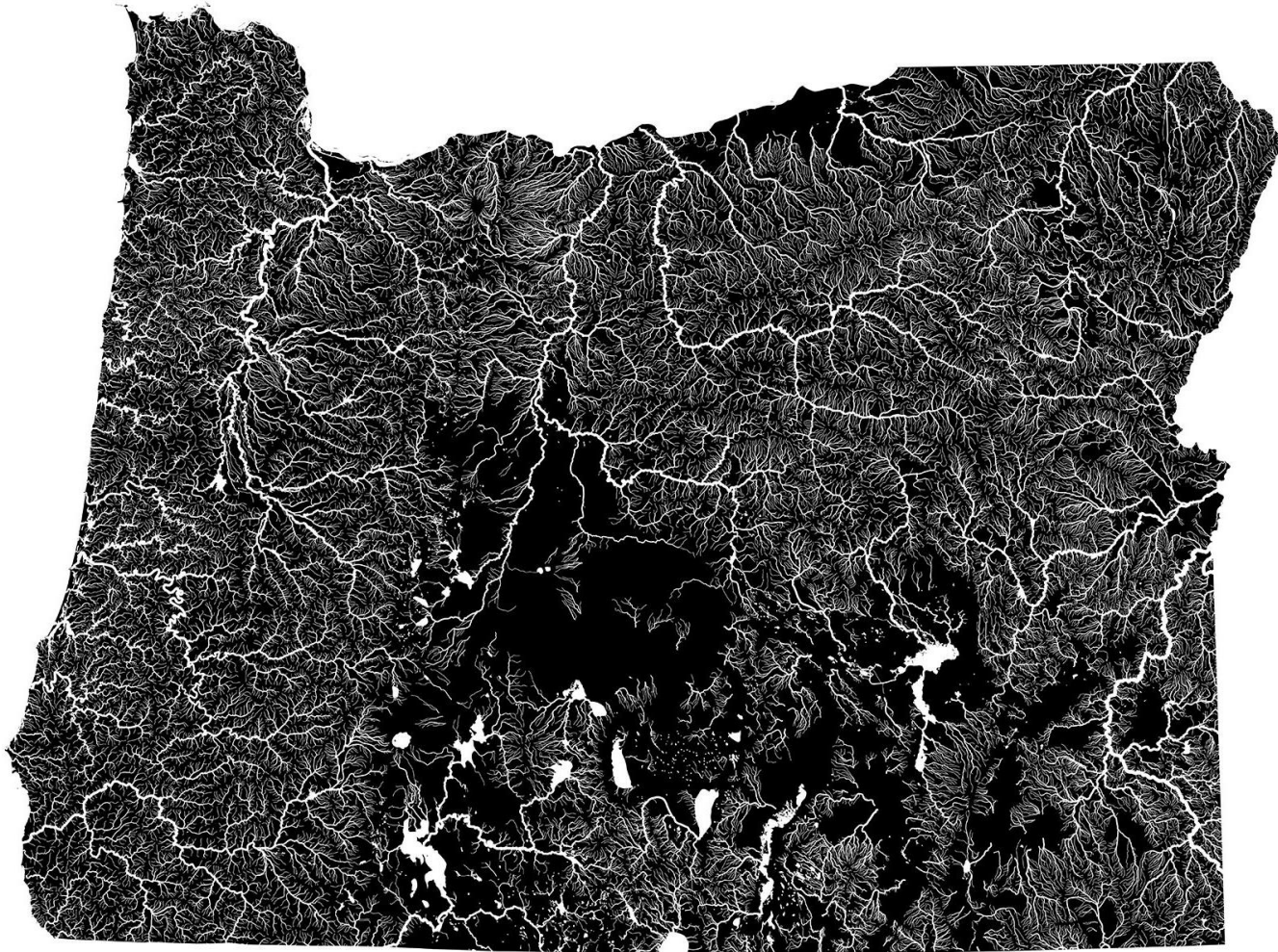


Martin Doyle
Professor, Nicholas School of Environment
Director for Water Policy, Nicholas Institute for Environmental Policy Solutions
Duke University



Oregon Business Council Has Sustained Program of Water Work

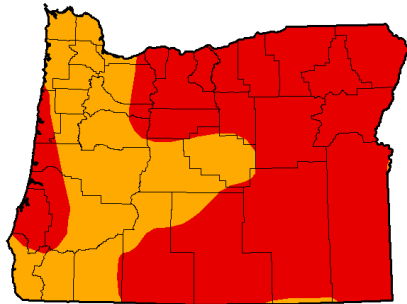
Water is basis for our economy, our communities, natural systems, and our lives



Bobby Cochran, Willamette Partnership, Oregon Business Summit

Oregon has suffered relentless water related crises in recent years

U.S. Drought Monitor Oregon



September 22, 2015
(Released Thursday, Sep. 24, 2015)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	100.00	67.28	0.00
Last Week 9/15/2015	0.00	100.00	100.00	100.00	67.28	0.00
3 Months Ago 6/25/2015	0.00	100.00	98.60	81.72	34.09	0.00
Start of Calendar Year 12/31/2014	13.61	86.39	80.70	49.29	34.11	0.00
Start of Water Year 9/1/2014	1.56	98.44	76.61	56.26	35.30	0.00
One Year Ago 9/23/2014	1.69	99.31	76.61	57.30	35.30	0.00

Intensity:

D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Eric Luebbehusen
U.S. Department of Agriculture



<http://droughtmonitor.unl.edu/>

US Drought Monitor



Hermiston Herald



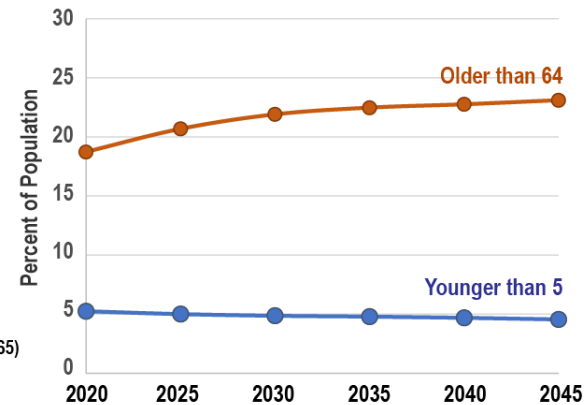
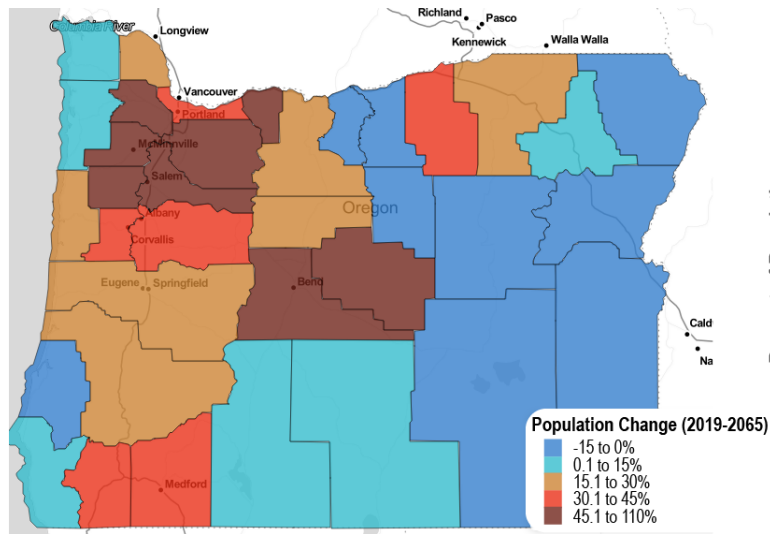
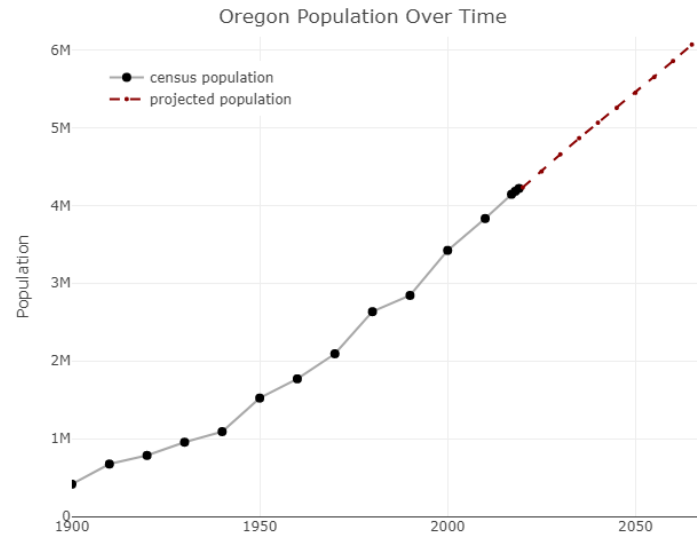
US Geological Survey



Univ of Denver Law Review

1. Demography – population will increase, but some communities will shrink

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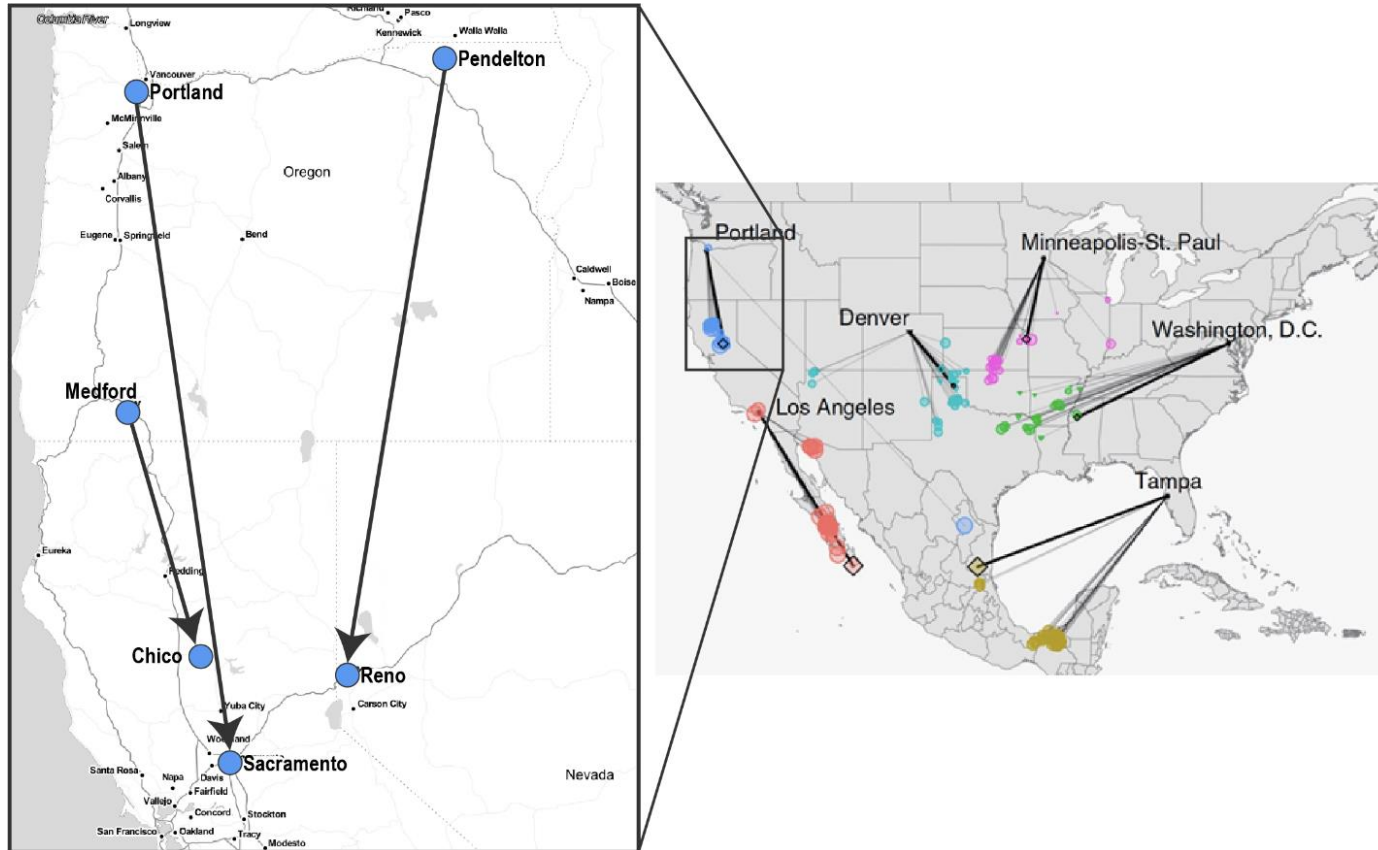


Three Perspectives on Oregon's Long-Term Water

2. Climate – Portland in 40 years will feel like Sacramento does today

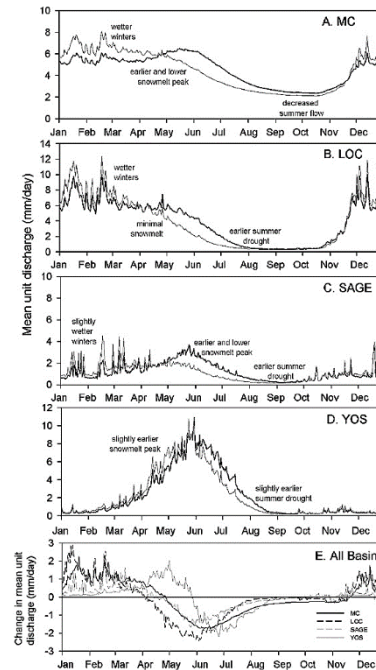
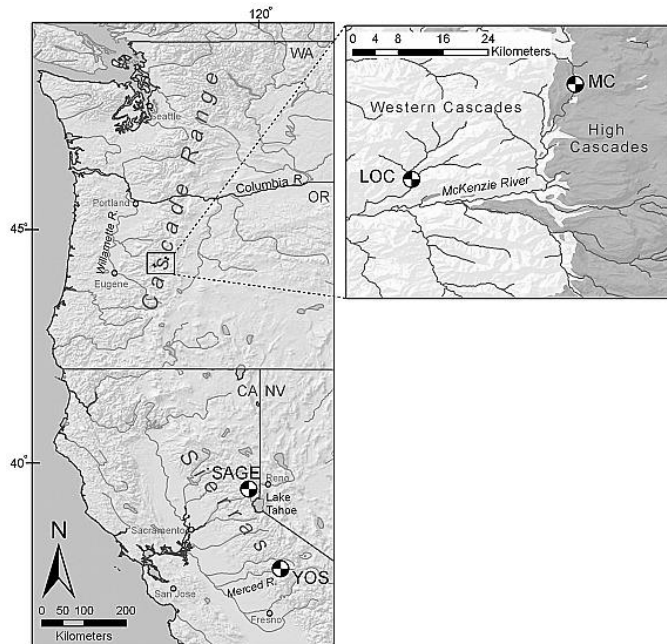
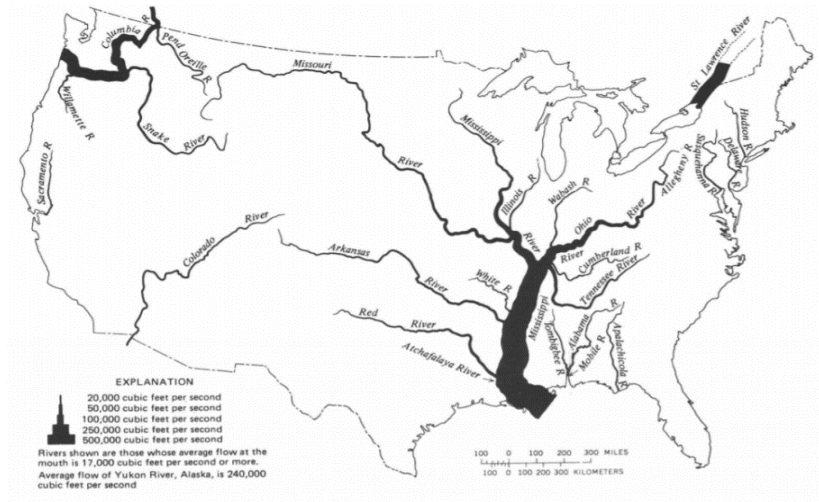
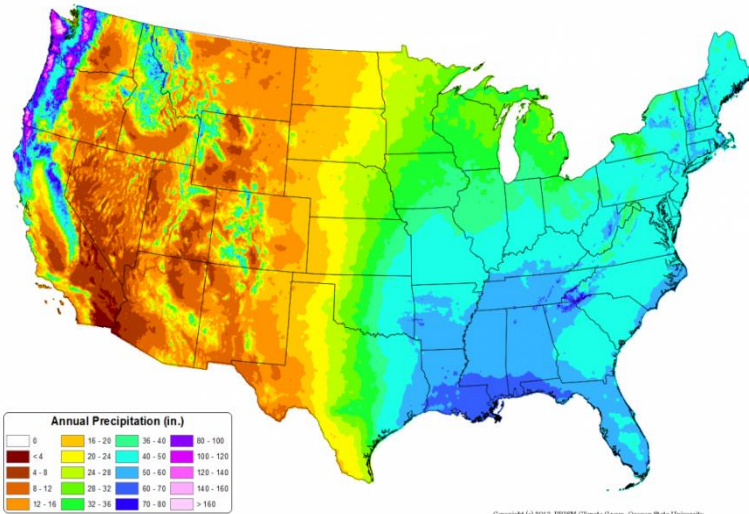
Medford will feel like Chico, CA

Pendleton will feel like Reno, NV



Three Perspectives on Oregon's Long-Term Water

3. Hydrology – Oregon has a comparative hydrologic advantage



Ten Trends for the Next Ten Years – in Oregon and the US generally

1. Rain not snow
2. Growing demand for over-allocated waters
3. Aging infrastructure
4. Affordability and equity
5. Federalism and long-term shrinking budgets
6. Groundwater and natural infrastructure
7. Smart water and open water data
8. Novel compliance approaches
9. Impact investing
10. Growing cost of capital

Over-arching Conclusions

1. Oregon's biggest challenge is water management – not scarcity
2. Unclear, and doubtful, that Oregon's water management system is up to the impending challenges

Four Pillars for Transforming Oregon's Water Management

1. Regional water approaches to increase opportunities for innovation and responsibility that address local/regional challenges
2. Greater transparency through increased use of shared, integrated water data
3. Careful, intentional reform of water permitting processes
4. Inclusion of wider range of voices in water management

