexible in its ability to respond to opportunities for outside collaborations and partnerships.

5. Extreme Event Planning. The Climate and River Flow records for the past several decades already show extreme events (floods and droughts) occurring at increasing frequencies and increasing severity. The 2017 Strategy needs to include provisions for responding in a timely manner to extreme events. The draft strategy does include this subject, but needs to be much more explicit in describing administrative tools available for inclusion in Extreme Event Plans. In particular, the Strategy needs to incorporate drought resiliency provisions , as requested by the Governor's office. Such provisions should protect flows for fish and wildlife, and set minimum flows on ecologically important streams. Extreme event planning should also include a framework for protecting and restoring fish and wildlife resources in post-wildfire landscapes, including temporary restrictions of withdrawals, modification of reservoir management rules, and potentially temporary restrictions on groundwater withdrawals, if that would be beneficial.
6. Instream Water Rights. The 2017 Strategy includes a directive to conduct instream flow studies, but also needs to include a call for increased funding for this task. In addition, the plan needs to include a directive to complete processing of all pending instream rights requests, and to work with ODFW to establish instream rights on all ecologically significant streams. The strategy also needs to recognize the need for funding at ODFW as well as OWRD to complete this task.
7. Improved Water use Efficiency. The 2012 Strategy called for improved use efficiency and water conservation, but unfortunately the Draft 2017 strategy seems to back away from this, particularly for agriculture. The 2017 Strategy needs to re-affirm a priority on efficient use. This should be tied to completion of the Water Use Measuring and Reporting goal, and should also include a program to adopt, and if necessary develop, use-specific and basin-specific efficiency standards for major users. For agriculture, these may include irrigation system transport loss management, choices of most efficient irrigation systems for particular crops, and proper handling of runoff. For public drinking water systems, these need to include programs to identify and repair/replace leaky pipes, promotion of water-efficient appliances, limits on landscaping use, and conservation-promoting rate systems. The 2017 Strategy needs also to

address efficiency in industrial uses. Numerous industries in Oregon are water-intensive, and their uses could be reduced by an emphasis on efficiency, and where appropriate, re-use. Food processing often depends on adequate supplies of high-quality water, but far too often, visits to food-processing facilities find hoses running continuously, and other indications of wastage. Other water-intensive industries, including paper manufacture, may also benefit from periodic efficiency reviews, and potentially from rate structures that award efficiency.

8. Urban Rainwater Capture, Treated Wastewater Use, and Urban Stormwater Management. These subjects are related, as they all involve alterations of natural groundwater dynamics and stream flow patterns. The 2017 Strategy should include goals and incentives for developing urban rainwater capture for garden and landscaping use, as well as for groundwater recharge with urban runoff. The Strategy should also include expanded guidelines for acceptable use of treated wastewater, and should promote research on developing additional acceptable uses. Because stormwater management affects water quality and flow patterns in receiving waters, we would like to see the 2017 Strategy address the need for studies of stormwater management from the perspective of hydrological as well as water quality effects on receiving waters.

## Mountain Rose Herbs

**From:** Alyssa Lawless <sustainability@mountainroseherbs.com>
**Sent:** Tuesday, July 18, 2017 10:40 AM
**To:** WRD_DL_waterstrategy
**Subject:** Integrated Water Resources Strategy Public Review Draft Comment

I am writing on behalf of Mountain Rose Herbs, an herbs, health and harmony company, which employs 180 people in Eugene, OR.

Please hear our concerns:
The 2017 Strategy should include a clear directive to determine instream demand forecasts in the face of our changing climate, and allocate the staff and resources necessary for this job.
The 2017 Strategy should be updated to: (a) require full implementation of the Water Resources Measurement Strategy by 2020; (b) direct the state to seek broad reporting authority; (c) provide funding for the WRD measurement and reporting oversight; and (d) plan for measurement/ reporting beyond significant diversions into the future.
The new strategy should require development of drought provisions which protect flows for fish and wildlife, and set minimum flows on ecologically significant streams.
Please support the inclusion of instream flow studies in the plan and the directive to adopt new instream water rights, but urge the state to include a specific directive to double current funds dedicated to this work.
The 2017 Strategy should direct the state to aggressively enforce against waste, and develop basin-specific efficiency standards for agriculture.

Best,
Alyssa

Alyssa Lawless
P.O. Box 50220
Eugene, OR 97402
5417417307

## Mountain Rose Herbs (Comment 2)

**From:** Alyssa Lawless <sustainability@mountainroseherbs.com>
**Sent:** Thursday, July 13, 2017 12:53 PM
**To:** WRD_DL_waterstrategy
**Subject:** IWRS Update: Prioritize a sustainable water future

Alyssa Lawless
P.O. Box 50220
Eugene, OR 97405

July 13, 2017

Dear Tom Byler,

Our economy, way of life and the health of Oregon's fish and wildlife depend on a clean and reliable source of water. That is why I'm writing to express my support for a strong Integrated Water Resources Strategy that puts clean, unpolluted water first, ensures enough water remains in streams for fish and wild ecosystems, and sustainably manages our water resources to balance current and future needs.

I am writing on behalf of Mountain Rose Herbs, an herbs, health and harmony company, which employs 180 people in Eugene, OR. Please make sure we are on the right path by adding the following to the updated IWRS:

--Stronger pollution prevention: Focus on preventing water pollution at the source, especially addressing the agricultural chemicals that contaminate rivers and drinking water sources, and the excess fertilizers and nutrients contributing to toxic algae blooms in our rivers and lakes.

--Better protections for fish and wildlife: Prioritize completion of the studies needed to determine how much water must stay in rivers and streams to maintain healthy fish and wildlife populations, especially during critical life stages of native fish. And when drought strikes, the response plan should make sure fish don't get short shrift.

--Measurement of water use: We cannot keep draining our water resources without paying attention to the balance sheet. The IWRS should require a statewide plan and timeline for measuring all water withdrawn from rivers and aquifers so that we can balance needs between people, industry and nature.

With climate change and the increasing frequency and intensity of drought, Oregon must implement strategies now to ensure the long-term sustainability of our ecosystems, economy and quality of life. Please strengthen these components of the updated Integrated Water Resources Strategy.

Sincerely,
Alyssa Lawless


July 19, 2017

Oregon Water Resources Department
c/o Alyssa Mucken
North Mall Office Building,
725 Summer Street NE, Suite A,
Salem, Oregon 97301

RE: Comments on the Oregon 2017 Draft Integrated Water Resources Strategy

On behalf of the National Audubon Society we appreciate the opportunity to provide comments on the State of Oregon 2017 Draft Integrated Water Resources Strategy (IWRS).

Audubon is dedicated to protecting birds, other wildlife and the habitat and water resources that support them. Audubon's Western water initiative is focused on advancing balanced solutions to water use to ensure birds, ecosystems, people and the economies that rely on water resources can thrive. It is in this context that we also support efforts by states such as Oregon to develop and implement balanced strategies to address water needs for people and wildlife.

We respectfully request that you consider the following comments:

**Instream Flows and Instream Water Rights**
We support the inclusion of the need to consider instream flow needs in addition to "out-of-stream" needs, in the Oregon water strategy. In particular, we support including instream flow studies and the directive to adopt new instream water rights. However, we strongly urge the State to include a specific recommendation to increase (at least double) funding dedicated to this effort. (Recommended Actions – 3.A and/or 11.B)

Additionally, we suggest that the Draft 2017 IWRS more clearly define the need for instream demand forecasts – particularly in the face of climate change and the need for drought resiliency.

**Water Use Measurement and Reporting**
We have seen at places like the Chewaucan River and Lake Abert that lack of adequate monitoring handicap smart management of water. Hence, adequate water measurement and diversion data are critical to proactively managing water needs and reliability of supplies. Therefore, it is important that the water strategy includes a clear recommendation to advance implementation of the Water Resources Measurement Strategy to install measurement devices at significant water diversion points in a timely fashion. Additionally, the recommendations should include broad reporting authority for the state, adequate funding and resourcing for measurement and reporting oversight, and a longer-term plan for all other diversions.

**Extreme Events and Drought Resiliency**
Section 5 of the draft plan includes new provisions on Extreme Events, including planning and preparing for drought resiliency. While we support including drought resiliency in the Draft 2017 IWRS, we urge the State to strengthen and clarify the Recommended Actions for 5.5A to include mitigation plans that address and protect instream flows for wildlife and habitat, including setting minimum flows or levels on ecologically significant streams and lakes.

**Improve Water Use Efficiency**
Efforts to improve water efficiency, particularly where those efficiencies do not expand a water right use and where they can be utilized instream to support broader ecological needs are greatly encouraged. The Draft 2017 IWRS could be improved by expanding Recommended Action 10.A to include efforts to assist with basin-wide efficiencies with particular emphasis on increasing agricultural efficiencies and cooperation for applying efficiencies to instream flow at the basin-wide scale.

We also express support for the inclusion of the following new and/or revised recommendations:

**Provide an Adequate Presence in the Field – Recommended Action 10.F- New**

**Strengthening permitting programs for water quantity and quality – Recommended Action 10.G - New**

**Develop Additional Groundwater Protections – Recommended Action 11.E - New**

**Fund Water Resources Management Activities at State Agencies – Recommended Action 13.B – Revised**

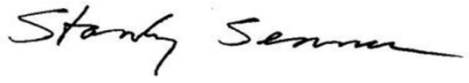
**Invest in Local or Regional Water-Planning Efforts 13.C – New**

**Invest in Feasibility Studies for Water Resources Projects 13.D – Revised**

**Invest in Implementation of Water Resources Projects – 13.E - New**

Thank you.

Sincerely,



Stanley Senner
Vice President for Bird Conservation – Pacific Flyway
National Audubon Society
111 SW Columbia St., Suite 200
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oregon association of CLEAN WATER agencies

**Working with more than 95 community wastewater treatment and stormwater management agencies to protect Oregon's water**

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July 19, 2017

Attn: Alyssa Mucken
Oregon Water Resources Department
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725 Summer Street NE, Suite A
Salem, OR 97301

Sent via e-mail to: waterstrategy@wrd.state.or.us<mailto:waterstrategy@wrd.state.or.us

**Subject: Draft Integrated Water Resources Strategy comments**

Dear Ms. Mucken:

The Oregon Association of Clean Water Agencies (ACWA) appreciates the opportunity to provide comments on the 2017 Integrated Water Resources Strategy (IWRS). ACWA is a private, not-for-profit organization of Oregon's wastewater treatment and stormwater management utilities, along with associated professionals. Our 135 statewide members are dedicated to protecting and enhancing Oregon's water quality. Our members provide wastewater and stormwater services to 2.4 million Oregonians, serving 64% of Oregon's homes and businesses.

ACWA's comments on the 2017 IRWS are provided below. Where possible, the applicable IWRS recommended actions (RA) affected by the comments are referenced for ease of referring to the document.

**ACWA COMMENTS:**

- The coordination of data collection and processing between agencies is very beneficial, and the IWRS does good job describing efforts to be made in inter-agency coordination (RA 1.C and RA 6B). However, the agency coordination included in the IWRS is limited to state agencies and does not include local agencies and entities. Coordination efforts would be strengthened if they included interested entities throughout the state, not just the state agencies. In addition, integration should include all interested entities, not just regulated entities, as participants in data sharing and decision making. Given the IWRS intention to utilize state-developed State Agency Coordination Programs to ensure local compliance and compatibility with local comprehensive plans and to support overall state

water management, the IWRS should discuss how these Coordination Programs are updated regularly and support overall state water management activities. This is especially important given that only two state agencies have updated their Coordination Programs since 1990.

- The IWRS includes recommendations to regularly update long-term water demand forecasts (RA 2.A). Under this critical issue there is detailed discussion about projected population growth and the municipal agencies' responsibilities for forecasting water and wastewater demands for their service areas. While it is clear that an update in forecasts is called for, it is not clear if this recommendation specifically seeks an increased *frequency* in forecasting by municipal and agricultural entities to project their water demand. The expected change in frequency, if any, should be clarified in the text.

- By the projections included in the IWRS, agriculture makes up 85% of water demand, while municipal and industrial uses make up only 15%. However, the RAs (e.g. RA 2.A) related to updating the long-term water demand forecasts are focused on municipal users. It is unclear who is responsible for forecasting agricultural demands and their frequency of update. This should be clarified for all of the water users in Oregon, not just municipal users, particularly because agricultural users make up such a large fraction of the water use in Oregon.

- Wastewater treatment plants contribute significant and reliable flows to Oregon's rivers, which can also be a valuable source of recycled water for municipalities and agricultural entities. The importance and value of treated effluent as a source of instream flow and as a source of recycled water to offset potable water demand needs to be emphasized to a greater extent in the IWRS. Several of the recommended actions have a nexus with these flows, but they are not adequately addressed in the IWRS, currently. The assessment of needed instream flows (RA 3.A) should credit treated effluent flows from wastewater treatment plants and seek to understand the value of these flows to the natural system as well as their ecologic and economic benefits. The use and value of recycled water (and harvested stormwater and graywater) as part of low impact development strategies (RA 6.C); place-based integrated water sources planning (RA 9.A); increasing water efficiency and water conservation (RA 10.A), environmental outcomes with Non-Regulatory Alternatives (RA 10.D); encouraging regional approaches to water and wastewater systems (RA 7.B); and ensuring the safety of Oregon's drinking water (RA 12.A) should be emphasized as a benefit from an increased discussion to normalize the use of recycled water and increase the likelihood of recycled water use by different communities. The IWRS also needs to develop an approach for state acceptance and permitting and provide technical expertise for local communities to start taking advantage of recycled water and harvested stormwater. A pathway to water reuse should be a stated goal in encouraging additional water reuse projects (RA 10.C) and should be a key component in investing in feasibility studies for water resources projects (RA 13.D).

- Many of the recommended actions will require significant funding and investments by local agencies. This burden of these costs is one of the most significant obstacles to implementation of better water resource strategies for many municipal and agricultural

agencies and communities across the state. A discussion of how the State will incentivize and/or share costs to help local agencies to fulfill the goals of the IWRS and develop the recommended actions is needed in the IWRS. Significant funds will be needed to develop strategies that accomplish the following recommended actions: increase/integrate energy and water savings (RA 4.C); upgrade water, wastewater, and stormwater systems for improved water efficiency (RA 7.A); ensure resiliency to climate change (RA 5.B); prepare for the Cascadia Subduction Earthquake Event (RA 5.5C); and conduct research into water resource solutions in the state (RA 8.D). Because most of these upgrades, actions, and research will fall on local agencies to implement, the IWRS should discuss incentive programs, grant opportunities, fund matching programs, low cost loans and financial aid from the State to support the necessary improvements. The IWRS should especially discuss the development of any funding mechanisms or programs that go beyond existing programs already in place. A focus on innovation should be included as a funding opportunity as innovation provides a monetary incentive.

- Given the recent shift of the federal government away from responding to climate change, partnering with EPA for long-term climate change adaptation may not be a reliable option in the near future. The State's climate change mitigation goals and adaptation strategies should be discussed in the IWRS, irrespective of EPA programs, as they relate to addressing climate change threats to water resources in Oregon.

- ACWA supports the IWRS in seeking to both identify water-related research needs and to partner with researchers to address these needs (RA 8.D). However, local agencies that provide drinking water, wastewater and stormwater services, are key partners in conducting any of this research. Including local agencies in the research process will enable the best science to be generated and more readily be applied. This should be emphasized in the IWRS along with available funding and cost-sharing opportunities (see funding-related comment above).

- In relation to encouraging regional approaches to water and wastewater systems (RA 7.B), organizations such as ACWA can be key partners in building educational opportunities throughout the state. These potential partnership opportunities should be better emphasized in the IWRS.

- In the effort to improve the water quantity and water quality permitting programs (RA 10.G), the IWRS should state that permit writers should be included beyond the initial stages in lending their expertise. The relationship should remain open and collaborative.

- In the effort to improve watershed health, resiliency, and capacity for natural storage (RA 11.A), the value of stormwater best management practices should be recognized along with the recreation of natural systems through strategies such as low impact development.

- Under the Critical Issue of Water Management and Development there is a statement that: "DEQ may also prepare and submit to the Water Resources Department an instream water right application for the flow amount used to calculate Total Maximum Daily

Loads." The IWRS should clarify and elaborate on what this means for existing water rights, TMDL development, and potential implications outside the TMDL process.

- In the effort to reduce the use of, and exposure to, toxics and other pollutants, the IWRS should recognize that wastewater treatment plants are an important line of defense against contaminants entering the environment. Funding opportunities for increasing treatment capacity at treatment plants (as well as water recycling) should be discussed.

- The IWRS should emphasize the implementation of water quality control plans (RA 12.C) should be cooperative between local, state and federal agencies at all levels of the permitting process.

ACWA appreciates the opportunity the opportunity to review and comment on the Integrated Water Resources Strategy. Addressing the comments described above will result in an IWRS that is more inclusive and will ultimately result in a better integrated water resource strategy that recognizes the value of all water in the water balance.

Sincerely,

Susan L. Smith
Executive Director

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Alyssa Mucken
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Integrate Water Resources Strategy
Oregon Water Resources Department
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July 19, 2017

Dear Ms. Mucken:

Thank you for the opportunity to provide comments on the draft 2017 Integrated Water Resources Strategy. The Oregon Environmental Council was founded in 1968 and is a nonprofit, nonpartisan, membership-based organization. We advance innovative, collaborative solutions to Oregon's environmental challenges for today and future generations. One of our strategic goals is clean and plentiful water, and we bring an environmental and human health perspective to water issues. We were a member of the original Integrated Water Resources Strategy Policy Advisory Group and were closely involved in the development of the 2012 IWRS. We discussed issues of concern and followed the progress of the 2017 update with Gayle Killam, our recommended addition to the PAG, and offer the following recommendations to the draft update.

First, we recognize the difficulty in undertaking a re-assessment of the IWRS with limited time and staff resources. Unfortunately, the amount of time needed for the PAG members to come up to speed and begin to have meaningful dialogue significantly impacted their ability to deliberate on a number of important topics. We suggest that future updates consider continuity in participation and front-loading the process with thorough background information and open discussion to increase the PAG's productivity.

We are very supportive of several new emphases included in the 2017 draft, however, stronger directives are necessary to re-affirm the priorities agreed upon in the 2012 IWRS, and to address the issues that have evolved in the five years since.

**1A Groundwater Investigations**
We appreciate the directive for ensuring high-quality groundwater level measurements, a critical component of groundwater monitoring also recognized as a priority. While we support the directive to locate and document all wells as an important task, we are concerned about removal of the emphasis on exempt wells called out in the 2012 IWRS. The 2017 draft notes there is inadequate documentation of the number, location and average water use of private drinking water wells. The new mapping tool may be helping to increase documentation, but without a directive for a proactive approach, especially as securing new water rights becomes more difficult and exempt wells proliferate, pinpointing the location and volume of use of domestic wells is ever more important to understanding groundwater use and the potential for withdrawals to impact surface waters.

**2B Measurement and Reporting**
We strongly support measurement and reporting of all water use as a key element of the equation to understand Oregon's water balance, and have been urging the Water Resources Commission to update the 2000 Strategic Measurement Plan to that end. We are glad to see an update of the Plan as a new directive, but it should be stated as "Update and fully implement the state's 2000 Strategic Measurement Plan" as called for in the 2012 IWRS. As a basis for programming and funding, this language is important to relay the need for a clear timeline and adequate funding to complete this important work.

On a related note, funding the water-use reporting coordinator has greatly improved compliance with measurement and reporting requirements and therefore collection of important water use data. Maintaining this role into the future should be noted as a necessary implementation measure in the IWRS.

**3 Instream Needs**
As a more general comment, progress has been made in understanding out-of-stream needs and the value of those needs, while work to quantify the needs and values of instream and groundwater dependent ecosystems continues to lag behind. Even the placement of the topic of instream needs following the topic of out-of-stream needs in the IWRS sets the stage for consideration of the needs of natural systems as secondary. That said, we strongly support the specific directives of this section, particularly those instrumental to defining instream demands for fish, wildlife, recreation and water quality, including ecological base, peak and seasonally variable flows. Fully funding this work should also be emphasized.

**4B Non-Traditional Hydroelectric Power**
As noted in text in the 2017 draft, non-traditional hydroelectric power offers a tremendous opportunity to offset the energy needs and help pay for water conservation projects, most notably for irrigated agriculture. We support this new directive to take advantage of existing infrastructure to develop non-traditional hydroelectric power.

**5.5A Drought Resiliency**
Incorporating planning for extreme events, particularly drought, is an important step for the IWRS. Unfortunately, neither the Drought Task Force nor the PAG were able to develop clear guidelines for addressing minimum flows on ecologically significant streams in drought conditions, leaving a significant gap in preparation for events that will likely revisit Oregon well before the many planning steps outlined in the 2017 draft are completed.

**6 Land Use**
OEC supports the increased emphasis on state agency coordination (6B) and endorsement of natural infrastructure (6C), but is disappointed the PAG was not able to go beyond a recommendation to "Take next step to implement land use goals related to water resources." The IWRS acknowledges and recommends improvements to the serious shortcomings in Oregon's understanding of the state's water supplies, but the 2017 draft should identify what that "next step" is, and direct an approach to ensuring communities plan their growth based on reality, with information about available water supply. It should include recommendations for development that protects natural hydrology, encourages compact development to reduce water use and infrastructure costs, and promotes stormwater and wastewater integration.

**9A Place-Based Planning**
There has been impressive progress in developing the Place-Based Planning framework and planning guidelines and in selecting and convening the four planning areas. We are glad funding

for technical assistance to the planning processes has been maintained in the next biennium and agree state financial and technical support should continue for the life of these efforts. However, instead of recommending continuing to undertake Place Based Planning and before investing in additional place-based plans, the 2017 draft should first call for an evaluation of the effectiveness of the efforts, particularly of environmental benefits of the outcomes.

**10A Water Conservation**
The 2017 draft notes that agriculture is the largest user of water in Oregon (other department sources estimate over 85% of all the state's water use) and the significant water savings potential with increased conservation measures in this sector. It is therefore striking that the 2012 IWRS directive to prioritize agricultural water use efficiency has been struck from the 2017 draft. We strongly urge this priority be maintained.

Related to this provision, text in the 2017 draft notes that a challenge to increased conservation in the agriculture sector is fear of forfeiture of water rights. The common expression "use it or lose it" does not in fact apply in Oregon where the statutes state a water right holder must be "capable, ready, willing and able" to use it or will lose it. The 2017 draft also notes that many irrigators and technical irrigation experts are unaware of the Allocation of Conserved Water Program, whereby a percentage of the water conserved though an efficiency project can be preserved for other uses in exchange for retaining a percentage instream. Given the lack of awareness of Oregon's unique forfeiture law and the Allocation of Conserved Water Program, a concerted effort at outreach and education is warranted. The 2017 draft calls for increasing participation in existing efficiency and conservation programs, but the call for expanding outreach in the 2012 IWRS should be retained.

**10F Field Staff**
As the boots on the ground actively managing water use, we strongly support this directive to provide adequate field staff capacity.

**10G Permitting**
Likewise, we strongly support adequate staff levels, training and agency coordination to improve both the water quality and water quantity permitting programs.

**11B Instream Protection**
There was limited discussion of this topic by the PAG, but we recommend a greater emphasis on stepping up establishment of new instream water rights to protect flows for fish, wildlife, recreation and water quality.

**11E Groundwater Protection**
OEC strongly supports development of a plan to conduct needed groundwater studies throughout the state in as short order as possible. Developing and implementing the plan should be a near-term priority for the department.

**12A Safe Drinking Water**
We are pleased to see the 2017 draft call out the need to adhere to the principles of environmental justice in natural resource decision making, but recommend further articulation of the need to prioritize groundwater testing and programs to resolve contamination to low-income areas in areas of groundwater concern. The IWRS should also call for proactive enforcement of the existing real estate transaction testing requirement, and the necessary funding to do so.

**12C Water Pollution Control**
OEC supports the directives carried forward from the 2012 IWRS, but is disappointed these topics were not explored more extensively for the update. With all of Oregon's major rivers out of compliance with water quality standards and many areas of the state showing elevated concentrations of nitrates and other pollutants, a more detailed look at how to better coordinate agency activities, needed changes to regulations and programs and better integration of water quality and flows is warranted. In particular, minimal attention is paid to the impacts of and solutions for agricultural non-point runoff, the value of riparian vegetation as bank stabilizer and filter for nutrients and pollutants, the Oregon Department of Agriculture's effectiveness in managing the program, and the need for nutrient stewardship and education.

**13A Funding IWRS Implementation**
Of course, adequate funding for agency staff, programs and capital investments are all essential to implementation of the IWRS. To that end, establishing cost estimates and a spending strategy are necessary to drive implementation. Further, to ensure the cross-agency coordination necessary to accomplish integrated actions requires dedicated staff liaisons to coordinate priorities. This should be incorporated into cost estimates and program structures to achieve meaningful progress.

**13B Funding Water Resource Management Activities**
OEC strongly agrees in the need to find additional funding sources for water resource management, but as a basis for seeking funding, the 2017 IWRS should specifically call out the need to invest in ecosystem health. Section 11 of the 2017 draft outlines a range of needed activities to improve watershed health, protect instream flows, restore instream habitat and protect groundwater, including riparian and floodplain restoration, acquiring additional instream rights, fish passage improvements and groundwater analyses; this section should spell out that investment in these activities are necessary and a priority.

**13C Investing in Local or Regional Planning**
As noted above, an evaluation of the effectiveness and environmental benefits of the four current place-based planning effort should be conducted before additional efforts are authorized and funded. Further, while each of the four planning areas face unique and significant challenges, none are in populous areas of the state and may be difficult to use as models for collaborative efforts that are. These additional, complicating factors should be assessed before investing in launching additional place-based plans.

We appreciate the hard work involved in updating the Strategy, and hope our recommendations will be seriously considered as the 2017 IWRS is finalized.

Sincerely,

Lori Grant
Water Program Director

July 19, 2017

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*Via email: waterstrategy@wrd.state.or.us*

**RE: Comments on 2017 Draft Integrated Water Resources Strategy**

Dear Ms. Mucken,

Thank you for the opportunity to comment on the 2017 Draft Integrated Water Resources Strategy ("IWRS Update"). These comments are submitted on behalf of the Oregon Farm Bureau Federation, Oregon Dairy Farmers' Association, Oregonians for Food & Shelter, Oregon Forest & Industries Council, Oregon Cattlemen's Association, Oregon Association of Nurseries, Oregon Wheat League, and Oregon Seed Council. Our organizations have watched the implementation of the 2012 Integrated Water Resources Strategy over the past five years, and make the following comments in light of both the language of the strategy and the lessons we have learned through closely watching its implementation.

We appreciate the time and effort that went into this update and generally agree with the key issues addressed in the current IWRS and the IWRS Update. However, we would like to see a stronger focus on investment in storage capacity and infrastructure throughout the document. Additionally, we would like to see stronger sideboards on agency coordination to ensure that the state agencies are working together while avoiding duplication of funding sources, cross-pollination of agency missions, and conflicting regulatory requirements for landowners. We also provide several more detailed comments that we hope will be useful improvements to the IWRS Update.

1. **The IWRS Update should continue to emphasize investment in water infrastructure and storage development to build resiliency in systems.**

While the IWRS Update recognizes the need for increased storage and infrastructure improvement to meet Oregon's growing water needs and provide for long-term resiliency, the document fails to acknowledge the key role storage and infrastructure investment should play across program areas.

a. *The plan should emphasize storage as a primary means to address growing water demand for consumptive and instream needs.*

In discussing how climate change will alter Oregon's hydrograph, the IWRS update contains two sentences on how storage will be an important tool in meeting water needs (pg. 59). Storage and conservation *are the only two feasible methods of addressing Oregon's water needs* and ensuring that there is sufficient water in the future to need consumptive and instream needs. In its discussion of climate change, the IWRS Update should acknowledge that storage and conservation are the two primary methods through which Oregon will be able to meet its long-term demand for water.

The IWRS Update also discusses the need to understand how to mitigate for lost natural storage (pg. 59). While increasing natural storage and system capacity is an important goal, it cannot be the sole or primary method of addressing the state's water needs. Given the projected population increases in Oregon and Oregon's growing role in feeding the world, the plan must emphasize built storage as the primary method of meeting Oregon's future water needs.

Similarly, storage can and should play an important role in improving water quality trends around the state (pg. 59). Increased summer flows from reservoirs and underground storage (including aquifer recharge during peak flows) can help provide cooling and ensure that future water demand and growth isn't negatively impacting water quality in the state.

Storage should also be included in the drought planning section (pg. 68). Increased storage is a critical component of building resiliency to drought and other natural disasters.

b. *The plan should provide stronger support for investment in irrigation and drainage infrastructure improvements.*

In the discussion of infrastructure needs, the IWRS Update appears to focus more on urban infrastructure needs than rural infrastructure needs. While investment in water and wastewater infrastructure and facilities is critical, we believe that investment in efficient and updated irrigation and drainage systems is equally important, particularly in those areas where the systems comingle with urban systems. To that end, we recommend adding irrigation and drainage to the list of facilities that need investment to adapt to climate change (pg. 60 (top paragraph)).

Similarly, improving drainage infrastructure is critical to preparing for flood events and ensuring that agricultural and urban infrastructure are protected from flooding. We recommend adding a discussion of the need for investment in drainage infrastructure, including drainage ditches, pumping facilities, levees, dikes and tide gates, to the discussion of flood risk and recommended action 5.5B (pg. 73).

While the IWRS Update does an excellent job cataloging the irrigation-related infrastructure needs in some areas (pg. 79), the IWRS Update does not mention drainage infrastructure, which is equally as critical as irrigation infrastructure in wet parts of the state. This infrastructure includes drainage ditches, pumping facilities, dikes, tide gates and other similar structures. We

recommend they be added to this section (we did not include levees in this request since they have their own section on pg. 81).

In discussing the need to invest in project implementation, the IWRS Update notes the significant needs of cities to address water and wastewater needs (pg. 141). Agriculture also has a significant need to invest in infrastructure revitalization, both within districts and by individual landowners. We recommend acknowledging that need in this section.

*c. Storage and infrastructure improvement should be added to recommended actions throughout the plan.*

The state should add "Support increased investment in development of additional storage capacity and infrastructure improvement for water systems" to the following Recommended Actions:

- 5A (Support Continued Basin-Scale Climate Change Research Efforts)
- 5B (Assist with Climate Change Adaptation and Resiliency Strategies)
- 5.5A (Plan and Prepare for Drought Resiliency)
- 7A (Develop and Upgrade Water and Wastewater Infrastructure) (*the discussion of infrastructure improvements and needed investment is particularly critical to this section*)
- 13E (Invest in Implementation of Water Resources Projects)

**2. The IWRS Update should provide stronger sideboards on agency coordination to avoid duplication of funding sources, cross-pollination of agency missions, and conflicting regulatory requirements for landowners.**

The IWRS Update states that it provides "what" generally needs to happen, but leaves implementation to the agencies as they develop workplans moving forward. (pg. 10). In the past five years, we have noticed that the lack of specific sideboards around agency jurisdiction, use of funding sources, and agency roles in the IWRS has led to confusion among stakeholders and the occasional inefficient use of resources by agencies as they work to implement the plan.

For example, the Place-Based Planning Program authorized by SB 266 (2015) is administered through the Oregon Water Resources Department (OWRD) and is intended to help facilitate local collaboration around the water supply needs of diverse stakeholders within a community. However, some communities administering the program have been following the framework provided by the IWRS, which contains significant discussion of water quality and ecosystem services. While these considerations certainly can be part of a community's plan as it relates to their water supply needs, water quality or ecosystem services standing alone are outside of the scope of the grant funding and would not be appropriate for a OWRD-administered program. Indeed, Oregon Department of Environmental Quality (DEQ) and Oregon Watershed Enhancement Board (OWEB) already have programs that are making a tremendous investment in planning for improving water quality and wildlife habitat in Oregon. Using OWRD funds for these same programs would be duplicative and a poor use of state resources.

While we appreciate that the state tries to avoid such issues by including a small section on agency coordination (pg. 99) and associated recommended actions, the state has not provided the correct framework for those statements or goals to become reality. Expecting a local community-lead process staffed by OWRD to fully understand and utilize the vast array of regulatory and voluntary requirements and plans is unrealistic without better sideboards on how communities can and should be utilizing that information. The IWRS Update should also describe OWRD's role as the granting agency in ensuring that the processes are respecting -- and not duplicating -- existing plans or diving into issues that are preempted by existing laws. The IWRS Update needs to provide a much stronger framework for agency coordination, agency roles, and avoiding duplication of resources and funding streams.

To this end, we recommend adding key planning principles in Figure 4-1 (pg. 96) that state "utilize OWRD funding to focus on meeting water supply needs" and "avoid duplication with other state or federal funds authorized or used by other agencies." We suggest similar language be added to Recommended Action 9A.

In addition to needing a stronger framework around agency roles, responsibilities and acceptable utilization of various funding streams, we also recommend that the IWRS Update provide for a critical look at OWRD funding streams and their administration in light of the goals they were developed to meet. This is particularly necessary for the SB 839 program funding. It is difficult for stakeholders to understand how funding decisions were made and how OWRD is administering the program. For these programs to be effective, they must be transparent and flexible enough to work with other funding sources, including private lenders. We think the IWRS should include a recommendation to convene the stakeholders who worked on the program to audit the administration of the program within its first few years.

**3. Detailed, Section-by-Section Comments:**

*a. Water Budget for the State:*

i. In the 2012 IWRS, the introduction contained Oregon water use by volume, including the amount of water that was not utilized and flowed in rivers and streams to the ocean. We think this discussion is important context for water use in the state, and paints an accurate picture of consumption versus total volume of water moving through the state. It also underscores the many opportunities for storage, especially in winter months. We request that the state add these facts back into the document's introduction.

It appears some of the discussion was moved to the instream section (pg. 44). The information in this section appears to suggest that the entirety of the 91 million-acre feet that is not diverted should be protected instream. We think this information serves as appropriate factual background for the entire strategy, and should not be placed in the instream section.

*b. Water Quality Discussion:*

i. The IWRS Update suggests that aquifers contain "area-wide nitrate contamination resulting from farming and other land practices" (pg. 17). The document provides no evidence for the assertion that agriculture is the source of "area-wide nitrate contamination" within aquifers. Agriculture is doing its part to improve practices in the basins where comprehensive groundwater monitoring and studies have occurred and where agriculture was determined to be one of many sources contributing to the program. However, there are no studies in Oregon that link agriculture to "area-wide nitrate contamination" in basins statewide. The reference to agriculture in this section should be removed.

ii. In Recommendation 1B, the IWRS Update provides that the state should "update water quality standards and develop additional TMDLs" as necessary (pg. 24). We recommend removing "as necessary" as it is unclear when it would be "necessary" to update TMDLs. Instead, we recommend stating: "update water quality standards and develop additional TMDLs as *required by state law and the Clean Water Act*"

*c. Timeline of Water Resources Management:*

i. In the timeline, we recommend removing the discussion of the Klamath, as it is the only entry on the timeline that is not significant statewide, and other local adjudications or actions are not included on the timeline. We also recommend adding the passage of SB 1069 and SB 839, as those were both important funding streams (in addition to place-based planning, which is already included) (pg. 25).

*d. Water Management – Prior Appropriations:*

i. We recommend beefing up the discussion of the prior appropriations doctrine to walk through how a permit becomes a certificate and the rights that come with having a water rights certificate. The section could also benefit from a more robust discussion of "first in time, first in right" and the seniority of existing water rights to new water rights (pg. 26).

*e. Data Management:*

i. The IWRS Updates suggests that agencies may benefit from "crowd-sourcing" applications to "repackage" state data for public use, and supports this effort to disseminate information through these channels (pg. 31). Data quality and data integrity are critical to sound decision-making. To that end, we have significant concerns about the state "crowd-sourcing" applications to "repackage" state data for public use. State data must stay in state hands to ensure its integrity for use in decision-making. Allowing data to be repackaged by individuals or groups who have their own motivations or goals for the data does not serve to build public or water user trust, and will only harm long-term efforts to improve information in public decision-making.

ii. In discussing "decision support tools," the state mentioned "groundwater recharge studies" but fails to mention groundwater aquifer studies (pg. 31). We think both are decision-support tools that could be used by communities in decision-making.
iii. In Recommended Action 1C, the first bullet talks about helping homeowners test for water quality (pg. 33). This is out of place with the other data collection and decision-making tools discussed in that action. We recommend moving it to a different section.

*f. Out of Stream Needs:*

i. In the discussion of consumptive needs, the discussion of irrigated agriculture states that counties with existing irrigation will have the largest volumetric increase in demand (pg. 36). This statement does not account for the fact that irrigation demand will also increase on presently unirrigated lands due to climate change, and those users will not have opportunities to develop additional supply through conservation. We think it's more appropriate to note that irrigation demand will increase across the state and across commodities.
ii. The state discusses the use of satellite imaging, including its role in ensuring compliance with water rights (pg. 40). In addition to the privacy concerns many of our members have about the state using that data in decision making, our members have also found cropping pattern data sets to be deeply flawed and often not an accurate picture of what's happening on the ground. We do not think they are appropriate for use in assessing compliance with water rights. Further, the state must have the permission and assistance of landowners before developing and utilizing these data sets, as ground-truthing the information contained in them is essential to their integrity as a data source.

g. *Adjudication*:

i. In the discussion of adjudications, the wording of the section paragraph suggests that only tribal claims are subject to adjudication (pg. 42). We recommend rewording that section as followings: "Individuals or tribes who claim water rights established prior to 1909 must go through a formal administrative process known as adjudication…"
ii. In the Recommended Action 2C, we also recommend wording the federal and tribal claims the same as individual claims – both are subject to the same adjudication process (pg. 42). We recommend changing the first bullet point to read "settle private pre-1909 water claims."

h. *Instream Needs:*

i. In its discussion of the Willamette cold water refugia section, the state's discussion of the "partnership" formed to protect these zones is incomplete (pg. 46). The work being done in the Willamette is part of a biological opinion by the National Marine Fisheries Service in the context of a consultation under the Clean Water Act, and has specific requirements

from that opinion that are going to be difficult for the state and the stakeholders to meet.

ii. In its discussion of instream flow needs, the first paragraph is framed in a way that makes it difficult to understand the values the state must demonstrate when pursuing instream water rights and which suggests that instream water rights can exist for any ecological purpose (pg. 46). We recommend rewording this introduction in a way that removes the vague language and is more closely tied to the legal purpose of instream water rights.

iii. The IWRS Update also announces the state's intent to pursue instream flows for elevated winter flows (pg. 47). We do not think this work has been vetted by stakeholders or adequately discussed outside of the voluntary, SB 839 context. We recommend noting that the pursuit of these flows has not been vetted with stakeholders and needs to be reconciled with other competing water demands during the winter months.

iv. The IWRS Update also discusses the need to identify and quantify the needs of groundwater dependent ecosystems (pg. 49). Again, this work has not been vetted or discussed with stakeholders. Our understanding is that there is not presently a mechanism in the state to protect groundwater in aquifer. While we would be open to discussing the needs of groundwater dependent ecosystems, we again recommend noting that this work has not be discussed or vetted with stakeholders, would need to be reconciled with other, more pressing data needs, and presently lacks a legal mechanism for the information to be utilized in the instream program.

*i. Inclusion of Individuals and Businesses:*

i. While we understand that communities have significant planning needs that require state assistance, individual businesses in rural areas often have the same needs. We believe that the IWRS Update should acknowledge the need for water planning for businesses in rural areas, particularly for farmers and ranchers. We recommend that the state include individuals and businesses in the list of entities that need planning assistance in the following places:

1. Recommended Action 5B, bullet three (pg. 63)
2. "Encourage Regional Systems", first sentence ("many Oregon communities *and businesses*") (pg. 82)
3. Recommended Action 7B, new bullet ("assist individuals and businesses in accessing resources for planning") (pg. 82)
4. Conservation planning (pg. 104), add individuals and businesses to the entities that require planning assistance (in addition to irrigation districts and municipal users)
5. Invest in local and regional water planning efforts, third paragraph (pg. 140)
6. Recommended Action 13E, new bullet addressing needs of individuals and irrigation districts (pg. 144)

j. *Drought Needs*:
    i. In the drought discussion, the IWRS Update indicates that while there were drought impacts on agriculture, federal funding programs were made available to help recoup expenses from damage to crops or herds (pg. 66). While federal funding was available to some producers, all producers were not eligible for funding, and the funding provided didn't make up for the full extent of the losses suffered by producers. We would appreciate the state adding this caveat to the discussion of federal funding and noting that there is presently no funding to study or report losses suffered by the ag sector.
    ii. In its discussion of drought declarations, we recommend noting that federal and state declaration standards are different (pg. 67).

k. *Land Use and Water*:
    i. We recommend adding a discussion of Goals 3 and 4 to the discussion of Goals 5-7 (pg. 74).
    ii. The state includes a discussion of the recent Federal Emergency Management Agency (FEMA) biological opinion regarding consultation for development in floodplains (pg. 75). The biological opinion far exceeded the scope of FEMA's program and misstated the impacts of the program in Oregon. A lawsuit was recently filed challenging the implementation of the biological opinion in Oregon. We recommend noting the pending lawsuit and its potential to impact the biological opinion in this section.

*l. Education*
    i. In the Recommended Action 8C regarding education, we think it's important that any water education talk about all water needs and how the state is going to work together to address them (pg. 90). We recommend adding a bullet to this Recommended Action that states "Discuss importance of needs of each sector and of collaborative decision making in resolving conflicts and balancing those needs"

*m. Willamette Reallocation*
    i. In the discussion of the Willamette Reallocation, we would like the state to acknowledge its role in the reallocation (pg. 107). Specifically, the state must work to ensure that the Army Corps of Engineers' evaluation of future needs is in accordance with the state's understanding of each sector's needs and includes the work of all state agencies, including ODA. The state plays a key role in the Willamette Reallocation, and should acknowledge that role in this section.

*n. Reservations*
    i. Recommend noting that there are pending applications for reservations in addition to the approved reservations (pg. 109)

o. *Healthy Ecosystems*
    i. In the discussion of healthy ecosystems (pg. 118), the state talks about the consequences of degrading healthy ecosystems, including consequences of compromising soil productivity. While the state doesn't say as much, the implication appears to be that Oregon has heavily-damaged ecosystems that are costing communities money to work around. We do not agree with this implication. Our members are proud of how they manage their land, including the significant investments they've made over the generations to ensure that their operations are providing economic and ecosystem benefits and will remain viable for generations to come.
    ii. The IWRS Update asserts that it intends to develop "a statewide floodplain policy" to set the framework for regulation and permitting of floodplain restoration. This has not been discussed or vetted with stakeholders. We would like additional information on this policy – who will be working on it? What are its goals? What agency will oversee it? What will be regulated or permitted? How will it relate to the pending FEMA lawsuit? These questions are important to address before this becomes part of the goals of the IWRS.
    iii. Figure 4-10 discusses the importance of beaver dams for floodplains (pg. 119). We have had considerable concerns around a recent DSL rulemaking seeking to expedite creation of fake beaver dams on river systems without adequately addressing potential consequences for neighbors. While we understand beaver restoration is a focus for the state, we think this discussion should acknowledge that beaver management in Oregon is complex due to the damage the beavers can cause to existing critical infrastructure and land uses.
    iv. For recommended action 11A, we recommend including a focus on creating voluntary tools to incentivize the four bullet points. Voluntary tools in Oregon have had great success in those areas (which we would like to see highlighted more throughout the IWRS Update), and we believe state agencies should continue to focus their energy on those tools that have proven successful in Oregon.

p. *Additional Instream Protections*:
    i. The section on additional instream protections states that DEQ may submit to OWRD instream water rights applications "for the flow amount used to calculate Total Maximum Daily Loads." This statement is concerning because in some instances, water quality standards in Oregon (particularly around temperature) cannot be met even if there were no withdrawals on the stream. In short, this could result in instream applications that exceed even the historic flow of the stream, and certainly exceed the flow in any modern summer.
    ii. In Recommended Action 11B (pg. 122), we recommend adding "while protecting senior water rights" to the third bullet point regarding

expanding voluntary programs to restore streamflow. Any new voluntary programs regarding streamflow must protect existing water rights.

*q. Additional Groundwater Protections*

i. In the discussion of groundwater protection, the state appears to assume that existing tools are insufficient to protect groundwater, even if the state had the funding to fully implement them (pg. 127). We disagree. We recommend changing the final sentence to evaluate "whether" additional authorities or policy support are required.

*r. Nonpoint Sources*

i. While SB 1010 and the Forest Practices Act are briefly mentioned in the discussion of nonpoint source pollution, they are not discussed in depth (pg. 136). We recommend asking ODF and ODA to provide a summary of the programs to include in the IWRS. We also recommend broadening the ag reference to include the Ag Water Quality Management Act (SB 1010), not just the plans. Similarly, the IWRS Update states that monitoring would help improve the efficiency of the programs. Both programs already have considerable monitoring, and ag and forest water quality are monitored through several programs statewide.

*s. Water Quality - Recommended Action 12C*

i. We recommend adding "point sources" to the second bullet regarding plan implementation – plans exist for both point sources and non-point sources.

Thank you for the opportunity to comment on the 2017 draft Integrated Water Resources Strategy. If you have any questions, please do not hesitate to contact any of the signatories to this letter.

Sincerely,

Mary Anne Nash
Public Policy Counsel
Oregon Farm Bureau Federation

Jerome Rosa
Executive Director
Oregon Cattlemen's Association

Jeff Stone
Executive Director
Oregon Association of Nurseries

Heath Curtiss
General Counsel
Oregon Forest & Industries Council

Blake Rowe
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Oregon Wheat Growers League

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Tami Kerr
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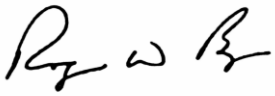
Oregon Dairy Farmers Association



Roger Beyer
Executive Director
Oregon Seed Council

Oregon Water Resources Congress
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July 19, 2017

Oregon Water Resources Department
725 Summer St. NE, Suite A
Salem, OR 97301
*Submitted via email to: waterstrategy@wrd.state.or.us*

Subject: OWRC Comments on "Oregon's 2017 Integrated Water Resources Strategy Public Review Draft"

Thank you for the opportunity to comment on Oregon's Integrated Water Resources Strategy (IWRS) Discussion Draft released April 19, 2017. The Oregon Water Resources Congress (OWRC) represents irrigation districts, water control districts, drainage districts, water improvement districts, and other local government entities that deliver water supplies to over 560,728 acres of farmland, roughly 1/3 of all irrigated land in Oregon. As agricultural water suppliers, OWRC members are keenly aware of the need to conserve and wisely manage Oregon's water resources and commend the Oregon Water Resources Department (WRD) and the other natural resource agencies for their leadership in developing the IWRS. OWRC's Board Treasurer, Brent Stevenson, served on the IWRS Policy Advisory Group (PAG) for this recent update, our prior President, Jay Chamberlin, served on the original IWRS PAG as well, and our organization will continue to be engaged and provide constructive input as this process moves forward.

The IWRS draft document is thorough in its summary of the numerous issues impacting Oregon's water needs and contains many promising ideas for meeting current and future water demands. We recognize and appreciate the time and high-quality work by WRD staff to develop such a well-rounded narrative about water supply challenges. However, there are a few areas that could benefit from further revision or clarification to better specify possible solutions to the myriad of water challenges and to address the concerns of the irrigated community that OWRC represents.

**General Comments**

The IWRS continues to be ambitious in its vision and we compliment staff on their continued efforts to implement the recommended actions amalgamated by a broad spectrum of stakeholder feedback about Oregon's water needs and potential solutions. There is inherent difficulty in implementing the actions in ways that can be broadly accepted by such a diverse group of stakeholders, especially when some of those stakeholders have not engaged in water supply issues previously. While this document encompasses some good ideas, the IWRS remains very broad in its scope, and given the lack of prioritization and accompanying funding resources, will be an enduring challenge to implement.

OWRC still feels that the IWRS is not a water plan and is a strategy that should be voluntary, incentive-based, and most importantly, preserves existing water rights and other rights and authorities that are essential to water resources management. The doctrine of prior appropriation has over 100 years of success in Oregon and needs to be upheld throughout the IWRS. Statements recognizing the importance and protecting sanctity of Oregon's water code should be added in every section that proposes action related to water rights to ensure that the document is properly viewed as a toolbox of options and not perceived as a path to make drastic changes to Oregon water law.

**Comments on New Recommendations**

Overall, the new IWRS recommendations do a good job of building upon the previous IWRS foundation and call out of some of the emergent water challenges facing Oregon. However, given that the primary impetus of this update was Governor Brown's Executive Order 15-09, there does need to be more focus (and perhaps additional work) on long-term drought resiliency recommendations in the IWRS.

Action 5.5A Plan and Prepare for Drought Resiliency

The drought conditions in 2015 and prior years deeply impacted Oregon communities, especially irrigated agriculture. OWRC agrees that our state must invest in ways to track and quantify the effects of drought, doing so will provide valuable information that is needed moving forward to strategically invest state funds so that we are better prepared to respond to, and potentially mitigate the impacts related to drought. This section of the Discussion Draft has a great overview of the various facets of drought, how it impacts various sectors of water resources, and what some of the challenges are.

OWRC wholeheartedly agrees with the need to improve drought related data, particularly quantifying economic impacts to communities, and with the need to improve communication between communities and various agencies. We are also supportive of voluntary tools to restore streamflow during times of drought as part of locally-driven solutions that benefit the environment without negatively impacting agriculture. OWRC feels strongly that addressing long-term drought resiliency by providing funding for conservation, piping and small storage projects will equip our districts with the tools they need to make the water they do have meet the competing requirements of farms, fish and the local communities. We firmly believe the most viable solution is investing in small collaborative projects that protect our state's water resources during the dry years.

However, as previously mentioned, given that this subject was the purported driver of the 2017 update, there is a lack of recommended actions, and frankly discussion during the PAG meetings, about this important issue. OWRC participated in the Governor's Short-term Drought Emergency Taskforce, which for comparative purposes met seven times and developed thirteen recommendations. A subject as serious as long-term drought resiliency warrants a much more focused effort than the time that this most recent IWRS PAG effort was afforded to be able to properly develop actions to plan and mitigate drought in the long-term.

Action 5.5B Plan and Prepare for Flood Events

OWRC is supportive of planning and preparing for flood events throughout the state. Floods have numerous detrimental impacts, including damage to water delivery infrastructure and properties, and several of our members also have responsibilities related to flood control. We also see flood events as an important and concerning facet of climate change. Increased frequency and severity of flood events necessitates greater coordination between various entities that manage water, including stormwater runoff from impervious surfaces. Funding for planning and implementing collaborative locally-driven solutions is needed to better prepare and mitigate flood events, whether from normal weather cycles or climate driven extreme events.

Action 5.5C Plan and Prepare for Cascadia Subduction Earthquake Event

Planning and preparing for a Cascadia Earthquake event is an issue that many of our districts have thought about in a variety of ways, including the need to evaluate and retrofit dams and other water infrastructure to meet new seismic standards. Evaluation and retrofit of water infrastructure is tremendously cost prohibitive and without funding support from local, state and federal governments these projects will not happen. Infrastructure at risk of failure includes the various structural components of reservoirs, which is mentioned, but also the delivery systems needed convey water, which can hold a large amount of water, increasing the potential for additional flooding as well as loss of water supplies.

It is also important to note that some of our districts that currently produce hydropower (at dam sites and in-conduit) may be in the position to provide power generation to the grid when other facilities cannot. As part of this section, these potential generation capabilities should be called out and encouraged.

Action 7C Ensure Public Safety/Dam Safety
A majority of the OWRC member operated dams are U.S Bureau of Reclamation facilities and are subject to federal dam safety standards. However, for those few that do fall under the Oregon dam safety program, we agree that WRD should work with dam owners to bring dams up to current seismic safety standards. Specifically, we would support establishing a grant and loan program to allow owners to rehabilitate unsafe dams.

Action 10F Provide an Adequate Presence in the Field
OWRC supports the ability of natural resources agencies to have personnel in the field, specifically the state's Watermaster positions, as they have a myriad of critical roles related to measurement, regulation, and other key water management duties outside of irrigation district boundaries. Having adequate field staff is essential to carrying out WRD's core mission and fundamental to numerous other existing program areas as well as the new IWRS recommendations.

Action 10G Strengthen Water Quantity & Water Quality Permitting Programs
OWRC is supportive of clarifying agency roles and permitting responsibilities, including updating the state's on-line permitting guide. The updated permitting information should include links to agency application forms, review standards and applicable rules. The on-line resources should specifically include copies of any internal guidance memoranda used by agency staff to interpret and apply agency rules. Although duly adopted administrative rules are readily available to the public, internal memoranda are not typically made known to the public and yet they can play an important role in determining whether an application will be recommended for approval or denial.

Additionally, OWRC agrees that there is a need to expand staff training and provide for adequate staffing to process water right transactions. In the day to day operations of a district, it is essential that there is timely processing of water rights transactions. If the department is not funded to adequate levels, the decreased staff would considerably increase backlogs and processing time, which has the potential to not only harm district operations, but will immediately and significantly impact Oregon's economy. Delays in water right transactions have a direct impact on the ability of cities, farms and industries to access water, and on the availability of good scientific data to understand how and when water can be used without harming the fish and wildlife that also depend on Oregon's streams and rivers.

Action 11E Develop Additional Groundwater Protections
OWRC is supportive of the development of an implementable workplan to address the priority issue areas laid out in the IWRS for the health and future of Oregon's groundwater resources. It will be important that agency staff, Commissioners, partners and stakeholders work in a collaborative manner to engage in discussion and policy development as the workplan moves forward. Any new groundwater initiatives, particularly new regulations, need to be equitable and a balance of locally-driven solutions paired with state financial and technical assistance.

Action 13C Invest in Local or Regional Water Planning Efforts
Over the years, OWRC members have participated in local or regional water planning efforts, most recently, the Hood River Basin Study that was completed in 2014 and the Deschutes Basin Study that is currently underway. These locally driven watershed planning efforts work best when diverse interests develop and implement plans at the local watershed level, with the support from state government. It is important to note that as ODFW continues to look at instream water rights across the state they will need to work as a collaborative partner in watershed planning. ODFW should not be operating outside of the collaborative process and potentially restricting in their effort to apply for instream rights. OWRC is supportive of continuing to support these local planning efforts that may be outside of the current parameters of the Place Based Planning program.

OWRC also supports providing funding to support development of municipal and agricultural water management and conservation plans. However, it is extremely important for agricultural water suppliers that these plans continue to operate as voluntary, incentive based strategy tools and not a regulatory based scheme. State level funding programs should give preference and further incentivize these plans but not disqualify applicants who are not already subject to the requirements. Local and regional water planning is a critical but occasionally controversial activity and it is important for stakeholders, particularly from irrigated agriculture, to feel ownership in the process and that they are participating because they want to be at the table as opposed to being forced to do it.

Action 13E Invest in Implementation of Water Resources projects

In light of climate change and recurring drought in the west, it is imperative that Oregon make a concerted investment in water resources now. Our neighbors in Washington, and more recently California, have invested extraordinary sums of public funding toward water supply planning and development to address water challenges that are facing all Western states. Investing in Oregon's water supply today through these important programs will ensure that future generations have adequate water supplies that support thriving communities, flourishing industries, and healthy ecosystems.

OWRC member districts are attempting to take advantage of funds from the Water Resources Development Program, specifically SB 839 grant and loan funds. However, the program is not without its flaws, and interpretation of rules by WRD staff has caused good projects to be removed from the applicant pool. For those projects that have been funded, there are some kinks in the grant agreement and distribution process that will need to be ironed out moving forward. Finally, the development of seasonally varying flows is underway for one project and we remain interested in how those are developed.

The Clean Water State Revolving Loan Fund (CWSRF) operated by the Department of Environmental Quality (DEQ) is a perfect example of the type of program that should have funding increased because it creates jobs while benefitting the environment, and is an efficient return on taxpayer investment. CWSRF funded projects provide much needed construction and professional services jobs. Moreover, as a loan program, it is a wise investment that allows local communities to leverage their limited resources and address critical infrastructure needs that would otherwise be unmet. CWSRF is often an integral part of an overall package of state, federal and local funding that necessitates a stronger level of assurance that loan funds will be available for planned water infrastructure projects. To meet the water needs of the future we will need a diverse portfolio of grants and loans (state, federal, and private) that work efficiently together and leverage the limited funding available.

Investing in implementation of water resources projects will not only help Oregon make progress in its diverse water supply needs, it will also strengthen our state's economy, empower local communities, and assist in restoring the environment we all share.

**Comments on Revised Recommendations**

Action 2A Regularly Update Long-Term Water Demand Forecasts

OWRC agrees that more information about long-term water demand is needed. However, the demand of water for irrigation and the benefits of irrigation and the agricultural economy it supports are greatly understated in the 2015 Statewide Long-Term Water Demand Forecast developed by WRD. Oregon's irrigated agricultural industry provides a bounty of food and fiber products that are sold and consumed in Oregon and around the world—and without adequate water, none of this is possible. Water is essential to all life and the importance of meeting the wide array of water demands, particularly for food and fiber, cannot be overstated.

Going forward, WRD should work in partnership with the Oregon Department of Agriculture (ODA) and the Oregon State University Extensions offices to develop the Agricultural Water Demand Forecast that takes into consideration information from the agricultural community and considers the changing climate. Unlike other sectors, water demand for agriculture is not as easy to ascertain using population or other aggregate data. For example, using crop water use estimates or satellite imagery may provide useful data for current use but can highly misleading about the future without considering markets for crop commodities, land use, changing weather patterns, and more.

Action 2D Authorize the Update of Water Right Records with Contact Information
Updating the names on water right certificates is a necessary first step prior to any discussions about potential new fees on water rights. If WRD or the Oregon Legislature plans to continue to bring up the water rights management fees as a potential revenue sources for WRD, WRD needs to work towards authorizing the update of water right record and then begin the time-consuming process of updating those records. We would be supportive of WRD receiving this authority so long as it is voluntary for water users to update the names and is partially fee-based to not overly burden the already underfunded agency.

Action 2E Regularly Update Oregon's Water-Related Permitting Guide
Regular updates of this important guide is important to inform applicants with all the information they need to apply for a water right permit. When updating the guide, OWRC would like to again reiterate our belief that any internal guidance memoranda used by agency staff to interpret and apply agency rules should be included. Although duly adopted administrative rules are readily available to the public, internal memoranda are not typically made known to the public and yet they can play an important role in determining whether an application will be recommended for approval or denial. We would also like to see a one-stop shop style guidance document and accompanying web portal for water related permitting.

Action 4B Take Advantage of Existing Infrastructure to Develop Non-Traditional Hydroelectric Power
OWRC remains highly supportive of the recommendation to add power generation facilities to already-existing infrastructure such as irrigation pipes, canals, and wells. Roughly half of our members are actively implementing or are interested in developing these low-impact projects that generate renewable energy without environmental impacts. Utilizing and further incentivizing the use of existing infrastructure to develop small-scale renewable energy is economically and ecologically efficient and an excellent way to further reduce our state's reliance on fossil fuels.

Action 6B Improve State Agency Coordination
As stated in earlier comments, we agree that there needs to be more coordination between agencies on water related permitting and processes. However, it is important to note that while the various natural resources agencies do coordinate and engage collaboratively there is often a lack of communication to the external stakeholders about those efforts. There needs to be a concerted effort to better communicate the coordination that is already occurring and offer stakeholders appropriate opportunities to engage.

Action 9A Continue to Undertake Place-Based Integrated, Water Resources Planning
OWRC remains hopeful that Place-Based Planning has the potential for helping meet the diverse water management challenges that no one stakeholder group can tackle on its own, and we remain interested as the four pilot groups continue to meet and work through the process. OWRC would again like to point out that ODFW must be at the table for these discussions if they plan to apply for instream rights in the place based planning pilot areas. The pilots will not be successful if the state is working in another room to protect instream flows.

Action 10E Continue the Water Resources Development Program
OWRC is highly supportive of funding to plan, study and implement water projects that provide economic, environmental and social-cultural benefits. While the Water Resources Development Program as a whole is still in its early stages at WRD, we support its continuance, and OWRC members are interested and actively applying for funding. Planning, feasibility, and implementation are equally important and intertwined facets that need to be properly funded (and coordinated) to best meet the water challenges of the future.

Action 13B Fund Water Resources Management Activities at State Agencies
It is of vital importance to our members that WRD has adequate financial resources to support key services and programs critical to water resources management statewide. However, we believe that these services should be equitably funded by a mix of General Fund and fees, reflecting that effective water resources management benefits not only individual water users but also Oregon as a whole. We are not opposed to water rights management fees simply because they create a new fee on water users. OWRC's members understand the realities of scarce state budget resources, increasing staff workload, and the detrimental impact it has made upon the WRD and all those that are reliant upon its services. Conversely, our members and the farms and other water users they serve are under similar pressures and it is of paramount importance to ensure that any new fee does not negatively impact Oregon's economy, particularly Oregon agriculture. At a time when Oregon's economy is starting to show signs of improvement, any new fees must be carefully balanced with impacts to the economy and developed with input from the diverse stakeholders who would be paying the new fee. Any new fee on water rights needs to be equitable and provide certainty that the water users who would be paying the additional fee would see increased service levels or that WRD would receive increased revenue overall.

Action 13D Invest in Feasibility Studies for Water Resources Projects
OWRC is also highly supportive of funding for feasibility investigations of proposed conservation, reuse, or storage projects. We were a proponent of the authorizing legislation (SB 1069) and have actively lobbied for increased funding for this and all WRD funding programs. We would suggest emphasizing the importance of these studies as part of the overall water resources development program. Planning, feasibility, and implementation are equally important and intertwined facets that need to be properly funded (and coordinated) to best meet the water challenges of the future.

In summary, OWRC has a few recommendation and suggested clarifications to some of the new and revised actions in the 2017 Update to the IWRS but remains supportive of the overall IWRS. The IWRS represents an important step forward for the State of Oregon in ensuring adequate water supplies and OWRC will continue to be involved as the IWRS evolves. Again, thank you for your efforts in developing this draft document and for the opportunity to provide comments. If you need any additional information please contact us.

Sincerely,
April Snell
Executive Director

**OREGON WATER UTILITY COUNCIL**
Pacific Northwest Section, American Water Works Association
PNWS-AWWA

July 17, 2017

Oregon Water Resources Department
c/o Alyssa Mucken
North Mall Office Building
725 Summer Street NE, Suite A
Salem, Oregon 97301

**Subject: Integrated Water Resources Strategy 2017 update**

Dear Oregon Water Resources Department staff,

The Oregon Water Utility Council (OWUC) appreciates the opportunity to comment on the 2017 update to Oregon's Integrated Water Resources Strategy (IWRS). OWUC is a subcommittee of the Pacific Northwest Section of the American Water Works Association and is made up of cities, special districts, public utility districts and private companies that collectively supply domestic water to more than 75% of the population of Oregon. OWUC members were involved in crafting and supporting both the original IWRS, as well as the 2017 update. OWUC appreciates the additions of several new sections, but also encourages the Oregon Water Resources Department (OWRD) to reexamine or clarify some sections of text that were changed from the original strategy.

The 2017 update includes several issues that are important to OWUC members, including the addition of sections on extreme events, dam safety, groundwater protection, and investment in local or regional water-planning efforts. In 2015, OWUC members worked closely with OWRD and other water utility providers across the state to share information and potential solutions to drought-related issues. Additionally, OWUC has been long supportive of increased preparation and planning for the Cascadia Subduction event, as well as efforts to fund the IWRS place-based planning initiative. OWUC supports the inclusion of issues like drought resiliency, natural disaster preparedness, and water-planning efforts in the statewide strategy to manage water resources, while preserving the ability of water providers to respond and plan at the local level.

Several changes were made to the original IWRS that proved difficult to track in the 2017 update, including changes to the supporting text of Chapter One's water quality information. There were large chunks of language that were either changed or added, but the section on Lead in Public Drinking Water (Chapter 1, p. 30) is of concern. Lead testing in public schools is not a source water issue and does not seem to fit into the IWRS. There are many sources of lead exposure, and the lack of a balanced discussion of the issue deposits a significant public

health issue at the feet of water providers who take the duty to provide safe drinking water very seriously. Oregon water utilities have put significant resources and effort over the years into addressing potential sources of lead in drinking water.

Additionally, the section on Harmful Algae Bloom Advisories (Chapter 4, p. 134), does not recognize the full scope of the issue. There is no mention of the Environmental Protection Agency's Best Management Practices for Do Not Drink notices, and it misses an opportunity to recognize this topic as having the potential to affect every aspect of the water business – creating challenges but also providing opportunities to bring together disparate groups (researchers, recreationists, farmers, water providers) in pursuit of a common goal.

OWUC appreciates the efforts of the Policy Advisory Group and supports the continued focus of OWRD and the Oregon State Legislature on updating and implementing this critical element of a statewide strategy to manage Oregon's water resources. Thank you again for the opportunity to comment.

If you have any questions please contact the OWUC Chair, Sara Petrocine of the Portland Water Bureau, at (503) 823-7629.

Sincerely,

Sara Petrocine
Chair, Oregon Water Utility Council
Phone: (503) 823-7629
Email: sara.petrocine@portlandoregon.gov

July 6, 2017

Oregon Water Resources Department
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Salem, OR 97301

RE: 2017 Integrated Water Resources Strategy

Dear Ms. Mucken,

Thank you for the opportunity to comment on the 2017 Integrated Water Resources Strategy (Strategy). The Regional Water Providers Consortium was very supportive of the 2012 Strategy and is pleased that the state is continuing to update and implement the Strategy as it continues to provide an important framework for addressing complex water resource issues in Oregon.

The Consortium is a collaborative and coordinating organization that works to improve the planning and management of municipal water supplies in the greater Portland metropolitan region. Formed in 1997, the Consortium serves Clackamas, Multnomah, and Washington counties, and is made up of 20 water providers. Together, these entities provide more than 80 percent of the Portland metropolitan area's drinking water, and over 40 percent of Oregon's drinking water. The Consortium's work includes implementing a regional water conservation program and emergency preparedness program.

The Consortium supports the new recommended actions, specifically planning and preparing for extreme events such as droughts, floods and earthquakes. The 2015 drought provided several lessons learned and showed how drought and its impacts affect the state in different ways. The Consortium specifically supports improved communication, coordination, and outreach and is interested in supporting this effort in the future. It is also very important that the Strategy recognizes and addresses the impacts to water systems from a Cascadia earthquake. This aligns with the Consortium's work to support recommendations in the Oregon Resilience Plan.

The Consortium has long been an advocate for source water protection and is very supportive of the increased focus on groundwater protection and water quality in general in the new Strategy. All groundwater in the state is a potential drinking water source and should be protected from untreated storm water, pesticides, and other forms of contamination. The Consortium, along with other water providers around the state, helped develop and support the pesticide use reporting

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system (PURS) through several legislative sessions. While the PURS program is not currently funded, it should be acknowledged in the Strategy as a potential tool for supporting and informing water quality monitoring.

The Consortium appreciates the work of state agency staff and the policy advisory group in the development of the 2017 Strategy. If the Consortium can provide any additional assistance or if there are questions about our comments, please contact Project Manager Rebecca Geisen at 503-823-7493.

Sincerely,

Russ Axelrod
Consortium Board Chair

cc: Consortium Board and Technical Committee

Alyssa Mucken
Water Resources Department
725 Summer St N.E., Suite A
Salem, OR 97301-1271

July 19, 2017

**RE: Comments on the Revised 2017 Integrated Water Resources Strategy (IWRS)**

Dear Ms. Mucken:

Thank you for the opportunity to comment on the updated 2017 Integrated Water Resources Strategy (IWRS) led by the Oregon Water Resources Department ("the Department"). On behalf of our more than 3,500 members and supporters, Rogue Riverkeeper works to protect and restore clean water and native fish in the Rogue watershed. We work to safeguard the health of the Rogue River to improve water quality across the 3.3 million acres of the Rogue Basin. The IWRS is an important tool and framework to address many ongoing and emerging challenges to water quality and quantity across the state. We appreciate the Department's ongoing efforts to develop, update, and implement the IWRS, while providing opportunities for public comment.

Our comments will focus primarily on water quality issues most relevant to the Rogue watershed, but that apply statewide. Water quality and quantity are intrinsically related, and both should be comprehensively addressed in the IWRS. We have provided comments section-by-section where appropriate.

In summary, we would strongly encourage the Department to more comprehensively integrate water quality and quantity issues and potential strategies throughout the 2017 IWRS. Critical Issue 12 describes in limited detail statewide water quality concerns and approaches that should be integrated throughout the document. For example, prioritizing green infrastructure approaches to address stormwater runoff provides broader benefits to climate resiliency and water conservation. We strongly encourage the Department under Critical Issue 4 Water and Energy to develop a framework to comprehensively evaluate the direct, indirect, and cumulative impacts on water resources from proposed energy projects. In our region, a proposed natural gas pipeline ("the LNG pipeline") will have significant impacts to both water quality and quantity. Finally, under Critical Issue 10 Water Management and Development, we would strongly encourage the Department, in coordination with DEQ, to fully address the impacts of the existing NPDES permit backlog and to develop specific strategies to mitigate this problem.

## Critical Issue 1 – Improve Water Quality and Water Quantity Information

### Recommended Action 1.B Improve Water Resources Data Collection and Monitoring

Rogue Riverkeeper strongly supports improving water resources data collection for both water quality and water quantity. We recognize that many challenges exist, including but not limited to inadequate staffing and a lack of funding. We recommend strengthening inter-agency coordination for monitoring and data collection and support initiatives to conduct statewide groundwater quality monitoring. Water quality standards and TMDLs should be updated consistently and implemented across the state. We strongly support updating the state's stream gauge network and increasing reportable water temperature data.

## Critical Issue 4 – Water and Energy

### Recommended Action 4.A Analyze the Effects on Water from Energy Development Projects and Policies

Rogue Riverkeeper supports the continued focus on the water-energy nexus in the 2017 IWRS. Of particular concern regionally in southern Oregon is the proposed development of the Jordan Cove LNG export terminal and Pacific Connector Pipeline ("LNG pipeline"). This natural gas pipeline would cross more than 400 rivers and streams in southern Oregon, including the Rogue, Klamath, and Umpqua rivers. Veresen, the company behind the project, proposes to use water from many of these sources to conduct hydrostatic testing, minimize dust during construction, provide drinking water and wastewater treatment during the construction, operations, and maintenance of the project. We are significantly concerned about the impact of this project on water resources, both water quality and water quantity, in the Rogue watershed and across the region. We strongly urge the Department and related agencies to comprehensively evaluate the direct, indirect, and cumulative impacts of developing these types of non-renewable energy projects on Oregon's water resources. This recommended action should be strengthened to develop a more comprehensive plan to fully evaluate the impacts of these types of projects on water quality and quantity in the state.

### Recommended Action 4.C Promote Strategies that Increase/Integrate Energy and Water Savings

We are concerned about the removal of the original language from the 2012 IWRS that required ensuring that efficiency programs capture and publicly report both water and energy savings data. The Department should not backtrack and make information less available to the public, particularly for publicly funded projects.

## Critical Issue 5 – Climate Change

**Recommended Action 5.B Assist with Climate Change Adaptation and Resiliency Strategies**

The 2017 IWRS removes language from the 2012 IWRS regarding investing in and making improvements in surface water and groundwater monitoring. Additionally, the revised 2017 IWRS removes language regarding investing in real-time forecasting of water deliveries, basin yield, stream flow, and flood and drought frequency projections. Monitoring and real-time forecasting provide critical information about the status of and changes to Oregon's water resources. These recommendations should be incorporated back into the 2017 IWRS. Additionally, the Department should more comprehensively discuss and incorporate impacts to water quality from climate change and strategies to adapt and improve resiliency. For example, prioritizing green infrastructure approaches is just one strategy that can address multiple climate change impacts, supporting the restoration and protection of water quality while at the same time providing benefits to water quantity. Water quality should be more comprehensively addressed in this recommendation.

**Recommended Action 5.5A Plan and Prepare for Drought Resiliency**

We strongly support the inclusion of this new recommendation in the 2017 IWRS that was specifically required in Governor Brown's Executive Order 15-09 to "address drought in Oregon's 2017 update to the Integrated Water Resources Strategy, including long-term resiliency planning." The 2017 IWRS should be strengthened to address both in-stream and out-of-stream sectors and should provide more comprehensive long-term strategies to improve drought resiliency. The Department should include analysis of the short and long-term impacts of drought on both communities and ecosystems. The "Impacts and Responses to the 2015 Drought" section should also include an analysis of impacts to water quality as a result of lower flows and increased temperature. This is a critical element of drought impacts to both communities and ecosystems. Strategies and planning efforts in the 2017 IWRS should specifically target fish and wildlife impacts.

**<u>Critical Issue 6 – Water and Land Use</u>**

**Recommended Action 6.C Encourage Low Impact Development Practices and Green Infrastructure**

Rogue Riverkeeper strongly supports the prioritization of green infrastructure. The 2017 IWRS should more specifically describe strategies that communities can implement to encourage its use. For example, the 2017 IWRS suggests that communities "improve local capacity," but provides little detail regarding how that can occur or ways in which the Department or other state agencies can support those actions. As discussed in other sections, prioritizing green infrastructure can benefit both water quality and quantity and should be included in other sections in the document to better integrate the state's approach to water resources.

**<u>Critical Issue 7 – Water-Related Infrastructure</u>**

**Recommended Action 7.A Develop and Upgrade Water and Wastewater Infrastructure**

We support efforts to prioritize effective and updated water infrastructure systems. Infrastructure upgrades should apply to all forms of water infrastructure. We are concerned that the revised 2017 IWRS under Recommended Action 7.A narrows the scope of properly abandoning infrastructure at the end of its useful life down to apply only to wells. The 2012 IWRS narrative documented the need to abandon other types of infrastructure, including dams. The 2017 IWRS should maintain the broader application of this recommended action to apply to all types of water infrastructure. Further, more clarity may be provided by enumerating different types of water infrastructure, including but not limited to wells, dams, and other water infrastructure.

**Recommended Action 7.C Ensure Public Safety / Dam Safety**

Rogue Riverkeeper supports the new addition of a public safety/dam safety provision in the 2017 IWRS. This section aligns with the Recommended Action 7.A to abandon outdated infrastructure, including wells and dams. We support the modernization of state laws to improve the safety and resiliency of Oregon dams. Further, we would recommend developing legislation or updating existing laws and regulations around removal of unsafe or outdated dams. We support the development of grant and loan programs to support these efforts, and specifically to address deficient dams and allow for their decommissioning and removal.

**Critical Issue 8 – Education and Outreach**

**Recommended Action 8.C Promote Community Education and Training Opportunities**

We strongly support efforts to highlight water scarcity across Oregon, particularly in southern and eastern Oregon communities. Education tools for water professionals and communities are critical. Additionally, we would recommend developing and promoting education opportunities for water user groups, watershed councils, the general public, and other water professionals outside of the regulated community. Specifically, there is a need to provide more information and training around conservation tools in Oregon, including but not limited the Conserved Water Act, in-stream water rights, transfers, and leases, and other legal tools that are available. Expanding training and education opportunities to include water quality tools would further strengthen these efforts. This type of education and outreach could leverage existing water quality trainings. By combining discussions about legal tools available to address both water quality and water quantity, the Department and other related agencies would move closer to a more integrated framework to water resources in the state.

**Critical Issue 9 – Place-Based Efforts**

**Recommended Action 9.A Continue to Undertake Place-Based Integrated Water Resources Planning**

Rogue Riverkeeper supports the idea of watershed based planning that would address unique place based water quality and quantity issues in the Rogue Basin and beyond. It is critical however that any potential planning process place the primary focus on protecting clean water and flows sufficient to support aquatic health and the beneficial uses that Oregonians depend on. We recommend that the Department fully evaluate the impacts and effectiveness of the pilot projects before committing to continue funding, development, and implementation of place-based planning efforts. As part of this evaluation, the department should broadly solicit input from stakeholders, not limited only to communities.

**Critical Issue 10 – Water Management and Development**

**Recommended Action 10.A Improve Water-Use Efficiency and Water Conservation**

Rogue Riverkeeper supports the narrative focus on agricultural water use and conservation in the narrative, but is concerned that the specific recommended action in the 2012 IWRS to prioritize agricultural water use efficiency was removed in the 2017 IWRS. This recommendation should be included in the revised IWRS. Additionally, the recommendation to conduct a statewide conservation potential analysis in the 2012 IWRS should be maintained in the 2017 IWRS.

**Recommended Action 10.D Reach Environmental Outcomes with Non-Regulatory Alternatives**

Although we recognize that voluntary and other non-regulatory approaches are an important part of protecting and restoring water quality, we are concerned that other legal and regulatory tools related to water quality are not emphasized in the recommendations in this section. We would strongly encourage the Department to consider how to integrate Water Management and Development priorities and recommendations with existing water quality requirements for point source and non-point source pollution. We continue to have reservations regarding water quality trading programs and the 2017 IWRS provides little comprehensive detail before promoting this approach. We would strongly recommend a broad analysis of the legal and regulatory requirements for water quality related to water conservation and efficiency. Additionally, the Department should evaluate other non-traditional approaches, that may still have a legal, regulatory, or in other ways enforceable framework.

**Recommended Action 10.F Provide an Adequate Presence in the Field**

We support adequate staffing, particularly to support field staff, to develop and implement many of the recommendations outlined in the 2017 IWRS. The revised 2017 IWRS should clearly outline goals and objectives for ODFW, OWRD, and other agency staff.

**Recommended Action 10.G Strengthen Oregon's Water Quantity & Water Quality Permitting Programs**

Rogue Riverkeeper is significantly concerned about the backlog of NPDES permits in Oregon, where approximately a mere 26 percent of permits are up-to-date. Operating under outdated permits does not provide the opportunity for public comment or for DEQ to re-evaluate permit limits to ensure that water quality standards are met, as required under the Clean Water Act. We strongly support the inclusion of this section in the revised IWRS and believe that it could be further strengthened. We support the development and implementation of a workplan to improve the quality and timeliness of NPDES permits that takes into account the recommendations developed in the evaluation report. Although DEQ is the primary agency charged with managing NPDES permits, it does not function in a vacuum and will require coordination with other agencies. Adequate staffing is also a critical issue related to the NPDES backlog. We support efforts to provide adequate staffing, expand trainings, and clarify roles and responsibilities within DEQ and with other agencies. We believe that this issue is of critical importance for water quality, not just in the Rogue watershed, but across the state. As a result, this section should be significantly strengthened with specific action items and timelines to ensure that implementation occurs.

**Critical Issue 11 – Healthy Ecosystems**

**Recommended Action 11.B Develop Additional Instream Protections**

We support efforts to develop additional in-stream protections statewide. Specifically, we support designation of State Scenic Waterways and opportunities to further strengthen the program, through implementation, identification of waterways, or enforcement. To better align with the directives of Governors Kitzhaber and Brown, the 2017 IWRS should commit to the study of three rivers per biennium for review under the State Scenic Waterway program.

**Critical Issue 12 – Public Health and Water**

**Recommended Action 12.A Ensure the Safety of Oregon's Drinking Water**

We strongly support recommendations and initiatives to improve the safety of Oregon's drinking water, particularly in regards to private wells. According to the Rogue Total Maximum Daily Load (TMDL), Jackson County in the Rogue watershed has some of the highest levels of nitrates in wells in the state. We support funding and resources to increase testing of domestic wells, improve well monitoring, and increase source water protection.

**Recommended Action 12.B Reduce the Use of and Exposure to Toxics and Other Pollutants**

We support recommendations to reduce toxic pollutants, including but not limited to pesticides and existing brownfield sites. We strongly support the development of a statewide drug "take back" program to minimize pollution from drugs and medication that end up in our wastewater treatment systems. Additionally, we support addressing sources of blue-green algae, which is a problem in our watershed particularly at Lost Creek Lake. However, the 2017 IWRS should provide more detail and specific strategies related to addressing blue-green algae formation and related pollution sources.

**Recommended Action 12.C Implement Water Quality Pollution Control Plans**

We support the recommendation to implement water quality pollution control plans, but would strongly urge the Department to incorporate these requirements throughout the 2017 IWRS. As discussed previously, many approaches to address water quantity can directly benefit efforts to protect and restore water quality. The Department should coordinate with other state agencies, specifically DEQ, to more clearly identify areas to better integrate water quality with water quantity throughout the 2017 IWRS.

Specifically regarding non-point source pollution, the 2017 IWRS should provide substantially more detail related to strategies that the Department recommends. There is little discussion about the different sources of non-point source pollution in this section, such as forestry, and even less discussion about specific activities that contribute to that pollution, such as runoff from poorly maintained forest roads that result in increased sedimentation. Further, the 2017 IWRS does not discuss the Coastal Zone Management Act (CZMA) implications under which Oregon's Non-Point Source plan failed to adequately address non-point source pollution from septic systems, forestry, and other sources. This resulted in the withholding of 319 funds for non-point source control. The 2017 IWRS should also address opportunities to strengthen the Oregon Forest Practices Act and Agricultural Water Quality Management Plans.

Related to stormwater pollution, the Department should evaluate the impacts of the continually delayed development of the Phase II MS4 permit. This permit includes nearly seven regulated communities in the Rogue watershed and many other municipalities across the state. The delays in finalizing this permit are just one example of the broader issues regarding the significant backlog of NPDES permits. Additionally, the 2017 IWRS should comprehensively include the prioritization of green infrastructure practices that not only reduce stormwater pollution, but can provide additional benefits that can improve climate resiliency. These practices can also directly benefit water quantity concerns.

Finally, we support efforts to address pollution from septic systems. We encourage continued coordination with DEQ and other agencies to strengthen these efforts.

**Critical Issue 13 – Funding for Oregon's Water**

We support continued funding of the IWRS and specifically funding for state agencies to comprehensively address water resources. Many of the challenges described in the

narrative are compounded by a lack of resources to fund adequate staff, monitoring, and other critical resources. As discussed previously, limited funding for staff is a major contributing factor to the significant backlog of NPDES permits in the state. Without further analysis of the effectiveness of previous or existing funding under the IWRS and for related activities, we would caution against listing out specific funding priorities within the narrative. Further, it is important to fully understand how these initiatives intersect with existing programs. Importantly, there is little discussion of innovative financing approaches that might help to address some of the funding gaps.

Thank you for your consideration of our comments. We appreciate the opportunity to provide input on the revised 2017 IWRS.

Sincerely,

Stacey Detwiler
Conservation Director
Rogue Riverkeeper

The Freshwater Trust™
Changing the course of conservation



July 19, 2017

Oregon Water Resources Department
c/o Alyssa Mucken
North Mall Office Building
725 Summer Street NE, Suite A
Salem, Oregon 97301
*Submitted via email: waterstrategy@wrd.state.or.us*

**Re: 2017 Integrated Water Resources Strategy**

Dear Ms. Mucken:

Thank you for the opportunity to comment on the draft 2017 Integrated Water Resources Strategy (IWRS). As a member of the original IWRS Policy Advisory Group, The Freshwater Trust appreciates this chance to provide constructive feedback on the plan's ongoing development. Generally, the IWRS continues to provide helpful recommendations related to water management and planning. To ensure a sustainable water future, however, the strategy should incorporate more intensive instream, water use measurement and reporting, data collection, and modeling tactics.

The Freshwater Trust is an Oregon nonprofit organization that restores rivers and streams using quantified conservation principles and partnerships with farmers, ranchers, cities, states, and federal agencies. The organization uses data and analytics to design, implement, and monitor projects that produce measurable environmental benefits. For example, with support from the Water Resources Department, The Freshwater Trust is helping irrigators in the Catherine Creek and Lostine River basins improve irrigation efficiency, decrease production costs, restore instream flows, and recover critical fish habitat. Through these projects The Freshwater Trust is demonstrating how data, collaboration, and innovation can be used to solve complex water quantity and quality challenges.

## Instream Needs

The IWRS should establish a goal of restoring instream flows throughout the state – in addition to establishing more instream water rights – and develop more tools for achieving that objective. While Oregon's flow restoration programs have helped improve streamflows in some areas, the instream leasing and conserved water programs are underutilized and countless

streams still lack the water quantity and quality necessary to support healthy ecosystems. To recover and protect these resources through voluntary means the state must revamp these programs. Specifically, the Department must add greater flexibility to attract more participants, increase application processing efficiency, and explore additional voluntary mechanisms for sustaining instream flows.

**Water Use Measurement and Reporting**

The IWRS should call for adequate water use measurement and reporting. Oregon only requires 17% of water right holders to measure and report their water use, most of whom are not the largest water users in the state. California, by comparison, will require all water right holders who divert more than 10 acre-feet of water per year to measure and report their water use starting in 2018. Given that Oregon is experiencing similar water challenges as California, the state should take a hard look at whether it is receiving the necessary water use information. The IWRS should explain what percentage of water use data is necessary to support management and scientific needs and recommend a plan for obtaining that information on a reasonable timeline.

The IWRS should also call for accelerating implementation of existing measurement strategies and identify necessary budget needs to support that objective. The Department should complete its seventeen-year effort to install measuring devices on significant points of diversion, require data recorded by those devices to be reported, and publish that data online so it can be used by flow restoration practitioners, place-based-planners, and the state to design and implement necessary projects to overcome 21st century water challenges.

**Data Collection and Decision-Support Tools**

The Freshwater Trust supports the IWRS's data collection and decision-support tool recommendations, but additional details are needed to track the state's progress towards filling data gaps and using modeling to understand future water use scenarios. For example, the plan recommends installing more stream gages but does not explain how many are needed to understand how water moves through the state's 111,619 stream miles.[1] Also, while the plan acknowledges the usefulness of modeling future scenarios related to climate change and other factors, and generally calls for decision-support tool funding, it is unclear what role future scenario modeling will play in water use planning and management. Because water is Oregon's most precious natural asset the state should collect all necessary data and use modeling to understand its water portfolio. These actions should help the state make the best water management, planning, and project investment decisions possible with limited state dollars.

[1] Oregon Water Resources Department, Taking a Look at Oregon's Water, http://www.oregon.gov/owrd/pubs/docs/infosheet5.watered.pdf

**Funding**

The Freshwater Trust recommends that the IWRS treat funding for instream needs, water use monitoring and reporting, data collection, and modeling as being equally important as funding for water project development. Increasing funding in these areas should help ensure that water development projects meet instream and out-of-stream needs and generate the greatest ecological and economic returns on limited state funds.

The Freshwater Trust appreciates the hard work that the Department has put into this plan, especially in light of limited resources, and hopes that the organization's feedback is received as constructive rather than critical. Thank you for considering the organization's comments. Please contact me if I can provide additional information.

Sincerely,

Rob Kirschner
General Counsel

# The Klamath Tribes
## Natural Resources Department

Oregon Water Resources Department
C/O Alyssa Mucken
North Mall Office Building
725 Summer Street NE, Suite A
Salem, Oregon 97301

July 18, 2017

Dear Ms. Mucken:

The Klamath Tribes welcomes the opportunity to review Oregon's Integrated Water Resources Strategy. The attached comments have been made by the Tribes' Ecosystems Restoration Scientist, Dr. Megan Skinner.

If there are questions, please contact Dr. Skinner at:
megan.skinner@klamathtribes.com

Thank you,

//signed

Stanley Swerdloff
Aquatics Supervisor
The Klamath Tribes

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**Oregon's 2017 Integrated Water Resources Strategy, Public Review Draft**

Comments prepared by:

Megan Skinner
Ecosystem Restoration Scientist
Aquatics Program, Natural Resources Department
The Klamath Tribes

*Chapter 1*

- This comment is more about specific OWRD work than this strategy. On page 20, the Klamath Basin is listed as an area having a completed groundwater study (I suspect this was for the Klamath Irrigation Project), however, this study does not appear to answer specific questions regarding groundwater-surface water interactions in specific locations (i.e., a specific well) in the Upper Klamath Basin (Upper Klamath and Agency Lakes and tributaries), which is what is necessary for water quantity management in a fully allocated basin. Commonly, water users in the Upper Klamath Basin argue that the state does not have a clear understanding of hydrologic connections between their wells and adjacent water bodies and that regulation may therefore not be warranted. But, it's widely known that many of the Upper Klamath Basin waterbodies (i.e., Williamson River, Spring Creek, Wood River and most of its tributaries, portions of the Sprague River, etc.) are groundwater-dominated. As such, a study similar to that done in the Deschutes Basin (mentioned at the top of page 18) seems warranted in the Upper Klamath Basin to ensure appropriate mitigation of groundwater withdrawals in areas where there is a hydrologic connection between groundwater and (allocated) surface water. It seems that the Upper Klamath Basin would be a high priority area for this type of work given the political tension, litigation, and settlement efforts associated with water in the basin. It's hard to make progress when there isn't sufficient data.
- Pg 21: under "Well Location Information", only drinking water wells are mentioned explicitly. I assume that disclosure of well location is required for all wells (not just drinking water wells); if that's not the case, I'd argue that all wells should be subject to this rule to ensure appropriate management of water resources.
- Pg 28: Most of the instream water rights I am familiar with are tribal water rights and those with a relatively senior priority date that have been retired through water transactions programs. New applications for instream rights would (I assume) be very junior and therefore not really meaningful; also, new applications probably wouldn't be accepted in fully allocated basins where there's probably the most interest in instream rights. This section of the report doesn't seem to clearly explain any of this and may therefore be a bit oversimplified. Perhaps adding some information about these topics would better inform the reader about the instream water right program.
- Pg 32: What resolution is available through the state's LiDAR program (i.e., 1 meter or less?)? Also, what areas (specifically) are covered and when was it flown? It would be

helpful to include a map with polygons indicating the extent of LiDAR coverage, color-coded to year of collection. Coverage area, age, and resolution are essential pieces of information for anyone interested in using LiDAR.

*Chapter 2*

- Pg 37: Perhaps be more explicit about how irrigation further contributes to watershed protection.
- Pg 47: The Klamath Tribes have instream water rights to protect flows necessary for riparian and geomorphic function; I believe these fall into the category of "elevated streamflows" described at the top of the page. Given this information, perhaps the sentence "Instream water rights have not been issued to protect elevated streamflows…" and the following paragraph should be revised.
- "Understand Base Flows and Elevated Flows" section, pgs 47 and 48: What is this section describing? Specific flow "types" that can be protected in instream water rights? And because they haven't been fully studied, there's no instream water right category that cover these? This section is confusing.

*Chapter 3*

- "Improve Oregon's Levees" section, pg 81: It should be noted somewhere in this section that levees have substantial impacts on riverine and riparian process and function and that levee setback, breaching, and removal are all high-priority (and very effective) restoration actions in floodplain areas. It seems that this program should encourage the removal, setback, or breaching of nonessential levees and weigh the construction of new levees based on a ratio of harm to river/floodplain process and function and benefit to infrastructure. Finally, new infrastructure construction requiring levee construction should be carefully considered (i.e., limiting floodplain construction should be a priority from both an economic [flood damage typically strains local economies; Willamette Partnership has some outreach materials that cover this topic] and riverine/floodplain process and function standpoint).

*Chapter 4*

- Pg 103: The lack of return flow as a result of irrigation efficiency improvements/modernization is treated as a negative consequence here. While we acknowledge that reductions in return flows may lead to less water instream, reducing return flows is a very high priority given that these are a major source of nutrient, sediment, and thermal loading to waterbodies in the Upper Klamath Basin (i.e., above Upper Klamath Lake). Indeed, reduction or treatment of irrigation return flows were listed as a desired activity in ODEQ's Upper Klamath Lake Drainage TMDL and Water Quality Management Plan. As such, I recommend rewording the sentence or adding

some information regarding the potential water quality benefits of a reduction in return flows.

- Pg 103: Why are irrigators and irrigation experts not aware of the Allocation of Conserved Water Program? Seems like this could be an outreach issue- does the state have an outreach strategy relative to this program? If so, maybe mention it here. If not, I would recommend developing one so more irrigators are aware of it.
- Pg 119: Please describe in more detail the incentives for riparian restoration/protection offered by the state. I am only aware of a few grant programs that offer funding and a full list of agencies providing incentives would be very helpful.
- Pg 119: It seems like the paragraph introducing wetlands and floodplains right above the heading "Wetlands and Floodplains" is out of place and should be moved below the heading.
- Pg 121: A better description of new instream water rights is probably warranted here. For instance, new instream water rights would, I assume, be assigned a very junior priority date and may therefore not be very effective. If that is an incorrect assumption, then the correct information regarding this issue should be included in this section of the report.
- Pg 122: The Klamath Basin Rangeland Trust is now Trout Unlimited; please revise sentence to reflect this.
- Pg 135: I think there should be mention that Oregon Dept of Agriculture is responsible for implemented Water Quality Management Plans associated with TMDLs. ODEQ's hands are really tied when it comes to actual implementation of effective actions to meet the goals of the TMDLs.

The Nature Conservancy
Protecting nature. Preserving life.™

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Oregon Water Resources Department
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North Mall Office Building,
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Salem, Oregon 97301

July 19, 2017

Dear Alyssa,

Thank you for the opportunity to provide comments on the Draft 2017 Integrated Water Resources Strategy (IWRS). We strongly support the State's initiative in developing and updating this planning document. Oregon's rivers, streams, wetlands, and groundwater inspire us and they supply our communities, grow our food, sustain our fish and wildlife.

The Nature Conservancy is a global, science-based, collaborative conservation organization that works locally in 69 countries and all 50 United States. The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends. We were incorporated in Oregon in 1961; we have over 50,000 supporters in Oregon, with members in every county in the state. Our staff work collaboratively across the state with Oregon's natural resource agencies and stakeholders to accomplish our mission. Advancing policies and programs to benefit freshwater biodiversity and balance water use for nature and people is one of The Nature Conservancy's top priorities. In addition, The Nature Conservancy has acquired and currently manages significant water rights for agricultural uses compatible with our conservation goals in Oregon and we have transferred some of those acquired rights to the state for instream use.

We appreciate the many improvements in the 2017 draft IWRS and support the addition of all five new areas in the 2017 draft IWRS. In particular, we support increased protections for groundwater, planning and preparation for drought and climate change more broadly, strengthening the state's water quality and quantity permitting procedures, and providing increased field presence in the Oregon Departments of Water Resource, Fish and Wildlife, and Environmental Quality to manage Oregon's water resources.

**GENERAL COMMENTS**

As correctly captured in the vision statement, changes are coming – and already evident – due to "*aging water infrastructure, a warming climate, and an influx of people moving to Oregon*." And as noted, these changes will affect all Oregonians and put increasing pressure on natural streams and aquifers and the

plant and animal species that depend on them for survival. The advisory committee rightly identified the need to use thorough analysis of supply, demand/need for water, and the need to find alternative ways of meeting Oregon's competing water needs.

The current draft IWRS is good at identifying areas of needed work. But while we appreciate that the draft IWRS is not intended to be an implementation plan, the Strategy would be significantly stronger if it more clearly defined the scope of the need and how the state plans to address these needs in implementing the strategy. We recommend:

A. **More clearly identifying the scope of the gaps that need to be addressed.** The draft IWRS includes a comprehensive list of key issues facing our water resources. We recommend that the state include a more explicit description of the scope of the issue. Doing so would help decision-makers and stakeholders better understand what is needed to address each of the issues. Some examples:
    - Page 17 discusses groundwater declines generally and Figure 1-6 shows where groundwater use has been restricted. However, Department should report on trends in groundwater levels from the entire network of groundwater monitoring wells across the state. Our staff have plotted those data and observed that many monitoring wells show declines in groundwater levels.
    - Page 18 and Figure 1-7 describe water quality impairment across the state. Although the draft IWRS includes a brief comment on the inadequacy of water quality sampling in the next section ("Improve Water Quality and Water Quantity Information") it does not include an estimate of the additional water quality monitoring that is needed to inform appropriate management actions. Additionally, ODEQ's 303(d) list is not a complete inventory of Oregon stream. We recommend that you add text describing the limitations in the 303D list, and/or that Figure 1-7 be altered to include two additional categories for clarity (i) Streams and Lakes measured by ODEQ for pollutants that are not impaired, and (ii) Streams and Lakes that are not measured by ODEQ.
    - Page 28-29 and Figure 1-11 illustrate how many instream flow rights currently exist, but the draft IWRS is silent on how many streams with important fish populations lack instream water rights.

B. **Establishing priorities among the list of recommendations**. The list of recommended actions is exhaustive and extremely ambitious. We recommend strategically prioritizing the actions in five- and ten-year time frames, based on their potential to make the greatest contributions towards meeting the draft IWRS vision of healthy waters that can sustain a healthy economy, environment, and cultures and communities. In prioritizing work to achieve the long-term vision, the strategic plan should clearly articulate the *incremental changes* that need to be accomplished, and *stretch goals* that can lead to larger transformations in water resource management. Including clearly articulated priorities would help to inform funding decisions given limited resources, and organizations such as The Nature Conservancy and other stakeholders identify how they can best help the State to achieve sustainable water management.

C. **Assigning lead responsibility for key actions**. Different agencies are responsible for various actions identified within the draft IWRS, but the lead agency for each action should be clearly defined. In addition, we recommend transforming paragraph 3 in the Conclusions, page 147, into a description of how and when the agencies will develop and update work plans and report on progress in implementing the draft IWRS. We appreciate that progress will depend on funding from the

legislature but a more explicit description of the process for implementation would help stakeholders better understand how we can engage and help advance the state's water priorities.

**SPECIFIC COMMENTS**

1. **Surface water and groundwater are over-allocated** across the state, impacting streams and wetlands, fish and wildlife, and the communities and economies relying on those resources. The draft IWRS should provide a road map for bringing these resources into sustainability.
    a. Water availability estimates, as described on p. 32, include an assumption that future conditions will mimic past conditions, and availability estimates are being made using historic data. However, the draft IWRS also clearly states that climatic conditions are changing, in particular future snowpack and streamflow. Therefore, water availability should not be based simply on historic data but also include future climate change projections. The data being developed as part of recommendations 5A and 5B should be fully incorporated into the water availability projections. We recommend adding an action to either 1C or 5B to update the process the state uses for developing water availability estimates.
    b. New water rights permits, as described on p. 115, should not be granted when the data do not clearly indicate that water is available. Evidence from the *Draining Oregon* series published in 2016 in the Oregonian, as well as recent approved permits examined by staff at our organization, indicate that the Department continues to approve permits when Department scientists have raised concerns that the resource cannot sustain the use. Under this kind of scientific uncertainty, the default should be to deny the use, rather than condition the permit and potentially allow further declines. This concept should be included clearly in recommendation 10G (strengthening the permitting programs).
    c. We agree that further defining out-of-stream needs / demands is a critical issue and we support the recommended action to update the demand forecast regularly. Seven years passed between the last two forecasts. We recommend that the draft IWRS set a goal of updating the forecast at least every 5 years, and earlier if significant new data are available to better inform the forecast. We also recommend that demand forecasts for instream needs be analyzed on an equal par with out-of-stream demands. The state needs data on all demands (agriculture, municipalities & industry, instream) to adequately plan for Oregon's future water management and address conflicts among these demands. In addition, the demand forecast should go beyond just identifying future demands. To be a useful planning tool, the forecast should also identify the scope and nature of projected conflicts between agriculture, municipal and industrial uses, and instream needs by watershed. This would allow the department and stakeholders to identify future priorities for action. We recommend that Action 2.A be modified to say: *Regularly Update Long-Term Water Demand Forecasts for agricultural, municipal/industrial out of stream uses, and instream water needs, and extend the forecast to interpret these data to identify the scope and nature of the projected conflicts.* Under, "How to implement this action:" the draft IWRS should reference the actions listed under Action 3A and 3B.

2. **Data Management Systems:** We support the draft IWRS statement that "*Good water management decisions are made possible when they are based on reliable information about water use. Water-use data is a fundamental tool used to ensure efficient water management, effective water*

*distribution, and to help plan for future water needs*." The water rights information system (WRIS), the water use query, the well log database, and the water availability reporting system contain data that can be used to improve water management decisions. However, it is not clear from the Department's web site which data are available and where, and some of the databases are difficult to navigate.

a. We support the Department's proposal to improve data reporting, address the backlog in data processing, and make data reporting online (action 1B and p. 31).
b. We recommend adding a section to the draft IWRS that describes each of the state's water-related databases, which data are housed where, how and when they are updated, and how to access them.
c. We support implementation item in Action 2B "*Continue to improve the software used for water-use measurement and reporting*" and recommend including descriptions of the improvements that are needed in the draft IWRS. For example, in our experience:
    i. WRIS is difficult to navigate; water rights only have T-R-S locations, making it difficult to georeference precisely; some of the field descriptions are unclear; information is frequently missing; water rights holder information is not updated (see action 2D)
    ii. Well log database: Most wells only have T-R-S locations, making it difficult to georeference; the downloadable database should have a field for "Use Description", instead of a separate column for each use type
    iii. Water availability report system: Provide the ability to download information for whole basins or sub-basins; currently, the format provided requires the user to select one sub-basin or reach at a time, instead of batch-downloading multiple sub-basins.

**3. Discussions of Ecosystems throughout the draft IWRS do not adequately capture how the changes in water quality and quantity impact Oregon's fish and wildlife species and freshwater ecosystems (p18).**

**a.** As stated on p. 19, according to the Oregon Department of Fish and Wildlife, how we manage water resources and impacts to water quantity and quality is a critical conservation issue for all of Oregon's Strategy Species (ODFW 2015). They give a range of examples of how water management can impact fish and wildlife populations, including salmon and resident fish, but also migratory birds, sage grouse, amphibians, and other species. In a 2011 analysis, Conservancy scientists found that 17% of species on the federal Endangered Species list were dependent on groundwater for their persistence; that number rises to 26% when considering listed invertebrates alone[1]. We'd like to assist the Department with a more thorough assessment of the ways in which water management and changes in water quantity and quality affect freshwater species and ecosystems in Oregon.

**b.** While it is useful information to point out the delisting and recovery of non-anadromous species (p. 19), it is important to add the total number of listed non-anadromous species. That would make the non-anadromous paragraph consistent with the previous paragraph, and provide context for the delisting and recovery.

[1] Blevins, E. and A. Aldous. 2011. Biodiversity value of groundwater-dependent ecosystems. Wetland Science and Practice 28:18-24.

**c.** While salmonids are important freshwater indicator species (p. 19), there are many other species, particularly macroinvertebrate and plant species, that can track the status of water quantity in addition to water quality and ecosystem health. This includes obligate perennial non-mobile species such as Pristine pyrg (*Pristinicola* species) as well as mobile species dependent on perennial water supplies such as the Oregon spotted frog (*Rana pretiosa*). We recommend the draft IWRS consider a more complete accounting of freshwater ecosystems and species when considering freshwater ecosystem health. Again, the Conservancy would like to assist the Department with this assessment.

**d.** On p. 37, we agree with the paragraph discussing contributions of irrigated agriculture to Oregon's environmental health. However, ODFW's 2016 Oregon Conservation Strategy states that "Land use change…from native vegetation to farmlands…can result in the disruption of natural disturbance regimes and further result in habitat loss and fragmentation." It goes on to add that "[t]he changes made to the landscape through development tend to be permanent, and restoration to a natural state is difficult, if not impossible." To balance the discussion, we recommend the draft IWRS also address the ways in which agriculture negatively impacts the environment, or alternatively refer to sections of the draft IWRS where that is already done.

**e.** We recognize the importance of levees for state wide infrastructure; however, the discussion of improving levees on p.81 does not consider the ecological harm that can be done through a loss of channel-floodplain connectivity. We recommend the draft IWRS include an action within 7A about evaluating the continued need for or usefulness of levees. If a levee is not being maintained and is no longer needed, it might present an opportunity for removal rather than upgrading.

**f.** Similar to the previous comment, we recommended an action in the section on dam safety (p. 85, action 7C) to be an evaluation of the utility of the dam and consideration of removal if it is no longer needed and is posing a connectivity problem for fish and other aquatic species.

**g.** The information presented on invasive species (p. 122) is correct, but should also recognize the importance of invasive species monitoring beyond ballast water. The current knowledge of the distribution and abundance of aquatic invasive species in Oregon is extremely limited. In action 11C, we recommend the State consider the importance of new technologies, such as environmental DNA sampling, that may be able to provide a clearer picture of the impact that invasive species have on Oregon's aquatic ecosystems.

4. **The draft IWRS places a significant emphasis on increasing water use efficiency as a tool to decrease water use and achieve multiple benefits.** Increasing water-use efficiency is recommended throughout the draft IWRS (p. 55, 62; recommended actions 4C, 5B, 10A), with an emphasis on irrigated agriculture, but also including water reuse (p. 109). In addition to the potential benefits to the economy and communities, we recommend the State consider the full suite of outcomes to freshwater ecosystems and species when recommending and investing in irrigation efficiency. There are many examples from around the world where an increase in the water use efficiency of irrigation systems leads to an actual *increase* in consumptive use, and no benefits to rivers or

wetlands, even when water allocation remains the same[2]. We recommend the draft IWRS discussion of irrigation efficiency consider all beneficial uses specified in the Department's mission statement: Oregon's **ecosystems**, economy, and quality of life. The 2017 draft IWRS only identifies economic and energy outcomes are listed as potential benefits from irrigation efficiency (p. 55, 62). Environmental outcomes need to have equal weight.

5. **The draft IWRS needs to fully account for future climate changes in all aspects of the Strategy**.
    a. The list of adaptation strategies for freshwater species should be expanded to include protecting cold water refugia (described on p. 46), increasing connectivity within the network of freshwater systems, and incorporating the use of natural infrastructure such as wetlands to address drought and floods (p. 56, 6C).
    b. Page 63 includes a very short description of increasing ecological resiliency to climate change. There is a significant amount of information available on this topic, and this section should be expanded upon. The Conservancy would be interested in working with the Department to fill this gap.
    c. Page 64 includes a section on defining drought, which states "*In Oregon many watersheds depend heavily on snowpack for annual water supply, and the timing of peak runoff from snowmelt is critical*". This section should also state that snowmelt is also critical for groundwater systems recharge, where annual droughts can affect water supplies into the future.
    d. The section on drought resiliency (p. 68 and action 5.5) states that Oregon has a "Response Plan," but it does not describe what the plan consists of. It would be useful to have a brief summary here, similar to how the "Define out-of-stream needs" section had a summary of the relevant information from the 2015 Statewide Long-Term Water Demand Forecast.
    e. Page 69 section on coastal flooding: we recommend the Final IWRS include a statement about how coastal flooding interacts with and intensifies riverine flooding.
    f. On Page 69 in the section on understanding flood risk, we suggest using a more inclusive term such as "loss of forest cover" since that can come from logging as well as forest fires (referring to the sentence: *Oregon should research how changes in land use or land cover and watersheds—including upstream impervious surfaces, geomorphology, and forest fires—may change the location, strength or duration of flood, flood ways, and flood discharge*.)
    g. In the section about understanding flood risk on p. 70, the draft IWRS speaks to the need for better data to design water infrastructure and recommends updating the precipitation frequency data. Similar to comment 1a above, future precipitation estimates should include climate change projections. For example, DLCD is currently working on a coastal infrastructure vulnerability to climate change assessment; the final IWRS should reference that work here and discuss how the two state agencies will collaborate on water infrastructure.
    h. The p. 70 includes discussion of flood events should also consider the many ecological benefits of flood events, including river bed scouring, movement of large wood, and other channel forming processes.

[2] Perry, C., P. Steduto, and F. Karajeh. 2017. Does improved irrigation technology save water? A review of the evidence. Food and Agriculture Organization of the United Nations.

6. **Inadequate protections for instream flows (3A).** The Conservancy supports the work being planned by ODFW to re-start the process of filing for instream water rights once reach scale studies are complete (3A). However, the draft IWRS understates the nature and extent of instream flow protections. The section on Instream Water Rights should include the following:
    a. The Final IWRS should prioritize increased monitoring to ensure the State's instream water rights are being met (p. 46; 3A).
    b. The Conservancy supports the inclusion of a discussion of the full suite of flows that are essential for river and wetland health, including high flows in the winter (p. 47). We agree with the statement in the draft IWRS that the lack of instream water rights for high flows is an important gap. We recommend the Department continue to move toward protecting the full suite of flow necessary for ecosystem health, and in particular, develop robust guidance for developing and implementing the flow targets required by projects funded under SB839.

7. **Place-Based Planning**. We are also very supportive of – and engaged in – the Department's Place Based Planning process, which was identified in the 2012 IWRS. Finding collaborative solutions to complex water quantity and quality problems is hard work, and so we encourage the Department to maintain support for the four pilot planning areas. Continuing to build this approach as a solution to water issues into the future is entirely dependent on how well these projects succeed today.

8. **Water quality management.** Recommended Action 12.C. The Final IWRS should include an action to evaluate the effectiveness of Water Quality Control Plans. This should include an evaluation of where and under what circumstances they have been successful, where have their results been more limited, and how we could improve and augment this strategy for better addressing water quality challenges.

Sincerely,

Allison Aldous, PhD

*Sent electronically to waterstrategy@wrd.state.or.us*

July 19, 2017

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RE: Comments on the 2017 Integrated Water Resources Strategy Public Review Draft

Trout Unlimited (TU) appreciates the opportunity to provide comments on Oregon's 2017 Integrated Water Resources Strategy (IWRS) public review draft. TU is a non-profit organization with a mission to conserve, protect and restore North America's coldwater fisheries and their watersheds. With more than 300,000 members and supporters nationwide, TU works to restore wild trout, salmon, and steelhead and their watersheds throughout the U.S. TU has over 3000 members in Oregon that fish, recreate and engage in habitat restoration projects in rivers and streams throughout the State.

The purpose of the IWRS is "to better understand and meet Oregon's water needs—both consumptive and environmental—while integrating water quantity, water quality, and ecosystem needs." TU supports the Oregon Water Resources Department's (OWRD) efforts to identify and implement actions that will lead to more effective management of water resources. Such efforts are particularly important as Oregon confronts the challenges presented by population growth, drought and climate change. These factors and others will continue to place increasing pressure on Oregon's water resources and the people, species and ecosystems that rely upon them. Oregon's cold-water fish populations are of significant cultural and economic value yet they will be particularly impacted if these factors aren't addressed as they require access to cold, clean water in sufficient quantities to persist.

To ensure that Oregon is prepared to meaningfully address these challenges it must take action to acquire basic information about the condition of its water resources, implement and

incentivize better water management practices and ensure sufficient water remains instream for sensitive fish species. TU's detailed comments on the IWRS are described below.

## I. General Comments

As noted above, TU generally supports OWRD efforts to identify and implement actions that will lead to more effective management of water resources. However, TU is concerned that the current structure and actions prioritize out-of-stream uses over instream uses. New themes of the IWRS include climate change and drought response; including developing plans and providing funding for appropriate projects. However, the IWRS fails to specifically recommend actions to fund or encourage projects that help fish and wildlife species respond or adapt to climate change and drought. Fish and wildlife resources, including Oregon's iconic salmon and steelhead populations, are the most vulnerable water users in the system. They acutely feel the impacts of mismanaged water resources; impacts that will only intensify in the face of additional water shortages without proper planning and remedial measures. TU strongly recommends that the IWRS acknowledge the precarious state of many of Oregon's instream dependent biological resources and include specific actions and funding directives that will build their resiliency to drought and climate change conditions.

Structure of Document

Generally, the IWRS retains the structure of the original 2012 version with some modifications and additions. Identification of goals, objectives and guiding principles is valuable however the IWRS would be even more useful if it prioritized actions as well. Certain actions, if implemented first, would allow the implementation of others to follow more seamlessly or thoroughly. For instance, if the goal of the IWRS is to better understand water needs, it is logical that one of the first priority actions should be measurement of water use. Other actions identified in the strategy such as" understanding which water users will be impacted by climate change" will be significantly harder to implement or less accurate without current water use information. Developing resiliency to drought is another emerging theme of the 2017 IWRS yet it is difficult to manage water when we don't know how much there is, how much is being used, who owns it, or where it is coming from. Even in normal times, Oregon's water rights system is marked by knowledge gaps and resource limitations yet times of drought

serve to highlight these inadequacies, and raise the stakes for both water users and the environment.

Additionally, most of the actions identified in the IWRS require resource agency (OWRD, ODFW etc.) staff time or resources. Ensuring that these agencies are sufficiently funded should be identified as another over-arching priority action. Given that the IWRS is revised every 5 years, OWRD could regularly revisit its priorities and progress toward achieving them.

Modifications to the Document

TU appreciates that the IWRS includes many helpful sections and illustrations intended to identify the modifications to the IWRS from the previous version. However, many actions that were modified are not identified as such in the IWRS which is confusing and/or misleading to the reader. TU recommends that the IWRS clearly identify all recommended actions (including accompanying bullet points) that have been modified from the 2012 version. Further, TU recommends that OWRD avoid identifying general actions intended to encompass many specific actions in lieu of the specific actions themselves. This point is extremely important as the IWRS is used by legislators, policy makers, conservation organizations and water users to guide and prioritize policy, legislative, budget, project planning and implementation processes. The IWRS is inherently more useful for these purposes when it articulates specific actions and strategies for each of its key issues.

The IWRS also contains several new funding directives that are mostly directed at out-of-stream water users. This promotes an unbalanced view of water management; one that presents instream needs as subordinate to other water uses. To remedy this, the IWRS should include funding directives to resource agencies and projects that support instream needs. For instance, the IWRS should recommend and/or prioritize funding for: (1) ODFW to conduct instream flow studies and instream need projections, (2) Oregon Department of Parks (Parks) to implement its scenic waterway program and (3) projects that benefit instream users (such as fish passage).

New Recommended Actions

TU supports the inclusion of the new recommended actions. Preparing for “extreme events” including drought, ensuring adequate staff presence in the field and developing additional

groundwater protections are particularly important for fish and wildlife resources. TU provides specific comments on these actions in the section below.

## II. Comments on Specific Sections

Recommended Action IB: Improve Water Resources Data Collection and Monitoring

This section is modified from the 2012 version in two notable ways. First, a recommendation for additional stream gauges generally has been changed to recommend only gauges with reportable water temperature data. Second, an action to add remote and real time capabilities to monitoring stations has been omitted.

**TU Recommendation:** Modify the action to recommend increasing the number of stream gauges and the number of stream gauges with reportable water temperature data. There is value to having additional stream gauges whether or not they report water temperature data. Reinsert the language related to real time monitoring. For some purposes, there is no substitute for direct measurement of streamflows and diversions in real time. Additionally, OWRD could consider adding the following additional bullets to this action:

- Provide resources to ensure existing streamflow gauges are maintained.
- Explore options for encouraging the installation of additional streamflow gauges, either through funding or incentives.
- Explore ways to acquire/require more real-time information from diverters, especially during critically dry years.
- Explore ways to obtain additional real-time data through direct means such as remote sensing.
- Prioritize watersheds/basins for synthesis of backlogged water stream data.

Recommended Action 2.A Regularly Update Long-Term Water Demand Forecasts

This action no longer includes the recommendation to "quantify/model economic value of instream and out-of-stream water." It is unclear why this action was deleted as this information would be extremely useful. For instance, the 2012 IWRS noted that this action was "valuable to developing long-term water demand forecasts and would produce information critical to major funding agencies that need to assess the costs and benefits of potential projects."

**TU Recommendation**: Reinsert the deleted language.

Recommended Action 2.B Improve Water-Use Measurement and Reporting

This section no longer recommends the full implementation of the State's Water Measurement Strategy. Instead it recommends an update to the 2000 Strategic Measurement Plan. Additionally, recommendations to employ remote-sensing have been deleted. These changes weaken the action considerably.

As discussed previously, measurement of water use is extremely important to achieving the goal of the IWRS…to understand and meet Oregon's water needs. Climate change and the recent drought and projections for increased frequency of such events highlight the need for Oregon to have current, accurate information on how much water is being used throughout the State. An increased understanding of water use through more accurate measurement will result in many benefits to a diverse range of stakeholders including improved water rights administration, improved understanding of available water supplies, better means to protect senior water rights and ability to efficiently manage and use water during times of drought. Having this understanding is also critical for ensuring the adequate protection of fishery resources. Watersheds with little or inaccurate information on water use and availability are susceptible to over-allocation, which often leads to inadequate instream flows for fish.

**TU Recommendation:** Given its critical importance, changes to this action should make it more robust not weaken it. The action should recommend the full implementation of the water measurement strategy. Additionally, the IWRS should recommend that the water measurement strategy be updated to include timelines to secure measurement and reporting of all surface and groundwater diversions in the state. Finally, the remote sensing action should be reinserted. It is a critical potential tool to secure water use information in situations where the water user is unable or unwilling to do so. As noted in the 2012 IWRS, remote sensing "is an emerging measurement tool that may help the state better understand the location, timing, and quantity of water use in the future."

Recommended Action 3.A Determine Flows Needed (Quality and Quantity) to Support Instream Needs

TU appreciates the additions to this section particularly the recognition that species require more than just minimum "base" flows. Anadromous fish in particular require "elevated" or geomorphic flows at varying times in the year to complete critical lifecycle functions. Geomorphic flows are necessary to provide adequate channel form and function, habitat access for fish, and in some cases, for disrupting disease cycles and addressing other water quality impairments. Instream studies should quantify the need for both minimum and geomorphic flows. Additionally, both categories of flows should be better considered in water availability models.

**TU recommendation**: The action should include a recommendation for instream flow needs (both base flows and elevated flows) to be better considered in water availability models. Additionally, the action should recommend analysis of instream flow needs into the future considering projected climate change and drought conditions. Finally, the action should recommend that ODFW and OWRD receive funding to complete this work.

Recommended Action 3.B. Determine needs of groundwater dependent ecosystems

This section deletes the recommendation to complete groundwater basin studies yet the studies are a critical part of ensuring this action can be met.

**TU recommendation:** Restore the original recommendation.

Recommended Action 4.A Analyze the Effects on Water from Energy Development Projects and Policies

This action recommends analysis of the water demand and water quality impacts of energy development projects. It does not specify that impacts to fish and wildlife be included in the analysis. However, not all energy development projects are created equal and many projects carry profound impacts to aquatic resources and communities; hydropower in particular. To promote responsible hydro development and to encourage investments in improving operations at existing facilities, the potential impacts to fish and wildlife from moving forward with energy development projects should be assessed.

**TU recommendation:** Include recommendation for analysis of fish and wildlife impacts from energy development projects.

Recommended Action 4.B Take Advantage of Existing Infrastructure to Develop Non-Traditional Hydroelectric Power

The action is geared toward promoting in-conduit hydroelectric development however the narrative also describes pumped storage projects. While pumped storage hydropower projects have potential value for grid management, they are also highly complex and, depending on location and design, can have significant adverse impacts to waterways and sensitive species.

**TU recommendation:** Include recommendation for analysis of potential impacts to waterways and sensitive species from pumped storage projects.

Recommended Action 5.A Support Continued Basin-Scale Climate Change Research Efforts

TU appreciates that this section's narrative acknowledges that climatic changes (specifically changes in hydrologic regimes) are expected to alter key habitat conditions for anadromous fish. However the recommended action does not specifically identify this issue as a research priority. **TU recommendation:** Supplement the action "[d]evelop reliable projections of basin-scale hydrology, and associated impacts on built and natural systems" to "[d]evelop reliable projections of basin-scale hydrology, and associated impacts on built and natural systems including fish and wildlife resources."

Recommended Action 5.B Assist with Climate Change Adaptation and Resiliency Strategies

This section deletes several actions that were identified in the 2012 IWRS including: (1) Invest in and make improvements in surface water and groundwater monitoring and (2) Invest in real-time forecasting of water deliveries, basin yield, streamflow, flood and drought frequency projections. As the narrative describes, the impacts of climate change are expected to be far-reaching. To prepare, it is necessary to understand how water resources are utilized and who is most likely to be affected by the changes wrought by climate change (such as changing hydrology.) Water measurement and forecasting are key to gaining this understanding.

**TU recommendation:** Reinsert the deleted sections. Encourage full implementation of the water rights measurement strategy. Additionally, include support and funding directives to develop or implement strategies to promote resiliency in fish and wildlife populations.

Recommended Action 5.5A Plan and Prepare for Drought Resiliency

As noted above, fish and wildlife resources are the most vulnerable water users in the system particularly in times of water shortages. Unfortunately, the recommended actions in this section mainly assist out-of-stream water users prepare and adapt to drought conditions. The action does not include specific recommendations to promote resiliency in fish and wildlife populations.

**TU recommendation:** Include specific actions and funding directives to assist fish and wildlife develop resiliency to drought conditions. The current recommendations should be modified to address both out-of-stream and in-stream needs. Additionally, OWRD should consider adding the following additional recommendations to this action:

- Encourage drought resiliency planning for fish and wildlife resources;
- Incentivize mechanisms to secure more water instream such as instream leasing or water transfers (consider a split-season leasing program with a permanent option, and allowing multiple changes in type of use – as opposed to one person per season);
- Explore emergency drought measures such as temporary minimum flow requirements and curtailment requirements;
- Identify and protect cold-water refuges including mapping them and exploring mechanisms to designate them as special protection areas;
- Prioritize investments in infrastructure based on water conservation and ecologic need (utilizing an ecologically based Return on Investment for public funds); and
- Require Best Management Practices (BMPs) on irrigation systems (e.g., fish screens, headgates, monitoring).

Recommended Action 9.A Continue to Undertake Place-Based Integrated Water Resources Planning

There are currently four place based planning pilot projects in various stages of development. This section's narrative suggests that place-placed planning should be expanded into other areas outside the pilot locations. While TU believes there is great potential for place-based planning to be an effective water management strategy into the future, it is important to see the results of these initial efforts before recommending expansion of the program.

**TU recommendation:** Modify the section to recommend that the success of pilot programs be assessed prior to recommending further investment in the program.

Recommended Action 10.A Improve Water-Use Efficiency and Water Conservation

The 2017 IWRS removes the actions to prioritize agricultural water-use efficiency and conduct a state-wide conservation potential assessment. It is unclear why these actions were removed. These are both important actions to address water supply concerns. A state-wide conservation assessment could also help direct limited resources to higher yield conservation projects.

**TU recommendation:** Reinsert the deleted actions.

Recommended Action 10F: Provide an Adequate Presence in the Field

TU strongly supports the inclusion of this action which highlights the importance of Oregon's natural resource agencies' field personnel, including watermasters. These positions are critical to ensuring effective water management throughout the state and their importance will deepen as drought and climate change continue to increase competition for water resources.

Recommended Action 11.A Improve Watershed Health, Resiliency, and Capacity for Natural Storage

TU supports the additions to this section.

Recommended Action 11.B Develop Additional Instream Protections

TU strongly supports the actions identified in this section.

**TU recommendation:** TU recommends adding additional specificity to this measure. Specifically, that instream water rights should be secured that encompass minimum and elevated flows.

Recommended Action 11.D Protect and Restore Instream Habitat and Habitat Access for Fish and Wildlife

TU supports the actions identified in this section.

Recommended Action 11.E Develop Additional Groundwater Protections

TU strongly supports this action which recognizes that acquisition of critical information is necessary for effective management of Oregon's water resources. Specifically, this information

will allow the state to manage its increasingly limited groundwater resources, and maximize the consumptive and non-consumptive uses of water in the basin. Groundwater is becoming increasingly relied upon in certain basins especially during drought conditions yet it is impossible to ascertain the impacts of this use on the aquifer, surface streams and dependent ecosystems without sufficient information. It is critical that groundwater be extracted sustainably in a way that meets both human needs and the needs of species and ecosystems.

**TU recommendation:** Include recommendations to fund groundwater studies and observation wells, require measurement and reporting of groundwater use and ensure sustainable groundwater extraction/permitting.

Recommended Action 12.C Implement Water Quality Pollution Control Plans

TU supports the action to continue to develop and implement the TMDLs in waterbodies that are water quality impaired. Many impaired waterbodies have been waiting years if not decades for a TMDL.

**TU recommendation:** Include timelines for developing and implementing TMDLs. Prioritize funding to ODEQ to accomplish this.

Critical Issue: Funding

The IWRS expands the section on funding to include new funding directives for planning and implementation of projects. While TU certainly supports this action, we are disappointed that it doesn't emphasize the need to provide funding for projects that improve instream flows or otherwise help fish and wildlife develop resiliency to drought conditions and climate change. Many of the programs dedicated to water resources projects and drought resiliency do not prioritize projects that benefit multiple beneficial uses including fish and wildlife. TU recommends that the IWRS clearly identify as a recommended action the need to provide funding for acquisition of instream flows, for projects that help fish and wildlife develop drought resiliency or for multi-benefit projects that benefit fish and wildlife. Additionally, the IWRS should include a recommendation that funding guidelines be modified to promote projects that better balance water needs and help provide environmental flows in priority basins. Finally, the IWRS should include funding directives to ODFW to conduct instream flow studies, secure

instream water rights and implement the Conservation Strategy and to Parks to designate scenic waterways.

## III. Conclusion

The IWRS is an important guiding document that influences decision-makers, conservation organizations and water users as they prioritize water management policies, programs and/or projects. The steps taken over the next decade will determine how well water users, ecosystems and fish and wildlife resources adapt to climatic changes including changing hydrology, extended dry conditions and warmer temperatures. It is imperative that the IWRS preset a robust vision for addressing these challenges; one that is specific and presents a balanced view of the needs of consumptive and instream water users. Accordingly, we urge OWRD to consider the recommendations that are included in these comments.

TU appreciates the opportunity to comment on the IWRS. Please contact me with any questions.

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TUALATIN RIVER WATERSHED COUNCIL
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*Engaging the community to sustain our watershed*

July 18, 2017

Via email: waterstrategy@wrd.state.or.us
Alyssa Mucken
Program Coordinator
Integrated Water Resources Strategy (IWRS)
Oregon Water Resources Department
725 Summer St. NE, Suite A
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Dear Alyssa:

Re: Opportunity to comment on update of the Oregon Integrated Water Resources Strategy

Tualatin River Watershed Council appreciates the opportunity to provide comments on the 2017 public review draft of Oregon's Integrated Water Resources Strategy (IWRS). We appreciate that 2017 updates incorporate newly emerging and vital issues and recommended actions into the IWRS, while maintaining the form and substance of the existing document.

A number of emerging and vital issues and recommended actions that we wish to specifically recognize include:

i) Chapter 1B, Improve Water Resource Data Collection and Monitoring, particularly in tracking water sources, including reuse and its return to the system. Also gathering data on limited community demands and evaluate (using long term monitoring) what measures could provide greater efficiency,

ii) Chapter 4C, Promoting Strategies that Increase/Integrate Energy and Water Savings. We think it is vital to encourage expansion of water reuse to promote protection of instream flows and provide a consistent predictable water supply. Re-use is currently occurring with entities such as golf courses and parks, which could be potentially expansion through constructed wetlands and provide opportunity for trading water rights.

iii) Chapter 5.5, Extreme Events: Drought Resiliency, Flood Events and Cascadia Subduction Earthquake Events, issues which are vital for all Oregon residents.

iv) Chapter 6B, Improve State Agency Coordination and Chapter 13B, Fund Water Resource Management Activities at State Agencies, which will continue the partnership of implementing with IWRS through the involvement and commitment of Oregon natural resources agencies. It is important that these agencies "remain at the table" for meaningful collaboration.

v) Chapter 6C, Encourage Low Impact Development Practices and Green Infrastructure are extremely pertinent for the Tualatin Basin. This is a key function in the newly amended Design and Construction Standards promulgated by Clean Water Services for development in the urbanized areas of the basin.

vi) Chapter 7C, Ensure Public Safety/Dam Safety is also a vital topic for Tualatin Basin and Oregon residents. As the "economic engine of Oregon", safety and resiliency are important for jobs and tax base.

vii) Chapter 9A, Continue to Undertake Place-Based Integrated Water Resources Planning and Chapter 13C, Invest in Local or Regional Water-Planning Efforts is of extreme value to Tualatin Basin and Oregon residents for our future water supplies and uses.

viii) Chapter 10E, Continue the Water Resources Development Program, Chapter 10F, Provide an Adequate Resource in the Field, and 10G, Strengthen Oregon's Water Quantity and Water Quality Permitting Programs, will all strengthen recommended and current actions identified in the IWRS.

ix) Chapter 11B, Develop Additional Instream Protections, becomes more important with weather extremes and climate change.

x) Chapter 11E, Develop Additional Groundwater Protection also will aid Tualatin Basin and Oregon residents for protection of this vital resource.

We believe that place-based planning is an effective strategy. We would like to see the plan further provide opportunity to involve local stakeholders, communities and agencies in identifying and evaluating current and future water resources and needs (i.e., ground water and in-stream, domestic, drinking water, agricultural and industrial needs). These local or place—based planning actions will then lead to identifying and developing collaborative solutions to meet our water needs. We urge OWRD future funding and staff time be allocated to developing and implementing this creative approach to our water resources.

Thanks again for the opportunity to provide comments and the coordinated work to implement the IWRS.

Sincerely,

April Olbrich
Council Coordinator

**Draft IWRS 2017 Comments UGR**

**To:** waterstrategy@wrd.state.or.us
**From:** UGR partnership
**Re:** IWRS 2017 Comments UGR

Dear OWRD:

Thank you for your continued work on the IWRS. The Upper Grande Ronde Watershed Partnership is one of the four state-wide pilot place-based planning groups funded as a part of this strategy. We are located in Northeast Oregon, and are pleased to provide comments on the 2017 document.

To facilitate public review on future drafts– we would appreciate a redlined document for review, this will allow for specific comments on differences/changes in sections.

We were asked to comment on a few issues:

- What is important to your community?
    - Funding and technical support to plan and implement projects to support municipal, agricultural, and ecological water security.
    - Agency transparency

- Where should the state focus its resources?
    - We support the pilot approach, it seems like through testing out potential policies before implementing them, many efficiencies will be gained, and we will be able to learn what the best use of state resources to achieve positive results in communities.
    - Implementing improvements needs to be the ultimate goal, but the improvements need to meet the needs of the overall system. State resources to fund selected improvements will be critical.

- How can we better foster an integrated approach to water management?
    - OWRD can continue working to integrate the separate departments within the Agency to become a support structure for the IWRS.

- Are your recommendations captured in this version of the strategy?
    - We are still on step 2 of place-based planning and are hopeful that our planning process can serve as a living recommendation for future iterations of the strategy.

- How is your community helping to make progress on the recommended actions in the IWRS?
    - Our community, which makes up the Upper Grande Ronde Watershed Partnership, is making progress through getting multiple groups together and building on existing work in our basin. The recommended actions in the IWRS are important, and will serve to continue the work of numerous other agencies and NGO organizations in our watershed. We are using this opportunity to utilize existing work from innovative organizations such as CTUIR, ODFW, GRMW, Union SWCD and others to support this planning effort.

We reviewed the items on page 5 of the revised IWRS "note to reader" and offer the following comments:

(3) "Providing an adequate presence in the field" –we support this and emphasize that a local field presence would be most efficient for OWRD work. We appreciate our local staff and we would encourage collaboration with the field staff of other regulatory agencies. This presence needs to be a support role to assist in completing integrated, place based improvements.

(4) "Strengthening permitting programs for water quantity and water quality" – Through our data collection effort in our place-based planning process we have found that data on issues such as groundwater quality and quantity is lacking in our Northeast Oregon region. We would support a focused effort on groundwater data evaluation before changing permitting methodologies. We support strengthening of data collection in data poor areas. In addition, the development of joint permit forms with other agencies, and other techniques such as continuing to turn to online applications would be appreciated.

(5) "Developing additional groundwater protections"– We feel it is important to improve data being collected, and provide this information to our community. We support OWRD in assisting communities with groundwater storage projects (and above ground storage projects).

(6) Funding –UGR Partnership appreciates funding of this planning initiative, and strongly supports funding for feasibility studies, and also project implementation.

<u>A few additional comments on the Place-Based Efforts:</u>

- "Providing Technical Assistance to Communities" As a technical partner, helping the groups formulate ideas and providing technical information to answer questions that come up in the process needs to continue to be funded and included in OWRD staff workload for this process to be successful.
- Strongly appreciate the peer-to-peer learning opportunity that was afforded through the Bend Water Planning Conference. Our group is using information learned at this meeting to work toward being more interactive, collaborative, and developing our "water story". To that end, we would recommend that Step 1 includes water story development in addition to convening a group. Step 2 feels like a little bit late for starting this process.
- We would like OWRD to focus on how our plan will be meaningful and something to be implemented in the community, rather than another document that goes on a shelf.

**Public Comments – Organized around Critical Issues and Recommended Actions**
**Public Review Draft of Oregon's 2017 Integrated Water Resources Strategy**

**Table** **Page**



*Note: Attachment 3 does not include comments submitted by WaterWatch of Oregon.*
*Those comments are included as an addendum to this staff report and begin on Page 489 of this PDF document.*

## Groundwater Studies

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary |
|---|---|---|---|---|
| Oregon Environmental Council | | Groundwater: exempt wells | 1.A | Concerned about removal of the emphasis on exempt wells called out in 2012 IWRS. Pinpointing the location and volume of use of domestic wells is important to understand use and impact to surface water. |
| The Klamath Tribes | 20 | Groundwater: studies | 1.A | A groundwater study, similar to that completed in the Deschutes Basin, should be completed in the Upper Klamath Basin. |
| Bierly, Ken | 21 | Groundwater: studies | 1.A | Add DEQ to GW study partnerships. Add to 1.A "Integrate water quality monitoring in GW studies to the extent possible." |
| Engelmeyer, Paul | | Groundwater: water quality | 1.A | Story facing Triangle Lake is a perfect example -- forestry spraying conflict with existing uses. Groundwater monitoring program should be funded. |
| Sarna, John | 149 | Locating and documenting water wells | 1.A<br>7.A | It would be good to also cover abandoned wells, by changing it to "locate and document existing and abandoned water wells." While it is important to document existing water wells, abandoned wells are also a concern due to the potential for contaminant migration into pristine groundwater. A similar change should be made to Recommendation 7A in the Strategy, "to properly abandon wells at the end of their useful life." This should also be generalized to: "to properly abandon both wells at the end of their useful life and wells which have been improperly abandoned." |

## Improvement of Data and Monitoring

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Data and Monitoring |
|---|---|---|---|---|
| Tualatin River Watershed Council | | Data: collection/monitoring | 1.B | Track water resources, including reuse and its return to the system. Gather data on limited community water demands, and use long-term monitoring to gain efficiencies. |
| OR Farm Bureau +7 | 31 | Data: management | 1.B | Significant concerns with "crowd-sourcing" applications to "repackage" data for public use. State data must stay in state hands. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Data and Monitoring |
|---|---|---|---|---|
| OR Farm Bureau +7 | 31 | Data: management | 1.B | When discussing "decision-support tools," include groundwater aquifer studies, in addition to what's already mentioned (i.e., groundwater recharge studies). |
| Sabbadini, Gail | | Data: management | 1.B | Train citizens to do monitoring -- volunteers could measure temp, turbidity, pH, flow, etc. |
| The Nature Conservancy | 31 | Data: management | 1.B | Support data processing, backlog concepts. Not clear where to find OWRD data from its website. IWRS should describe databases, where they're housed, how often updated, etc. |
| Trout Unlimited | | Data-monitoring | 1.B | Modify action to increase number of stream gages, and gages with temp data. TU offers 5 new bulleted items for this action (maintenance, incentives for new sites, real-time info during dry years, remote sensing, address backlog by prioritizing watersheds). |
| Rogue Riverkeeper | | Data-monitoring | 1.B | Strongly support this action. Recommend strengthening interagency coordination, and support statewide groundwater quality monitoring. Water quality standards and TMDL's should be updated consistently. Strongly support updating the stream gaging network and increasing water temperature data. |
| Karp, Cyndi | 19 | Data-monitoring: improving information | 1.B | 4th paragraph- "Improving our knowledge of water resources requires investments in inter-agency work, scientific modeling tools and platforms to share information with the public and other partners." Add: (after tools) comprehensive water quality testing. |
| Bierly, Ken | 21 | Groundwater: studies | 1.B | Add to 1B "Conduct at least one basin-scale GW-SW interaction study each biennium." |
| Regional Water Providers Consortium | | Pesticide Use Reporting System | 1.B | RWPC helped develop pesticide use reporting system (PURS). While it's not currently funded, it should be acknowledged in the IWRS as a potential tool for supporting and informing water quality monitoring. |
| OR Farm Bureau +7 | 24 | Water quality | 1.B | Remove "as necessary" from "update water quality standards and develop additional TMDLs, replace w/ "as required by state law and the Clean Water Act." |
| League of Oregon Cities & Special Districts Assoc. | 24 | Water quality (TMDLs) | 1.B | Delete, "updating water quality standards and implementing TMDLs as necessary" from this action. Redundant to 12.C, and not explained in Chapter 1. |
| Thompson, Catherine | | Data: monitoring, funding | 1.B<br>1.C | Pleased to see enhanced monitoring in draft. Critical for implementation that adequate funding for monitoring in the field is provided. Without monitoring, regulations are well meaning, but not enforceable. |

## Inter-Agency Data Coordination

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Inter-Agency Data Coordination |
|---|---|---|---|---|
| The Klamath Tribes | 32 | Data: LiDAR | 1.C | Discuss this more, what resolution do we have? What areas have been covered? Maybe consider a map showing coverage? |
| Engelmeyer, Paul | 32 | Data-monitoring | 1.C | Inter-agency monitoring (the discussion of Stream Team) -- Agree with concept of such a team, but a disconnect exists between legal challenges and developing a credible program for water quality on forest and ag lands. Buffers in CA/WA are much stronger. Why not consistent buffer widths? |
| Audubon Society of Portland | | Scientific modeling tools | 1.C | Add language from 2012 IWRS on "investing in science and scientific modeling tools." Important to invest in such tools and inter-agency coordination. |
| OR Farm Bureau +7 | 33 | Water quality testing | 1.C | The first bullet of this action talks about helping homeowners test for water quality. Out of place, move to a different section. |
| Oregon Assoc. of Clean Water Agencies | | Inter-agency coordination | 1.C<br>6.B | IWRS references coordination among agencies, but it would be improved by coordination with other interested entities. |

## General Comments on Chapter 1

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: General Comments on Chapter 1 |
|---|---|---|---|---|
| The Freshwater Trust | | Data | 1(gen) | Support data and monitoring actions. How many new stream gages are needed? Better describe what type of modeling tools are needed and what role they will play in water mgmt. and water use planning |
| Ferry, Patti | | Data | 1(gen) | Skimmed Ch. 1, have several questions on incentives for farms/well owners; any studies on gray water usage? Agree with setting groundwater permitting date. Can you use interns to help w/ gaging stations? A coordinated way to get a city's water quality report to the public? All cities do this? |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: General Comments on Chapter 1 |
|---|---|---|---|---|
| Karp, Cyndi | 19 | Data-monitoring: improving information | 1(gen) | 6th paragraph - Streams that serve as a drinking water source trigger more stringent forestry protections. Add (after source) or critical habitat for listed fish |
| League of Oregon Cities & Special Districts Assoc. | 13 | Drinking water/fire protection | 1(gen) | Add language in Chapter 1 that mentions water is managed for public health and safety, as well as economic development and environmental protection. Drinking water and water for fire suppression is not reflected in draft language. |
| The Nature Conservancy | 19 | Ecosystems: indicator species | 1(gen) | Invertebrates and plant species are also indicator species (e.g. spotted frog, Pristine pryg) |
| Engelmeyer, Paul | 19 | Ecosystems: processes/water quality | 1(gen) | This critical issue section is missing ecological processes, water quality, quantity. Add value of beavers here, they store water, improve water quality. Also add the potential to secure forests to protect municipal watersheds. |
| The Nature Conservancy | 19 | Ecosystems: water management | 1(gen) | ODFW can provide a range of examples of how water management affects species. Studies have been done to show how many listed species are dependent on groundwater. TNC can assist with this assessment. |
| The Nature Conservancy | 19 | Ecosystems: delistings | 1(gen) | Add total number of non-anadromous species. Provides better context for the delisting discussion. |
| League of Oregon Cities & Special Districts Assoc. | 19 | General: ecosystems | 1(gen) | Title of this section changed to "impaired ecosystems." Change in title doesn't reflect numerous efforts to improve ecosystem health. |
| League of Oregon Cities & Special Districts Assoc. | | General: water use | 1(gen) | The section on how we use water in Chapter 1 appears to be deleted, please add back in. |
| Karp, Cyndi | 16 | Groundwater | 1(gen) | Groundwater "Water percolates into the ground from rainfall, snowmelt, man-made projects, such as irrigation systems, and other sources. Add: natural lakes, beaver ponds and other sources. |
| The Nature Conservancy | 17 | Groundwater | 1(gen) | Better describe declines, report on trends on groundwater levels. |
| The Klamath Tribes | 21 | Groundwater (well locations) | 1(gen) | Only drinking water wells are mentioned, aren't all wells subject to providing location information? If not, require it. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: General Comments on Chapter 1 |
|---|---|---|---|---|
| Lyford, Gordon | 14 | Precipitation | 1(gen) | Where it says "Oregon receives a majority of its precipitation in the winter." It should say in the fall and winter. |
| OR Farm Bureau +7 | 25 | Timeline | 1(gen) | Remove Klamath from the timeline (not significant statewide), add SB1069 and SB839 to timeline. |
| League of Oregon Cities & Special Districts Assoc. | 15 | Water availability | 1(gen) | Add language that the water available for live flow allocation in August (Fig. 1-3) is largely from 11 storage dams in Willamette. |
| The Nature Conservancy | 32 | Water availability | 1(gen) | Describe how the state will bring over-allocated systems into sustainability. Develop a roadmap. Ensure your water availability data consider future climate projections. |
| OR Farm Bureau +7 | 26 | Oregon water law | 1(gen) | Beef up section on prior appropriation doctrine. How a permit becomes a certificate, first in time first in right, seniority of existing water rights. |
| League of Oregon Cities & Special Districts Assoc. | 18 | Water quality: septics | 1(gen) | Include impacts to drinking water that result from failed/failing septic systems. |
| Engelmeyer, Paul | | Water quality | 1(gen) | (Figure 1.7). Water quality map is dated 2010, something newer? Include known streams on the 303(d) list and watersheds that have completed TMDL's. There's a direct link between quality and quantity, and a number of actions that should be incorporated. |
| Karp, Cyndi | 18 | Water quality | 1(gen) | "Temperature, sedimentation, and nutrients are the leading causes of pollution that impair Oregon's rivers and streams." How can you make this statement of leading? When there is human pollution from chemicals caused by timber, agriculture, industry and pharmaceuticals. |
| Karp, Cyndi | 18 | Water quality | 1(gen) | "Water temperature is a critical water quality parameter because it directly affects the survival of sensitive species such as salmon and trout." Add lamprey to this sentence. |
| Karp, Cyndi | 18 | Water quality | 1(gen) | "Stream temperatures can increase as a result of air temperatures, low streamflow, loss of riparian vegetation, channel modification, or warm discharge." Add: loss of native species, like beavers. |
| Karp, Cyndi | 18 | Water quality | 1(gen) | "For lakes, ponds and reservoirs, dissolved oxygen and algal growth are the two most common water quality issues." Add: Many times caused by water areas being surrounded by homes & septic systems during high summer use. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: General Comments on Chapter 1 |
|---|---|---|---|---|
| The Nature Conservancy | 18 | Water quality | 1(gen) | Mentions inadequacy of water quality sampling, but doesn't include an estimate of how much monitoring is needed. DEQ's 303(d) list is not a complete inventory. Add text describing limitations. |
| OR Farm Bureau +7 | 17 | Water quality | 1(gen) | Remove "agriculture" and link to area-wide contamination. |
| Reiter, Maryanne | | Data, extreme events, dam safety | 1(gen) 7.C | Thorough and thought-provoking strategy; including extreme events and dam safety are important. You accurately characterized water resources, climate, data, etc. We've lost numerous USGS gages. Commend OWRD's monitoring data and proposal for further monitoring. |

## Demand Forecasts

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Demand Forecasts |
|---|---|---|---|---|
| Oregon Water Resources Congress | | Demand forecasts | 2.A | Agree, more info on long-term water demand is needed. 2015 study greatly understates irrigation demand and benefits to the ag economy. |
| Deschutes River Conservancy | | Demand forecasts | 2.A | Demand forecasts are critical to place-based planning, OWRD should provide planning groups with assistance and access to latest demand forecasts. |
| Bonneville Environmental Foundation | | Demand forecasts | 2.A | Support analyses that help us understand instream and out-of-stream demands. |
| The Nature Conservancy | | Demand forecasts | 2.A | Set a goal to update the demand forecast every 5 years. Make sure instream demands are on equal par with out-of-stream needs. TNC offers specific language on how to adjust this action to also include projected conflicts. |
| Trout Unlimited | | Demand forecasts | 2.A | What happened to "quantify/model economic value of instream/out-of-stream water?" Add it back. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Demand Forecasts |
|---|---|---|---|---|
| Oregon Assoc. of Clean Water Agencies | | Demand forecasts | 2.A | Clarify if the IWRS is asking municipalities to more frequently update their demand projections. Text unclear. Clarify who is responsible for projecting Ag demands. |
| Wahl, Mary | | Instream: demand forecasts, funding | 2.A 11.B | Required to be considered together and in balance. Was made less the case by the 2016 process. ISWR applications haven't moved forward; ODFW needs resources. Need instream demand forecast. |
| Allen, Laura | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A 2.B 5.5A 11.B 10.A | (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |
| Richen, John | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A 2.B 5.5A 11.B 10.A | (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |
| Nelson, Kris | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A 2.B 5.5A 11.B 10.A | (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |
| Pacheco, Lara | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A 2.B 5.5A 11.B 10.A | (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Demand Forecasts |
|---|---|---|---|---|
| Pebbles, Daniel | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A<br>2.B 5.5A<br>11.B<br>10.A | (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |
| Nichols, Nancy | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A<br>2.B 5.5A<br>11.B<br>10.A | Define fish and wildlife demands to 2050; Additional funding for instream needs; increase water use monitoring (important to account due to climate change), make enforcement of efficient water use a priority. |
| Guth, Candice | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A<br>2.B 5.5A<br>11.B<br>10.A | Develop instream demand forecasts, measure and report water use, develop drought provisions for fish and wildlife, adjust ISWR's to protect water and improve water efficiency. |
| Hohler, David and Marcia | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A<br>2.B 5.5A<br>11.B<br>10.A | (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |
| Mosser, Bill | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A<br>2.B 5.5A<br>11.B<br>10.A | Father worked for Tom McCall to restore Willamette River. Water is the most important resource. (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Demand Forecasts |
|---|---|---|---|---|
| Moore, Joe | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A 2.B 5.5A 11.B 10.A | Grew up in Arkansas, seen firsthand what happens when water quality isn't given importance. Give water the respect it demands. (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |
| Moser, Robert | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A 2.B 5.5A 11.B 10.A | (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |
| Winch, Martin and Carolyn | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A 2.B 5.5A 11.B 10.A | (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |
| Mountain Rose Herbs (Comment 1) | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A 2.B 5.5A 11.B 10.A | (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |
| Brown, Jerry and Anne | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A 2.B 5.5A 11.B 10.A | (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture) |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Demand Forecasts |
|---|---|---|---|---|
| Brumitt, Clint and Candace | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A<br>2.B 5.5A<br>11.B<br>10.A | The need for long-term planning is evident; attack this idea with vigor and enthusiasm. (1) Develop instream demand forecasts, (2) Water use measurement and reporting -- offers 4 suggestions, (3) Drought resiliency for rivers (set minimum flows on ecologically significant streams), (4) Instream water rights -- double current funds to do this work, (5) Improve water use efficiency/conservation (aggressively enforce against waste, develop basin-specific efficiency standards for agriculture). |
| Smeraglio, John | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation | 2.A<br>2.B 5.5A<br>11.B<br>10.A | The IWRS is extremely important for maintaining water resources. Project water demands for all uses. Install measurement devices on all significant diversions. Create drought provisions that protect flows for fish and wildlife. Adopt new instream water rights, double current funds for this work. Aggressively enforce against waste, and develop basin specific standards for agriculture. |
| Recht, Fran | | Instream (demand forecasts), water use, drought, instream rights (fund), water efficiency & conservation, healthy ecosystems | 2.A<br>2.B 5.5A<br>11.B<br>10.A<br>11.A | Submitted comments last June, attended Newport open house. Please consider those comments. Must provide increased/dedicated funding to ODFW. Double or triple current funds, otherwise pace will remain too slow. Include instream demand forecasts, consider climate change; drought plans must acknowledge and plan for fish and wildlife. OWRD had ignored its water measurement strategy, IWRS could call for full implementation, report to public. Hope it was on oversight to leave off efficiency, and eliminating wasteful practices. Aggressively enforce efficiency & conservation. IWRS must call for continued work to improve healthy watershed conditions. |
| Nisson, Sonja | | Instream, drought | 2.A 5.5A | Must do instream demand forecast; recreation important to our economy; drought laws ignore fish and wildlife; if big business runs water resources, rivers and streams will suffer. |
| Midcoast Watersheds Council | | Instream: demand forecast | 2.A<br>3.A | Include explicit direction to develop instream demand forecasts, should cover climate change scenarios, differing land-use scenarios (forest, urban, rural, etc.) |

# Water Use Measurement & Reporting

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Use Measurement & Reporting |
|---|---|---|---|---|
| The Freshwater Trust | | Water use | 2.B | Need adequate water use measurement (CA will be measuring diversions >10 acre-feet by 2018). Add to IWRS what percent of water use data is needed; develop a plan, using a reasonable time frame. Implement existing measurement strategies, such as significant diversions, require reporting, share information online. |
| Oregon Environmental Council | | Water use | 2.B | Strongly support measurement and reporting of all water use. Urge Commission to update Strategic Measurement Plan, but state it as "update and fully implement…" Need a clear timeline and funding to complete this work. |
| Oregon Environmental Council | | Water use | 2.B | Maintaining the water use reporting coordinator has greatly improved compliance. Maintain this position in the future as a necessary implementation measure for the IWRS. |
| Wahl, Mary | | Water use | 2.B | Water use measurement/reporting was brought up at each PAG meeting and in all review documents, but his was not addressed in the WRD process. |
| Bierly, Ken | | Water use | 2.B | These recommendations are all passive and do not speak to the issue of lack of information and lack of accountability for permitted use. The first need is to have accurate measurement of current use. |
| National Audubon Society | | Water use | 2.B | Lack of monitoring hampers smart management in places like the Chewaucan River and Lake Abert. Include clear recommendations to advance implementation of the Commission's 2000 Strategic Measurement Plan. Request broad reporting authority, adequate funding for measurement and reporting oversight, and a long-term plan for all diversions. |
| Midcoast Watersheds Council | | Water use | 2.B | Any substantial withdrawals need to be measured and reported. Include daily volume and timing. Amend bullets in this action to include language specific to withdrawal-volume monitoring. Outline procedures for responding to violations. Ask the legislature to provide funding to help users with purchase/installation of equipment. |
| The Nature Conservancy | | Water use | 2.B | Support the improvement of water use reporting data. We have difficultly navigating the water rights database, well log database, and water availability reporting system. Location descriptions make if difficult to map. |
| Trout Unlimited | | Water use | 2.B | Understanding how water users are impacted by climate change will be hard without water use information. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Use Measurement & Reporting |
|---|---|---|---|---|
| Trout Unlimited | | Water use | 2.B | Action should recommend full implementation of Strategic Measurement Plan, should also be updated to include timelines to measure all diversions in the state. Add remote sensing. |
| Nelson, Lark Mark Brandt | | Water use | 2.B | Take accurate inventory of what we have, how close are we to not having enough. Stealing water is not the answer. |
| Porch, Delores | | Water use, instream (demand forecasts), climate change, drought, funding | 2.B<br>2.A<br>5.5A<br>3.A | Concerned we have no idea of the amount of water we have. How can you plan, without knowing how much you use? Appropriate money to install measurement devices is critical areas. Forecast instream needs. Plan for climate change, consider minimum flows. Appropriate money conduct studies for new instream water rights. |

## Adjudications, Water Right Records, and Permitting Guide

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Adjudications, Water Right Records, & Permitting Guide |
|---|---|---|---|---|
| OR Farm Bureau +7 | 42 | Adjudication | 2.C | Language suggests that only tribal claims are subject to adjudication. Revise to, "Individuals or tribes who claim water rights established prior to 1909 must go through a formal administrative process known as adjudication…" In the action, recommend wording the federal and tribal claims as same as individual claims. Change bullet 1 to read, "settle private pre-1909 water claims." |
| Midcoast Watersheds Council | | Adjudication | 2.C | 2017 IWRS should include acceleration of adjudication efforts, and increase staffing to accomplish this. |
| Confederated Tribes of the Umatilla Indian Reservation | | Adjudication: tribal water rights | 2.C | CTUIR's first priority is to achieve Umatilla Basin water rights settlement. |
| Oregon Water Resources Congress | | Water right records | 2.D | Updating water rights is a needed first step for any type of new fee. If the water rights fee concept is discussed in the future, updating those records would be time-consuming. OWRC would support authority to update records, if it were voluntary and partially fee-based. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Adjudications, Water Right Records, & Permitting Guide |
|---|---|---|---|---|
| Deschutes River Conservancy | | Water right records | 2.D | Updating water rights contact info helps organizations like DRC with researching and mapping water rights to improve streamflows through voluntary means. |
| Oregon Water Resources Congress | | Permitting guide | 2.E | Important to update this guide, include internal memos next time. Also create a one-stop shop style guidance document and associated web portal for water-related permitting. |
| The Nature Conservancy | 37 | Ecosystems: irrigated ag | 2(gen) | Balance the discussion of how irrigated agriculture benefits environmental health. Use the Oregon Conservation Strategy as a reference. |
| Farmers Conservation Alliance | | General | 2(gen) | FCA is implementing goals in IWRS, through modernization of irrigation systems to provide environmental benefits and agricultural benefits. When agriculture and instream demands are recognized as mutually beneficial, Oregon wins. |
| The Klamath Tribes | 37 | Out-of-stream: irrigation | 2(gen) | Perhaps be more explicit in how irrigation further contributes to watershed protection. |
| OR Farm Bureau +7 | 36 | Out-of-stream: irrigation | 2(gen) | This section doesn't mention that irrigation will expand to unirrigated lands, due to climate change, and conservation is not an option. Note that irrigation will increase across the state and across commodities. |
| Intermountain West Joint Venture | 37 | Out-of-stream: irrigation | 2(gen) | Encouraged to see the values of irrigated agriculture summarized in the draft…the values of flood-irrigated agriculture are particularly important and warrant specificity (e.g., perennial pasture and hay lands in the historical floodplain serve as surrogate wetlands). We encourage the state...to better understand total water balance, particularly in bird priority and agriculture landscapes such as the Harney, Christmas Valley/Summer Lake/Chewaucan, and Klamath Basins. See additional suggested text. (Editor's note: this letter has footnotes; text taken from other sources. Take care with citation.) |
| OR Farm Bureau +7 | 40 | Out-of-stream: satellite imaging | 2(gen) | Privacy concerns, cropping pattern datasets are deeply flawed; not appropriate for assessing compliance with water rights. Must ground-truth data, and seek permission of landowners. |
| OR Farm Bureau +7 | 44 | Out-of-stream: water budget | 2(gen) | Add back "total volume" of water use to the introduction of the document. See 2012 IWRS. Some of this discussion is in instream section, remove from this section, as it implies the undiverted water s/b protected instream. |

# Instream Flows

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Instream Flows |
|---|---|---|---|---|
| Confederated Tribes of the Umatilla Indian Reservation | | Instream | 3.A | Maintain, enhance, and prioritize commitments to quantify needed stream flows. |
| Trout Unlimited | | Instream | 3.A | Consider both base and elevated flows in water availability, consider climate change and drought. Make sure ODFW and OWRD have funding for this work. |
| Audubon Society of Portland | | Instream | 3.A | Support this action (to determine instream flow needs). These instream flow studies should assess ecological health for aquatic communities, and terrestrial species dependent on instream water usage. |
| Oregon Environmental Council | | Instream | 3.A | Quantifying instream needs and groundwater dependent ecosystems lags behind work completed on out-of-stream needs. Placing instream after out-of-stream in this chapter places natural systems as secondary. Strongly support the specific directives in the instream section. Fully funding this work should be emphasized. |
| Bierly, Ken | | Instream: elevated flows | 3.A | There is no recommendation to prioritize and conduct ecological flow needs in a systematic manner. |
| OR Farm Bureau +7 | 47 | Instream: elevated flows | 3.A | IWRS announces state's intent to pursue instream flows for elevated winter flows. Not vetted by stakeholders or discussed outside of SB839 context. Must reconcile with other competing demands during winter. |
| Karp, Cyndi | 47 | Instream: flows | 3.A | Understand Base Flows and Elevated Flows, Add: Low or drought flows. Whether low flows from over draws of available water or drought caused low flows. |
| Karp, Cyndi | 47 | Instream: flows | 3.A | Last paragraph, last sentence, add: ecosystem/water basin/watershed/ecosystem to "The state can begin studies of elevated flow needs by developing criteria to determine what is needed in each water basin/watershed." |
| Midcoast Watersheds Council | | Instream: funding | 3.A | Add to text, increased funding for instream flow studies. |
| National Audubon Society | | Instream: funding | 3.A | Increase (at least double) funding dedicated to this effort. More clearly define the need for instream demand forecasts in the face of climate change and drought. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Instream Flows |
|---|---|---|---|---|
| Engelmeyer, Paul | | Instream: funding | 3.A<br>11.B | Support funding instream flow studies, and adopting new instream water rights. Add stream gages and quantify the economic, social, and cultural value of instream uses. |
| The Nature Conservancy | 46 | Instream | 3.A<br>11.B<br>13.E | Support plans to restart filing on instream water rights. However, IWRS understates the nature and extent of instream flow protections. Include increased monitoring to ensure rights are met, agree that lack of high flow protections is a gap, and develop robust guidance on how to protect these for 839 projects. |
| Trout Unlimited | | Instream: funding | 3.A<br>11.B<br>13.E | Several funding directives are geared toward out-of-stream users. Prioritize funding for ODFW to do studies, OPRD to do scenic waterways, and projects that benefit instreams (fish passage) |
| Audubon Society of Portland | | Instream: groundwater-dependent ecosystems | 3.B | Restore language on examining the connection between groundwater ecosystem health and understanding groundwater resources (not in the 2017 draft currently). |
| Bierly, Ken | | Instream: groundwater-dependent systems | 3.B | There is no recommendation to prioritize and conduct GDE needs in a systematic manner. |
| OR Farm Bureau +7 | 49 | Instream: groundwater-dependent systems | 3.B | Not vetted or discussed by stakeholders. No mechanism exists to protect groundwater in the aquifer. Open to the discussion, but must be reconciled with other pressing data needs. |
| Lyford, Gordon | 48 | Instream: groundwater-dependent systems | 3(gen) | Darlingtonia fens in Curry county and Josephine county should be mentioned as a GDE. |
| OR Farm Bureau +7 | 46 | Instream | 3(gen) | Discuss the values the state must demonstrate when pursuing new instream water rights; remove vague language that instream water rights can exist for any ecological purpose. |
| The Klamath Tribes | 28 | Instream | 3(gen) | This section seems oversimplified. No discussion of tribal water rights (senior priority); new applications in fully appropriated basins not likely approved or junior (less meaningful). Add more information about the instream water right program. |
| The Klamath Tribes | 47 | Instream: base flows | 3(gen) | "Understanding base flows and elevated flows" section is confusing. What is this section describing? Specific flow "types" that can be protected? |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Instream Flows |
|---|---|---|---|---|
| OR Farm Bureau +7 | 46 | Instream: cold-water refugia | 3(gen) | "Partnership" is incomplete. Work being done is part of a BiOp by NMFS under the Clean Water Act. Requirements will be difficult for state and stakeholders. |
| The Klamath Tribes | 47 | Instream: elevated flows | 3(gen) | Klamath Tribes have water rights to support riparian and geomorphic function -- may need to adjust sentence regarding, "instream water rights have not been issued to protect elevated streamflows." Revise following paragraph. |
| The Nature Conservancy | 28 | Instream: water rights | 3(gen) | Map shows instream water rights, but IWRS is silent on how many streams w/ important fish populations lack instream water rights. |

## Energy and Water

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Energy and Water |
|---|---|---|---|---|
| Trout Unlimited | | Energy-water | 4.A | Include a recommendation that any energy development project considers analysis on fish and wildlife impacts. |
| Rogue Riverkeeper | | Energy-water | 4.A | Support inclusion of water energy nexus. Particularly concerned about Jordan Cove project. Would have more than 400 stream crossings. Strongly encourage agencies to comprehensively evaluate impacts of such projects. This action should be strengthened to evaluate such projects. |
| Rogue Riverkeeper | | Energy-water | 4.B | Concerned about removal of reporting both water and energy savings data. Don't make information less available, especially for publicly funded projects. |
| Trout Unlimited | | Energy-water | 4.B | Include recommendation for analysis of potential impacts to waterways and sensitive species for pumped storage projects. |
| Karp, Cyndi | 53 | Energy-water: non-traditional hydropower | 4.B | At the end of the paragraph, add: Some locations on the west coast are installing generators in municipal domestic water lines producing energy for local use and main feed lines with the ability to generate power when wanted. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Energy and Water |
|---|---|---|---|---|
| Oregon Environmental Council | | Energy-water: non-traditional hydropower | 4.B | We support this directive; helps offset energy costs and pays for water conservation projects. |
| Lyford, Gordon | 53 | Energy-water: pumped storage | 4.B | Oroville dam in California should be mentioned as an example of a large scale pump storage system. |
| Oregon Water Resources Congress | | Non-traditional hydropower | 4.B | Highly supportive of this recommended action. Half of OWRC members have implemented renewable energy projects or considering for the future. |
| Farmers Conservation Alliance | 55 | Energy-water: non-traditional hydropower | 4.B | In-conduit hydropower is often overlooked in strategic water resources planning. Support this action. Modernizing irrigation infrastructure (open canals to pipe or pressurized) results in large energy savings. Lots of potential in the Deschutes Basin. |
| Karp, Cyndi | 54 | Energy-water: savings | 4.C | Add, "through conservation." |
| League of Oregon Cities & Special Districts Assoc. | 55 | Energy-water: savings | 4.C | Expand sub-section on saving water/energy in the home to include many efforts by municipal water providers (e.g. leak detection kids, rebates, etc.). |
| Tualatin River Watershed Council | | Energy-water: savings, reuse | 4.C | Vital to expand water reuse, currently happening at golf courses/parks, potential for use in wetlands and trading water rights. |
| Wallace, Robert | | Energy-water | 4(gen) | When talking about irrigation or on-farm projects, note that often times, by saving water, we're saving energy, too. Seek out energy funding for such projects. Piping projects can also lead to hydropower generation. |

# Climate Change

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Climate Change |
|---|---|---|---|---|
| Audubon Society of Portland | | Climate change | 5.A<br>5.B | IWRS should understand the effects of climate change on streamflow, restore language to Recommended Action 5.B as well (climate change adaptation and resiliency strategies). |
| Trout Unlimited | | Climate change | 5.A | Add, "including fish and wildlife resources" when developing basin-scale hydrology and associated impacts. |
| Oregon Assoc. of Clean Water Agencies | | Climate change | 5.A<br>5.B | The state's climate change adaptation goals and strategies should be discussed. Partnering with EPA may not be reliable anymore. |
| Geisen, Rebecca | 63, 151 | Climate change | 5.B | Climate Ready Water Utilities Program under EPA has a new name: Climate Resilient Water Utilities. |
| Rogue Riverkeeper | | Climate change | 5.B | Language was removed from this action: investments in surface water/groundwater monitoring, real-time forecasting. Incorporate more on water quality impacts resulting from climate change, water quality should be better reflected this action, too. |
| Trout Unlimited | | Climate change | 5.B | Add back sections on real-time forecasting. Fully implement water rights measurement strategy. Support and fund directives that promote resiliency in fish/wildlife populations. |
| Wahl, Mary | | Climate change | 5.B | Make a serious effort to incorporate addressing climate change impacts into the IWRS. This should be a high priority, rather than a sidelined issue. |
| Hadley, Neal | | Instream, climate change, monitoring, water efficiency & conservation | 5.B<br>1.B<br>10.A<br>11.B | Douglas Co. citizen concerned about the health of waterways; provide sufficient instream flow to account for climate change; use scientific modeling tools, efficient water use, establishing instream water rights. |
| Karp, Cyndi | 59, 62 | Climate change | 5(gen) | Beavers are missing from this section - critical restoration species that can store water for climate change. Extremely disappointed beavers are not a climate change-related action. Notes several points about the value of beavers. Discusses Curl Creek, a tributary to the Salmon River, and the ecological issues associated with it, including the destruction of beaver habitat. |
| OR Farm Bureau +7 | 59 | Climate change | 5(gen) | Acknowledge that storage and conservation are the two primary methods to meet long-term demands. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Climate Change |
|---|---|---|---|---|
| Environmental Entrepreneurs | | Climate change | 5(gen) | Support. Offered additional observations to cite in the IWRS from E2's 2016 report *Oregon: Changing Climate, Economic Impacts and Policies for Our Future*. Observations address economic contribution of agriculture as well as potential economic and ecological effects of extreme events. |
| The Nature Conservancy | 46 | Climate change: cold water refugia | 5(gen) | List of adaptation strategies should be expanded to include protecting cold water refugia, connectivity, and natural infrastructure |
| OR Farm Bureau +7 | 60 | Climate change: drainage | 5(gen) | Invest in irrigation and drainage infrastructure. IWRS focuses more on urban infrastructure. Add irrigation and drainage to list of facilities that need investment for climate adaptation. |
| The Nature Conservancy | 63 | Climate change: ecological resiliency | 5(gen) | Lots on the topic of ecological resiliency, expand on this topic. TNC can assist with this gap. |
| Conte, Frank | | Climate change: Lake Abert | 5(gen) | Draft lacks material on Lake Abert; include us on any education and information in the future. |

## Extreme Events (Droughts, Floods, Earthquakes)

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Extreme Events |
|---|---|---|---|---|
| Bierly, Ken | | Drought | 5.5A | Recommended actions are passive. Add some clear action that can be accomplished to further manage water in Oregon to address the reality and certainty of future drought conditions. |
| OR Farm Bureau +7 | 66 | Drought | 5.5A | Add caveat that federal drought funds did not cover all losses suffered by producers. Explain difference of state and federal declaration/designation process. |
| Oregon Water Resources Congress | | Drought | 5.5A | Need greater focus and work around drought resiliency. Agree w/ improving drought-related data; quantifying economic impacts, better communication, and voluntary streamflow restoration. Provide $ for conservation, piping, and small storage projects; invest in small collaborative projects. More time should be afforded to long-term drought resiliency. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Extreme Events |
|---|---|---|---|---|
| The Nature Conservancy | 63 | Drought | 5.5A | Snowmelt is important for groundwater recharge, too. Please add. |
| The Nature Conservancy | 68 | Drought | 5.5A | What is this response plan you speak of? Add a brief description. |
| Karp, Cyndi | 65 | Drought | 5.5A | Fishing-related impacts, note that fish mortalities occurred across many species, including coastal Coho. |
| Engelmeyer, Paul | | Drought | 5.5A | Endorse direction of developing a new strategy to deal with drought resiliency. Must understand current conditions of water tables, flows, and needs for fish. The 2017 draft does not adequately establish and protect flows for fish. |
| Deschutes River Conservancy | | Drought | 5.5A | Strongly support this action. Flexibility in streamflow restoration is key to minimizing drought impacts. Support OWRD's willingness to allow innovation in adopting implementation policies. Several suggestions: establish an emergency drought fund; allow multiple uses within the same season (w/ water use measurement); allow a split-duty. |
| Rogue Riverkeeper | | Drought | 5.5A | Supportive of this action. Include more information on water quality impacts from drought, to both communities/ecosystems (results of low flows/increased temperatures). Strategies in IWRS should specifically target fish and wildlife impacts. |
| Trout Unlimited | | Drought | 5.5A | Include specific actions and funding directives to assist fish and wildlife drought resiliency. TU offers 6 bullets to include for this action (planning for F&W, incentives, emergency measures -- temporary minimum flow requirements, cold water refuges, investments in water conservation, require BMPs for irrigation systems (e.g., fish screens, headgates, monitoring). |
| Oregon Environmental Council | | Drought | 5.5A | Incorporate extreme events (e.g., drought) is an important step. Unfortunately, neither the PAG nor the Drought Task Force were able to develop clear guidelines for addressing minimum flows on ecologically significant streams during drought conditions, leaving a significant gap. |
| National Audubon Society | | Drought | 5.5A | Strengthen and clarify 5.5A to include mitigation plans that address and protect instream flows for wildlife and habitat, including minimum flows/levels on ecologically significant streams and lakes. |
| Midcoast Watersheds Council | | Drought | 5.5A | Oregon is already experiencing extreme drought and floods. Add drought provisions to IWRS that set minimum flows on ecologically important streams. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Extreme Events |
|---|---|---|---|---|
| Midcoast Watersheds Council | | Drought | 5.5A | Create a framework for protecting and restoring fish and wildlife resources in post-wildfire landscapes, e.g., temporary restrictions for withdrawals, modification of reservoir management rules, temporary restrictions on groundwater use. |
| OR Farm Bureau +7 | 68 | Drought: storage | 5.5A | Include storage in the drought planning section. Important for building resiliency. |
| Regional Water Providers Consortium | | Drought, earthquakes | 5.5A<br>5.5C | Support for adding this topic. 2015 drought was important learning experience. Specifically support improved communication, coordination and outreach. Addressing Cascadia earthquake supports RWPC work with the Oregon Resilience Plan. |
| Oregon Water Utilities Council | | Drought, earthquakes | 5.5A<br>5.5C | OWUC members worked closely…to share information and potential solutions to drought-related issues. OWUC has long been supportive of increased preparation and planning for the Cascadia Subduction event…also drought resiliency and natural disaster preparedness. |
| Bierly, Ken | | Floods | 5.5B | Ignores the federal lawsuit settlement over interaction between FEMA regulations and ESA protections. Include a commitment to comply with the Biological Opinion and accomplish the required outcomes. |
| Karp, Cyndi | 70 | Floods | 5.5B | Notes that the Hatfield Marine Science Center and USGS have some river level and gage data in the mid-coast area. |
| Oregon Water Resources Congress | | Floods | 5.5B | Supportive of this action. Flooding impacts require greater coordination (e.g. stormwater runoff). Funding for planning and implementing locally driven solutions needed. |
| Lyford, Gordon | 69 | Floods | 5.5B | Figure 3-8 on atmospheric rivers should be updated to a 2016 example. |
| The Nature Conservancy | 69 | Floods: coastal | 5.5B | Include a statement on how coastal flooding interacts with riverine flooding. |
| OR Farm Bureau +7 | 73 | Floods: drainage | 5.5B | Add drainage and irrigation infrastructure, investing in ditches, pumps, levees, tide gates to the discussion of flood risk and the recommended action. |
| The Nature Conservancy | 70 | Floods: ecological benefits | 5.5B | Includes ecological benefits of flooding -- river bed scouring, movement of large wood, other channel forming processes. |
| The Nature Conservancy | 70 | Floods: understanding risk | 5.5B | Future precipitation estimates should also include climate change projections. DLCD is currently working on a coastal vulnerability assessment related to infrastructure and climate change. |
| The Nature Conservancy | 69 | Floods: understanding risk | 5.5B | Use a more inclusive term such as "loss of forest cover" in sentence, "Oregon should research how changes in land use…" |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Extreme Events |
|---|---|---|---|---|
| Karp, Cyndi | 69 | Floods: understanding risk | 5.5B | Add concept that clear-cut timber harvesting with the use of chemicals adds to flood and landslide risk. This fact has been determined by the Federal Courts. |
| Schab, Rob | | Earthquake | 5.5C | Like the new addition of earthquakes; the significance of an 8.0+ earthquake should not be underplayed. See excerpt from the Oregon Resiliency Plan -- most intervals are shorter than 313 years -- consider including excerpt information regarding cited probabilities of occurrence in the next 50 years. |
| Karp, Cyndi | 72 | Earthquake | 5.5C | In heavy septic systems area, discharge loads the underground surface water causing higher rates of landslide failures and liquefaction. For instance, south of Beverly Beach area, north of Newport. |
| Oregon Water Resources Congress | | Earthquake | 5.5C | Many irrigation districts are thinking about earthquakes. Retrofits are cost prohibitive, funding from multiple entities is needed. In addition to reservoirs, delivery systems are also at risk. |
| Confederated Tribes of the Umatilla Indian Reservation | | Extreme events | 5.5(gen) | Support enhanced planning for extreme events. Concerned that recommendations will be weakened by data, funding, and staffing gaps. |
| Tualatin River Watershed Council | | Extreme events | 5.5(gen) | Vital to plan for droughts, flood, and earthquakes. |

## Land Use and Water

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Land Use and Water |
|---|---|---|---|---|
| Oregon Environmental Council | | Land use: state agency coordination | 6.B | Support increased emphasis on state agency coordination. IWRS should define the "next step" to further implement land-use goals related to water. Ensure communities plan for growth based on available water supply. Development should protect natural hydrology, encourage compact development, promote stormwater and wastewater integration. |
| Karp, Cyndi | 78 | Land-use: state agency coordination | 6.B | Which two agencies have updated their state agency coordination plans? Identify in text. Note that SB 815 (2017) did not pass out of committee. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Land Use and Water |
|---|---|---|---|---|
| Oregon Water Resources Congress | | Land use: state agency coordination | 6.B | Agree, agencies should coordinate, especially on water-related permitting processes. Need better communication to stakeholders on coordination that's occurring and ways to engage. |
| Oregon Assoc. of Clean Water Agencies | | Land use: state agency coordination | 6.B | Discuss how SACs are updated regularly, since they haven't been updated since 1990, except 2. |
| Tualatin River Watershed Council | | Land use: state agency coordination, funding state agencies | 6.B<br>13.B | Important that state agencies "remain at the table" for IWRS implementation. |
| Rogue Riverkeeper | | Land use: low impact, green infrastructure | 6.C | Strongly support prioritizing green infrastructure. Provide details on "how to improve local capacity." |
| Tualatin River Watershed Council | | Land use: low impact | 6.C | Low impact development and green infrastructure are important in the Tualatin Basin. Important component of the new Design and Construction Standards promulgated by Clean Water Services. |
| Oregon Environmental Council | | Land use: natural infrastructure | 6.C | Support the endorsement of natural infrastructure. |
| Engelmeyer, Paul | | Land-use: low impact, green infrastructure | 6.C | Support the concept of green infrastructure and low impact development. Sharing information about updated codes and natural infrastructure are important to share. Share examples or success stories from other regions to help develop these newer concepts. |
| Karp, Cyndi | 78 | Land-use: low impact/green infrastructure | 6.C | Broken hyperlink for the Western Oregon guide. |
| Farmers Conservation Alliance | 79 | Low impact development/green infrastructure | 6.C | Support this action. |
| Lyford, Gordon | 18 | Land subsidence | 6(gen) | Land subsidence should be mentioned from groundwater over-drafting, such as in California's San Joaquin valley. |
| Engelmeyer, Paul | 74 | Land use: goals | 6(gen) | Statewide goals are excellent, but existing rules are inadequate to protect water quality. |
| Karp, Cyndi | 73 | Land-use | 6(gen) | Identify superfund clean-ups and monitor outputs for contamination |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Land Use and Water |
|---|---|---|---|---|
| OR Farm Bureau +7 | 75 | Land-use: NFIP | 6(gen) | Discussion of FEMA biological opinion on the flood insurance program should include mention of pending lawsuit, and its potential impact. |
| OR Farm Bureau +7 | 74 | Land-use: goals | 6(gen) | Add goals 3 and 4 to discussion |
| Klock, Clair | | Rainwater harvesting | 6(gen) | Support new editions; missing rainwater harvesting, commenter provides various benefits, helps support resiliency to drought, floods, earthquakes. |

## Infrastructure

| Commenter | Pg. | Topic or Section | Rec. Action | Comment Summary: Infrastructure |
|---|---|---|---|---|
| Rogue Riverkeeper | | Infrastructure | 7.A | Support action to update infrastructure systems, concerned this revised action narrows the scope of properly abandoning infrastructure to only wells. Should also include dams. Discuss different types of infrastructure, beyond dams and wells. |
| Farmers Conservation Alliance | 81 | Infrastructure | 7.A | Support this action. |
| The Nature Conservancy | 81 | Infrastructure: levees | 7.A | Include discussion of usefulness of levees, some may not be used, and could be removed. |
| The Klamath Tribes | 81 | Infrastructure: levees | 7.A | Should note that levees have substantial impacts on riverine and riparian function. Removing levees are high priority restoration actions. Should encourage the removal of non-essential levees based on ratio of harm to river/floodplain process. New levee construction should be carefully considered. See Willamette Partnership for background materials. |
| Bierly, Ken | | Infrastructure: levees | 7.A | Connect levees to concerns about coastal flooding. Include in 7A an action such as "evaluate appropriate locations to remove or set back levees to alleviate coastal and stream flooding." |
| Oregon Assoc. of Clean Water Agencies | | Regional approaches | 7.B | ACWA can be a key partner in building educational opportunities. |

| Commenter | Pg. | Topic or Section | Rec. Action | Comment Summary: Infrastructure |
|---|---|---|---|---|
| Karp, Cyndi | 85 | Public safety: dam safety | 7.C | OWRD Director should make a direct request to legislators to write a bill to fix the dam breach with high risk to safety. Legislators should provide protection by directing OWRD to monitor, with authority, to take immediate action. |
| Bierly, Ken | | Public safety: dam safety | 7.C | Incorporate fish passage needs along with discussion of catastrophic failure. Add to 7C "Ensure fish passage in proposals to retrofit dams for safety upgrades." |
| Oregon Water Resources Congress | | Public safety: dam safety | 7.C | Agree that OWRD should work with dam owners to bring dams up to current seismic safety standards. Would support a grant/loan programs for seismic rehab of unsafe dams. |
| Rogue Riverkeeper | | Public safety: dam safety | 7.C | Support this action, aligns well with our other comment on abandoning outdated infrastructure. Support the modernization of dam safety laws. Recommend pursuing authorities regarding dam removal for unsafe or outdated dams. Support development of a grant/loan program to address deficient dams. |
| The Nature Conservancy | 85 | Public safety: dam safety | 7.C | Evaluate utility of dams, remove if no longer needed and poses a connectivity problem. |
| Farmers Conservation Alliance | 85 | Public safety: dam safety | 7.C | Support this action as equally important to 6.C, 7.A, 13.E. |
| Tualatin River Watershed Council | | Public safety: dam safety | 7.C | Dam safety is a vital topic in the Tualatin Basin. Safety and resiliency are important for jobs and tax base. |
| League of Oregon Cities & Special Districts Assoc. | 62 | Infrastructure | 7(gen) | Agree that significant infrastructure investments must be made. The state will need to provide significant additional funding to fill a $9 billion infrastructure need. |
| OR Farm Bureau +7 | 79 | Infrastructure: irrigation | 7(gen) | Add drainage infrastructure to list of irrigation-related infrastructure. |

# Education and Outreach

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Education and Outreach |
|---|---|---|---|---|
| Karp, Cyndi | 87 | Education | 8.A | More funding is needed, so every Oregon child can attend Outdoor School and the Children's Clean Water Festival. |
| OR Farm Bureau +7 | 90 | Education | 8.C | Any water education talk should talk about all water needs, add a bullet to the action stating, "discuss importance of needs in each sector and of collaborative decision-making in resolving conflicts and balancing those needs." |
| Rogue Riverkeeper | | Education | 8.C | Education tools for professionals are critical. Provide more education/training on conservation tools (e.g., Conserved Water Act), instream water rights, transfers, leases, etc. Include water quality tools, too. |
| Oregon Assoc. of Clean Water Agencies | | Education | 8.D | Include local agencies in research process. |
| Wallace, Robert | | Education | 8(gen) | Education is needed in many topic areas -- water rights (OWRD should carry out an education series) -- funding, a moving target where few people understand how to navigate the multitude of funding resources -- best practices -- share info on successful practices in Oregon and neighboring states, information on strategies that are working, new technology. |
| Karp, Cyndi | 51 | Education: conservation | 8(gen) | Add a new recommended action to this section about water conservation: "8.E Plan and Implement Outreach for Statewide Water and Energy Conservation program." |
| Bonneville Environmental Foundation | | Education: public engagement | 8(gen) | Oregon desperately needs an accessible, outward facing communications platform for sharing data, trends, and policy information. WRD is best situated to fulfill this role, must be reflected as a priority in IWRS. Consider a full section on develop a comprehensive public communications strategy. |
| Karp, Cyndi | 90 | Education: water conservation | 8(gen) | Include water conservation somewhere on this page. |

## Place-Based Planning, Coordination, & Partnerships

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Place-Based Planning, Coordination, & Partnerships |
|---|---|---|---|---|
| Reiter, Maryanne | | Place-based planning | 9.A | Participate in Mid-Coast planning, represent a large forest landowner. Experience has been positive and refreshing, compared to Mid-Coast TMDL process. Suggest providing more foundational science on hydrology. |
| Karp, Cyndi | 97 | Place-based planning | 9.A | Add: household to "out of stream interests (agriculture, municipalities, industry)." There are a few number of individuals that draw water directly from waterways for household use. |
| Karp, Cyndi | 98 | Place-based planning | 9.A | For place-based planning to work, agencies are required to know the laws/regulations to make it work. There is also an advantage for agencies to request legislative changes -- financial or legal. It takes all of the parties working together in collaboration to get planning to work. It is absolutely necessary that multiple state agencies and legislators be involved in the place-based planning. Without all of us working together in collaboration, there would be in-fighting and failure of our goals. |
| DeLorenzo, Suzanne | | Place-based planning | 9.A | The issues described--extreme events, dam safety, groundwater, and investing in regional and local planning can all fall under the place-based planning umbrella, if encouraged and warranted. The emphasis on place-based planning is a welcomed addition… program must be properly funded, nurtured, and developed. |
| DeLorenzo, Suzanne | | Place-based planning | 9.A | Without financial and technical assistance, most projects started will become unsustainable. A primary focus should be not only success of current planning efforts, but sustaining programs that can build a place-based culture for water management statewide. Sustainable funding seems to be an issue facing most planning groups -- how will OWRD help? |
| Bierly, Ken | | Place-Based Planning | 9.A | PBP is an important trial effort that deserves support to ensure there are outcomes that can be evaluated. |
| Merchant, Deb | 97 | Place-based planning | 9.A | Challenges facing communities, if you can, please include land-use practices. I'm willing to bet that land use development is having an impact on water resources. |
| Merchant, Deb | 99 | Place-based planning | 9.A | Just a question: Does OWRD have ideas about private sector entities? Can you name a few types of entities? |
| Merchant, Deb | 97 | Place-based planning | 9.A | Include NGOS or least watershed councils in your list of pilot planning groups. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Place-Based Planning, Coordination, & Partnerships |
|---|---|---|---|---|
| Bonneville Environmental Foundation | | Place-based planning | 9.A | Continue, if not increase, investment in place-based planning. Need the time and resources to come together to devise workable approaches. |
| Midcoast Watersheds Council | | Place-based planning | 9.A | Mid-Coast is a place-based planning partner. Process is promising and substantive. IWRS should include an analysis of 4 pilots and how it can be improved for other communities. Initial funding for the planning areas in inadequate -- report this (the actual costs) to Oregon Legislature and request add'l appropriations. Mid-Coast efforts appear to be too rigid, front-loaded with logistics and bureaucratic efforts. Differing levels of expertise. Embark immediately on educational activities for those w/ less expertise. Need add'l flexibility to response to outside collaborations and opportunities. |
| Oregon Water Resources Congress | | Place-based planning | 9.A | Hopeful of place-based planning, remain interested in four planning efforts. ODFW needs to be at the table if instream water rights are contemplated in these areas. |
| Deschutes River Conservancy | | Place-based planning | 9.A | DRC currently coordinates the Deschutes Basin Study; strongly support place-based planning. As a participant in PBP, we understand the importance of building collaboration with diverse interests. Consider developing accountability standards to ensure planning groups represent all water interests. State may need to consider playing the role of convenor, in certain circumstances. Provide flexibility to identify solutions -- at this planning step, bring in OWRD policy representation to help guide solutions that comply with state water law/policy. PBP cannot happen without state contribution -- financial and technical. Prioritize funding for this, and find ways to contribute additional resources. |
| Rogue Riverkeeper | | Place-based planning | 9.A | Support place-based planning that addresses water quantity and water quality. Fully evaluate the pilot projects before committing to continue funding. Seek input from stakeholders, not just communities. |
| The Nature Conservancy | | Place-based planning | 9.A | Supportive and engaged in place-based planning; maintain support for the four planning areas, and continue to build this approach as a solution to water issues. |
| Trout Unlimited | | Place-based planning | 9.A | Add language stating that pilots will be assessed prior to recommending further investment in the program. |
| Oregon Environmental Council | | Place-based planning | 9.A | IWRS should call on an evaluation of the effectiveness of planning efforts, particular environmental benefits, before investing in additional place-based plans. |
| Oregon Environmental Council | | Place-based planning | 9.A | Impressive progress has been made on place-based planning. Glad to see funding and technical assistance has been maintained. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Place-Based Planning, Coordination, & Partnerships |
|---|---|---|---|---|
| Sharp, Pat (Sharp Ranches) | | Place-Based Planning | 9.A | Participating in place-based planning in Harney Co. Without funding from OWRD, our efforts would have stalled. Technical assistance is equally important. Our planning coordinator, Harmony, is invaluable. This position is critical to the success of the process. Place-based planning means OWRD has the potential to be viewed as a partner, rather than an adversary or regulator. Planning is not a short-term commitment, and must be an integral part of the IWRS. |
| Wallace, Robert | | Place-based planning | 9.A | Support place-based planning and look forward to working with partners. It can improve integrated planning and keep decisions local. Some concerns about process: ensure there is structure and trained facilitators (follow the forest collaborative model); need key technical people (could be state staff, or local groups); funding -- to make sure the plan itself is successful, and to carry out its actions. Check out OEC's *Making Water Work* report (useful for place-based planning). |
| Collin, Will | | Place-based planning | 9.A | Place-studies are the next evolution of truly effective environmental policies and processes. The most effective and practical environmental problems are solved in a place. |
| Martin, Curtis | | Place-based planning | 9.A | Place-based planning is one of the most positive and beneficial aspects to come out of the overall IWRS. |
| Martin, Curtis | | Place-based planning | 9.A | Place-based planning will utilize local knowledge, experience and wisdom of stakeholder entities, helping us address current and future needs. It's the absolute correct approach. It really has the capacity to positively address water management strategies, when you combine the goals of the community with agency expertise. To meet multiple beneficial needs, environmental and economic, it is not a zero sum game. |
| Martin, Curtis | | Place-based planning: diverse interests | 9.A | Notes that all interests must be recognized, with the honest belief that if discussions are straightforward, done with integrity and respect, we can collaborate to advance solutions that will revitalize our rural communities, sustain our economy and enhance environmental aspects we enjoy. |
| Martin, Curtis | | Place-based planning: support | 9.A | Please continue your whole-hearted support of the place-based planning efforts. |
| Collin, Will | | Place-based planning | 9.A | The approach relies on basic principles of community planning, building a collaborative and inclusive process (a strength of the approach). |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Place-Based Planning, Coordination, & Partnerships |
|---|---|---|---|---|
| Collin, Will | | Place-based planning: collaboration | 9.A | Notes that Place-based planning is a practical, action-oriented process. Includes a communication strategy, governance agreement, and a workplan for laying out immediate next steps. Oregon's approach to collaboration is one of the most practical approaches in the United States. |
| Collin, Will | | Place-based planning: funding | 9.A | Place-based planning costs money, but it is money well spent if the goal is to solve environmental problems without litigation. Litigation and the judicial process are awkward, expensive, and do not solve public policy issues of environmental conflict, especially water. |
| Collin, Will | | Place-based planning: local knowledge | 9.A | An advantage of including the local community is local knowledge. |
| Collin, Will | | Place-based planning: information | 9.A | Has a goal of developing strategies to fill information gaps, facilitating the incorporation of land use, climate change, and population growth -- no other policy of environmental decision making does this, a reason why solving conflicts have been ineffective. |
| Collin, Will | | Place-based planning: facilitation | 9.A | Identifying and prioritizing solutions to meet multiple water needs is sorely needed in water resources decisions. This will require experienced facilitation, which is an expense. |
| Collin, Will | | Place-based planning: Commission | 9.A | The Water Resources Commission, along with other agencies, play a role in place-based planning, an important check of any concerns regarding depleting the resource. |
| Collin, Will | | Place-based planning: costs | 9.A | Overall costs to the state and community for practical environmental policy will be less than the multiple agencies with conflicting missions, unfunded mandates, and litigation. |
| Collin, Will | | Place-based planning: lessons learned | 9.A | Very important that place-based planning efforts are evaluated to share lessons learned, best practices, and additional guidance. |
| Walters, Denise | | Place-based planning | 9.A | Integrated water management is essential, place-based planning is critical --it will greatly improve outcomes. Hard work of OWRD staff is evident in draft strategy and greatly appreciated. |
| Association of Oregon Counties | | Place-based planning | 9.A | Pleased that draft continues support for innovative, locally-based programs, such as place-based planning and grants for feasibility studies. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Place-Based Planning, Coordination, & Partnerships |
|---|---|---|---|---|
| Anonymous #3 (UGR member) | | Place-based planning | 9.A | Comments centered on place-based planning in Upper Grande Ronde – need information on groundwater (gw-sw interactions), water use, plan for "seven generations," state should invest in science communication, professional facilitators. |
| BeCraft, Rianne | | Place-based planning | 9.A | Support place-based planning, prioritize technical assistance; include a brief explanation of how OWRD plans to share lessons learned and success stories, include evaluation of the program; how are groups addressing groundwater? Suggest adding language. |
| Huffman, Rodger (UGR planning member) | | Place-based planning | 9.A | Place-based planning needs a balanced approach; focus should be on water storage; restated -- focus the effort on new unallocated water opportunities. |
| Kalakay, Denise | | Place-based planning | 9.A | Support place-based planning; eager to initiate it in the Willamette headwaters; helps with resource complexities and regional issues to support common purpose. Such efforts can achieve efficiencies and ensure effectiveness; address multiple benefits for multiple entities and programs. Strategies geared around state funding and technical assistance are critical to achieve successful planning efforts. |
| City of Toledo | 96 | Place-Based Planning | 9.A | Use PBP funding efficiently to create a local, integrated plan. Locally-led isn't working in the Mid-Coast; bring us excellent, trained facilitators who can include everyone's--including the public's--perspective. Use already-existing studies and plans. |
| Oregon Water Utilities Council | | Place-Based Planning | 9.A | OWUC has been long supportive of efforts to fund the place-based planning initiative. OWUC supports water-planning efforts in the statewide strategy to manage water resources, while preserving the ability of water providers to respond and plan at the local level. |
| Upper Grande Ronde Partnership | | Place-based planning | 9.A | Funding and technical support to plan and implement projects and agency transparency are important to our community. To be successful, OWRD staff need to include technical assistance to planning groups as part of their workload. Appreciate peer-to-peer learning (e.g., May 2017 event in Bend). Currently developing our "water story." OWRD should help us make sure our plan is meaningful, and avoid just sitting on the shelf. |
| Upper Grande Ronde Partnership | | Place-based planning | 9.A | The state should focus its resources on testing out potential policies and providing funding to carry out selected improvements. |
| Pattni, Jitesh | | Place-based planning | 9.A | Encouraged by place-based planning process on coast. A true collaborative is unfolding. Looking forward to continued participation and implementable outcomes. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Place-Based Planning, Coordination, & Partnerships |
|---|---|---|---|---|
| Plybon, Charlie | | Place-based planning | 9.A | Participating in place-based planning in Mid-Coast; strongly supportive of underlying philosophy. Should define values first, rather than jumping to issues. Spend some time collecting data on social values, and more time gathering technical data. This can help establish common ground. |
| Harney County Commission and Harney County Watershed Council | | Place-based Planning | 9.A | We trust in our community (Harney County) to complete this important (place-based) plan. The five planning steps may need to take place simultaneously, not sequentially. Flexibility with implementation (e.g., re-visit basin rules) and legislative funding will be crucial for success. Facilitation and project coordination are also a challenge; need the state's help. |
| Collin, Will | | Place-based planning: environmental justice | 9.A | Commenter provided three reports as part of his comments, (1) "Unintended impacts of Redevelopment and revitalization in Five Environmental Justice Communities," (2) Best Practices Handbook developed by the Environmental Justice Task Force, and a (3) law review of Environmental Justice in Oregon, written by the commenter. Note: reports available upon request. |
| Karp, Cyndi | 98 | Place-based planning: challenges | 9.A | Add forest fires to, "the need has been intensified by five consecutive years of drought, recent floods, and aging infrastructure." |
| Karp, Cyndi | 98 | Place-based planning: data | 9.A | In the section regarding the lack of information/knowledge: Add: there are many sources of data, including multiple state agencies, watershed councils, NGO's, and local agencies. |
| Collin, Will | | Place-based planning: Environmental justice | 9.A | One of the many strengths of environmental justice is community, a similar strength of place-based planning. Strongly suspect that the rural and urban planning efforts will have environmental justice issues. |
| Wisner, George | | Place-based planning: Alpine groundwater | 9.A | Difficulty defining our "place" with the context of a groundwater aquifer. Alpine area, and the underlying aquifers experience differing levels of water scarcity during dry months. Defining "place" isn't well defined in the IWRS. |
| Lee, Evelyn | | Place-based planning: Alpine groundwater | 9.A 11.E | Concerned about groundwater issues in domestic areas in the Alpine area; not sure how place-based planning can help; what's our "place?" Rural area, no industry, not much in terms of local governments, watershed council, etc. Seeking opportunities to engage and educate citizens. Working on monitoring with OWRD staff. Development pressures are of concern. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Place-Based Planning, Coordination, & Partnerships |
|---|---|---|---|---|
| OR Farm Bureau +7 | 96 | Planning-principles | 9.A | Adjust the place-based planning principles on Pg. 96, to state, "utilize OWRD funding to focus on meeting water supply needs" and "avoid duplication with other state and federal funds authorized or used by other agencies." |
| Upper Grande Ronde Partnership | | Place-based planning: field presence | 9.A 10.F | Support the action geared toward increasing field presence. Appreciate our local staff from OWRD, and would encourage collaboration with field staff from other agencies. |
| Tualatin River Watershed Council | | Place-based planning | 9.A 13.C | Place-based planning/local/regional planning is of extreme value to Tualatin Basin and residents for meeting our future water supply needs/uses. It's an effective strategy, would like to see the IWRS provide further opportunities to involve local stakeholders in identifying and evaluating future water resources needs. Urge OWRD to provide future funding to further this creative approach. |
| Merchant, Deb | 99 | Coordination: natural resources plans | 9.B | Adjust last sentence to, "state should dedicate financial and human resources for implementing actions…" |
| Merchant, Deb | 99 | Coordination: natural resources plans | 9.B | The implementing actions (the bullets) aren't detailed, just a reiteration of the Recommended Action |
| Bierly, Ken | | Partnering with feds, tribes, states | 9.C | Upland areas in Oregon are managed by the federal government. Ensuring water management plans are reflective the consequences of land management practices will require a level of coordination not often available, given staffing limitations and agency responsibilities. |
| Merchant, Deb | 101 | Partnering with feds, tribes, states | 9.C | Way too much in this action -- may not be realistic. Partnering with neighbors and tribes is just too soft to address critical issues (tribal issues, unresolved claims, adjudications). |
| Karp, Cyndi | 101 | Partnering with feds, tribes, states | 9.C | In the first paragraph add the concept that both the US and Canada should work together for fish passage on all dams for native species. There are hundreds of miles of fish habitat that could be recovered for native species. |
| OR Farm Bureau +7 | | Agency coordination | 9(gen) | Provide stronger sideboards on agency coordination to avoid duplicative funding sources, cross-pollination of agency missions, and conflicting regulatory requirements. E.g., place-placed planning – water quality or ecosystem services alone are outside the scope of this grant program, not appropriate for OWRD to fund. |

## Water-Use Efficiency and Conservation

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Use Efficiency and Conservation |
|---|---|---|---|---|
| Anonymous #5 (postcard) | | Water conservation | 10.A | Water conservation is inexpensive; develop good website, use PSA's, get citizens equipped before an emergency. |
| Karp, Cyndi | 10 | Water conservation | 10.A | IWRS notes five new areas to this version. Need to add water conservation to mix. |
| Wahl, Mary | | Water conservation | 10.A | Missed opportunities such as considering water conservation as an integral part of any request for out-of-stream use, especially in agricultural operations….Conservation not seriously considered in the PAG deliberations. |
| Karp, Cyndi | 102 | Water conservation | 10.A | Add a section on water conservation within industries. Regarding industry need to conserve water. Examples: paper mills could recycle water, hotels/motels could conserve by reducing linen washing and using grey water to water landscaping plants. |
| Karp, Cyndi | 102 | Water conservation | 10.A | In the 6th paragraph, add after land management techniques, such as" xeriscaping and removal of grass." Also add, after the sentence "watering landscapes and plant when temperatures are cooler..." install drip irrigation for shrubs and plants and grey water use. |
| Oregon Environmental Council | | Water conservation | 10.A | Add back the deletion of "prioritizing agricultural water use efficiency." |
| Trout Unlimited | | Water conservation & efficiency | 10.A | Add back: statewide conservation potential assessment, prioritize ag water use efficiency. |
| Rogue Riverkeeper | | Water conservation & efficiency | 10.A | Concerned that the concept of prioritizing ag water use efficiency was removed from the IWRS. Include this. Add back the concept of doing a statewide water conservation potential analysis. |
| Oregon Environmental Council | | Water conservation | 10.A | A concerted outreach/education effort around the state's forfeiture law and the Allocation of Conserved Water is warranted. Add "outreach" to this action. |
| Engelmeyer, Paul | | Water conservation & efficiency | 10.A | Develop transitional programs for agriculture and industry to improve efficiency and conservation. |
| The Klamath Tribes | 103 | Water conservation & efficiency | 10.A | Does the state have an outreach strategy related to the Conserved Water Program? If not, develop one. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Use Efficiency and Conservation |
|---|---|---|---|---|
| Farmers Conservation Alliance | | Water conservation & efficiency | 10.A | This action aligns with FCA's vision on irrigation modernization. New tools for irrigated agriculture could help achieve our goals. Non-regulatory alternatives (Action 10.D) are successful approaches, based on experience. |
| Midcoast Watersheds Council | | Water conservation & efficiency | 10.A | Re-affirm priorities on efficient water use within agriculture. This point should link to water use reporting and adopt, if necessary, use-specific and basin-specific efficiency standards for major users. Commenter makes several standard suggestions for agriculture and municipalities. Also need to address efficiency within industry, focus on water-intensive industries (e.g. food processing, paper manufacturing). Consider periodic efficiency reviews, and rate structures. |
| Karp, Cyndi | 104 | Water conservation: planning | 10.A | Municipalities can conserve great amounts of water with management of water and wastewater facilities. |
| National Audubon Society | | Water efficiency: agriculture | 10.A | Expand 10.A to include efforts to assist with basin-wide efficiencies, particularly applying ag efficiencies to instream flow at the basin-wide scale. |
| Bierly, Ken | | Water efficiency & conservation | 10.A | Develop policy and incentives such as the purchase of "water entitlements" or developing "sustainable diversion limits" to reduce demand through efficiency. |
| The Nature Conservancy | | Water efficiency & conservation | 10.A | Water use efficiency, with a focus on irrigated agriculture, is mentioned in several places in the IWRS (4.C, 5.B, 10.A). In addition to benefits to agriculture, consider benefits to freshwater ecosystems. Irrigation systems can lead to an actual increase in consumptive use, with no benefits to rivers. IWRS should talk about environmental outcomes. |
| The Klamath Tribes | 103 | Water efficiency: return flows | 10.A | Lack of return flows is reflected as a negative consequence, although in the Klamath, reducing return flows is a high priority due to it contributing major sources of nutrient, sediment, and thermal loading. Listed as a desired activity in the TMDL. Reword this sentence, or add some potential benefits from a water quality standpoint. |
| Deumling, Sarah Comment 1 | | Water conservation & efficiency, storage | 10.A 10.B | Water is most importance resource; support funding all water conservation/management projects generously. Concerned about waste. Favor public campaigns & incentives to encourage thriftiness. Fund water storage projects to address climate change. Personally, very conservative in water use (> 5 gallons/day). |
| Remington, Jack | | Water efficiency; instream (demand forecast) | 10.A 2.A | The waste of water in canals and farm fields should be eliminated with efficient distribution systems. Water need forecasts should include recreation uses (swimming, boating, fishing) and needs for water quality, fish and wildlife. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Use Efficiency and Conservation |
|---|---|---|---|---|
| Fenner, James | | Water conservation & efficiency, water user, instream use, drought | 10.A<br>2.B<br>11.B<br>5.5A | Use water wisely and efficiently; measure/report/control water use; set instream water rights in all streams, rivers, wetlands; drought provisions that set adequate minimum flows on all ecologically significant streams. |

## Built Storage

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Built Storage |
|---|---|---|---|---|
| Karp, Cyndi | 108 | Storage | 10.B | In the "Identifying non-traditional storage sites section, note that there are possible storage sites available above waterfalls with the right terrain for storage. Other areas that are too steep for fish to migrate, but have an upper valley for water storage. There are some native fish species in upper regions, so caution should be used. |
| OR Farm Bureau +7 | 109 | Storage | 10.B | Reservations -- includes pending applications. |
| OR Farm Bureau +7 | 107 | Storage | 10.B | Acknowledge the role of the state in the Willamette reallocation, including work of state agencies, including ODA. |
| Farmers Conservation Alliance | 109 | Storage | 10.B | FCA supports this action as equally important to 6.C, 7.A, 13.E |
| Sarna, John | 107 | Storage: Willamette re-allocation study | 10.B | Suggest adding the second, action-oriented, strategic goal, "to examine whether operational changes or modifications in the storage allocation from the Willamette Valley Project reservoirs would better serve present and future water needs in the basin," as copied from: State of Oregon, Willamette Basin Review Study Project Update, dated February 10, 2017. |
| OR Farm Bureau +7 | | Storage: water quality | 10.B<br>12.B<br>12.C | Storage can and should play an important role in improving water quality (increased summer flows, and underground storage, for example). |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Built Storage |
|---|---|---|---|---|
| OR Farm Bureau +7 | | Storage, infrastructure | 10.B 7(gen) | Appreciate time/effort; generally agree with key issues in 2012 IWRS and 2017 draft IWRS. Like to see stronger focus on investment in storage capacity and infrastructure. Stronger sideboards on agency coordination. Provided several detailed comments, as possible useful improvements to IWRS. |
| OR Farm Bureau +7 | | Storage | 10.B others | Emphasize storage as a primary means to address growing demands, emphasize this across program areas. |
| OR Farm Bureau +7 | | Storage, infrastructure improvement | 5.A 5.B 7.A 13.E | Add, "support increased investment in development of additional storage capacity and infrastructure improvements for water systems to recommended actions on: climate change research (5.A), climate adaptation (5.B), drought resiliency (5.5A), water and wastewater infrastructure (7.A), funding for water projects (13.E). |

## Water Reuse

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Reuse |
|---|---|---|---|---|
| Karp, Cyndi | 110 | Reuse | 10.C | Water reuse needs comprehensive water quality testing, should be done for pharmaceutical, chemicals, household products, plastic micro-beads, personal care products and other contaminants that could be present. Proof of clean water will bring the public to accept reuse of water. |
| Oregon Assoc. of Clean Water Agencies | | Reuse/recycled water | 10.C | ACWA offers several suggestions on this topic. Treated effluent is a source of instream flows, can be referenced in several other recommended actions: low impact development, regional approaches to water/wastewater, water conservation, place-based planning, etc. IWRS needs to develop an approach for state acceptance, permitting, and provide technical expertise to local communities. A pathway to water reuse should be a stated goal, and a key component for investment in feasibility studies. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Reuse |
|---|---|---|---|---|
| Midcoast Watersheds Council | | Reuse: urban rainwater capture | 10.C | IWRS should include goals and incentives for developing urban rainwater capture for garden and landscaping use, and groundwater recharge with urban runoff. Expand guidelines for acceptable use of treated wastewater; promote research on developing acceptable uses. Study stormwater management, how it affects hydrology, and water quality effects on receiving waters. |

## Non-Traditional Approaches (e.g. water quality trading)

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Non-Traditional Approaches |
|---|---|---|---|---|
| Rogue Riverkeeper | | Non-regulatory alternatives | 10.D | Have reservations regarding water quality trading programs, the IWRS provides little information on this, while promoting it. OWRD should evaluate other non-traditional approaches. |
| Karp, Cyndi | 111 | Water quality: trading | 10.D | Last sentence of page add: Upland riparian protection is needed to help keep fish bearing waterways cooler. Water is already warm from the upland reaches being stripped of vegetation, then flowing into protected streams raising the temperatures where there is cool water. |

## Water Resources Development Program

| Commenter | Pg. | Topic or Section | Rec. Action | Comment Summary: Water Resources Development Program |
|---|---|---|---|---|
| Deschutes River Conservancy | | WRDP | 10.E | This program provided funding for the Deschutes study. Funding feasibility and implementation is valuable to funding projects that also meet instream needs. |
| Oregon Water Resources Congress | | WRDP | 10.E | Supportive of $ to plan, study, and implement water projects. While the program is still in its early stages, we support its continuance. Planning, feasibility, and implementation are equally important, intertwined with a need to be properly funded and coordinated. |
| Tualatin River Watershed Council | | WRDP, field presence, permitting | 10.E<br>10.F<br>10.G | All three of these actions -- Water resources development program, field presence, and permitting -- all strengthen the current recommended actions in the IWRS. |

## Field Presence

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Field Presence |
|---|---|---|---|---|
| Karp, Cyndi | 114 | Field presence | 10.F | Add that additional staff should be hired when needed to accomplish targeted goals to the first bullet. |
| Oregon Water Resources Congress | | Field presence | 10.F | Supportive of field presence at agencies, specifically the watermaster positions. |
| Deschutes River Conservancy | | Field presence | 10.F | Increased field presence improves ability to restore streamflows and monitor compliance. Provide field staff with streamflow restoration information to help integrate into education and outreach efforts. |
| Trout Unlimited | | Field presence | 10.F | Strongly support this action. |
| National Audubon Society | | Field Presence | 10.F | Support. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Field Presence |
|---|---|---|---|---|
| Oregon Environmental Council | | Field presence | 10.F | Strongly support those boots on the ground by providing adequate field capacity. |
| Rogue Riverkeeper | | Field presence | 10.F | Support field staff to help implement the IWRS. Outline goals and objectives of ODFW, OWRD, and other agencies. |

## Permitting

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Permitting |
|---|---|---|---|---|
| Upper Grande Ronde Partnership | | Permitting | 10.G | Evaluate groundwater data before changing permitting methodologies. Consider developing joint application processes between agencies, and continue developing online application forms. |
| Karp, Cyndi | 117 | Permitting | 10.G | In sentence about developing a long-term workplan, add "short-term." |
| Karp, Cyndi | 115 | Permitting | 10.G | Outreach materials should be written in common man language with all technical jargon defined. |
| Karp, Cyndi | 117 | Permitting | 10.G | In sentence about stronger linkages, add watershed councils and NGO's. |
| Oregon Water Resources Congress | | Permitting | 10.G | Support clarifying agency roles/responsibilities, including updating the permitting guide. Include links to forms, standards, rules. Include internal guidance memos, these are not typically available to the public. Also support staff training, and timely process of applications. |
| Rogue Riverkeeper | | Permitting | 10.G | Concerned about backlog of NPDES permits. This section could be further strengthened. Will required coordination with other agencies. Adequate staffing is a critical issue. This issue is of critical importance. Include specific action items and timelines to ensure implementation happens. |
| The Nature Conservancy | 115 | Permitting | 10.G | New water right permits should not be granted when there is no data to demonstrate water is available. Include concept in recommended action. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Permitting |
|---|---|---|---|---|
| National Audubon Society | | Permitting | 10.G | Support. |
| Oregon Assoc. of Clean Water Agencies | | Permitting | 10.G | Permit writers should be included beyond initial stages in lending expertise; remain open and collaborative. |
| League of Oregon Cities & Special Districts Assoc. | 117 | Permitting: water quality | 10.G | Not sure what is meant by, "not all actions are under the control of DEQ." Confused. We were extensively involved in this process, not sure where language came from. Provide further detail or delete. |
| Karp, Cyndi | 117 | Permitting: water quality | 10.G | Are NPDES water quality permit holders testing for pharmaceuticals, household chemicals, and micro-beads? Also note broken hyperlink to the MWH report. |
| Dice, Loye | | Permitting, water efficiency & conservation | 10.G<br>10.A | Maintain current regulations on water use, conserve when necessary, don't drain river during winter or summer. Maintain current flow. |
| Pearcy, W.G. | | Permitting, instream use, planning | 10.G<br>11.B<br>13.A | Need better permitting rules and regulations for both groundwater extraction and for protecting water instream. Water plans can help with present and future water issues. |
| Upper Grande Ronde Partnership | | Water management | 10(gen) | OWRD can continue to work on integrating the separate divisions within the agency to become a support structure for the IWRS. |

# Watershed Health (Natural Storage)

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Watershed Health (Natural Storage) |
|---|---|---|---|---|
| McGaughey, Mary (Comment 2) | | Watershed health | 11.A | Forest management practices must match 21st century -- old growth forests maintain groundwater hydrology. Must store excessive runoff (wetlands, temp ponds, cisterns). Install bioswales for roadway runoff. |
| OR Farm Bureau +7 | 119 | Watershed health | 11.A | Beavers in Figure 4-10. Serious concerns about fake beaver dams. Acknowledge that beaver management in Oregon is complex, they cause damage to infrastructure and land uses. |
| OR Farm Bureau +7 | 119 | Watershed health | 11.A | Statewide floodplain policy has not been vetted. Who will be working on this? What goals? More information, please. |
| Minor, Lori | | Watershed health | 11.A | Protect wildlife, forests, trees when working on waterways. |
| OR Farm Bureau +7 | 59 | Natural storage | 11.A | Natural storage can't be the sole primary method of addressing water needs. |
| OR Farm Bureau +7 | | Storage (natural) | 11.A | Focus on voluntary tools to incentivize these four bullets. Like to see more focus on voluntary tools throughout IWRS. |
| Bierly, Ken | | Watershed health | 11.A | Include: "Restore tidal inundation to estuarine lands as land uses change to build resiliency for coastal sea level change and tidal flooding." |
| Bierly, Ken | | Watershed health | 11.A | Include: "Work towards basin or catchment management programs that integrate upland and aquatic resource management actions." |
| Trout Unlimited | | Watershed health | 11.A | Strongly support this action. |
| Oregon Assoc. of Clean Water Agencies | | Watershed health | 11.A | Stormwater BMPs should be recognized along with recreation of natural systems, such as low impact development. |
| The Klamath Tribes | 119 | Watershed health: natural storage | 11.A | What incentives for riparian restoration are offered by the state? Only aware of a few, a full list of agencies would be helpful. |
| The Klamath Tribes | 119 | Watershed health: (wetlands, floodplains) | 11.A | The paragraph before section on wetlands and floodplains is out of place. Move below this heading. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Watershed Health (Natural Storage) |
|---|---|---|---|---|
| Karp, Cyndi | 119 | Watershed health: Beavers | 11.A | In Figure 4-10, add, "mitigation is available for pond level controls, tree protection and culvert blockage. Live trapping and relocation is preferred to killing beavers. Contact local watershed councils for information. Commenter provided a link to beaver workshop materials from the U.S. Fish and Wildlife Service. |
| Karp, Cyndi | 155 | Watershed health: Beavers | 11.A | Add to bullet 2: habitat restoration for beavers would increase water storage above and underground. Beavers provide summer water for all species, including man to irrigate when most needed in the summer. |
| Karp, Cyndi | 120 | Watershed health: forests | 11.A | Forests hold more water for summer time release. Less water runs off of older forests, reducing flooding. Not all forests are created equal. Tree farms are not forests, they are tree farms. Clearcutting with all native species vegetation removed does not retain water. |
| Anderson, Jack and Jane | | Water quality, forests | 11.A 11B | Wider buffers on logging next to streams; cold water is needed to protect fish/people. |
| Anonymous #2 (seasaj777) | | Healthy ecosystems | 11(gen) | Save salmon and other fish, clean water and air is vital. |
| Lindsey, Tui | | Watershed health | 11(gen) | Stop abusing water resources; over-logging, and sloppy treatment of drainage and stability at post-logged sites. |
| Carleen | | General | 11(gen) | Need water for so many reasons. |
| Mays, Marilyn | | Healthy ecosystems | 11(gen) | Grew up in Hood River; in developing policy, remember how important those places left to the wild things are, and the importance of clean water. |
| OR Farm Bureau +7 | 118 | Healthy ecosystems | 11(gen) | Do not agree with the implication of heavily-damaged ecosystems. |
| Knighton, Patti | | Protect water | 11(gen) | Clean water, protect the environment, and protect parks. |
| Anderson, Chris | | Protect water | 11(gen) | Ensure abundant, clean water for future generations. |
| Winzenried, Marj | | Protect water | 11(gen) | Please protect water resources for future generations, human, and all others. |
| Taeubel, Richard | | Protect water | 11(gen) | Please protect water, more important than oil. |
| Anonymous #4 (jergensjovy) | | Protect water | 11(gen) | Preserve and protect natural waterways. |
| Firestone, Linda | | Protect water | 11(gen) | Protect freshwater resources. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Watershed Health (Natural Storage) |
|---|---|---|---|---|
| Garleigh, Elizabeth | | Protect water | 11(gen) | Vital to sustain lives, promote good health. Important to address this issue. |
| Lynch, Karyn | | Protect water | 11(gen) | Protect freshwater resources. |
| Darck, Mike | | Protect water | 11(gen) | Don't let a few wet winters defer the truth - water is our most precious resource. |
| Anonymous #6 (turtleislandlodge) | | Protect water | 11(gen) | We cannot survive for long without clean water and with the planet heating up it is going to become critical. |
| Saavedra, Jasmine | | Protect water | 11(gen) | Please help save and conserve Oregon's freshwater. |
| Stanley, Julie | | Stewardship | 11(gen) | I underwrite the strategies of integrated water and encourage all that promote measures to be good stewards of what makes Oregon great. |
| Schaefer, Meg | | Healthy ecosystems | 11(gen) | We need clean and plentiful water. |
| Gross, Mike | | Protect water, water quality | 11(gen) 12(gen) | Protect water supplies; no stream should used to the point of temperature or environmental degradation. |
| Ollis, Linda Rothchild | | Protect water: water quality | 11(gen) 12(gen) | Take action to protect water resources; regulate business that dump chemicals in water, in air, and pollute water resources. |

## Instream Protections

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Instream Protections |
|---|---|---|---|---|
| Robb, Dean | | Instream protections | 11.B | IWRS is useful, but broad. Draft doesn't have enough for the river. We have immediate problems now. River's health trumps all. We have clean air and water, because of standards set. The same needs to happen for flow, in the Deschutes. Standards should be set on maximum and minimum flows, or face legal penalties. |
| The Freshwater Trust | | Instream protections | 11.B | Establish a goal of restoring streamflows, in addition to new instream rights. Develop more tools to achieve this objective. Revamp existing programs. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Instream Protections |
|---|---|---|---|---|
| Engelmeyer, Paul | | Instream protections | 11.B | Instream minimum flows are essential for supporting healthy populations, and recovery of ESA listed Coho salmon. Develop forecasts for projection water demands for all of our needs will be a challenge. |
| Central Oregon Flyfishers | | Instream protections | 11.B | Little serious attention given to instream needs in 2017 draft. Bias toward consumptive uses. Past the time of study instream needs -- it's time to meet them. |
| Lind, Yancy | | Instream protections | 11.B | Instream needs are given little serious attention in the draft IWRS; glosses over recreational and wildlife needs; past time to study instream needs--time to meet them. Start by giving seniority to junior instream water rights; no one is senior to fish and wildlife. |
| Oregon Assoc. of Clean Water Agencies | | Instream protections | 11.B | Elaborate on what is mean by the fact that DEQ can apply for an instream water right, what does it mean for existing water rights, TMDL development, etc.? |
| OR Farm Bureau +7 | | Instream protections | 11.B | Concerning that DEQ can submit instream applications for the flow amount used to calculate TMDLs. This could result in instream applications that exceed historic flow of a stream, or flow during the summer. |
| OR Farm Bureau +7 | | Instream protections | 11.B | Add, "while protecting senior water rights" to the third bullet regarding voluntary streamflow restoration. |
| Oregon Environmental Council | | Instream protections | 11.B | Note the limited discussion held by PAG, recommend a greater emphasis on stepping up establishment of new instream water rights. |
| Trout Unlimited | | Instream protections | 11.B | Strongly support this action. Add specifics: they should be secured, and include minimum and elevated flows. |
| Rogue Riverkeeper | | Instream protections | 11.B | Support this, support new scenic waterways. IWRS should commit to studying 3 rivers per biennium. |
| Confederated Tribes of the Umatilla Indian Reservation | | Instream Protections | 11.B | Maintain, enhance, and prioritize commitments to meet needed streamflows. |
| The Klamath Tribes | 122 | Instream protections | 11.B | The Klamath Basin Rangeland Trust is now Trout Unlimited. |
| The Klamath Tribes | 121 | Instream protections | 11.B | A better discussion of instream water rights in warranted here. New instream rights would likely be junior. If this assumption is incorrect, please describe appropriate information. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Instream Protections |
|---|---|---|---|---|
| Tualatin River Watershed Council | | Instream protections | 11.B | Instream protections become more important with weather extremes and climate change. |
| Bierly, Ken | | Instream protections | 11.B | Note recent action by the Oregon Environmental Quality Commission to adopt rules for designating the North Fork Smith River as "Outstanding Resource Waters." |
| Bierly, Ken | | Instream protections | 11.B | Add: "Work with DEQ and other state agencies to identify Outstanding Resource Waters in Oregon." |
| Central Oregon Flyfishers | | Instream: water rights | 11.B | Give seniority to junior instream water rights granted by ODFW. Set minimum flows. |
| Karp, Cyndi | 121 | Instream: water rights | 11.B | Most instream water rights for fish should stand up in federal court. |
| Midcoast Watersheds Council | | Instream: water rights, funding | 11.B | IWRS needs a directive to process all pending instream water right requests, and work to establish new ones on all ecologically significant streams. The IWRS needs to also recognize the need for funding at ODFW and OWRD. |
| National Audubon Society | | Instream: funding | 11.B | Increase (at least double) funding dedicated to this effort. We support the directive to adopt new instream water rights. |
| Kellogg, Dick | | Instream | 11.B | Give conservation of natural resources, fish, wildlife, recreation a high priority. This was not considered when water rights were established. |
| Audubon Society of Portland | | Instream | 11.B | Landscapes that support waterfowl are increasingly stressed by water shortages and a changing climate. Klamath alone supports 80% of Pacific Flyway waterfowl, species are highly dependent on an adequate water supply. |
| Central Oregon Flyfishers | | Instream | 11.B | Water belongs to all Oregonians, as well as fish and wildlife, not just consumptive use. The looming water shortage must be addressed. |
| Powell, Mary B. | | Instream, planning, water conservation & efficiency, affordability | 11.B<br>9.A<br>10.A<br>12.A | Husband and I very concerned about rivers; support comprehensive planning among cities, irrigation districts, public/private stakeholders (basin study in the Deschutes). Appalled at low flows, on two occasions, stranding fish. Applaud efforts to conserve water. Water must be accessible, regardless of ability to pay. Needs of people who cannot afford must be considered. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Instream Protections |
|---|---|---|---|---|
| Thompson, Sandra (Comment 2) | | Instream | 11.B 10(gen)13(gen) | Commit to strong instream and out-of-stream protections, workable management directives, and adequate funding. All must be in place, or resources become at risk. |
| Heck, Zechariah | | Instream funding, groundwater | 11.B 10(gen) 13(gen) 11.E | Support strong instream protections, progressive mgt. directives, most importantly, adequate funding. Concerned about growth in Central Oregon and aquifer use. |
| Hebert, Dennis | | Instream, water management, funding | 11.B 10(gen) 13(gen) | Commit to strong instream protections, smart management directives, and adequate funding. |
| Hughes, Kevin | | Instream, water management, funding | 11.B 10(gen) 13(gen) | Commit to strong instream protections, smart management directives, and calls out adequate funding. |
| Brinkley, John | | Instream, water management, infrastructure (dams) | 11.B 11.A 7.C | Improve water management at Pelton dam (water is too warm); work with watershed councils, protect streambanks from cattle grazing, remove outdated/useless dams on the Rogue. |
| Steadman, Donna | | Protect water, instream protections, funding | 11.B 11.E 13.B | Protect water reserves (above-ground and below ground) for current and future generations and wildlife. Create strong instream protections, and provide adequate funding to carry out management directives. |
| McCuen, Annie-Francoise | | Water quality | 11.B 12.C | Protect water resources from ag waste, corporate farming, etc. Must correct actions to restore our fish and wildlife balance. Water is too precious to ignore. |
| Rost, Laura | | Instream, funding, water conservation & efficiency, water use, climate change | 11.B 2.A 10.A 2.A 5(gen) | Place a strong emphasis on instream protections, adequate funding to protect water from threats. Do a forecast, more efficient use, better measurement and reporting, prepare for climate change. |
| Brinich, Ken | | Instream, drought, funding, water efficiency/conservation | 11.B 2.A 5.5B 10.A | Promote instream flow and water temperatures, forecast instream demand, resiliency -- municipalities must reduce during drought years, fund instream flow studies, use pricing and other economic incentives to drive efficiency. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Instream Protections |
|---|---|---|---|---|
| Kosa, Kimberly | | Instream, funding, water use, groundwater | 11.B 2.B | Prioritize instream flows for fish and adequate water quality. Slate adequate funding to study/monitor water usage, including groundwater usage. This work and data will become more important over time. |
| Konecny, Karl and Laura | | Instream, drought | 11.B, 5.5A | IWRS doesn't adequately address instream needs; drought plan makes it easier for water users, harms species. Large fish kills in Umpqua in 2015. Impacts last after drought. Native fish won't survive without help in future years. |
| Mullaney, Bryan | | Instream, drought, water use | 11.B, 5.5A, 2.B | Consider instream water rights, drought resiliency for rivers, and water use measurement and reporting. |
| Taylor, Mike and Kellee | | Instream, irrigation upgrades | 11.B, 7.A | Very supportive of efforts to better manage flows in upper Deschutes. Irrigation districts are now paying attention to fluctuating flows. Various groups need to continue putting pressure on districts to upgrade their systems and be sensitive to the needs beyond agriculture. Hope the IWRS takes this seriously and includes it in your strategic planning. |

## Invasive Species

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Invasive Species |
|---|---|---|---|---|
| The Nature Conservancy | 122 | Invasive species | 11.C | Current knowledge of distribution and abundance of invasive species is limited. Consider adding the importance of new technologies (DNA sampling). |

## Instream Habitat

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Instream Habitat |
|---|---|---|---|---|
| Karp, Cyndi | 125 | Instream habitat: fish passage | 11.D | ODOT and counties need more funds to fix fish passage. When I spoke to ODFW Fish Passage Coordinator Greg Apke, he stated that he is still expecting fish [Passage to take 75 years or long to get repaired. This is an unacceptable length of time for native fish passage completions. |
| Karp, Cyndi | 124 | Instream habitat: fish passage | 11.D | Watershed councils can help with this. |
| Trout Unlimited | | Instream: habitat | 11.D | Support actions in this section. |
| Bierly, Ken | | Instream: habitat | 11.D | Connect with 7.C by adding: "restore floodplain and estuarine tideland access for juvenile rearing." |

## Groundwater Protections

*Note: Several commenters called for additional groundwater protections (11.E), while also calling for additional protections for fish and wildlife (11.B), investing in climate change adaptation (5.B), and improving water use measurement and reporting. Comments that shared these similar themes in one submission are listed together in the following table.*

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Groundwater Protections |
|---|---|---|---|---|
| Templar, Steve | | Groundwater protections | 11.E | Protect groundwater, maintain natural waterways for fish. |
| Regional Water Providers Consortium | | Groundwater protections | 11.E | Supportive of increased focus on groundwater protection and water quality in general. All groundwater in the state is a potential drinking water source and should be protected from untreated stormwater, pesticides, and other forms of contamination. |
| Upper Grande Ronde Partnership | | Groundwater protections | 11.E | Important to improve data and provide to communities. Support OWRD's assistance with groundwater storage projects (and above ground). |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Groundwater Protections |
|---|---|---|---|---|
| Ziller, Gloria and Bob | | Groundwater protections | 11.E | Reading "Draining Oregon" series. See shortsighted management of crucial groundwater supplies, underfunded groundwater protections. Key actions should include: Stop defaulting to "yes" on new groundwater applications; take stock of existing groundwater uses (ask for funding for comprehensive studies), set timelines for completion; stop allowing wells to be drilled first and permitted later. Fund water management -- ask users to pay a nominal fee to prevent underfunding. Measure water use, including well pumping. |
| Bierly, Ken | | Groundwater protections | 11.E | Actions are passive without expected completion schedules. Recommendations should be couched in terms of catchment management and developing a prioritized approach to developing tools and authorities to provide better protections. |
| National Audubon Society | | Groundwater protections | 11.E | Support. |
| Karp, Cyndi | 127 | Groundwater protections | 11.E | All groundwater wells should be metered to know how much water is being used at all times. |
| Oregon Water Resources Congress | | Groundwater protections | 11.E | Supportive of developing a groundwater workplan to address priority issue areas. Important to develop this collaboratively, be equitable, and balance locally-driven solutions, with state financial and technical assistance. |
| Deschutes River Conservancy | | Groundwater protections | 11.E | Experience from Deschutes groundwater mitigation can be shared with other basins. DRC supports the exploration/development of groundwater mitigation, where needed. Support this action and efforts to better monitor and regulate groundwater use. |
| OR Farm Bureau +7 | 127 | Groundwater protections | 11.E | IWRS appears to assume existing tools are insufficient to protect groundwater. We disagree. Change last sentence to "evaluate whether" additional authorities or policy support are required. |
| Trout Unlimited | | Groundwater protections | 11.E | Strongly support this action. Include a recommendation to fund groundwater studies and observation wells, require measurement/reporting of groundwater use, and ensure sustainable extraction/permitting. |
| Oregon Environmental Council | | Groundwater protections | 11.E | Strongly support development of a plan to conduct groundwater studies in as short order as possible. Developing and implementing should be a near-term priority. |
| Tualatin River Watershed Council | | Groundwater protections | 11.E | This action will aid the Tualatin Basin and all Oregon residents. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Groundwater Protections |
|---|---|---|---|---|
| Geisen, Rebecca | 127 | Groundwater: policies | 11.E | Add Oregon DEQ policies to this section: Div. 040, 044, 045, 071, 073, 122, 150, including use specific sections, such as 050, 051, 053. |
| Sherwood, Dan | | Groundwater, instream | 11.E<br>11.B | Urge the state to add additional protections for groundwater and better protection for fish and wildlife. |
| Vesey, Robin | | Groundwater, instream; water use | 11.E<br>11.B<br>2.B | 40+ resident, seen population double, putting stress on water resources. Make these priorities: prioritize water for fish and wildlife; enacts better measurement of farm and household water use. Irrigators watering in hottest portion of the day. Household water use should be measured and charged accordingly. Protect groundwater and ban fracking. |
| Grauer, James and Rita | | Groundwater, instream, climate change | 11.E<br>11.B<br>5.B | Better protections for groundwater, and for fish & wildlife, invest in climate change adaptation. |
| Kalish, Ann | | Groundwater, instream, climate change, water use | 11.E<br>11.B<br>5.B, 2.B | Additional protections for groundwater, for fish & wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Keough, Paul | | Groundwater, instream, climate change, water use | 11.E<br>11.B<br>5.B, 2.B | Additional protections for groundwater, for fish & wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Kruse, Mary Ann | | Groundwater, instream, climate change, water use | 11.E<br>11.B<br>5.B, 2.B | Additional protections for groundwater, for fish & wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Levin, Beth | | Groundwater, instream, climate change, water use | 11.E<br>11.B<br>5.B, 2.B | Additional protections for groundwater, for fish & wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Ohanian, Laura | | Groundwater, instream, climate change, water use | 11.E<br>11.B<br>5.B, 2.B | Additional protections for groundwater, for fish & wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Ruby, Jacki Fox | | Groundwater, instream, climate change, water use | 11.E<br>11.B<br>5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Groundwater Protections |
|---|---|---|---|---|
| Trosper, Cheryl | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Warren, Judith | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. Consider the impact of your decisions. Must be good stewards. Don't let decisions be made based on financial gains for a privileged few. |
| Moissant Family | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater; better protections for fish and wildlife, investments in climate change adaptation, better water user measurement and reporting. |
| Guinther, Penny | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Altman, Dan | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Andrews, Donna | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Askins, Susanna | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Belson, Laura | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Canarsky, Maurine | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Groundwater Protections |
|---|---|---|---|---|
| Cook, Wendy | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Fabris, Madeleine | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Hays, Helen Logan | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Howie, Linda | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| D., Steven | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Boyer, Tracy | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Protect groundwater (every state agency); consider climate change when planning for future water use, better water use measurement, and reporting wasteful practices. Stand with Nature Conservancy, WaterWatch, Oregon Wild to protect rivers. |
| Goldstein, David and Sharon | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Support IWRS; Additional protections for groundwater, better protections for fish and wildlife, better water use measurement and reporting. |
| DeGuzman, Genevieve | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |
| Ozawa, Alycen | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater, better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. Add human impact, advocacy, and action can preserve our beautiful state. Please protect future generations. |
| Tibbetts, Delcy | | Groundwater, instream, climate change, water use | 11.E 11.B 5.B, 2.B | Additional protections for groundwater (address runoff from agriculture), better protections for fish and wildlife, invest in climate change adaptation, better water use measurement and reporting. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Groundwater Protections |
|---|---|---|---|---|
| Blankenship, Tim | | Groundwater, instream, climate change, water use | 11.E<br>11.B<br>5.B, 2.B, 10.A | Protect groundwater, stop climate change (most important to address), protect fish and wildlife from extinction; believe in the science, makes changes to save our water. |
| Twight-Alexander, Susanne | | Groundwater, instream, climate change, water use, funding | 11.E<br>11.B<br>5.B, 2.B, 13(gen) | Delighted that Oregon is paying attention to water. Concerns: lack of funding for carrying out plans; groundwater overuse; lack of equal standing for instream; monitoring needs for areas near mining, logging, and waste production; climate change and population growth; lack of funding is fundamental problem. Need cooperation among agencies. |
| Anonymous #1 (pjk71drw69) | | Groundwater, water use | 11.E<br>2B | Protect groundwater, stop polluting, find better ways to monitor use and limit waste. |

## Drinking Water

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Drinking Water |
|---|---|---|---|---|
| Karp, Cyndi | 130 | Drinking water | 12.A | No clear-cut logging and use of chemicals in drinking water basins. |
| Karp, Cyndi | 129 | Drinking water | 12.A | Drinking water should be tested for contaminants, for instance, pharmaceuticals and agricultural/timber chemicals. This testing is extremely important in high population areas that draw water from a major river like the Willamette River. |
| Oregon Environmental Council | | Drinking water | 12.A | Pleased to see continued inclusion of environmental justice. Need to further articulate the need to prioritize groundwater testing and programs to resolve contamination in low income areas. |
| Oregon Environmental Council | | Drinking water | 12.A | The IWRS should call for enforcement of the existing real-estate transaction testing requirement, and the necessary funding to do so. |
| Rogue Riverkeeper | | Drinking water | 12.A | Support this action, especially for private wells. Jackson Co. has some of the highest nitrate levels in the state. Support funding and resources for testing domestic wells, improve well monitoring, and increase source water protection. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Drinking Water |
|---|---|---|---|---|
| Karp, Cyndi | 130 | Drinking water: emergencies | 12.A | Public outreach needs to be done on steps for after an emergency. Does Clorox clean water enough to drink, how much or does water need to be boiled? What to do to have toilet serves? Dig a hole and build an outhouse. A bucket with shredded newspapers or wood chips. Is urine kept separate? |
| Oregon Water Utilities Council | 30 | Drinking water: lead | 1(gen) | Lead testing in public schools is not a source water issue and does not seem to fit in the IWRS. There are many sources of lead exposure and the lack of a balanced discussion of the issue deposits a significant public health issue at the feet of water provides who take the duty to provide safe drinking water very seriously. |
| League of Oregon Cities & Special Districts Assoc. | 30 | Drinking water: lead | 1(gen) | Serious concerns about new section on lead, and use of terminology/phrases. We share concerns over lead in drinking water, a very serious issue that warrants careful dialogue. If this section is retained, add info from EPA about how lead gets into drinking water, corrosion from pre-1986 plumbing, 2014 updates to SDWA, implementation of Lead and Copper rule. |
| DeLorenzo, Suzanne | 30 | Drinking water: lead | 1(gen) | Lead in drinking water is not a source water issue, but chemical reactions with plumbing components. This section is out-of-place. Re-examine, rewrite to be more relevant to the context, or remove this section. |
| Karp, Cyndi | 30 | Drinking water: lead | 1(gen) | 3rd paragraph, while found naturally in the earth's surface, lead can also leach from plumbing fixtures into drinking water in homes, schools, correctional facilities, and businesses. Add (after surface) sports recreational use of lead sinkers and ammunition. |
| Lyford, Gordon | 15 | Drinking water: salt-water intrusion | 1(gen) | The effects of salt water intrusion on surface supplies should be mentioned such as for Harbor on the Chetco River in Curry County. This could affect many coastal communities. |
| Lyford, Gordon | 18 | Drinking water: salt-water intrusion | 1(gen) | Salt water intrusion for wells near the coast should be mentioned. |

# Water Quality

*Note: Note: Several commenters called for stronger pollution prevention efforts (12.B), while also calling for better protections for fish and wildlife (e.g., completing instream studies (3.A), and creating a drought response plan for fish (5.5A); measuring water use and develop a statewide plan for measuring all water withdrawn (2.B); and, implementing strategies that ensure long-term sustainability. Comments that shared these similar themes in one submission are listed together in the following table.*

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
|---|---|---|---|---|
| Rogue Riverkeeper | | Toxics | 12.B | Support efforts to reduce toxics, including pesticides and brownfields. Support a drug-take back program, support addressing blue-green algae, a problem at Lost Creek Lake. The IWRS should provide more details on addressing blue-green algae formation. |
| Ramage, Carol | | Water quality | 12.B | Save rivers, protect them from pollution/abuse. |
| Karp, Cyndi | 131 | Water quality | 12.B | Bad link to DEQ's Toxics Reduction Strategy; also, Pesticide users should pay for the comprehensive testing, using independent contractors, reporting directly to DEQ and other agencies. Should be publicly available. Chemical users should also have to test local residential wells to prove that the drinking water wells are not contaminated from spraying chemicals. |
| Karp, Cyndi | 132 | Water quality | 12.B | Broken link to EPA 2014 report. |
| Karp, Cyndi | 134 | Water quality: beaches | 12.B | Oregon beaches and lakes need more testing done for the safety of visitors. Oregon coastal visitors attend year around. Water Quality should be tested year around at popular beaches. |
| Karp, Cyndi | 133 | Water quality: hazardous sites | 12.B | Contaminated or Hazardous Sites declared by EPA and DEQ should be cleaned up and not left sitting for many years with nothing done to protect the public or the waterways and threatened or Endangered Species. These contaminated sites should have comprehensive water quality monitoring done on-site and below the site to check for contaminated water locations. |
| Karp, Cyndi | 133 | Water quality: hazardous waste | 12.B | The pharmaceutical take-back locations at pharmacies are very convenient. |
| Karp, Cyndi | 134 | Water quality: septics | 12.B | Add a key action that septic systems converted to sewer systems reduce algae during the heavy use periods in the summer. For instance, Devil's Lake in Lincoln City. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
|---|---|---|---|---|
| Oregon Water Utilities Council | 134 | Water quality: harmful algae blooms | 12.B | This section does not recognize the full scope of the issue. There is no mention of EPA's best management practices for Do Not Drink notices, and it misses an opportunity to recognize this topic as having the potential to affect every aspect of the water business. |
| Edwards, Jean | | Water quality | 12.B<br>12.C | Watching and supporting the IWRS for several years; support policies that provide clean water for food irrigation. State should adopt this sensible plan. |
| Rodriquez, Rolando | | Pollution prevention & others | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Burns, Megan | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Abadia, Betty | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Anderson, Helen | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| B., Gary | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Bachhuber, Stephen | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
|---|---|---|---|---|
| Bergeron, Adrian | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Bledsoe, Cathy | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Bliss, Geneva | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Born, C. | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Bragg, Katherine | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Brandner, Bartholomew | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Cairns, Michael | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
|---|---|---|---|---|
| Carl, Nancy | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Carter, PJ | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Civiletti, Jane | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Creswell, Rebekah | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Crumpacker, Nancy | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Daniel, Stacey | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Dauble, Dawn | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
|---|---|---|---|---|
| Davis, Mariah | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Delles, Susan | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Deumling, Sarah Comment 2 | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Dianich, A Michael | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Dillender, Margaret | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Downey, Joan | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Gibson, G | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
|---|---|---|---|---|
| Graff, Wanda | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Handelman, Corinne | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Harvey-Shea, Frankie | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Heck, Zechariah (duplicate) | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Henning, Stephanie | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Heumann, Michael | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Holmgren, Derek | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
|---|---|---|---|---|
| Horenstein, Michael | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Howard, Celeste | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Hoyle, Judy and Lester | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Jaffee, Dan | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Johnson, Joel | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Johnston, Georgia | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Jones, Doug | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
|---|---|---|---|---|
| Joos, Sandra | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Kasowski, Kevin | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Keefer, Neal | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Kleiner, Gregg | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Lamar, Dylan | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Laos, Cheryl | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Larsen, Pam | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
|---|---|---|---|---|
| Lazarus, Chris | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| LeBaron, Linda | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Lee, Judy | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Leggatt, Joyce | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Leon, Amie | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Lieberman, Elianne | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Lienhard, Judith | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
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| Little, Wendy | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Long, Jessica Nischik | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Luck, Diane | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Lutje, Debra | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Mallar, Christine | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Mallory, Randall | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Malstrom, Stacey | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

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| Manildi, Barbara | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Maranowski, Erica | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Martin, Jeana | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Martin, Patti | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| McGaughey, Mary | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| McGovern, Donlon | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| McGowan, Wendy | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

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| Meadows, Connie | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Merrick, Lynn | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Moore, Merry Ann | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Nadler, Suzanna | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Nerwick, Randall | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Obrien, William | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| O'Neal, Maureen | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
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| Phillips, Nancy | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Ponomareff, Eleanor | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Pratt, Mallory | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Ramaker, Julianne | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Riley, Michele | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Saude, Debra | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Saxon, Diana | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

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| Scott, Barbie | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Scott, Mel | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Siegner, Sandra | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Skees-Gregory, Dresden | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Sky, Gwendolyn | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Snyder, Valerie | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Soule, Craig | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

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| Stevenson, Laura | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Stingle, Karen | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Thomas, Amanda | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Thompson, Lauren | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Tribble, Michael | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Tucker, Kady | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Wadsworth, John | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
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| Wagner, Carol | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Walberg, Jeriene | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| West, Ray | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Wilcox, Judy | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Wild-Wilson, Wednesday | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Winch, Martin and Carolyn (Comment 2) | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Young, Sandy | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |

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| Zucker, M. Lee | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Mountain Rose Herbs (Comment 2) | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| Chieco, Eileen | | Water quality, instream, drought, water use, sustainability | 12.B<br>3.A,<br>5.5A<br>2.B | Add the following to IWRS: stronger pollution prevention (e.g. address it at the source -- ag chemicals, excess fertilizers), better protections for fish and wildlife (complete studies, create a drought response plan for fish), measure water use and develop a statewide plan for measuring all water withdrawn; implement strategies that ensure long-term sustainability. |
| The Nature Conservancy | | Water quality: plans | 12.C | Evaluate the effectiveness of water quality control plans. |
| Oregon Assoc. of Clean Water Agencies | | Water quality: plans | 12.C | Emphasize the implementation of water quality control plans |
| Trout Unlimited | | Water quality: plans | 12.C | Include timelines for developing and implementing TMDLs. Prioritize funding for DEQ to get this done. |
| OR Farm Bureau +7 | | Water quality: plans | 12.C | Add point sources to second bullet regarding plan implementation -- plans exist for both point and non-point sources. |
| OR Farm Bureau +7 | 136 | Water quality | 12.C | In the non-point source discussion, include more depth on SB1010 and Forest Practices Act. Ask ODA and ODF for a summary of programs. Broaden reference to include AG Water Quality Management Act (not just the plans). Both programs have considerable monitoring. |
| The Klamath Tribes | 135 | Water quality: plans | 12.C | There should be mention ODA's Water Quality Management Plans associated with TMDLs. |
| Rogue Riverkeeper | | Water quality: plans | 12.C | Support this action. Need to better integrate water quality and quantity throughout IWRS. Need more discussion on non-point source pollution, Coastal Zone Management Act, pollution from septics, forestry, other sources. No discussion of withholding the 319 funds. Discuss opportunities to strengthen the Oregon Forest Practices Act and Ag Water Quality Management Plans. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
|---|---|---|---|---|
| Barber, Terry | | Water quality: standards | 12.C | Continue improving water quality standards; make sure Oregon is in control of regulations, maintaining clean water is a must. |
| Karp, Cyndi | 136 | Water quality: non-point sources | 12.C | 3rd paragraph, first sentence. Note that some federal and state agencies are using best ecosystem management practices. Looking at a complete picture for the whole ecosystem management. |
| Karp, Cyndi | 136 | Water quality: non-point sources | 12.C | Oregon Forestry Practices Act is one of the worst in the country. The Governor should appoint a Forestry Practices Act Task Force to re-evaluate and compare forestry practices of other states. Chemicals should stop being used to kill native species. |
| Oregon Environmental Council | | Water quality: pollution control | 12.C | Little attention is paid to the impacts of agricultural non-point runoff, value of riparian vegetation, and ODA's effectiveness in managing the program, and the need for nutrient stewardship and education. |
| Oregon Environmental Council | | Water quality: pollution control | 12.C | Support this directive, but disappointed these topics were not explored more directly for the update. Need to take a more detailed look at agency coordination, regulations, programs, and integrate water quality and flows. |
| Hatrick, Gloria | | Water quality, water use, groundwater, wetlands, funding | 12.C<br>2.B<br>11.E<br>11.A<br>13(gen) | Dismayed at streams outside Portland (e.g. Dairy Creek), worry about overuse of corporate water use; protect groundwater, preserve wetlands; invest in the future of water. |
| Rogue Riverkeeper | | General | 12(gen) | IWRS is an important tool. Appreciate the Department's ongoing efforts. Our comments focus mostly on water quality issues. |
| Reiter, Maryanne | | Healthy ecosystems | 12(gen) | Overuse the word "health" and "healthy" to describe ecosystems. Too difficult to measure. |
| Birney, Barbara | | Water quality | 12(gen) | Biggest concern worldwide is clean water, ensure our public has the best, healthiest water of anywhere in the United States. |
| Dunn-Dixon, Jennie Sue | | Water quality | 12(gen) | Enjoy kayaking, wildlife, and well water at my home. Prioritize clean unpolluted rivers, safe drinking water. |
| Hise, Sandra | | Water quality | 12(gen) | Waterways where I grew up (Oakridge and Winchester Bay) have degraded; people are disconnected to the land; support focused action to keep waterways abundant and safe for future generations. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Water Quality |
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| Horton, Karen | | Water quality | 12(gen) | Oregon is Garden of Eden, compared to former home state. Keep our water clean for all living creatures, a source of pride for our state. |
| Keeton, Hank | | Water quality | 12(gen) | Have several springs; don't use chemicals on our farm to avoid water contamination; our obligation to protect earth and its resources. |
| | | | | |
| Robinson, Ron | | Water quality: monitoring | 12(gen) | Monitor pre-treatment of large-scale fertilizer and pesticide application. Require permits and independent water quality testing. Recent harmful algae blooms have happened in our area after aerial applications occurred last winter. |

## Funding

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Funding |
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| Oregon Environmental Council | | Funding: IWRS | 13.A | Establishing cost estimates and a spending strategy are necessary to drive implementation. Need dedicated staff liaisons between agencies to coordinate priorities, incorporate this into cost estimates. This will help achieve meaningful progress. |
| Merchant, Deb | 139 | Funding: state agencies | 13.B | Funding strategy for state agencies is not clearly articulated has no teeth. Given the research on funding, you could create a more innovative strategy. Perhaps OR Leg will approve a bill in 2017? |
| Farmers Conservation Alliance | | Funding: state agencies | 13.B | Agree with PAG statement about a thorough analysis of supply and demands… Ongoing General Fund support for data collection (1.B), Inter-agency data coordination (1.C) and an adequate field presence (10.F), can help support OWRD flow measurements and protocols; and helps with water loss assessments. |
| Trout Unlimited | | Funding: state agencies | 13.B | Ensuring that state agencies are sufficiently funded should be identified as another overarching priority action. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Funding |
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| Rogue Riverkeeper | | Funding: state agencies | 13.B | Support continued funding for state agencies. Many issues discussed in IWRS are compounded by lack of resources. We would caution about listing out specific funding priorities within the narrative. There is little discussion of innovative financing approaches, which might help address some of the funding gaps. |
| National Audubon Society | | Funding: state agencies | 13.B | Support. |
| Oregon Water Resources Congress | | Funding: state agencies | 13.B | Funding OWRD is important, should be funded by a mix of general fund and fees. Not opposed to a water rights fee, however, any new fee should not negatively impact economy, or AG. Must ensure balanced approach, and see increased service levels or overall revenue. |
| Oregon Environmental Council | | Funding: state agencies | 13.B | IWRS, in the funding section, should spell out the needed investments in ecosystem health, protect instream flows, restore instream habitat, protect groundwater, riparian floodplain restoration, acquiring add'l instream water rights, fish passage, groundwater analyses. |
| Merchant, Deb | 140 | Funding: planning | 13.C | Too general in nature. Will OWRD allocate new funding to water management/conservation, hazard mitigation, basin-planning updates? OR, will OWRD continue to fund these efforts? |
| Deschutes River Conservancy | | Funding: planning | 13.C | Planning for drought hazard mitigation is best implemented at local/regional level, and then further integrated into place-based plans. Provide funding for such plans, they can be expensive and time-consuming. |
| Oregon Water Resources Congress | | Funding: planning | 13.C | Districts have participated in such planning efforts (e.g. Hood River, Deschutes). If ODFW is considering instream water rights, they need to be a collaborative partner in watershed planning. OWRC supports continuing local planning efforts that may be outside parameters of place-based planning. Also support funding for AG and Municipal water management and conservation plans. Such plans must remain voluntary, and not become regulatory scheme. Give preference and further incentivize such plans. |
| Oregon Environmental Council | | Funding: planning | 13.C | Evaluate existing planning efforts, before authorizing or funding new planning areas. Existing planning areas are not in populated areas, making it difficult to use as models. |
| National Audubon Society | | Funding: planning | 13.C | Support. |
| Merchant, Deb | 141 | Funding: feasibility studies | 13.D | Who or what entities have received funds for the studies? The recommended action describes doing a review/update of the program, but does nothing to describe sharing program results with the public. Are these studies publicly available? |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Funding |
|---|---|---|---|---|
| Oregon Water Resources Congress | | Funding: feasibility studies | 13.D | Supportive of the feasibility studies offered by OWRD. Emphasize the importance of these studies as part of the overall funding program. |
| Deschutes River Conservancy | | Funding: feasibility studies | 13.D | Feasibility funds are difficult to secure; essential for developing balanced projects, will support implementation of place-based plans. |
| National Audubon Society | | Funding: feasibility studies | 13.D | Support. |
| The Freshwater Trust | | Funding: projects | 13.E | Treat funding for instream needs, water use monitoring/and reporting, data collection, and modeling as being equally important as funding for water project development. |
| OR Farm Bureau +7 | 141 | Funding: projects | 13.E | This section talks about water and wastewater infrastructure; add agriculture needs -- of districts and individual landowners. |
| OR Farm Bureau +7 | | Funding: projects | 13.E | Take a critical look at OWRD funding streams and their administration. Needed for SB839 funding. Difficult for stakeholders to understand how decisions are made. Must allow these funds to work with private lenders. IWRS should recommend convening stakeholders who worked on the program to conduct an audit. |
| Trout Unlimited | | Funding: projects | 13.E | Support funding for planning/implementation, but disappointed it doesn't emphasize funding for projects that improve streamflows or help fish and wildlife develop resiliency to drought/climate change. Provide funding for water right acquisitions, fish and wildlife projects, and modify funding guidelines to promote better balance for things like environmental flows in priority basins. Include funding directives to ODFW for instream flow studies, secure instream rights, implement Conservation Strategy, and to OPRD to designate scenic waterways. |
| Oregon Water Resources Congress | | Funding: projects | 13.E | Oregon must make concerted effort to invest in planning and development (other states investing significant public funding). Need to work out some kinks in the SB839 grant program. Interested in the Seasonally Varying Flow analysis underway. The Clean Water RLF ran by DEQ is perfect example of a type of program that should have increased funding. |
| Farmers Conservation Alliance | 144 | Funding: projects | 13.E | Support this action. |
| Engelmeyer, Paul | | Funding: watershed restoration | 13.E | OWEB restoration investments, as shown in document, are impressive. The US Forest Service is focusing investments on protection and restoration, we need to change the way our forests and unstable slopes are managed, change programs related to agriculture and forestry. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Funding |
|---|---|---|---|---|
| Trout Unlimited | | Funding: projects | 13.E | Current structure put out-of-stream over instream uses. Fails to encourage funds or projects for fish and wildlife species, IWRS should acknowledge the precarious state of instream dependent biological resources. |
| National Audubon Society | | Funding: projects | 13.E | Support. |
| Merchant, Deb | 141 | Funding | 13(gen) | Wow, how will Oregon fill a $9 billion infrastructure gap? Figure 4.17 shows we spent less than $500 million in 9 years, therefore, not sure how funding infrastructure is going to work. Hopefully, we have a funding model that already exists. |
| Farmers Conservation Alliance | | Funding | 13(gen) | Oregon DEQ's Clean Water Low fund offers a flexible match fund and low barrier entry. Consider this approach for OWRD's programs. |
| Oregon Assoc. of Clean Water Agencies | | Funding | 13(gen) | Many actions required funding; need to define ways to share costs with local agencies. Significant funding is needed to increase energy/water savings, upgrade infrastructure, climate change adaptation, earthquakes, research. For funding, focus on innovation. IWRS should discuss any funding programs that go beyond programs in place. |
| Upper Grande Ronde Partnership | | Funding | 13(gen) | Strongly support funding for planning, feasibility studies, and project implementation. |

## Overarching Comments on the IWRS Public Review Draft

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Overarching Comments |
|---|---|---|---|---|
| Lyford, Gordon | 11 | Vision statement | N/A | Vision should include industries as part of a healthy economy. |
| The Nature Conservancy | | General | Implementation | Establish priorities among the recommended actions. Develop 5-10 year timeframes, show incremental changes and include stretch goals. |
| Trout Unlimited | | General | Implementation | Prioritize recommended actions. |
| Trout Unlimited | | General | Implementation | IWRS would be more useful if actions were prioritized. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Overarching Comments |
|---|---|---|---|---|
| Midcoast Watersheds Council | | General | Implementation | IWRS should include a detailed analysis of which elements require legislative action. |
| The Nature Conservancy | | General | Implementation | State lead agency. In conclusion, revise paragraph 3 to describe how agencies will develop workplans and report on progress. More explicit description of process for implementation would help stakeholders and legislators. |
| The Nature Conservancy | | General | Many | Strongly support this planning document. Also support additions of: groundwater protections, drought/climate change, strengthening permitting procedures, increasing field presence. Also believe the PAG rightly identified the need to use a thorough analysis of supply/demand, need for water. Recognize the IWRS is not an implementation plan, but it would be stronger if it more clearly defined the scope of the need, and how the state plans to address it. |
| Trout Unlimited | | General | Many | Support actions that lead to more effective water management, incentivize better water management practices, ensure water remains instream for sensitive species. |
| Trout Unlimited | | General | Many | Changes to bullets of recommended actions make it confusing to the reader. Avoid general actions that actually encompass more specific actions. |
| Confederated Tribes of the Umatilla Indian Reservation | | General | Many | CTUIR supports increased emphasis on GW studies, field presence, instream needs, and funding, revisions are timely and appropriate in light of acknowledged water management data and staffing inadequacies. Retain recommendations from the original IWRS as well. Consider identifying secretary of state audit recommendations and pointing out where they are addressed in the IWRS. |
| Oregon Environmental Council | | General | Many | Very supportive of several new emphases in 2017 draft; however, need to re-affirm priorities agreed upon in 2012 IWRS. |
| Pope, Craig | | General | Many | Support recommended actions in the 2017 IWRS, support the integrity of the principles, goals, and objectives of the 2012 IWRS that is the foundation of the updated document. |
| OR Farm Bureau +7 | | General: Business and individuals | Many | Several suggestions for including "businesses and individuals" in recommended actions 5B, bullet 3 (p. 63), encouraging regional systems (p. 82), 7.B - add new bullet: assist individuals and businesses in accessing resources for planning, conservation planning (p. 104); local or regional planning efforts (p. 140), 13.E, add a new bullet addressing needs of businesses and irrigation districts (p. 144) |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Overarching Comments |
|---|---|---|---|---|
| LaVigne, Hank | | See TNC's comments | Many | Support the concerns and suggestions of The Nature Conservancy. |
| Kennedy, Deborah Pearson | | See TNC's comments | Many | Support TNC's recommendations on the IWRS. Must do all we can to protect water for our children and future generations. |
| Karp, Cyndi | 148 | Conclusion: guiding principles | N/A | Guiding principle on science-based, flexible approaches, "Base decisions on best available science "and local input." Also add using an ecosystem-based management system. |
| Merchant, Deb | | General | N/A | Nice work on the IWRS. I found it informative, given my distant relationship (just an interested party). Notes that comments are at 50,000-foot level. |
| Smitherman, Julie | | General | N/A | A tremendous amount of work went into preparing this document; it's outstanding. Thank you for all the work. |
| Bierly, Ken | | General | N/A | Applaud the WRC and WRD in efforts to build the IWRS 2012 and to update it as proposed in the 2017 draft. Points out the inherent conflict between the prior appropriation doctrine and future water demands. Notes other countries that have restructured their system of water law. There continues to be a lack of information in groundwater and lack of coordination in WRD and DEQ data systems. The 2017 IWRS update advances water resource management in Oregon but is a timid approach. |
| Bierly, Ken | | General | N/A | Start thinking about how to structure the IWRS at the 10-year mark. Organize around the integrated functions of a catchment rather than the disparate authorities of state agencies. |
| Wahl, Mary | | General: Policy Advisory Group | N/A | PAG ran out of time, worked on a consensus basis, and provided little-to-no advice on a number of issues. |
| Oregon Environmental Council | | General: Policy Advisory Group | N/A | PAG had limited time with this update. In the future, consider continuity in participation and front-loading the process. |
| Collin, Will | | General: Policy Advisory Group | N/A | Served on the 2016 IWRS Policy Advisory Group --the committee members were some of the most experienced scientists, managers, and lobbyists from all over Oregon. Had excellent facilitation and all documents were publicly accessible. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Overarching Comments |
|---|---|---|---|---|
| Wahl, Mary | | General | N/A | Take advantage of the recent Secretary of State's audit by using it to address the basic water resource questions noted here. |
| Bonneville Environmental Foundation | | General | N/A | Appreciate efforts by staff and others who contributed to draft. |
| Oregon Water Resources Congress | | General | N/A | IWRS is thorough with promising ideas, ambitious in its vision. Will be challenging to implement without prioritization and funding. IWRS should be voluntary and incentive based, and preserve existing water rights. Any actions that touch upon water rights should recognize importance and protect Oregon's water code. IWRS is a tool box, not a path to make drastic changes to water law. Remain supportive of the IWRS. Represents an important step forward for Oregon. |
| The Freshwater Trust | | General | N/A | On original PAG; appreciate opportunity to provide constructive feedback. Appreciate hard work of staff, especially in light of limited resources. |
| Deschutes River Conservancy | | General | N/A | Appreciates work of OWRD and PAG, commend efforts to emphasize instream and out-of-stream needs and use of science in the decision-making process. |
| National Audubon Society | | General | N/A | We support efforts by states such as Oregon to develop and implement balanced strategies to address water needs for people and wildlife. |
| Brocker, Mark | | General | N/A | Water is essential to human life, thank you for efforts to protect it. |
| Catlett, Ken and Sandra | | General | N/A | Oregon has set the standard historically around protecting water and the environment; proposals set forth are necessary; thank you for addressing the need to upgrade. |
| Iaquinta, Michael | | General | N/A | Consider all contingencies, before meddling with waterways. |
| Moos, James | | General | N/A | Difficult to understand why we need to remind legislators the need to lead on natural resources; long term destruction for short term profit is the most important social issue we face. Protect legacy of nature, not special interests. |
| DeLorenzo, Suzanne | | General | N/A | The addition of new sections is encouraging and overall I'm very pleased with the outcomes of the 2017 update. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Overarching Comments |
|---|---|---|---|---|
| Association of Oregon Counties | | General | N/A | Directly involved in IWRS since its beginning. From 2012 through 2016, Oregon Legislature sharply changed its course from inaction to action on water developments and cuts, to significant funding for studies, planning, and projects. New legislative direction was supported by IWRS, as well as AOC and other partners. |
| League of Oregon Cities & Special Districts Assoc. | | General | N/A | Appreciate PAG efforts. Very challenging to follow the changes made in draft. A new recommended action regarding TMDL's? Don't have time to compare 2012 to 2017 IWRS. |
| Upper Grande Ronde Partnership | | General | N/A | For future revisions, we would appreciate a redline version. We are on Step 2 and hope that our planning process can serve as a living recommendation for future iterations of the IWRS. We are making progress by bringing multiple groups together and building on existing work from innovative organizations such as CTUIR, ODFW, Grande Ronde Model Watershed, Union SWCD and others. |
| Association of Oregon Counties | | General | N/A | Full support of 2017 public review draft as critical foundation for providing for Oregon's growing water needs. |
| Harney County Commission and Harney County Watershed Council | | General | N/A | An updated IWRS is critical for the continued management of this public resource (water). We express our full support for the update. It is a needed and well-crafted document put together with a broad spectrum of input. |
| Oregon Water Utilities Council | | General | N/A | OWUC appreciates the efforts of the Policy Advisory Group and supports the continued focus...on updated and implementing...a statewide strategy to manage Oregon's water resources. OWUC appreciates the additions of several new sections, but also encourages OWRD to reexamine or clarify some sections of text that were changed from the original strategy. |
| Rain, August | | General | N/A | Thank you for all that you do. Hope that you come around to see the importance of rivers, lakes, oceans. |
| Karp, Cyndi | 128 | General: Environmental justice | N/A | Broken hyperlink to best practices handbook. |
| Haslett, Dora | | None | N/A | Blank. |
| Herbert, Annabelle | | None | N/A | Blank. |

| Commenter | Pg. | Issue or Topic | Rec. Action | Comment Summary: Overarching Comments |
|---|---|---|---|---|
| Weiler, Debbi | | None | N/A | Blank. |
| Downs, Gene | | None | N/A | Blank. |
| Loewer-Torrez, Cynthia | | None | N/A | Blank. |
| Madden, Dale | | None | N/A | Blank. |

## MUCKEN Alyssa M * WRD

**From:** Kimberley Priestley <kjp@waterwatch.org>
**Sent:** Monday, August 07, 2017 8:10 AM
**To:** MUCKEN Alyssa M * WRD
**Subject:** FW: IWRS 2017 Update Comments
**Attachments:** IWRS Comparison.pdf; drought TASK FORCE ideas2.doc; IWRS strategy 2017 COMMENT FINAL.pdf

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**From:** Kimberley Priestley
**Sent:** Wednesday, July 19, 2017 10:16 AM
**To:** 'waterstrategy@wrd.state.or.us'
**Cc:** Alyssa.M.Mucken@wrd.state.or.us
**Subject:** IWRS 2017 Update Comments

Hello,

Attached please find WaterWatch's comments (and attachments to the comments) on the WRD 2017 draft update of the Integrated Water Resources Strategy. If you have any questions, please do not hesitate to call.

Thank you, Kimberley

Kimberley Priestley, Senior Policy Analyst
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503-295-4039, x 3
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Addendum to Agenda Item C:
See the following pages for comments submitted byWaterWatch of Oregon on July 19, 2017.

WATERWATCH

PROTECTING NATURAL FLOWS IN OREGON RIVERS

July 19, 2017

Alyssa Mucken
Water Resources Department
725 Summer St N.E., Suite "A"
Salem, OR 97301-1271

RE: Comments, Draft 2017 Integrated Water Resources Strategy (IWRS) Update

Dear Alyssa,

Thank you for the opportunity to comment on the Draft 2017 Integrated Water Resources Strategy (IWRS). WaterWatch was very involved in the development of the original Strategy, and has a continued interest in its directives and implementation.

The WRD has represented to Commission and to the public that the 2017 update was designed to focus on shoring up existing recommendations and/or adding new ones to fill "gaps". Despite this directive, there have been quite a few changes to the strategy that reach far beyond the realm of shoring up existing recommendations and/or adding new recommendations. In particular, a number of recommended actions important to the conservation community were cut from the strategy[1]. Many of these are quite substantive in nature. To that end, we would request that the final version of the 2017 IWRS adhere to the WRD's stated revision parameters of bolstering existing recommendations and/or adding new recommendations. WaterWatch's comments are focused so as to adhere to this directive, and to provide suggested revisions accordingly[2].

NOTE FOR REVIEW: Our comments below are drafted in to be read in tandem with WaterWatch Appendix A (attached), which provides a side-by-side comparison of the 2012 and 2017 critical issues and associated recommendations (in the form of "bullet points"). Generally, our section-by-section review found below follows the ordering of the 2017 update, focusing on recommended "bullet points" within each critical issue. Comments note the existing language found in the 2012 IWRS, the 2017 updated language, concerns with changes, proposed remedies and suggested augmentations ("bolstering"). Comments follow the ordering of the 2017 draft IWRS. While the bullet points are not numbered, ordering of bullet points on "exiting language" and "new language"

[1]Of additional concern, many of these changes were not flagged to the reader as "revisions" in the WRD's "at a glance" compilation of critical issues/directives, in which the WRD noted which recommendations were "new" or "revised". By flagging some changes to the document, but not all, and thus, in essence, steering public review to noted items, we have a concern that the public will not have the opportunity to comment on items that might be important to them.

[2] The 2012 IWRS was a "Christmas tree" strategy document of sorts, which contained a wide variety of well vetted recommendations meant to address both instream and out-of-stream needs. Not all interests supported all directives, but it was widely understood that the document, by statute, had to address both instream and out-of-stream needs. Based on the noted 2017 revision guidelines of "bolstering existing" or "adding new" recommendations, WaterWatch is not including comments on existing 2012 measures that we do not support and/or would prefer be removed altogether. That is not the purpose of this "update". We urge the WRD to take this into consideration when reviewing all comments; in other words, the 2017 update is not the place to remove 2012 recommendations select interests might not like—whether instream or out of stream.

become self-explanatory when read in tandem with Appendix A, which again, provides a side-by-side comparison.

## I. Critical Issue 1: Understand water resources/supplies/institutions

### A. Recommended Action 1A : Conduct Additional Groundwater studies

Original Language: Locate and document exempt use wells
New Language: Locate and document water wells
Concern: It is noteworthy that the original directive spoke not only to locating exempt uses, but documenting the volume of use as well (see narrative, 2012). How much water is being appropriated from Oregon's aquifers via exempt well use is very important for both planning and management purposes. This 2012 directive on documenting exempt well use has not only been cut from the 2017 recommendations but also from the narrative body of the 2017 IWRS update. The proposed change is a significant backtracking from the original language and intent of the 2012 IWRS. Exempt wells in Oregon are of significant concern to both conservation interests and senior water right holders alike. The WRD should be bolstering the strategy's attention to exempt wells by calling for a reform of exempt well law and/or flagging the need to ensure that exempt wells will not impact either streamflows or senior users, not cutting existing the one existing directive on exempt wells that calls for documentation of exempt well use.
Flagged as revision: NO
Remedy: re-insert specific language to exempt wells agreed upon in 2012, as well as the accompanying narrative.

Augment to 1A: We would suggest adding additional bullet points to 1A to bolster the state's understanding of groundwater including, but not limited to:

- Documenting basins/sub-basins where there are groundwater declines
- Exempt wells: Studies to determine if/where there are areas where exempt wells are contributing to groundwater declines, impacting senior water right holders and/or reducing streamflows. Fund this work.
- Scenic waterways: evaluate each scenic waterway to determine if the scenic waterway act's trigger for groundwater mitigation (e.g. "measurable reduction") has been met. Fund this work.
- Funding: fund groundwater studies and observation wells.

### B. Recommended Action IB: Improve Water Resources Data Collection and Monitoring

Original Language: Update Oregon's Stream Gage Network
New Language: Increase the number of stream gauges with reportable water temperature data to support water quality programs
Concern: Edit to ensure that both components of the narrative are captured---the need for more stream gauges and the need for more stream gauges with water temp data. As written, there is no directive to continue to update (i.e. expand) the stream gauges for flow sake. Given the importance of this document for budget purposes, it is critical that the state keep the bullet on increased stream gauges in and of itself.
Flagged as Revision: NO
Remedy: Combine so that both concepts are captured, suggested language--"Increase the number of stream gauges and increase the number of gauges with reportable water temperature data".

Original Language: Add remote and real time capabilities to monitoring stations
New Language: Deleted
Concern: Unless all monitoring stations have been updated to provide remote and real time capabilities, this bullet point should be retained as a stand-alone bullet. Given today's technology, the state should strive towards real time capabilities for all monitoring.

Flagged as revision: NO
Remedy: Re-insert original language

**C. Recommended Action 1C: Coordinate Inter-Agency Data Collection, Processing and Use in Decision Making**

Original Language: Invest in Scientific Modeling Tools
New Language: Deleted
Concern: While the narrative on investing in scientific modeling tools is still included, the bullet point has been deleted from the recommended action. Investing in science and scientific modeling tools is a very important goal for this state and should be kept as a bullet point, especially since this document is used so heavily in budget discussions. Removing it does not fall under "shoring up existing" or "adding new" directives which WRD has represented are serving as the sideboards.
Flagged as revision: NO
Remedy: Restore.

NARRATIVE NOTE: cut from narrative is the subsection titled "Expand Use of Lidar Technology", with a pull out box highlighting this. This type of information is very important to documenting water use and other water related data and should be retained, and even given a bullet point. There was significant discussion of this in 2012; and while the subject has been relocated to "invest in Inter-Agency work" (pg. 32, 2017), the directive to "expand use" is now gone. Deleting the narrative directive on this point does not "shore up existing" or "add new" directives, but instead takes the document backwards. See page 24, 2012 IWRS.

NARRATIVE NOTE: The 2017 IWRS Draft has added a section on five year groundwater permits in groundwater administrative areas (see pg. 21, 2017) which declares that "the goal is to review and renew these time limited permits to a common date". This is a huge policy declaration that has no place in the IWRS, and makes a promise to users absent the data/review to back it. These permits need to be evaluated based on the scientific data available to the WRD at time of the review, which could, presumably lead to them being cancelled.
REMEDY: Delete the whole of the paragraph on time limited permits from page 21 on the 2017 document.

**II. Critical issue 2: Further Define out-of-stream needs/demands**

**A. Recommended Action 2A: Update Long-term Water Demand Forecasts (2017 version says "regularly update")**

Original Language: Quantify/model economic value of instream and out-of-stream water
New Language: Deleted
Concern: The notion of quantifying the economic value of instream and out-of-stream uses has been dropped both from the bullet point and the narrative. As discussed in the 2012 version, this kind of information is of critical importance to the USBR, OWEB and other major funding agencies, where economic information is needed to assess the costs and benefits of potential projects or proposals. Deleting this concept does not "shore up existing" or "add new" directives, but instead takes the strategy backwards. See pg. 32-33, 2012 IWRS).
Remedy: Re-insert the original language.

Original Language: Enhance the state's water use reporting system
New Language: DELETED
Concern: The state can and should be improving its water use reporting; removing this bullet point takes us backwards.
Flagged as revision: NO
Remedy: Re-insert and/or move to section 2B. It likely fits better in that section, but we do not want to see it lost altogether by simply deleting.

Augment: Enhance this directive by adding, "; seek broad reporting authority".

Narrative: Opening paragraph, pg. 36. This section has been updated to note that consumptive use accounts for 8% of the 100 million acre feet of water found in Oregon's streams, lakes and aquifers. Without context, this statement could lead the reader to believe that there is ample water to fuel new uses. The fact of the matter is nearly all river basins across the state are over-appropriated late spring, summer and fall months.
Remedy: The WRD should note the seasonal over-appropriations so the reader has a better understanding of context of this statement (if the statement is retained).

Narrative: The subsection on "conservation successes" on pg. 30 of the 2012 Strategy (under Water Use in Ag) has been deleted. It is unclear why as this is valuable information.
Remedy: Re-insert.

**B. Recommended Action 2B: Improve Water Use Measurement and Reporting**

Original Language: Fully Implement the State's water user measurement strategy
New Language: Update the state's 2000 strategic measurement plan
Concern: The WRD should not delete language directing it to fully implement the 2000 Strategy. While we agree that it needs some updates (i.e. setting timelines, seeking reporting authority, expanding to groundwater) to simply delete the directive to comply with the strategy takes the state backwards. Simply stating that the WRD will update the 2000 Water Measurement Plan does not lead to improvement in water use measuring and reporting.
Flagged as revision: NO
Remedy and augmentation: Have a bullet point for each:

(1) fully implementing the existing Water Use Measurement Strategy by 2020 (or some other near term date),
(2) update the strategy to address areas not captured under the original plan, including but not limited to:
a) reporting of measured use, b) measurement and reporting of groundwater,
c) expanding measurement/reporting beyond significant diversions.

Original Language: Employ remote sensing
New Language: This language was removed from the measurement/reporting section and moved to "demand forecasts" with the qualifier "to improve crop water use estimates".
Concern: To remove this bullet from the "improve measurement and reporting" section calls into question the state's willingness to use this information to document water use, as opposed to using for demand forecasting. As the WRD is aware, the vast majority of water right holders in Oregon do not measure and report their water use; as such, remote sensing is, as noted in the 2012 narrative on this "an emerging measurement tool that may help the state to better understand the location, timing and quantity of water use into the future." The WRD's edit has changed the purpose of this bullet point substantially.
Flagged as revision: NO
Remedy: Keep this bullet point ("Employ remote sensing") under Measurement and Reporting Section where it lies under the 2012 Strategy.

Augment: We would recommend additional recommendations (bullets) to strengthen the "improve measurement and reporting" section. At virtually every open house and every PAG meeting, the need for improved measurement and reporting was raised. The WRD's directives on this point do not clearly articulate a path forward on outstanding issues. Thus, in addition to the points above, we would recommend adding the following bullet points:

- Seek broad reporting authority. (Currently, while the WRD has broad measurement authority, its reporting authority is more limited).
- Fund WRD water measurement and reporting staff/resources/data base management/etc.

- Improve data availability using emerging technologies—the PAG recommended that this be added to Recommended Actions 1-3, but we do not see it included. See WRD Memo to the WRC dated, 1/26/17.

**C. Recommended Action 2D: Authorize the update of water right records with contact info**

Original language: Update related water right database and GIS Data
New Language: Update related water rights records
Concern: All data should be available to the public, thus any updated water rights should be updated in the database. Moreover, GIS information is critical to future management. It is unclear why the WRD cut this language, but to ensure that users understand that GIS should and will be required of all rights this should be kept as part of the bullet point. If this is a "completed task" (i.e. all water rights have a GIS associated with them) then disregard this point, but if not we would suggest the following remedy.
Remedy: Merge the two statements so it reads: update related water rights records including, but not limited to, updating database and GIS data.

Narrative: Pg. 37, Contributions of Agriculture third paragraph. The 2017 version notes that agriculture produces $5.7 billion, "making it a top economic driver in Oregon". This is new language. At the same time, the section on outdoor recreation/tourism, which brings in $12.8 billion, does not have similar statements to denote its ranking as a "top economic driver" (see pg. 44, 2017 draft). If the document is going to state that Ag is a top economic driver, it should note the same for instream uses/tourism.

**III. Critical Issue 3: Understand Instream Needs**

**A. Recommended Action 3.A: Determine flows needed (quality and quantity) to support instream needs**

Pg. 48, 2017 Draft: WaterWatch strongly supports the changes made to Recommend Action 3A. These recommended changes mirror statewide discussions on this subject. Rather than go bullet point by bullet point, we will just comment that we support all the changes (or similar, if ODFW offers alternate language). In particular, we strongly support the bullet "conduct instream needs studies, base flow needs studies, and develop elevated flow requirements or prescriptions". That said, we would suggest adding to this point the following: "; provide funding for ODFW to complete this work". WaterWatch also strongly supports the new directive to, "continue to fund the Department of Fish and Wildlife's Instream flow program"; that said, we would encourage the WRD to also insert specific language tied to specific directives to ensure these important undertakings are not lost in the more general language of the noted bullet point. As WRD is well aware, the IWRS strategy is referenced widely in legislative discussions on budget; thus, reference to funding for specific instream pieces is critical to ensuring this directive is met. Currently, ODFW's instream flow program is not funded at a level that would allow it to meet the IWRS directives in any near term time frame (i.e. existing instream flow studies will take decades to complete with current funding).

Pg. 48, 2017 Draft: In addition to the revised bullet points found under Recommended Action 3A, we suggest adding the following bullet point (either here or in the climate change section):

- Develop instream flow demand forecast to understand ecological needs in a changing climate.

This is separate and distinct from the instream flow studies, and is critical to understanding where resources will be most scarce in the future and where state restoration priorities should focus. This bullet should be included either here or in the climate change section.

Narrative: The opening paragraph to this section has been changed (page 44, 2017 draft). Specifically, the WRD inserted a new paragraph describing volumes of water. As WRD has heard in multiple forums, fish do not rely on "acre foot" sum totals, but rather on flow rates at any given point in time. To say that there exists 91 million acre-

feet of un-diverted water is misleading and could serve to lead the reader to think there is not a problem as far as water remaining in our streams and rivers. The fact is, Oregon's rivers are seriously over-appropriated late spring/summer/early fall precisely when pressures on our rivers are at their highest. The result is, there is not enough water in our rivers when fish need it.
Remedy: Delete new paragraphs and insert the original (see 2012 strategy page 36).

Narrative: Headings throughout this section have changed so that definitive statements such as "Water instream supports economic health" now read "Understand how water instream supports economic health". This is less powerful as a statement. The 2017 update is supposed to enhance and/or fill gaps, making less strong statements strays outside of this directive.
Remedy: Use original headings

**B. Recommended Action 3.B. Determine needs of groundwater dependent ecosystems**

Original language: Complete groundwater basin studies
New Language: Deleted
Concern: While I appreciate WRD noted groundwater studies in Recommended Action 1, it should be retained here to ensure public and legislative understanding of the connection between groundwater ecosystem health and understanding our groundwater resources (i.e. studies).
Remedy: Restore
Augment: Oregon does not have clear directives for evaluating and/or protection groundwater dependent resources in permitting decisions. We would suggest that the WRD add a bullet point noting the state should/will seek this.

## IV. Critical Issue 4: Water and Energy

**A. Recommended Action 4C: Promote Strategies that Increase/Integrated Energy and Water Savings**

Original language: Ensure that efficiency programs capture and publicly report both water and energy savings data
New Language: DELETED
Concern: Making data less accessible to the public is not the direction the state should be going, especially where public dollars are funding efficiency projects. Keeping water use data out of public reach appears to be a new trend, one we hope the state would reject as it is not good public policy.
Flagged as revision: NO
Remedy: Re-insert original language

## V. Critical Issue 5: Climate Change

**A. Recommended Action 5.A. Support continued basin scale climate change research efforts**

Augment: This section failed to include the recommendation developed by the PAG which is:

- Understand the effects of climate change on streamflow

This should be added to the document. See PAG memo to the WRC, 1/26/17.

**B. Recommended Action 5.B: Assist with Climate Change Adaptation and Resiliency Strategies**

Original language: Invest in and make improvements in surface water and groundwater monitoring
New Language: DELETED
Concern: Monitoring of flow and water quality will be more critical than ever as the impacts of climate change heighten. This is a key piece to understanding climate change trends.
Flagged as revision: NO
Remedy: Restore original language

Original language: Invest in real-time forecasting of water deliveries, basin yield, streamflow, flood and drought frequency projections
New Language: DELETED
Concern: Moving towards real-time forecasting/monitoring should continue to be a priority of this state. It is unclear why this was deleted. If it is because the WRD added a bullet point in 5A relating to monitoring, I would note that that language does not include the work "real time monitoring".
Flagged as revision: NO
Remedy: Restore original language, or in the alternative insert the words "read time monitoring" into bullet #1 in 2017 Recommended Action 5A.

Original Language: Provide support to communities to incorporate climate change into their planning decisions
New Language: Provide technical and financial support to communities to incorporate climate change impacts into their planning decisions.
Concern: Scattered throughout the 2017 document are increased calls to providing financial support; however, little of this is directed to instream initiatives. While we don't object to this new language per se, unless the instream directives are also accompanied by language calling for "funding" and/or "financial support" we would object to the expansion of "support" to "financial support" for out-of-stream initiatives. Moreover, the new directive limits the scope to "climate change impacts" rather than incorporating concepts such as resiliency.
Flagged as revision: NO
Remedy: Insert language into the instream provisions to direct funding for ODFW and DEQ staff, initiatives, studies and monitoring efforts. Expand so that "resiliency" is part of the climate change planning process.

Augment: We would suggest that WRD work with ODFW to develop some river/fish climate change recommendations for this section, including directives on thermal refugia, among other things.

Additionally, we would recommend the WRD add the bullet point recommended by the PAG:

- Understand the effects of climate change on streamflow (see PAG Memo to the WRC, 1/26/17)

**VI. Critical Issue 5.5 Extreme Events (new section)**

**Recommended Action 5.5A: Plan and Prepare for Drought Resiliency:** The Drought directives should be augmented substantially. Governor Brown, via Ex. Order 15-09, specifically directed the WRD to "address drought in Oregon's 2017 update to the Integrated Water Resources Strategy, including long term drought resiliency planning". Despite this directive, little PAG time was spent on this subject; the recommendations under 5.5A reflect that.

I would also note that the minimal PAG time that was spent on drought was largely spent reviewing the recommendations of the Governor's Drought Task Force. A couple points on that. First, the Governor's Drought Task Force (which WaterWatch served on) was told repeatedly that its focus was limited to short term drought directives, and that any "drought resiliency" measures would be developed via the IWRS 2017 update process. As a result, many long term resiliency measures were not discussed and/or were punted to the PAG. Second, the

make-up of the Governor's Task Force was very unbalanced, with only three conservation seats of the eleven, and recommendations required (by statute) a "majority". As a result of these two factors, the recommendations of the Drought Task Force focused largely on easily supported recommendations (i.e. data needs, etc) and really did nothing to move the ball forward on what is likely the more difficult conversations needed to build drought resiliency measures, especially those needed for rivers and aquatic species. That the PAG then focused discussions on the Drought Task Force Recommendations, only served to further kick the can down the road as far as developing true resiliency measures.

For the Drought Task Force WaterWatch developed a number of suggested provisions aimed at protecting critical flows for fish/rivers during times of drought. They are attached to these comments, and hereby incorporated by reference, but include the concepts of:

- Enforcing against waste
- Governor or WRC mandated conservation plans (separate from WMPCs)
- Measurement and reporting of water use
- Mandatory curtailment in times of drought
- Municipal and Ag WMPCs
- Drought fishing regulations
- Emergency minimum flows for fish
- Leasing/purchasing water instream
- Protecting thermal refugia
- Funding science/data

We would urge the WRD and WRC to consider including these proposals in the IWRS. Absent that, we would request that the WRD, via the 2017 IWRS, commit to long term drought resiliency planning. This planning effort should be made up of a balance of interests to advance mitigation and resiliency measures for major sectors affected by drought, including but not limited to, agriculture, municipal and fish and wildlife. In the alternative to a larger planning process, we would suggest that funding be provided to ODFW to develop a drought resiliency strategy for rivers/fish/wildlife.

As to the recommended bullet points (pg. 68, 2017 draft), in addition to calling for mitigation/resiliency planning for all sectors, the existing bullet points should be edited so as to include both instream and out-of-stream sectors. For instance, the directive to prepare for, respond to and mitigate for the impacts of water scarcity should state "on instream and out-of-stream uses". And the directive to "assess and assist those communities most vulnerable to drought" should be edited to state "those communities and ecosystems". All in all, we were very discouraged that nothing in the IWRS strategy directs strategies/mitigation/planning towards the most vulnerable sector in a drought—fish and wildlife. This needs to be corrected.

Additionally, it appears that some of the PAG's new recommended actions and/or new supporting statements/confirming statements did not make it into the 2017 update, including:

- PAG recommended action: Ensure the necessary data, vulnerability assessments, and documentation of impacts to better prepare for, respond to and mitigate water scarcity.
- PAG recommended Confirming Statement: The state should continue to increase and enrich water related data collection to inform water use decisions, conservation, and management, as well as better anticipate and respond to drought.

These should be added to the 2017 update. See PAG memo to WRC, 1/26/17.

As to the narrative, we would suggest working with ODFW to bolster the narrative on fish/rivers. It is not just "fishing days" that are affected; it's the health and viability of fish and other aquatic species over time.

Additionally, the description of the drought declaration process does not include a full description of the drought declaration process, and instead only describes drought declarations as requested by Counties. We would suggest that the drafters look to the Drought Task Force Report for a clear description of the available paths, including a Governor declared drought (absent counties). Furthermore, to the extent the IWRS is stating what comes with a drought declaration, the document should include all authorities, including the ability of the Commission to mandate conservation (not tied to WMPC's).

**Recommended Action 5.5B: Plan and Prepare for Flood Events (pg. 69-70):** This section should be amended to include both a narrative and a bullet point encouraging floodplain restoration. Floodplain restoration is proven technique for reducing the effects of floods, among other things. While we recognize it is mentioned in a later section of the IWRS, it is very relevant to this discussion.

## VII. Critical Issue 7: Water Related Infrastructure

### A. Recommended Action 7.A: Develop and upgrade water and wastewater infrastructure.

Current Language: Properly abandon infrastructure at the end of its useful life
New Language: Properly abandon wells at the end of their useful life
Concern: Wells are not the only infrastructure that should be properly decommissioned and/or abandoned. The 2012 strategy included narrative language on the need to properly decommission dams, among other infrastructure. This narrative piece has been deleted, and the associated bullet point greatly narrowed so the directive only applies to wells. It is unclear why WRD would delete such an important provision of the IWRS, especially without flagging this change to the reader.
Flagged as revision: NO
Remedy: Re-insert old language and augment to make the scope crystal clear, i.e. properly abandon/ decommission wells, dams and other infrastructure at the end of their useful life. Also, re-insert the deleted narrative on the subject of dam removal found on page 69 of the 2012 IWRS.

### B. Recommended Action 7.B: Encourage Regional (Sub-Basin) approaches to water and wastewater systems.

Current Language: Provide incentives, such as funding and technical assistance
New Language: Provide funding and technical assistance to systems that want to consolidate
Concern: Again, scattered throughout this document are new directives "to fund". As we saw with the 2012 version, these types of directives lead to legislative efforts to build programs and supply funding for these projects. Our concern is that we are not seeing similar directives attached to the instream provisions, i.e. fund dam removal, fund instream flow studies, etc. This puts instream funding on an unequal playing field in budget discussions. Unless there is equal distribution of funding directives across sectors, we would object to this expanded language here. We are also concerned about the disproportionate directives to provide "technical assistance"; this puts into the strategy priorities for WRD staff. Moreover, the directive in this instance does not include sideboards of environmental, economic and social benefits; it simply directs funding to any system that wants to consolidate.
Flagged as revision: NO
Remedy: Re-insert the more discretionary existing language and/or attach the same firm (i.e. fund) directives to the instream directives.
Narrative: The document should encourage regional systems that allow consolidation in a way that takes pressure of sensitive streams.

## VII. Critical Issue 8: Education and outreach:

### A. Recommended Action 8.C: Promote Community Education and Training Opportunities

Augment section: Add a bullet point similar to the existing that says something akin to "look for opportunities to educate water user groups, watershed councils and the public about available conservation tools, including the Conserved Water Act".
Rationale: Discussions in the Drought Task Force and also Rep. Helm's Water Workgroup highlighted the need to educate the public, water user groups, watershed councils, etc. about the various tools available for conservation, including but not limited to the Conserved Water Act and instream transfers/leases. WaterWatch would suggest a new bullet point dedicated to educating water users, water associations, watershed councils, etc. about available legal tools.

### B. Recommended Action 8.D: Identify Ongoing Water Related Research Needs

New Language (pg. 90, 2017): Provide funding for research needs
Concern: This new provision for funding is wholly undefined. There is no narrative attached to this bullet point. WaterWatch would support if it was limited to funding research needs of agencies, i.e. WRD, ODFW, DEQ, for necessary research/data such as groundwater studies, instream flow studies, etc. That said, in its current form this sentence is too undefined to be useful, and could result in unintended consequences (i.e. state funding of consultant work for private parties).
Remedy: Narrow bullet point so it reads "provide funding to state agencies for research needs that further the IWRS".

## VIX. Critical Issue 9: Place Based Efforts

### A. Recommended Action 9.A: *Continue to* Undertake Place Based Integrated Water Resources Planning

Title: This title of Recommended Action 9A has been changed from its original form (2012 version) by adding the words "continue to". WaterWatch objects to this change. As the WRD well knows, the inclusion of place based planning in the 2012 was very controversial. Funding for this work was also controversial, but made it through based on the understanding that funding was for a "pilot" process. The four pilots are currently underway. Until the pilots are completed, it is premature to change the directive to say "continue". Moreover, it's unnecessary. As drafted in the 2012 IWRS (Undertake Place Based Integrated Water Resources Planning), the door continues to be left open for future place based planning endeavors. What the addition of the word "continue" does is directs continued work regardless of the pilot results, and sets the stage for legislative budget decisions absent an evaluation of the final plans and/or the assessment of their usefulness. It should be noted that the PAG rejected the WRD suggestion to add the word "continue". It should also be noted that water stakeholders rejected a proposed funding package this session that would have continued the program into the future beyond the four pilots. Given broad stakeholder agreement that it would be wise to wait until the pilots are complete so as to assess the program as a whole, we are perplexed by the WRD's dogged pursuit of this particular piece of the IWRS. Again, leaving the title as is leaves the door open to future endeavors. Changing the title to include the word "continue" mandates a direction forward regardless of the pilot program's outcome. The WRD's decision to include this language renders the pilot nature of this endeavor meaningless.
Remedy: delete the words "Continue to" from the title of this recommended action.

New Language: Promote success by continuing to support the placed currently following the draft planning guidelines
Concern: This does not necessarily narrow to the pilot projects; it could be read to be directing the WRD to support any community that plans according to the WRD's draft guidelines
Remedy: adjust language so that it reads "promote success by continuing to support the four pilot projects as of 2017".

New Language: Continue to provide financial and technical assistance to support collaborative water planning
Concern: Again, given the pilot nature of this program it is premature to direct continued funding absent evaluation.
Remedy: Delete.

New language: Solicit community input on place placed planning, refine the planning guidelines, and implement process improvements.
Concern/remedy: The WRD should solicit input broadly, not just from communities. Strike the word "community".

**B. Recommended Action 9B: Coordinate and reconcile existing ecological planning and restoration efforts**
Existing language: Coordinate and reconcile existing ecological planning and restoration efforts
New Language: Coordinate and reconcile existing planning documents
Concern: by removing the words "ecological planning and restoration efforts" the new directive greatly expands the types of planning documents that might fall under this, and could lead to unintended consequences. While we appreciate the title of the section as a whole includes this language, we think it prudent to include in the actual directive so there is no confusion.
Remedy: Restore original language.
Augment: Nowhere in this document could we find a directive to further planning for rivers/fish/aquatic species. At the very least, the document should direct planning of resiliency and mitigation measures for aquatic habitats/species in the face of climate change, drought, etc. We would suggest a bullet point on this either here, in the drought section, in the climate change section or in the instream section.

## XX. Critical Issue 10: Water Management and Development

**A. Recommended Action 10A: Improve water use efficiency and water conservation**

Original Language: Prioritize agricultural water use efficiency
New Language: DELETED
Concern: This measure is incredibly important for directing attention and resources to agricultural conservation. PAG members, open house participants and the on-line survey all noted the need for increased attention to conservation, but little to no time was spent in the PAG discussing. To then delete, with no discussion amongst the PAG, this critical directive takes the state in the wrong direction. As noted, WRD has represented to the public that the 2017 update would be limited to shoring up existing directives and/or adding new ones. To then delete a much negotiated directive from the 2012 Strategy (without flagging to the reader as a "revision" for that matter) undermines the process.
Flagged as a revision: NO
Remedy: Re-insert original language.
Augment: As noted, PAG members and the public called on the state to bolster the conservation directives; nothing was done. To that end, we would suggest at the very least that the WRD add the additional bullet point (in addition to re-instating the original point on agricultural efficiency):

- Fully implement the WRD's Water Conservation Policy found in the Div. 690-410 rules, which among other things, call on the state to develop basin by basin efficiency standards
- Enforce against waste. This is a basic tenant of Oregon Water Law, permit conditions, etc.

Original Language: Conduct a state-wide conservation potential assessment
New Language: DELETED
Concern: This was another key bullet point negotiated in the 2012 strategy. As noted in the 2012 narrative (also deleted in the 2017 version):

> As for research needs, a statewide assessment that looks at the potential for water conservation would provide a quantitative basis for estimating how much water savings could be achieved with a variety of conservation best practices. A basin-by-basin hydrologic assessment of conservations benefits and/or impact on streamflows is another research need that could help the State and its conservation partners prioritize future efforts.

This continues to be a need in 2017. That the WRD deleted this in the face of public comments to bolster conservation is troubling.
Flagged to reader as a revision: NO
Remedy: Re-insert original language.

**B. Recommended Action 10E: *Continue the* Water Resources Development Project**

The WRD has wholly changed the substance, and hence, the meaning of this section. As originally drafted, this section focused on enabling the WRD to partner and invest in water supply development projects, as a state agency (see pg. 96-97 of 2012 IWRS). In the 2017 draft (see pg. 112, 2017 draft), the WRD has completely transformed this section from a directive for the state to engage in water development as a state to a directive to further bolster feasibility studies, place based planning and SB 839 funding for water projects. Notably, these three subjects are already captured in the document elsewhere, e.g. see Section 9 and Section 13. There is no need for further narrative and/or bullet points on these three subjects. By proposing the narrative and bullet points that simply bolster already existing sections/directives serves to elevate these ideas above others; in other words, it gives them an unfair advantage in funding/policy realms over other equally important directives (i.e. instream). If the state is no longer interested in seeking authority to enable it to be an active partner in water supply development (as opposed to a funding source); this entire section should be deleted. Again, Section 9 and Section 13 already give direction on the points contained herein.

Remedy: delete 10E as a whole. If the WRD does not delete this section (narrative and bullet points), than it should at least change the bullet points so that instead of "communities" change to "communities and ecosystems". As noted previously, the 2017 version has bolstered substantially the funding directives aimed at consumptive users. Equal attention should be paid to instream. The statutory directive for this plan clearly states that the plan is to meet instream and out-of-stream needs; the IWRS should reflect that.

Augment: In addition to deleting the section as proposed, WaterWatch would suggest that this section be re-invented so that the IWRS has a stand-alone section on groundwater in the water management section (separate discussions than under 11's "healthy ecosystems"). As the WRD and WRC are well aware, the sustainability of our groundwater resources is of increasing concern across all spectrums. A groundwater management section could focus on:

- Rule Updates to ensure sustainable groundwater permitting (i.e. default to no) and enhancing regulatory authority (i.e. outside of one mile from streams).
- Exempt well reform (i.e. no exempt wells w/i ¼ mile of an over appropriated stream and/or other groundwater compromised systems; decreasing amount for domestic from 15k a day to 5k a day, etc)
- Fund observation wells, data collection, groundwater studies/research
- Measurement and reporting of groundwater use

Recommended Action 10F: Provide Adequate Presence in the Field

WaterWatch strongly supports the inclusion of this new section as field staff are incredibly valuable to all interests----farmers, cities, fish, recreationalists, etc. That said, we would strongly recommend that the 2017 IWRS narrative include explanations of what the field staff for ODFW and DEQ accomplish, as well as the narrative WRD has included on WRD water masters. The importance of this cannot be overstated. This document is widely used in legislative budget discussions; as such the document should be drafted to give equal attention to the needs of the three state agencies called out specifically in the governing statute: WRD, ODFW and DEQ. It is not equitable to only describe the work of WRD.

## XI. Critical Issue 11: Healthy Ecosystems

WaterWatch supports comments by ODFW and DEQ to improve/augment this section.

**Augmenting Healthy Ecosystems Section**: As noted, sprinkled throughout the 2017 IWRS, and then also captured in Section 13, are a number of new funding directives that are aimed largely at out-of-stream user and/or water development. The 2017 IWRS should also have instream directives augmented to address funding. Specific to directives included in Section 11 we would ask that the WRD include funding directives to:

- Fund ODFW instream flow studies needed to support instream water rights
- Fund Oregon Department of Parks work to study three rivers per biennium for inclusion in the state scenic waterway program
- Fund ODFW instream flow demand forecasting
- Fund fish passage and screening
- fund implementation of the Oregon Conservation Strategy

### A. Recommended Action 11.B. Develop Additional Instream Protections

Augment: While we strongly support this section, it could be strengthened by including more detailed directives. For instance, for the establishment of scenic waterways, the document should commit to the study of 3 rivers per biennium, which was the charge directed by Gov. Kitzhaber, and carried forward by Gov. Brown, in 2013. The instream water right directive should include a directive to establish instream water right needed for the full suite of flows, not just minimum flows. Developing protections for thermal refugia should also be noted. And finally, funding for all this work should be included as a bullet point.

### B. Recommended Action 11.D: Protect and restore instream habitat and habitat access for fish and wildlife

Augment fish passage barrier removal: Actions should not be limited to those in the Oregon Conservation Strategy. Oregon should commit to aggressively working to solve the fish passage barrier problem in this state, including but not limited to proactive dam removal and/or requiring fish passage (beyond triggering events). Fish passage is required under Oregon law. Moreover, funding needs to be called out for this work.

### C. Recommended Action 11E: Develop additional groundwater protections

WaterWatch strongly supports the inclusion of additional directives on groundwater. That said, as we noted repeatedly in 2012, we think the strategy would benefit greatly from an independent section on groundwater. As to the recommended language, in addition to the bullet points contained in this new section, we would suggest the following:

- Reform exempt well rules/regulations (i.e. no wells w/i a ¼ mile, permitting decisions, etc)
- Ensure mitigation is provided for any new groundwater permits where "measurable reduction" trigger of the Scenic Waterway Act has been met.

**XII. Critical Issue 13--Funding;** As noted previously, the 2017 draft IWRS has substantially bolstered language connected to water development, community planning and other endeavors that are primarily geared at out-of-stream users. Instream directives and those that would advance water management for all users need commensurate language. Specifically, we request the following bullet points (some noted earlier) be included here:

- Fund ODFW instream flow studies (base, elevated, svf)
- Fund additional groundwater studies
- Fund Oregon Department of Parks work to study three rivers per biennium for inclusion in the state scenic waterway program
- Fund ODFW instream flow demand forecasting
- Fund fish passage and screening
- Fund streamflow gauges
- Fund observation wells
- Fund water measurement and reporting staff/data/analysis/cost share fund
- Fund climate change research/projections
- Fund implementation of the Oregon Conservation Strategy
- Fund drought resiliency planning for Oregon's rivers/aquatic species

As the WRD is well aware, natural resource agencies are chronically underfunded. Without equal support of instream work, this document will provide unbalanced direction to the legislature as far as funding priorities for water. In other words, by calling for funding of some directives but not others, the 2017 IWRS is, in a sense, prioritizing select activities over others. This is not fair and does not meet the statutory directive to meet both instream and out-of-stream needs.[3]

**Recommended Action 13C: Invest in Local or Regional Planning Efforts**

New Language: Continue to authorize and fund public and private investments in place-based integrated water resources planning (no existing language)
Concern: As noted previously, place based planning is still in its PILOT stage. Until the pilots are competed and then assessed as to their value, it is premature for the IWRS to direct the continued funding of this work.
Remedy: strike from the document; in the alternative, change the directive so that it references the pilot nature of the endeavor (i.e. once pilots are complete and stakeholder/agency evaluation results in support to continue this work, then fund…….). The narrative, also, needs to be updated so as to explain to the reader the pilot nature of this work.

New Language: Provide funding to develop water management and conservation plans (no existing language)
Concern: The state should not be paying for WMPCs that are required by law either under the Div. 86 rules or the Div 410 rules (which included Ag). The narrative focuses on small water providers, but the bullet point directive is wide open and could apply to any WMPC. Moreover, as noted, given the limited nature of state funds we do not think it appropriate for this guiding document to be basically calling for a subsidy of already required work.
Remedy: Delete from document

[3] NOTE: WRD should work with both DEQ and ODFW (the two NR agencies WRD is tasked with coordinating with on the development the IWRS under statute) to determine what funding priorities they want included in this document as the above list might not be fully comprehensive.

New Language: Support river basin planning efforts (no existing language)
Concern: There is no narrative explaining this point. That said, given its location under the "invest in local or regional water planning efforts" we can only surmise that the WRD's intent is to influence an ongoing debate/question about the role of place based planning. Place based planning is separate and distinct from "basin plans", and has never been publically promoted as a path to changing existing basin plans. If the state is trying insert a policy directive that would lend to an initiative that would have place based plans usurp existing law (basin plans are in rule) then we would strongly object. These are very different documents; most importantly, the basin plans set protective restrictions on use and appropriations based on data/research connected to the state of the resource, not on the opinions of the local community.

Conclusion: WaterWatch appreciates the time and effort that the WRD put into the draft 2017 Update. That said, as noted, we have concerns about the many changes made to the 2012 Strategy that remove or alter many agreed upon recommendations. We would urge the WRD to narrow its revision to limit changes to bolstering existing and/or adding additional sections where there are gaps, as represented. The 2012 IWRS was the result of intensive discussion/negotiation. The 2017 update was a much more truncated discussion/process. We do not believe the 2017 work should undo past good work, but instead add to it.

Thank you for the opportunity to comment. If you have any questions please do not hesitate to call.

Sincerely,

Kimberley Priestley
Sr. Policy Analyst

Enclosures

## *Appendix A* Recommendation Set #1

| *2012* | *2017* |
|---|---|
| **Recommended Action 1.A**<br>Conduct Additional Groundwater Investigations<br><br>*How to implement this action:*<br><br>• Test water quality in private drinking water wells<br>• Maintain and install additional monitoring wells<br>• Partner with USGS to conduct and cost-share additional groundwater investigations<br>• Assess groundwater administrative areas<br>• Locate and document exempt use wells<br>• Locate and document UICs<br><br>(Pg. 20) | **Recommended Action 1.A**<br>Conduct Additional Groundwater Investigations<br><br>*How to implement this action:*<br><br>• Install and maintain dedicated state observation wells in priority basins<br>• Partner with U.S. Geological Survey to conduct and cost-share additional groundwater recharge studies and basin investigations<br>• Evaluate groundwater administrative areas<br>• Locate and document water wells<br>• Ensure high-quality groundwater level measurements, installing measuring tubes and making scheduled measurements<br><br>(Pg. 21) |
| **Recommended Action 1.B**<br>Improve Water Resources Data Collection and Monitoring<br><br>*How to implement this action:*<br><br>• Establish dedicated monitoring wells<br>• Update Oregon's stream gage network<br>• Implement an on-going state-wide groundwater quality monitoring program<br>• Prioritize basins for data collection and monitoring • Evaluate habitat conditions and effectiveness of restoration efforts<br>• Add remote and real-time capability to monitoring stations<br><br>(Pg. 23) | **Recommended Action 1.B**<br>Improve Water Resources Data Collection and Monitoring<br><br>*How to implement this action:*<br><br>• Use agencies' monitoring strategies, or similar methods, to design and maintain monitoring networks<br>• Prioritize basins for data collection and monitoring<br>• Establish quality assurance procedures to verify the accuracy of water use and other data<br>• Improve agency capacity to collect and analyze data, bringing records to final form<br>• Implement an on-going state-wide groundwater quality monitoring program<br>• Update water quality standards and develop additional TMDLs as necessary<br>• Increase the number of stream gages with reportable water temperature data to support water quality programs<br>• Monitor habitat and watershed conditions and evaluate the effectiveness of restoration efforts<br><br>(Pg. 24) |
| **Recommended Action 1.C**<br>Coordinate Inter-Agency Data Collection, Processing, and Use in Decision-Making<br><br>*How to implement this action:*<br><br>• Coordinate federal, state & local monitoring and data efforts<br>• Improve and integrate data from partners<br>• Process backlogs<br>• Improve availability of information<br>• Invest in scientific modeling tools<br>• Map major water institutions, documenting their responsibilities, programs, data (Pg. 25) | **Recommended Action 1.C**<br>Coordinate Inter-Agency Data Collection, Processing, and Use in Decision-Making<br><br>*How to implement this action:*<br><br>• Help homeowners test water quality in private drinking water wells; update real estate transaction database<br>• Improve coordination of data sets<br>• Improve data availability using on-line platforms and emerging technologies, mobile apps, and open standards<br>• Develop or update decision-support tools<br>• Invest in inter-agency work<br><br>(Pg. 33) |

Recommendation Set #2

| ***2012*** | ***2017*** |
|---|---|
| **Recommended Action 2.A**<br>Update Long-Term Water Demand Forecasts<br><br>*How to implement this action:*<br><br>• Update the state's long-term water demand forecast<br>• Update crop water-use tables<br>• Quantify/model economic value of instream and out-of-stream water<br>• Enhance the state's water use reporting system<br>(Pg. 32) | **Recommended Action 2.A**<br>Regularly Update Long-Term Water Demand Forecasts<br><br>*How to implement this action:*<br><br>• Update demand projections with new population, per capita water demand, industrial demand, crop water use, and climate projections<br>• Employ remote sensing to improve crop water use estimates<br>(Pg. 40) |
| **Recommended Action 2.B**<br>Improve Water-Use Measurement and Reporting<br><br>*How to implement this action:*<br><br>• Reinstate a water-use reporting coordinator at WRD<br>• Fully implement the State's Water Measurement Strategy; offer cost-share dollars<br>• Encourage businesses to conduct self-evaluations of water use<br>• Employ remote-sensing<br>(Pg. 33) | **Recommended Action 2.B**<br>Improve Water-Use Measurement and Reporting<br><br>*How to implement this action:*<br><br>• Continue to improve the software used for water use measurement and reporting<br>• Update the state's 2000 Strategic Measurement Plan<br>• Broaden eligibility criteria for measurement cost share dollars<br>• Coordinate the Water-Use Reporting Program and 2000 Strategic Measurement Plan<br>(Pg. 41) |
| **Recommended Action 2.C**<br>Determine Pre-1909 Water Right Claims<br><br>*How to implement this action:*<br><br>• Complete un-adjudicated areas<br>• Settle federal reserved claims, including tribal claims<br>• Settle groundwater claims<br>(Pg. 34) | **Recommended Action 2.C**<br>Determine Pre-1909 Water Right Claims<br><br>*How to implement this action:*<br><br>• Complete unadjudicated areas<br>• Settle federal reserved claims, including tribal claims<br>• Settle groundwater claims<br>(Pg. 42) |
| **Recommended Action 2.D**<br>Update Water Right Records with Contact Information<br><br>*How to implement this action:*<br><br>• Authorize WRD to update names on water right certificates<br>• Update related water right database and GIS records<br>• Rule-making should specify acceptable documentation<br>(Pg. 35) | **Recommended Action 2.D**<br>Authorize the Update of Water Right Records with Contact Information<br><br>*How to implement this action:*<br><br>• Authorize the Water Resources Department to update names on water right certificates<br>• Update related water right records<br>(Pg. 43) |
| **Recommended Action 2.E**<br>Update Oregon's Water-Related Permitting Guide<br><br>*How to implement this action:*<br><br>• Provide updated agency contacts, policies, links<br>• Provide industry-specific information where possible<br>(Pg. 36) | **Recommended Action 2.E**<br>Regularly Update Oregon's Water-Related Permitting Guide<br><br>*How to implement this action:*<br><br>• Provide updated agency contacts, policies, and links<br>• Provide industry-specific information, where possible<br>(Pg. 43) |

Recommendation Set #3

| ***2012*** | ***2017*** |
|---|---|
| **<u>Recommended Action 3.A</u>**<br>Determine Flows Needed (Quality and Quantity) to Support Instream Needs<br><br>*How to implement this action:*<br><br>• Conduct base flow needs studies<br>• Develop elevated flow requirements<br>• Develop models/studies on economic value of instream and out-of-stream water<br><br>(Pg. 42) | **<u>Recommended Action 3.A</u>**<br>Determine Flows Needed (Quality and Quantity) to Support Instream Needs<br><br>*How to implement this action:*<br><br>• Prioritize and install gages in additional locations to monitor the status of instream water rights<br>• Identify basins with listed species and install monitoring equipment to help characterize the suite of flows through these basins<br>• Conduct instream needs studies, base flow needs studies, and develop elevated flow requirements or prescriptions<br>• Develop models/studies to quantify the economic, social, and cultural value of instream uses<br>• Continue to fund the Department of Fish and Wildlife's instream flow program<br><br>(Pg. 48) |
| **<u>Recommended Action 3.B</u>**<br>Determine Needs of Groundwater-Dependent Ecosystems<br><br>*How to implement this action:*<br><br>• Identify and characterize groundwater-dependent ecosystems statewide<br>• Complete groundwater basin studies<br><br>(Pg. 42) | **<u>Recommended Action 3.B</u>**<br>Determine Needs of Groundwater-Dependent Ecosystems<br><br>*How to implement this action:*<br><br>• Identify and characterize groundwater-dependent ecosystems<br>• Quantify the water quantity and water quality needs of groundwater-dependent ecosystems<br><br>(Pg. 48) |

Recommendation Set #4

| ***2012*** | ***2017*** |
|---|---|
| **Recommended Action 4.A**<br>Analyze the Effects on Water from Energy Development Projects and Policies<br><br>*How to implement this action:*<br><br>• Analyze the water demands and water quality impacts of current and proposed water-intensive energy development projects (bio-energy, geothermal, solar, natural gas, and hydroelectric)<br><br>(Pg. 48) | **Recommended Action 4.A**<br>Analyze the Effects on Water from Energy Development Projects and Policies<br><br>*How to implement this action:*<br><br>• Analyze the water demand and water quality impacts of current and proposed energy development projects (hydroelectric, solar, wind, geothermal, bio-energy, and natural gas)<br><br>(Pg. 53) |
| **Recommended Action 4.B**<br>Take Advantage of Existing Infrastructure to Develop Hydroelectric Power<br><br>*How to implement this action:*<br><br>• Utilize the state's expedited application process to develop hydroelectric projects at existing infrastructure<br>(Pg. 49) | **Recommended Action 4.B**<br>Take Advantage of Existing Infrastructure to Develop Non-Traditional Hydroelectric Power<br><br>*How to implement this action:*<br><br>• Utilize the state's expedited application process to develop hydroelectric projects at existing infrastructure<br>(Pg. 54) |
| **Recommended Action 4.C**<br>Promote Strategies That Increase/ Integrate Energy and Water Savings<br><br>*How to implement this action:*<br><br>• Move toward energy independence for publicly operated treatment works (wastewater treatment)<br>• Encourage communities to look for and integrate ways to conserve both energy and water<br>• Continue to implement and evaluate building codes that encourage water and energy efficiencies<br>• Ensure that efficiency programs capture and publicly report both water and energy savings data<br>• Partner with Oregon's 10-year Energy Action Plan to promote conservation strategies for water and energy<br><br>(Pg. 51) | **Recommended Action 4.C**<br>Promote Strategies That Increase/Integrate Energy and Water Savings<br><br>*How to implement this action:*<br><br>• Move toward energy independence for publicly operated treatment works (wastewater treatment)<br>• Continue to implement and evaluate building codes that encourage water and energy efficiencies<br>• Encourage individuals, communities, industries, and businesses, including agriculture, to look for and integrate ways to conserve both energy and water<br>• Encourage cross-sector and cross-agency collaboration to achieve energy and water savings<br><br>(Pg. 55) |

Recommendation Set #5

| ***2012*** | ***2017*** |
|---|---|
| **Recommended Action 5.A**<br>Support Continued Basin-Scale Climate Change Research Efforts<br><br>*How to implement this action:*<br><br>• Improve climate change projections at a basin scale<br>• Develop reliable projections of basin-scale hydrology, and their impacts on other systems<br><br>(Pg. 53) | **Recommended Action 5.A**<br>Support Continued Basin-Scale Climate Change Research Efforts<br><br>*How to implement this action:*<br><br>• Invest and make improvements in surface water and groundwater monitoring, flood and drought frequency projections, and long-range forecasts<br>• Improve climate change projections at a basin scale<br>• Develop reliable projections of basin-scale hydrology, and associated impacts on built and natural systems<br>(Pg. 61) |
| **Recommended Action 5.B**<br>Assist with Climate Change Adaptation and Resiliency Strategies<br><br>*How to implement this action:*<br><br>• Provide support to communities to incorporate climate change into their planning decisions<br>• Look for more efficient ways to conserve, store, and reuse water in anticipation of climate change<br>• Invest and make improvements in surface water and groundwater monitoring<br>• Invest in real-time forecasting of water deliveries, basin yield, streamflow, flood and drought frequency projections<br>• Analyze how instream and out-of-stream water rights will fare with hydrologic changes<br>• Analyze how water rights will fare with changing crop needs<br>• Use the U.S. Environmental Protection Agency's Climate Ready Water Utilities Program<br>• Increase ecosystem resiliency to climate change<br>• Ensure continued water and wastewater services in a changing climate<br>(Pg. 59) | **Recommended Action 5.B**<br>Assist with Climate Change Adaptation and Resiliency Strategies<br><br>*How to implement this action:*<br><br>• Analyze how instream and out-of-stream water rights will fare with hydrologic changes<br>• Look for more efficient ways to conserve, store, and reuse water in anticipation of climate change<br>• Provide technical and financial support to communities to incorporate climate change impacts into their planning decisions<br>• Promote the U.S. Environmental Protection Agency's Climate Ready Water Utilities Program<br>• Support ecosystem resiliency to climate change through habitat protection and restoration projects<br><br>(Pg. 63) |

Recommendation Set #5.5

| *2012* | *2017* |
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| | **<u>Recommended Action 5.5A</u>**<br>Plan and Prepare for Drought Resiliency<br><br>*How to implement this action:*<br><br>• Develop the appropriate set of indicators that signal differing stages of drought<br>• Document the economic, social, and environmental impacts of drought in Oregon, including the frequency, distribution, intensity and duration<br>• Prepare for, respond to, and mitigate for the impacts of water scarcity<br>• Assess and assist those communities most vulnerable to drought<br><br>(Pg. 68) |
| | **<u>Recommended Action 5.5B</u>**<br>Plan and Prepare for Flood Events<br><br>*How to implement this action:*<br><br>• Develop indicators of flood emergency stages, using information about meteorologic, hydrologic, hydraulic, and watershed conditions<br>• Document the economic, social, and environmental impacts of floods<br>• Modernize precipitation and flood frequency information with state participation in these studies<br>• Establish early flood warning systems in areas where recent drought and wildfire have affected forests and vegetation<br><br>(Pg. 70) |
| | **<u>Recommended Action 5.5C</u>**<br>Plan and Prepare for Cascadia Subduction Earthquake Event<br><br>*How to implement this action:*<br><br>• Follow the recommendations provided by the Oregon Seismic Safety Policy Advisory Commission in its 2013 Oregon Resilience Plan<br>• Evaluate and retrofit dams and other water infrastructure to meet new seismic standards<br>• See recommended actions in the infrastructure sections of the IWRS (7A – 7C)<br><br>(Pg. 72) |

Recommendation Set #6

| ***2012*** | ***2017*** |
|---|---|
| **<u>Recommended Action 6.A</u>**<br>Improve Integration of Water Information into Land Use Planning (& vice-versa)<br><br>*How to implement this action*:<br><br>• Develop and share information regarding the location, quantity, and quality of water resources<br>• Protect water sources in the course of land use decisions<br><br>(Pg. 64) | **<u>Recommended Action 6.A</u>**<br>Improve Integration of Water Information into Land Use Planning (& vice-versa)<br><br>*How to implement this action:*<br><br>• Protect natural water bodies in the course of land use decisions, such as wetlands, estuaries, groundwater aquifers, rivers, and lakes<br>• Locate and document Underground Injection Control Systems<br>• Develop and share information regarding the location, quantity, and quality of water resources that can be used by local governments in land use decisions<br>• Improve coordination; technical guidance, and assistance to local governments for land-use decisions with regard to water<br>• Take next step to implement land use goals related to water resources<br>• Build partnerships with local governments to provide land-use information, such as tax lot information, to the state<br><br>(Pg. 77) |
| **<u>Recommended Action 6.B</u>**<br>Update State Agency Coordination Plans<br><br>*How to implement this action:*<br><br>• Update State Agency Coordination Programs in coordination with DLCD<br><br>(Pg. 65) | **<u>Recommended Action 6.B</u>**<br>Improve State Agency Coordination<br><br>*How to implement this action:*<br><br>• Update State Agency Coordination Plans in partnership with the Department of Land Conservation and Development<br>• Design each agency permit "contingent" upon approval of all other state agency permits<br><br>(Pg. 78) |
| **<u>Recommended Action 6.C</u>**<br>Encourage Low Impact Development Practices<br><br>*How to implement this action:*<br><br>• Compile and provide online information on low impact development policies&<br>• Update local development codes, improving local capacity to review and permit green infrastructure designs<br><br>(Pg. 65) | **<u>Recommended Action 6.C</u>**<br>Encourage Low Impact Development Practices and Green Infrastructure<br><br>*How to implement this action:*<br><br>• Compile and provide online information on low impact development best practices<br>• Update local development codes, improving local capacity to review and permit green infrastructure designs<br>• Encourage communities to consider natural infrastructure in lieu of, or as a complement to, built infrastructure<br><br>(Pg. 79) |

Recommendation Set #7

| *2012* | *2017* |
|---|---|
| **Recommended Action 7.A**<br>Develop and Upgrade Water & Wastewater Infrastructure<br><br>*How to implement this action:*<br><br>• Improve dam safety; retrofit for seismic issues<br>• Develop emergency action plans for high hazard dams<br>• Properly abandon infrastructure at the end of its useful life<br>• Use an "asset management" approach to identify and plan for rehabilitation, upgrade or replacement of infrastructure<br>• Ensure that basic maintenance needs continue to be eligible for grant and loan funding<br>• Advocate for continued infrastructure funding<br>• Encourage communities to consider natural infrastructure in lieu of, or as a complement to, built infrastructure<br><br>(Pg. 69) | **Recommended Action 7.A**<br>Develop and Upgrade Water and Wastewater Infrastructure<br><br>*How to implement this action:*<br><br>• Use an "asset management" approach to identify and plan for rehabilitation, upgrade, or replacement of infrastructure<br>• Provide timely inspection of well construction and well logs, and education of drillers and pump installers to ensure construction standards are met<br>• Properly abandon wells at the end of their useful life<br>• Inventory, inspect, and make safety improvements to levees<br><br>(Pg. 81) |
| **Recommended Action 7.B**<br>Encourage Regional (Sub-Basin) Approaches to Water and Wastewater Systems<br><br>*How to implement this action:*<br><br>• Provides incentives, such as funding and technical assistance<br><br>(Pg. 70) | **Recommended Action 7.B**<br>Encourage Regional (Sub-Basin) Approaches to Water and Wastewater Systems<br><br>*How to implement this action:*<br><br>• Make use of shared contracts, services, purchases<br>• Develop mutual assistance agreements<br>• Establish inter-ties and back-up supplies<br>• Provide funding and technical assistance to systems that want to consolidate<br><br>(Pg. 82) |
| | **Recommended Action 7.C**<br>Ensure Public Safety / Dam Safety<br><br>*How to implement this action:*<br><br>• Modernize state laws to improve the safety and resiliency of Oregon dams<br>• Authorize resources to determine if dams have safety deficiencies; evaluate and retrofit dams to meet new seismic standards<br>• Authorize emergency actions and encourage cooperative actions to improve the safety of dams<br>• Coordinate interagency emergency responses regarding dam inspection, communication, and evacuation<br>• Define the legal responsibilities of a dam owner<br>• Authorize a requirement for remote monitoring on deficient high hazard dams<br>• Require dam owners to maintain an Emergency Action Plan for all existing dams rated high hazard<br>• Authorize a fee for review of plans and specifications<br>• Dedicate grant and loan resources for rehabilitation of deficient dams (Pg. 85) |

Recommendation Set #8

| *2012* | *2017* |
|---|---|
| **Recommended Action 8.A**<br>Support Implementation of Oregon's K-12 Environmental Literacy Plan<br><br>*How to implement this action:*<br><br>• Support funding for implementation<br>• Natural resource agencies, community organizations, and others should engage in education for environmental literacy activities.<br><br>(Pg. 72) | **Recommended Action 8.A**<br>Support Implementation of Oregon's K-12 Environmental Literacy Plan<br><br>*How to implement this action:*<br><br>• Support implementation of the Environmental Literacy Plan<br>• Natural resource agencies, community organizations, and others should engage in education for environmental literacy activities<br><br>(Pg. 86) |
| **Recommended Action 8.B**<br>Provide Education and Training for Oregon's Next Generation of Water Experts<br><br>*How to implement this action:*<br><br>• Conduct a survey of water organizations in Oregon<br>• Determine whether educational programs in Oregon are equipped to meet the coming demand for water professionals<br>• Offer internships, fellowships, and job shadow programs to expose students to careers in water<br>• Continue funding support for water-related trade programs at Oregon community colleges<br><br>(Pg. 74) | **Recommended Action 8.B**<br>Provide Education and Training for Oregon's Next Generation of Water Experts<br><br>*How to implement this action:*<br><br>• Determine whether career training programs are available and equipped to meet the coming demand for water professionals<br>• Offer job shadow programs to expose students to careers in water<br>• Continue funding support for water-related trade programs at Oregon community colleges<br><br>(Pg. 89) |
| **Recommended Action 8.C**<br>Promote Community Education and Training Opportunities<br><br>*How to implement this action:*<br><br>• Continue to promote education and outreach through actions required in local Water Management and Conservation Plans<br>• Promote technical training for public and private partners<br>• Promote access to water-related recreational opportunities through the use of the Water Trails Program<br><br>(Pg. 75) | **Recommended Action 8.C**<br>Promote Community Education and Training Opportunities<br><br>*How to implement this action:*<br><br>• Look for opportunities to keep the general public informed about the importance of water resources<br>• Promote technical training for public and private partners<br>• Promote access to water-related recreational opportunities through the use of the Water Trails Program<br><br>(Pg. 90) |
| **Recommended Action 8.D**<br>Identify Ongoing Water-Related Research Needs<br><br>*How to implement this action:*<br><br>• Continue to identify ongoing research needs at the local and state level<br>• Partner with public and private researchers<br><br>(Pg. 76) | **Recommended Action 8.D**<br>Identify Ongoing Water-Related Research Needs<br><br>*How to implement this action:*<br><br>• Continue to identify ongoing research needs at the local and state level<br>• Partner with public and private researchers to address research needs<br>• Provide funding for research initiatives<br><br>(Pg. 90) |

Recommendation Set #9

| ***2012*** | ***2017*** |
|---|---|
| **Recommended Action 9.A**<br>Undertake Place-Based Integrated, Water Resources Planning<br><br>*How to implement this action:*<br><br>• Develop a template for place-based integrated water resources strategies<br>• Provide technical assistance and other incentives to communities undertaking place-based IWRS<br>• Compile relevant and readily-available water-related information to support place-based IWRS<br><br>(Pg. 80) | **Recommended Action 9.A**<br>Continue to Undertake Place-Based Integrated Water Resources Planning<br><br>*How to implement this action:*<br><br>• Promote success by continuing to support the places currently following the draft planning guidelines<br>• Continue to provide financial and technical assistance to support collaborative water planning<br>• Promote peer-to-peer learning between communities pursuing collaborative water planning<br>• Solicit community input on place-based planning, refine the planning guidelines, and implement process improvements<br><br>(Pg. 98) |
| **Recommended Action 9.B**<br>Coordinate Implementation of Existing Natural Resource Plans<br><br>*How to implement this action:*<br><br>• Coordinate and reconcile existing ecological planning and restoration efforts<br>• Dedicate resources for state and local implementation<br>(Pg. 82) | **Recommended Action 9.B.**<br>Coordinate Implementation of Existing Natural Resource Plans<br><br>*How to implement this action:*<br><br>• Coordinate and reconcile existing planning documents<br>• Dedicate resources for state and local implementation of existing plans<br><br>(Pg. 99) |
| **Recommended Action 9.C**<br>Partner with Federal Agencies, Tribes, and Neighboring States in Long-Term Water Resources Management<br><br>*How to implement this action:*<br><br>• Protect Oregon's interests in shared surface water and groundwater basins<br>• Partner to improve access to additional stored water<br><br>(Pg. 84) | **Recommended Action 9.C**<br>Partner with Federal Agencies, Tribes, and Neighboring States in Long-Term Water Resources Management<br><br>*How to implement this action:*<br><br>• Protect Oregon's interests in shared surface water and groundwater basins<br>• Negotiate agreements such that water protected instream is shepherded across state lines to the mouth of the river<br>• Partner with neighbors and tribes to continue or improve access to additional sources of water<br><br>(Pg. 101) |

Recommendation Set #10

| ***2012*** | ***2017*** |
|---|---|
| **Recommended Action 10.A**<br>Improve Water-Use Efficiency and Water Conservation<br><br>*How to implement this action:*<br><br>• Establish and maintain an online water-use efficiency and conservation clearinghouse<br>• Prioritize agricultural water-use efficiency<br>• Expand outreach and participation in the State's water-use efficiency and conservation programs<br>• Conduct a state-wide water conservation potential assessment<br><br>(Pg. 89) | **Recommended Action 10.A**<br>Improve Water-Use Efficiency and Water Conservation<br><br>*How to implement this action:*<br><br>• Establish a water-use efficiency and conservation program that provides technical assistance to water users in all sectors<br>• Expand participation in already-existing water-use efficiency and conservation programs<br><br>(Pg. 105) |
| **Recommended Action 10.B**<br>Improve Access to Built Storage<br><br>*How to implement this action:*<br><br>• Develop additional below-ground storage sites<br>• Re-allocate water in federal reservoir systems that have not undertaken formal allocation processes in Oregon<br>• Develop additional above-ground, off-channel storage sites where needed<br>• Evaluate the status of storage infrastructure<br>• Authorize and fund the State to invest in and purchase water from stored water facilities<br><br>(Pg. 92) | **Recommended Action 10.B**<br>Improve Access to Built Storage<br><br>*How to implement this action:*<br><br>• Encourage increased use of below-ground storage sites<br>• Re-allocate water in federal reservoir systems that have not undertaken formal allocation processes in Oregon<br>• Investigate potential off-channel sites for aboveground storage projects<br>• Evaluate the status of storage infrastructure, including the maintenance and rehabilitation needs of reservoirs<br>• Incorporate existing reservations of water into planning efforts<br><br>(Pg. 109) |
| **Recommended Action 10.C**<br>Encourage Additional Water Reuse Projects<br><br>*How to implement this action:*<br><br>• Conduct a statewide assessment of the potential for additional water reuse<br>• Ensure that Oregon has the right policies and regulations in place to facilitate water reuse<br>• Provide incentives for increased water reuse<br><br>(Pg. 94) | **Recommended Action 10.C**<br>Encourage Additional Water Reuse Projects<br><br>*How to implement this action:*<br><br>• Conduct a statewide assessment of the potential for additional water reuse<br>• Ensure that state agencies have—and communicate—policies and regulations that facilitate water reuse<br>• Provide incentives for increased water reuse<br><br>(Pg. 111) |
| **Recommended Action 10.D**<br>Reach Environmental Outcomes with Non-Regulatory Alternatives<br><br>*How to implement this action:*<br><br>• Assist in the research and development of nonregulatory tools to meet environmental outcomes<br>• Develop protocols for translating water quality projects into credits<br>• Develop protocols for translating streamflow restoration into credits and accounting strategies<br>• Complete stream functional assessment<br><br>(Pg. 95) | **Recommended Action 10.D**<br>Reach Environmental Outcomes with NonRegulatory Alternatives<br><br>*How to implement this action:*<br><br>• Assist in the research and development of nonregulatory tools to meet environmental outcomes<br>• Continue to develop water quality trading programs<br>• Develop protocols for translating streamflow restoration into credits and accounting strategies<br><br>(Pg. 111) |

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| **Recommended Action 10.E**<br>Authorize and Fund a Water Supply Development Program<br><br>*How to implement this action:*<br><br>• Identify opportunities for the State to serve as a partner in water supply development projects<br>• Authorize the Water Resources Department to invest in projects, to purchase and/or contract for water supplies<br>• Authorize bonds to finance these investments<br>(Pg. 97) | **Recommended Action 10.E**<br>Continue the Water Resources Development Program<br><br>*How to implement this action:*<br><br>• Identify opportunities for the state to serve as a partner in water resources development projects<br>• Seek out additional technical resources to help communities<br>• Find additional federal, state, private, and other match funds to help communities<br>(Pg. 112) |
| | **Recommended Action 10.F**<br>Provide an Adequate Presence in the Field<br><br>*How to implement this action:*<br><br>• Review and assess workloads; establish priorities and seek efficiencies<br>• Improve regulatory tools, including updating the legal and statutory foundation, modernizing technology and enforcement tools, and providing (cross) training<br>• Improve the ability for field staff to conduct education and outreach within their districts<br>• Enhance Department of Fish and Wildlife's capacity to work directly with water users and conservation interests<br>(Pg. 114) |
| | **Recommended Action 10.G**<br>Strengthen Oregon's Water Quantity & Water Quality Permitting Programs<br><br>*How to implement this action:*<br><br>• Expand staff training opportunities; provide adequate staffing<br>• Update technologies, processing manuals, and guidance documents<br>• Develop outreach materials and follow-up procedures to help water users understand the application process and permit, transfer, or extension requirements<br>• Develop a mitigation strategy<br>• Create stronger linkages among partner agencies<br>• Develop and implement a long-term workplan to improve the quality and timeliness of individual National Pollutant Discharge Elimination System permits<br>(Pg. 117) |

Recommendation Set #11

| ***2012*** | ***2017*** |
|---|---|
| **Recommended Action 11.A**<br>Improve Watershed Health, Resiliency, and Capacity for Natural Storage<br><br>*How to implement this action:*<br><br>• Improve riparian conditions<br>• Preserve wetlands<br>• Restore floodplain functions<br>• Maintain forested areas<br><br>(Pg. 98) | **Recommended Action 11.A**<br>Improve Watershed Health, Resiliency, and Capacity for Natural Storage<br><br>*How to implement this action:*<br><br>• Improve riparian conditions to protect a healthy buffer between aquatic and terrestrial ecosystems<br>• Restore wetlands and floodplains to maintain critical functions like processing nutrients, providing habitat and storing water<br>• Protect estuarine conditions to maintain a healthy buffer between freshwater and marine systems<br>• Maintain forested areas, in part to maintain to source water quality<br><br>(Pg. 120) |
| **Recommended Action 11.B**<br>Develop Additional Instream Protections<br><br>*How to implement this action:*<br><br>• Establish additional instream water rights where needed to protect flows<br>• Designate scenic waterways where needed to protect recreation, fish, and wildlife uses<br>• Expand the use of voluntary programs to restore streamflow<br>• Expand the geographic range of flow restoration efforts<br><br>(Pg. 100) | **Recommended Action 11.B**<br>Develop Additional Instream Protections<br><br>*How to implement this action:*<br><br>• Establish additional instream water rights where needed to protect instream flows for fish and wildlife and water quality<br>• Designate scenic waterways where needed to protect recreation, fish, and wildlife uses<br>• Expand the use of voluntary programs to restore streamflow<br>• Expand the geographic range of flow restoration efforts by identifying flow restoration priorities<br><br>(Pg. 122) |
| **Recommended Action 11.C**<br>Prevent and Eradicate Invasive Species<br><br>*How to implement this action:*<br><br>• Support the Oregon Conservation Strategy's six state-wide actions to prevent new introductions, and decrease the scale and spread of infestations<br>• Implement and enforce ballast water management regulations<br><br>(Pg. 102) | **Recommended Action 11.C**<br>Prevent and Eradicate Invasive Species<br><br>*How to implement this action:*<br><br>• Support the Aquatic Invasive Species Prevention Program<br>• Support the Oregon Conservation Strategy's seven state-wide actions to prevent new introductions, and decrease the scale and spread of infestations<br>• Continue to implement and enforce ballast water management regulations<br><br>(Pg. 123) |

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| **Recommended Action 11.D**<br>Protect and Restore Instream Habitat and Habitat Access for Fish and Wildlife<br><br>*How to implement this action:*<br><br>• Remove fish passage barriers and support fish screening efforts by implementing actions in Oregon's Conservation Strategy<br>• Build upon existing ecological planning and restoration efforts<br><br>(Pg. 105) | **Recommended Action 11.D**<br>Protect and Restore Instream Habitat and Habitat Access for Fish and Wildlife<br><br>*How to implement this action:*<br><br>• Continue to update the inventory of fish passage barriers<br>• Remove fish passage barriers and support fish screening efforts by implementing actions in the Oregon Conservation Strategy<br>• Build upon existing ecological planning and restoration efforts<br>• Update streamflow restoration priority areas using new species distribution and climate change information<br>(Pg. 125) |
| | **Recommended Action 11.E**<br>Develop Additional Groundwater Protections<br><br>*How to implement this action:*<br><br>• Develop a long-term plan for sustainable groundwater management<br>• Develop clear objectives and metrics<br>• Identify and prioritize important tasks<br>• Sketch out the necessary timelines, staffing, and resource needs<br>(Pg. 127) |

Recommendation Set #12

| ***2012*** | ***2017*** |
|---|---|
| **Recommended Action 12.A**<br>Ensure the Safety of Oregon's Drinking Water<br><br>*How to implement this action:*<br><br>• Assist public water suppliers; support small public water systems<br>• Protect drinking water sources<br>• Monitor public drinking water for contaminants of emerging concern<br>• Encourage water providers to join the Oregon Water/Wastewater Agency Response Network<br>• Increase domestic well testing<br><br>(Pg. 107) | **Recommended Action 12.A**<br>Ensure the Safety of Oregon's Drinking Water<br><br>*How to implement this action:*<br><br>• Assist drinking water systems of all sizes<br>• Protect drinking water sources<br>• Improve monitoring of public drinking water for contaminants of emerging concern<br>• Encourage water providers to join the Oregon Water/Wastewater Agency Response Network<br>• Increase domestic well testing and provide updated support materials and education<br><br>(Pg. 130) |
| **Recommended Action 12.B**<br>Reduce the Use of and Exposure to Toxics and Other Pollutants<br><br>*How to implement this action:*<br><br>• Finalize and implement DEQ's Toxics Reduction Strategy<br>• Implement green chemistry executive order, including revising purchasing practices related to toxic chemicals<br>• Implement Water Quality Pesticide Management Plan<br>• Support Pesticide Stewardship Partnerships<br>• Establish and fund "take back programs"<br>• Continue to identify and address hazardous or contaminated sites, including brownfields<br>• Prevent blue-green algae from forming beyond natural background levels<br>• Monitor recreational waters and inform the public when contaminants are present<br><br>(Pg. 110) | **Recommended Action 12.B**<br>Reduce the Use of and Exposure to Toxics and Other Pollutants<br><br>*How to implement this action:*<br><br>• Update and implement the Department of Environmental Quality's 2012 Toxics Reduction Strategy<br>• Implement green chemistry executive order, including revising purchasing practices related to toxic chemicals<br>• Implement Water Quality Pesticide Management Plan<br>• Support Pesticide Stewardship Partnerships<br>• Establish and fund "take back programs"<br>• Continue to identify and address hazardous or contaminated sites, including brownfields<br>• Prevent blue-green algae from forming beyond natural background levels<br>• Monitor recreational waters and inform the public when contaminants are present<br><br>(Pg. 135) |
| **Recommended Action 12.C**<br>Implement Water Quality Pollution Control Plans<br><br>*How to implement this action:*<br><br>• Continue to develop and implement TMDLs for water bodies that do not meet water quality standards<br>• Continue to address nonpoint sources of pollution across all land uses; increase monitoring<br>• Ensure effective management and oversight of stormwater in urbanized areas<br>• Assist communities with septic system challenges<br><br>(Pg. 113) | **Recommended Action 12.C**<br>Implement Water Quality Pollution Control Plans<br><br>*How to implement this action:*<br><br>• Continue to develop and implement TMDLs for water bodies that do not meet water quality standards<br>• Continue to address nonpoint sources of pollution across all land uses; increase monitoring<br>• Ensure effective management and oversight of stormwater in urbanized areas<br>• Assist communities with septic system challenges<br><br>(Pg. 137) |

Recommendation Set #13

| ***2012*** | ***2017*** |
|---|---|
| **Recommended Action 13.A**<br>Fund Development and Implementation of Oregon's Integrated Water Resources Strategy<br><br>*How to implement this action:*<br><br>• Fund implementation of 2012-2017 IWRS<br>• Fund required updates of state-level IWRS<br>• Fund development of place-based IWRS<br><br>(Pg. 114) | **Recommended Action 13.A**<br>Fund Development and Implementation of Oregon's Integrated Water Resources Strategy<br><br>*How to implement this action:*<br><br>• Fund implementation of the 2017 Integrated Water Resources Strategy<br>• Fund the five-year required updates, next scheduled for 2022<br><br>(Pg. 138) |
| **Recommended Action 13.B**<br>Fund Water Resources Management Activities at the State Level<br><br>*How to implement this action:*<br><br>• Fund those water management activities for which the State has responsibility<br>• Ensure increased and adequate funding from the General Fund<br>• Seek additional funding sources<br><br>(Pg. 117) | **Recommended Action 13.B**<br>Fund Water Resources Management Activities at State Agencies<br><br>*How to implement this action:*<br><br>• Fund those water management activities for which the state has responsibility<br>• Ensure increased and adequate funding from the General Fund<br>• Seek additional funding sources<br><br>(Pg. 139) |
| **Recommended Action 13.C**<br>Fund Communities Needing Feasibility Studies for Water Conservation, Storage, and Reuse Projects<br><br>*How to implement this action:*<br><br>• Continue to provide SB 1069 grants to help evaluate the feasibility of water conservation, storage, and reuse projects<br><br>(Pg. 118) | **Recommended Action 13.C**<br>Invest in Local or Regional Water-Planning Efforts<br><br>*How to implement this action:*<br><br>• Continue to authorize and fund public and private investments in place-based integrated water resources planning<br>• Provide funding to develop water management and conservation plans<br>• Provide funding to support hazard mitigation planning (e.g. droughts, floods) at the local level<br>• Support river basin-planning updates<br><br>(Pg. 140) |
| | **Recommended Action 13.D**<br>Invest in Feasibility Studies for Water Resources Projects<br><br>*How to implement this action:*<br><br>• Continue to provide Feasibility Study Grants to help evaluate the feasibility of water conservation, storage, and reuse projects<br>• Review and update the Feasibility Study Grants program based on lessons learned since 2008<br><br>(Pg. 141) |
| | **Recommended Action 13.E**<br>Invest in Implementation of Water Resources Projects<br><br>*How to implement this action:*<br><br>• Authorize bonds to finance these investments |

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| | • Ensure that basic maintenance needs continue to be eligible for grant and loan funding<br>• Advocate for continued state and federal funding for water and wastewater infrastructure<br>• Develop funding and technical support for low income and small communities to maintain and operate water and wastewater-related infrastructure<br>• Continue funding and support for watershed restoration and Focused Investment Partnerships<br>• Continue to fund Water Project Grants and Loans<br>(Pg. 144) |

WATERWATCH

PROTECTING NATURAL FLOWS IN OREGON RIVERS

**Memorandum**

To: Drought Task Force
From: Kimberley Priestley, WaterWatch of Oregon
Date: August 22, 2016
Re: Drought Ideas for Task Force Consideration

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**A. DECLARATION OF DROUGHT:** The Governor currently has statutory authority under ORS 536.740 to declare a drought absent county application; however it is our understanding that generally drought declarations follow applications by counties under ORS 401.165 (state of emergency). The drought process should be revised so that the Governor declares droughts (1) solely via ORS 536.740 (i.e. without a tie to the county emergency request under ORS 401.165) and (2) utilizing the US Drought Monitor (http://droughtmonitor.unl.edu/AboutUSDM.aspx). Utilizing existing authority in this way would remove local politics from the drought declaration process.

**B. ENFORCEMENT AGAINST WASTE:** Statute, rule and permit conditions all require that water be used beneficially without waste; however, WRD enforcement against waste is neither widespread nor uniform. No statutory changes are needed; the following can all be achieved under existing authority of the Governor and/or WRD.

- Governor direction to WRD to actively enforce against waste and fund extra water masters to do this: Existing statute, rule and permit conditions require that water use be limited to beneficial use without waste. Direct WRD to enforce against waste, including regulation of wasteful use and imposing civil penalties. Fund seasonal water masters to actively enforce against waste.

- Direct WRD to fully implement OAR 690-410-060: OAR 690-410-060 contains important tools to ensure the elimination of waste including but not limited to: i.e. (1) develop sub basin conservation plans and provide public assistance in areas of known over-appropriation of surface water and groundwater and water quality problems, (2) set basin specific efficiency standards and practices for irrigation/agriculture, (3) update basin plans to require a conservation element**.**

- Utilize state authority under ORS 536.720 and ORS 536.780: Existing drought statutes allow for Governor and/or WRC to order state agencies or political subdivisions (which includes municipalities and districts) to develop curtailment/conservation plans, including direction to undertake activities to prevent waste. Governor and/or WRC should utilize this authority beyond state agencies (as was done in 2015) to include, at a minimum, municipal/quasi-municipal providers and districts.

**C. MEASUREMENT AND REPORTING:** Measurement and reporting is critical for proper management of Oregon's water resources, especially in times of drought. Ideas include:

- Governor direction to WRD/WRC to use existing authorities to require measurement and reporting of surface water diversions, groundwater and reservoirs (i.e. including but not limited to ORS 540.310, ORS 540.330, ORS 540.435. ORS 537.665).
- Governor and/or WRC set near term deadlines for full implementation of all three tiers of the WRC's 2000 Strategic Water Use Measurement Plan (tier one---significant diversions in priority basins, tier two—significant diversions statewide, tier three---all diversions).
- Provide additional funds to the Measurement Revolving Fund.

**D. MANDATORY CURTAILMENT IN TIMES OF DROUGHT:** Upon a declaration of drought, require mandatory curtailment that is tied to a conservation target (i.e. 25%) and/or river flows (i.e. flows hit XX, curtailment measures are triggered). The Governor and the OWRC have the authority to require curtailment/conservation plans for state agencies, municipalities and irrigation districts under ORS 536.720 and ORS 536.780. During the 2015 drought Governor Brown issued an executive order requiring state agencies to achieve a 15% reduction of consumptive use; however she did not extend this to municipal/irrigation interests. CA has required a 25% statewide reduction in municipal water use, see: http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/emergency_regulation.shtml

**E. MUNICIPAL WATER MANAGEMENT AND CONSERVATION PLANNING**: Ideas that could move forward under existing law:

- Require WMCPs: ORS 536.780 allows the Water Resource Commission, "upon a finding that a severe or continuing drought is likely to occur," to direct individual state agencies and political subdivisions to prepare "a water conservation or curtailment plan or both." Governor could present to the Commission and request that, for any such entity without a WMCP, it require these plans to be produced.

- WMCPs for smaller entities: Governor to direct WRD to produce and make available a scaled down, off-the-shelf WMCP for smaller entities, including those that may not have a WMCP trigger (e.g. home owners associations, mobile home parks, smaller special districts). This would be a plan that would be simpler and easier to implement.

Consider amendments to municipal water management conservation rules (Division 86) and/or drought rules (Division 19) to help rivers/fish in times of drought. Ideas include:

- Municipal Curtailment in Drought: Direct WRD to improve the "Municipal Water Curtailment Element" in the WMCP rules (OAR 690-086-0160) to specify that curtailment stages must include triggers related to river flows and fish needs. As it is now, the WMPC rules are vague and refer to severity of water shortage and water service difficulties, but have no direct tie to river flows or fish (unless a water permit has a condition such that those conditions could limit water use under the permit independently.). This could also be achieved by amending the drought rules to include triggers (OAR 690-019).

- Require meaningful curtailment/conservation actions to be triggered at certain stages of drought: Direct WRD to improve the WMCP requirement to clarify what meaningful conservation/curtailment actions are required at various stages of drought. This could also be achieved by amending the Drought Rules (OAR 690-019).

- Conservation Target: Direct WRD to revise the WMCP rules or the Drought Rules to require attaining a conservation target (like in CA) during drought. Credit would be given to entities that have already achieved low water use rates.

- Full compliance of WMCP a pre-requisite to state funding: Make full compliance with WMCP, including hitting target leak rate (10 or 15%, depending on plan and stage of plan) a perquisite for qualifying for water project funding (e.g. 1069, etc.) unless that funding request is specifically and strictly for reducing leak rate or accomplishing other meaningful conservation.

**F. AGRICULTUAL WATER CONSERVATION AND MANAGEMENT PLANS:** Improve drought rules and/or WMPC rules so, at a minimum, Districts have to develop a drought curtailment plan that sets curtailment triggers and conservation measures (i.e. WMPC "light").

**G. DROUGHT FISHING REGULATIONS:** Establish proactive emergency regulation temperature triggers for fishing closures during drought, including protective triggers for thermal refugia. Details developed by ODFW.

H**. LEASING/PURCHASING OF WATER FOR INSTREAM USE:** Provide state funds for the specific purpose of leasing and/or purchasing water for instream use in areas under declared drought. Prioritize funding for streams that support listed fish and/or are of high ecological values. Additional ideas noted by DRC at 8/15/16 meeting (i.e. suspend/cut fees, advance approval of leases, etc).

**I. EMERGENCY MINIMUM FLOWS FOR FISH:** Similar to California's regulations on this, set emergency minimum flows for fish on streams of significant ecological value. The basic structure of the CA directive is as follows:

a. Voluntary cooperative agreements to maintain emergency minimum flows for listed fish.
b. If voluntary plans do not cover a significant percentage of the water diverted in the basin, then mandatory minimum emergency flows for listed fish.
c. Curtailment of diversions to meet minimum emergency flows. Flows vary by season and include some pulse flows.
d. Curtailment orders suspended if the identified listed fish are not present and/or there is a change in hydrologic conditions.

For further information on how the CA regulations work go to the following link: http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/milldeerantelope.shtml#new information

**J. FUNDING SCIENCE/DATA:** Provide funding for data necessary to build resiliency against drought, i.e. USGS Groundwater Investigations, stream gauges, water use measurement devices, etc.

K. **RIPARIAN PROTECTION:** Improving riparian protection across land use types and ownerships can provide important benefits to rivers and streams during times of drought. One idea proposed by some conservation groups is to require 100 foot no till buffers on each side of perennial streams on all lands designated for Exclusive Farm Use. Healthy, functioning riparian areas (especially on agricultural lands) help resist the consequences of drought by storing water in the subsoil and releasing it gradually over the summer, prolonging instream flows. Water stored naturally underground is not subject to the heating and evaporation that occurs in man-made reservoirs and not only does not create passage problems for fish but may provide thermal refuges from elevated water temperatures. Riparian areas also protect water quality of lowered instream flows, caused by drought, by shading streams that, in turn, reduces water temperatures and increases cold groundwater inputs. Lower stream temperatures can resolve depleted levels of dissolved oxygen caused by low flows and riparian areas also help to filter out polluted agricultural runoff. Riparian vegetation stabilizes stream banks that, in turn, reduces erosion and sedimentation, which leads to shallower and warmer streams. And riparian vegetation adds complexity to streams, which improves fish habitat, increases the likelihood of aquatic life survival in times of drought, and increases hyporheic exchange.