

Oregon's Integrated Water Resources Strategy

**Water Resources Commission Meeting
August 18, 2016**



Outline

- **What is Oregon's Integrated Water Resources Strategy?**
- **What has been accomplished thus far?**
- **Where is the state headed with the 2017 Strategy?**



The Charge to Develop the Strategy

Oregon's House Bill 3369 (2009)

- Directed WRD to lead efforts to “understand and meet” Oregon’s water needs” →
- Partnered with water quality, fish & wildlife, agriculture, other agencies, tribes, stakeholders, & public
- Account for coming pressures

7th OREGON LEGISLATIVE ASSEMBLY-2009 Regular Session

Enrolled
House Bill 3369

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

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

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

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

ADDING



The Process Taken

Phase 1 (2009): Setting the Stage

Workplan, issue papers, key principles, public involvement, public mailing list, 3 advisory groups

Phase 2 (2010): Identifying Water Needs

11 open houses, 1 survey, stakeholder workshops & briefings

Phase 3 (2011): Developing Recommended Actions

Progress report, bulletins, public comment, 2011 discussion draft

Phase 4 (2012): Producing Oregon's First IWRS

More public comment, boards/commissions, final draft June 2012

Phase 5 (2012 – current): Implementation and Evaluation

Adoption August 2012, foundation for budget and policy packages in 2013 & 2015 Legislatures, support & momentum



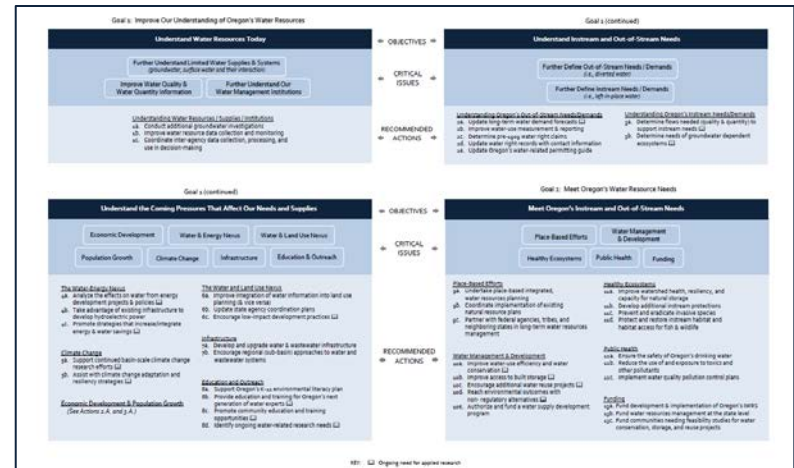
Goals & Objectives

GOALS:

- Improve our understanding of Oregon's water resources
- Meet Oregon's water resources needs

OBJECTIVES:

- Understand water resources today
- Understand instream and out-of-stream needs
- Understand the coming pressures that affect our needs & supplies
- Meet Oregon's instream and out-of-stream needs



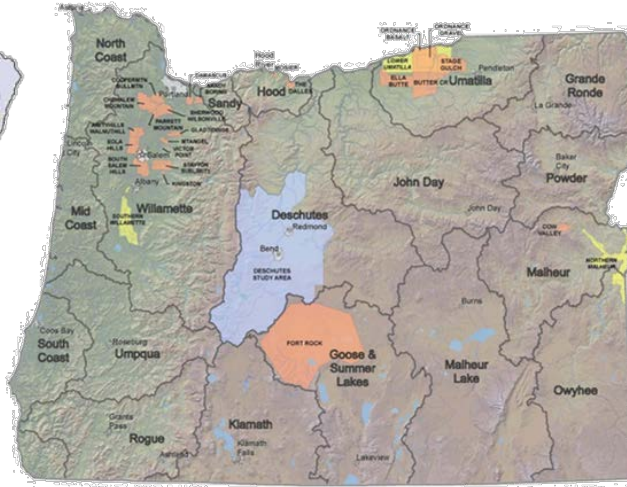


Critical Issues – a sample...

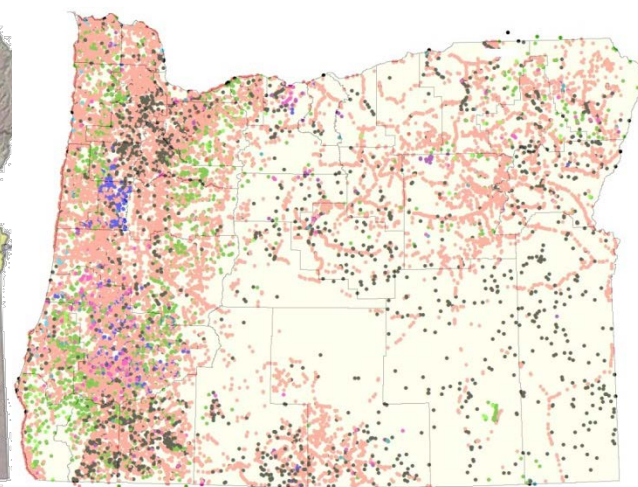
Surface Water



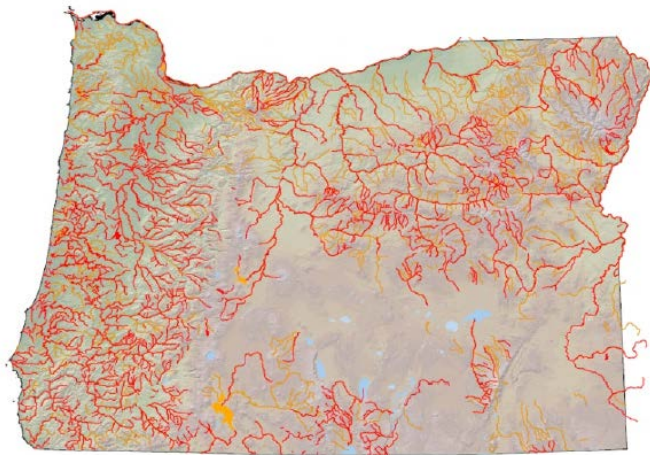
Groundwater



Habitat



Water Quality



Public Health



Invasive Species





Recommended Actions

- **More than 40 recommended actions**
- **Actions are meant to be implemented by public and private sectors**
- **Not all actions require funding**
- **Developed a workplan to guide implementation priorities for 2012-2017**

*Progress to Date – Agency Efforts
2012-2016*



2012-2017 Workplan Focus Areas

2015 Demand Forecast

New Gaging Stations

Water Use Reporting

Cooperative Groundwater Studies

\$\$ Instream Flow Studies

Hydrogeologists

Hydrologists

\$\$ for Measurement Devices

New Monitoring Wells

Groundwater Quality

Water Related Permitting Guide

Monitoring Strategy

Pesticide Stewardship Partnerships

Willamette Basin Study

Invasive Species

New Watermasters (Klamath & Enterprise)

TMDL Development

Deschutes WaterSMART Study

Scenic Waterways

Grants for Feasibility Studies & Water Projects

Place-Based Planning

IWRS Coordination



Draft Progress Report (2012 – 2015)

DRAFT



Oregon's Integrated Water Resources Strategy Progress Report

Objective 1: Understand Water Resources Today

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

Objective 2: Understand Instream and Out-of-Stream Needs

- 2A. Update long-term water demand forecasts
- 2B. Improve water-use measurement and reporting
- 2C. Determine pre-1909 water right claims
- 2D. Update water right records with contact information
- 2E. Update Oregon's water-related permitting guide
- 3A. Determine flows needed (quality & quantity) to support instream needs
- 3B. Determine needs of groundwater-dependent ecosystems

Objective 3: Understand the Coming Pressures that affect our Needs and Supplies

- 4A. Analyze effects on water from energy development projects and policies
- 4B. Take advantage of existing infrastructure to develop hydroelectric power
- 4C. Promote strategies that increase/integrate energy and water savings
- 5A. Support continued basin-scale climate change research efforts
- 5B. Assist with climate change adaptation and resiliency strategies

ABOUT THIS DOCUMENT

This at-a-glance implementation document summarizes progress made under Oregon's 2012 Integrated Water Resources Strategy (IWRS). In 2015, the IWRS Project Team shared its progress with the Water Resources Commission. This 2015-2017 implementation work plan means the Department and its partners are working on action, as described in the implementation plan. Little to no work has been completed.

This new format condenses the March 2015 progress report into a short summary tool. As we gather more implementation updates from our sister agencies, stakeholders, and other public and private organizations, the Water Resources Department will continue to evaluate and revise future iterations of this progress report.

ABOUT THE KEY

- Completed
- IP In Progress
- Not yet started

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- 10A. Improve access to built storage
- 10B. Improve access to built storage
- 10C. Encourage additional water reuse projects
- 10D. Reach environmental outcomes with non-regulatory alternatives
- 10E. Authorize and fund a water supply development program
- 11A. Improve watershed health, resiliency, and capacity for natural storage
- 11B. Develop additional instream protections
- 11C. Prevent and eradicate invasive species
- 11D. Protect and restore instream habitat and habitat access for fish & wildlife
- 12A. Ensure the safety of Oregon's drinking water
- 12B. Reduce the use of and exposure to toxics and other pollutants
- 12C. Implement water quality pollution control plans
- 13A. Fund development and implementation of Oregon's IWRS
- 13B. Fund water resources management activities at the state level
- 13C. Fund communities needing feasibility studies for water conservation, storage, and reuse projects










Objectives 1 & 2: Understanding...

Objective 1: Understand Water Resources Today

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















Objective 2: Understand Instream and Out-of-Stream Needs

-  2A. Update long-term water demand forecasts
-  2B. Improve water-use measurement and reporting
-  2C. Determine pre-1909 water right claims
-  2D. Update water right records with contact information
-  2E. Update Oregon's water-related permitting guide
-  3A. Determine flows needed (quality & quantity) to support instream needs
-  3B. Determine needs of groundwater-dependent ecosystems



Objective 3: Understand the Coming Pressures...

Objective 3: Understand the Coming Pressures that affect our Needs and Supplies

-  4A. Analyze effects on water from energy development projects and policies
-  4B. Take advantage of existing infrastructure to develop hydroelectric power
-  4C. Promote strategies that increase/integrate energy and water savings
-  5A. Support continued basin-scale climate change research efforts
-  5B. Assist with climate change adaptation and resiliency strategies
-  6A. Improve integration of water info into land use planning (vice versa)
-  6B. Update state agency coordination plans
-  6C. Encourage low impact development practices
-  7A. Develop and upgrade water & wastewater infrastructure
-  7B. Encourage regional (sub-basin) approaches to water/ wastewater systems
-  8A. Support implementation of Oregon's K-12 environmental literacy plan
-  8B. Provide education & training for Oregon's next generation of water experts
-  8C. Promote community education and training opportunities
-  8D. Identify ongoing water-related research needs



Meet Oregon's Instream and Out-of-Stream Needs

Objective 4: Meet Oregon's Instream and Out-of-Stream Needs

-  9A. Undertake place-based integrated, water resources planning
-  9B. Coordinate implementation of existing natural resource plans
-  9C. Partner with federal agencies, tribes, and neighboring states in long-term water resources management
-  10A. Improve water-use efficiency and water conservation
-  10B. Improve access to built storage
-  10C. Encourage additional water reuse projects
-  10D. Reach environmental outcomes with non-regulatory alternatives
-  10E. Authorize and fund a water supply development program
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Understanding Groundwater & Surface Water

Monitoring Groundwater and Surface Water Supplies

- 20 new stream gages have been installed, all near real-time
- 14 new monitoring wells installed, all equipped with continuous recorders
- Initiating new groundwater studies

Monitoring Groundwater Quality

- Funding and staff provided to expand monitoring to areas outside of existing groundwater management areas
- Mid-Rogue, North Coast, and the Walla-Walla Basin sampled in 2015-16

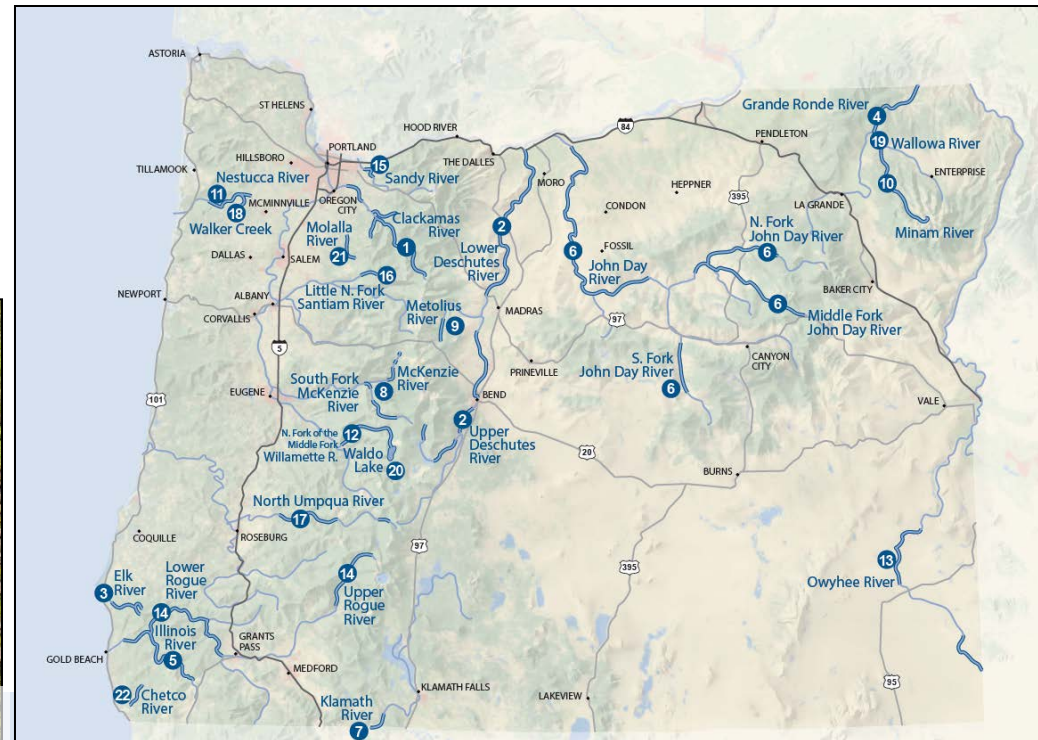




New Scenic Waterways

Designation of new Scenic Waterways

- 14-mile reach of the Chetco River, located in Curry County
- 14.2-mile reach of the Molalla River, located in Clackamas County
- Governor Brown approved these new reaches in January 2016





Collaborative Planning Efforts

- Recently initiated integrated water resources planning on a smaller scale – Mid-Coast, Lower John Day, Upper Grande Ronde, and Malheur Lake basins
- Goal is to develop place-based plans that roll up and inform the statewide Strategy
- Collaborative efforts are also occurring in the Upper Deschutes and Willamette River Basin





Providing Funds for Studies & Projects

Funding for Feasibility Studies & Project Development

- The state has recently launched a new Water Resources Development Program
- Includes grants and loans for a variety of water projects that result in economic, environmental, and social benefits
- In May 2016, the Water Resources Commission awarded \$1.2 million to complete 17 feasibility studies
- Another \$8.9 million awarded to the construction or implementation of 9 water projects

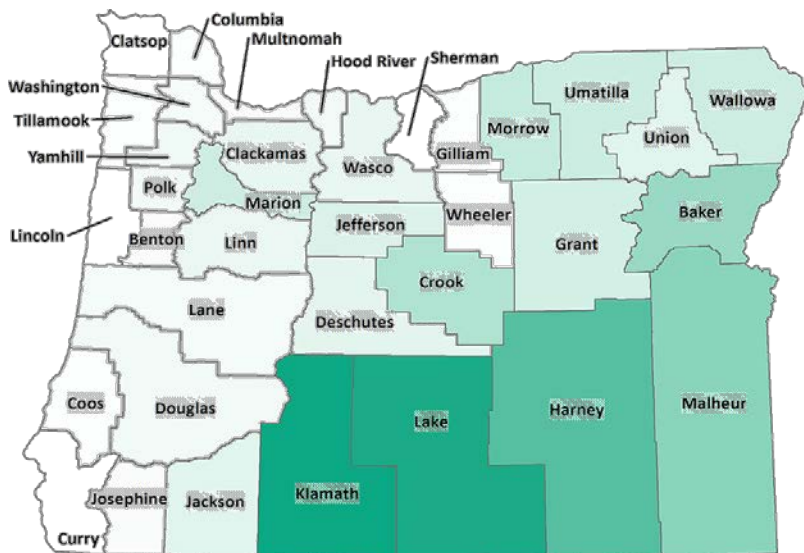




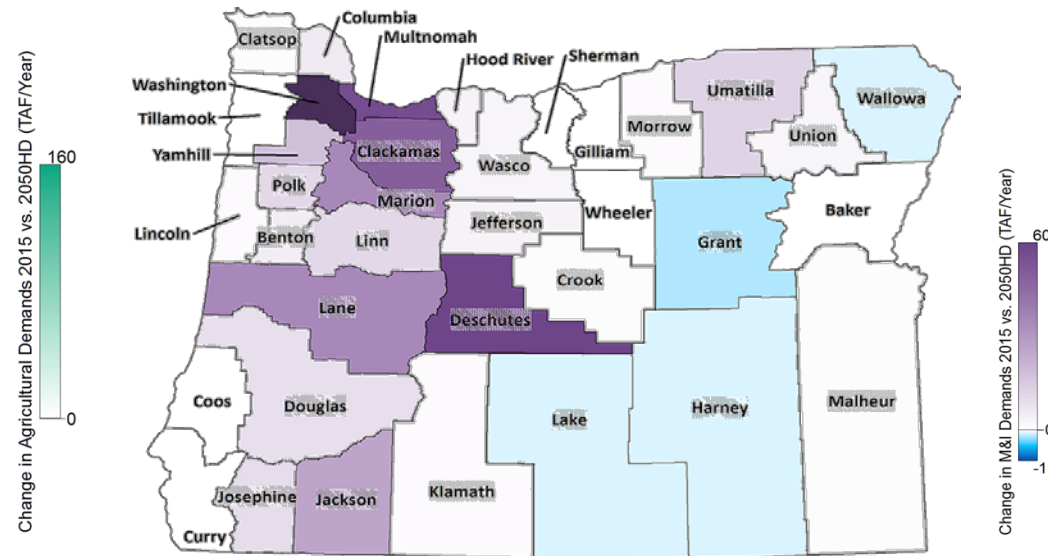
Understanding Future Demands

- In 2008, Oregon completed its first water demand study
- Updated the water demand forecast in 2015
- Another 1.3 million acre-feet needed by 2050

Changes in Agricultural Demands



Changes in Municipal & Industrial Demands







What lies ahead for Oregon's Next Strategy?

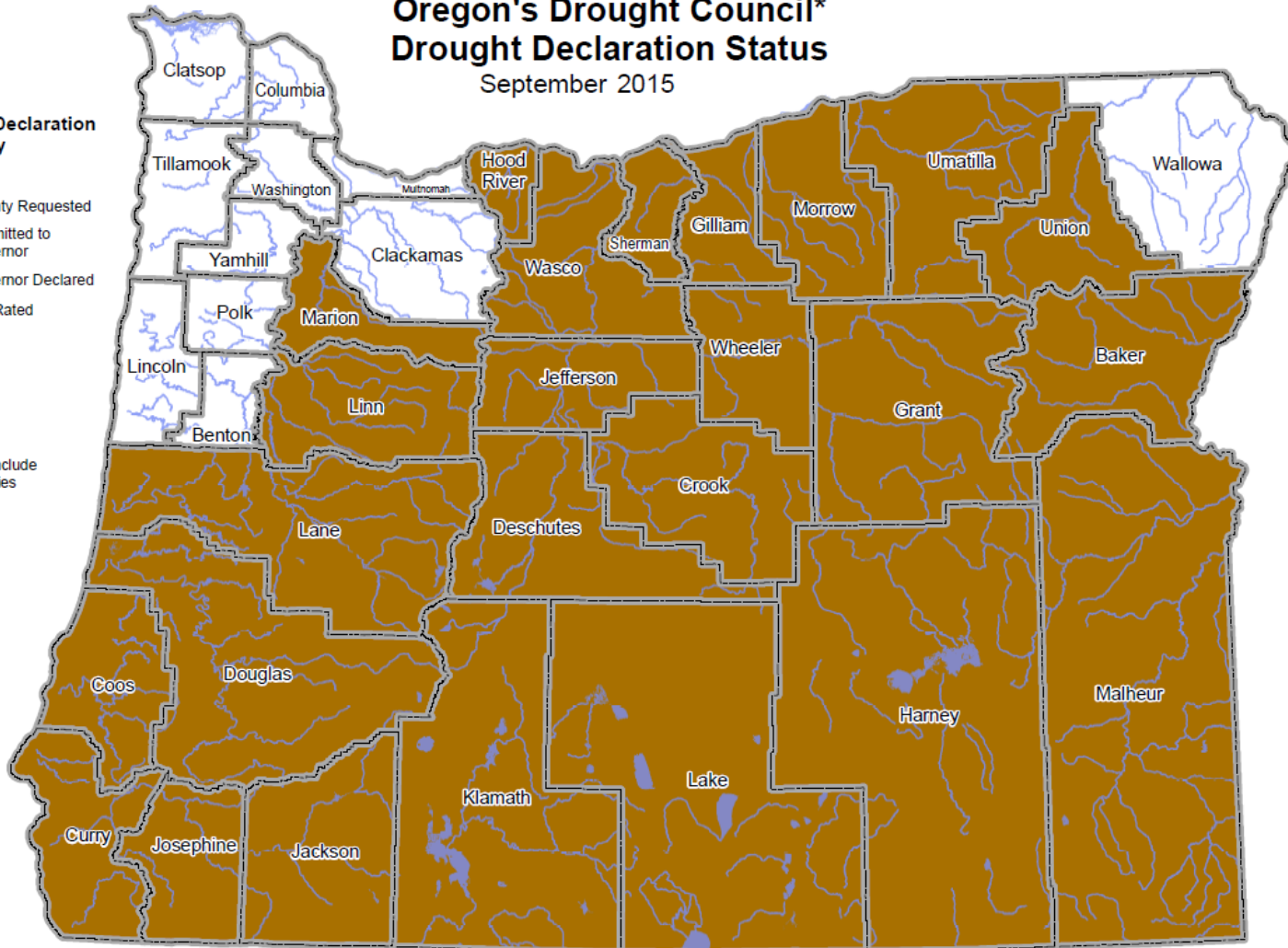


Building Drought Resiliency

Oregon's Drought Council* Drought Declaration Status September 2015

- Drought Declaration by County**
- Status**
-  County Requested
 -  Submitted to Governor
 -  Governor Declared
 -  Not Rated

*Members Include State Agencies



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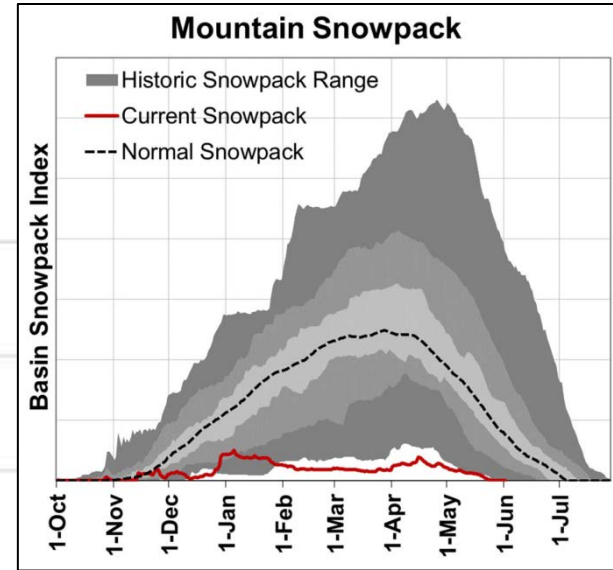
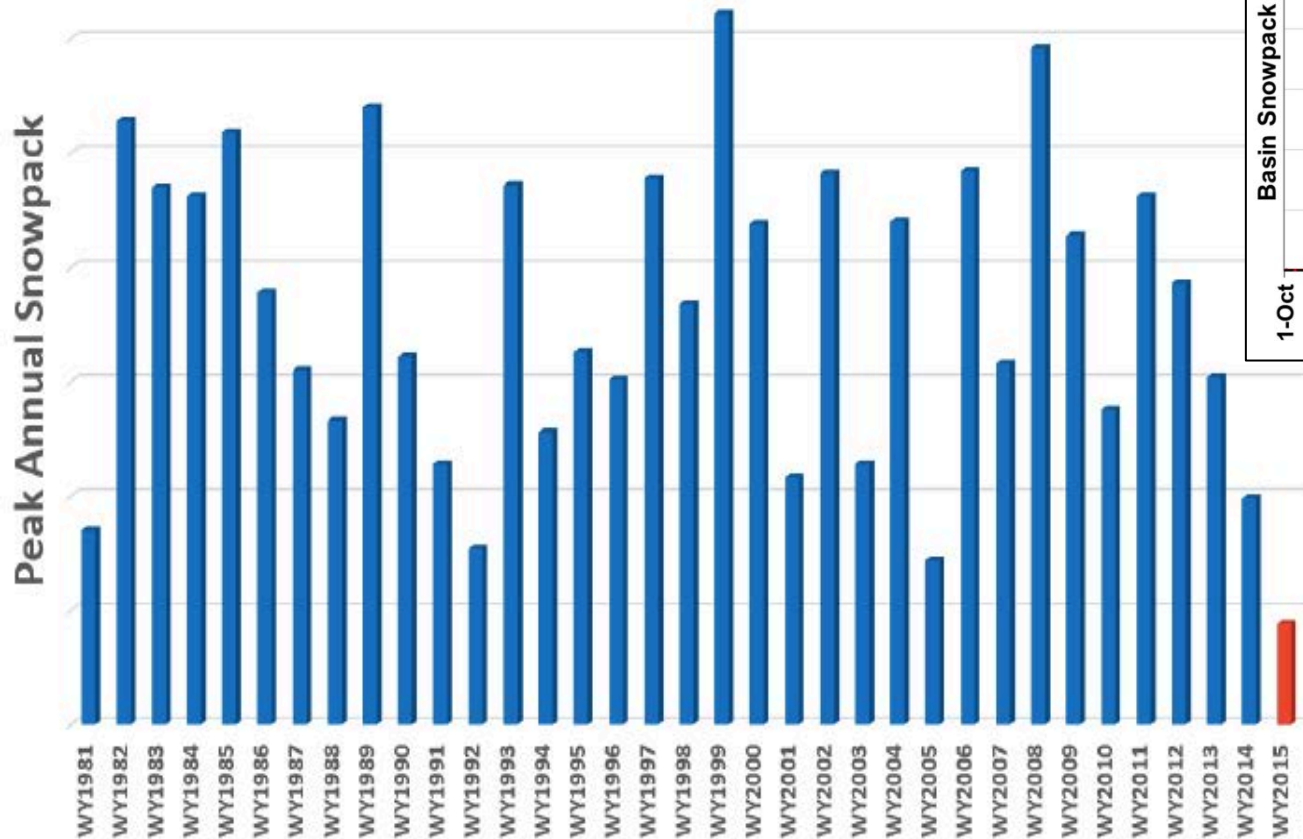
0 20 40 60 80 100 Miles

Updated: 9/18/2015 12:02 PM
Projection: Oregon Lambert, NAD 83



Record Low Snowpack

Peak Annual Snowpack (Water Years 1981 - 2015)





Drought's Impact on Oregon Communities

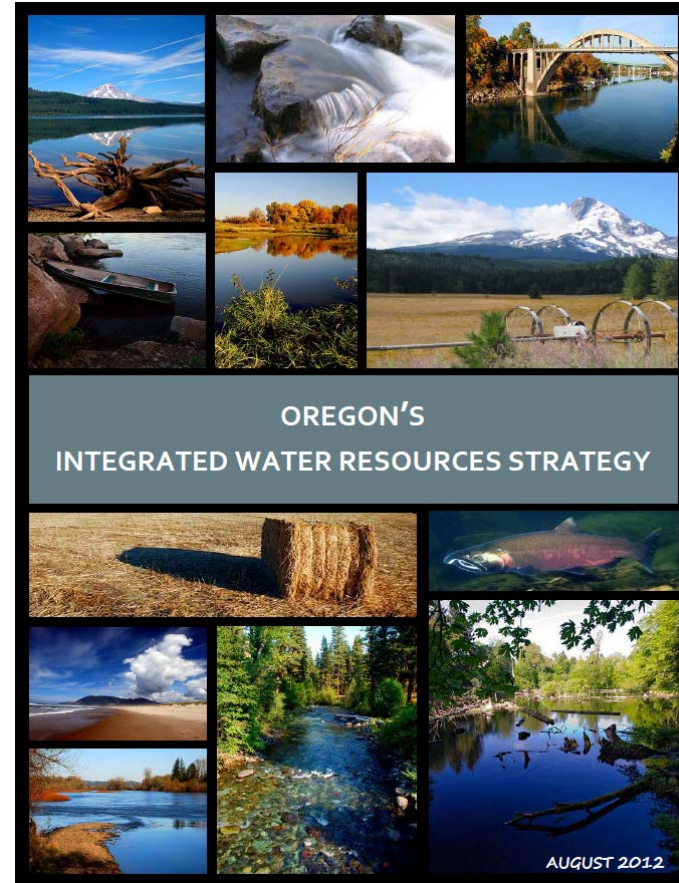
- **Early snowmelt and runoff**
- **Reduced reservoir storage**
- **Earlier regulation of water rights, new for some areas**
- **Fisheries management (water temperatures, mortalities)**
- **Agriculture (reduced yields, cut in deliveries)**
- **Recreation/tourism**
- **Wildlife**
- **Very intense wildfire season**
- **Tree die offs**





Developing the Next Strategy

- **2017 IWRS update will be surgical, a comprehensive revision will occur in 2022**
- **Must address drought and a changing climate**
- **Project partners will report on progress made since 2012**
- **A new workplan will be developed for 2017-2022**
- **The Water Resources Commission will notify other boards/commissions prior to adoption**
- **2017 IWRS must be adopted by the Water Resources Commission**





For More Information

Water Resources Department's website:

http://www.oregon.gov/OWRD/pages/law/integrated_water_supply_strategy.aspx

IWRS Public Mailing List:

<http://listsmart.osl.state.or.us/mailman/listinfo/iwrs>

IWRS Email:

waterstrategy@wrd.state.or.us