

Measure 37 and Oregon's Groundwater

A Paradigm Shift from Water Management to Water Planning?

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Thank you for your attention...



Is this the last word on this issue?

Oregon Water & Land Use Laws Never Have Fit Together

- “The water basin planning provisions of ORS Chapter 536 have never been reconciled with the land use planning requirements of ORS Chapter 197”

- “Regulation of water quantity under ORS 537 has never been integrated with water quality regulation under ORS 468B”

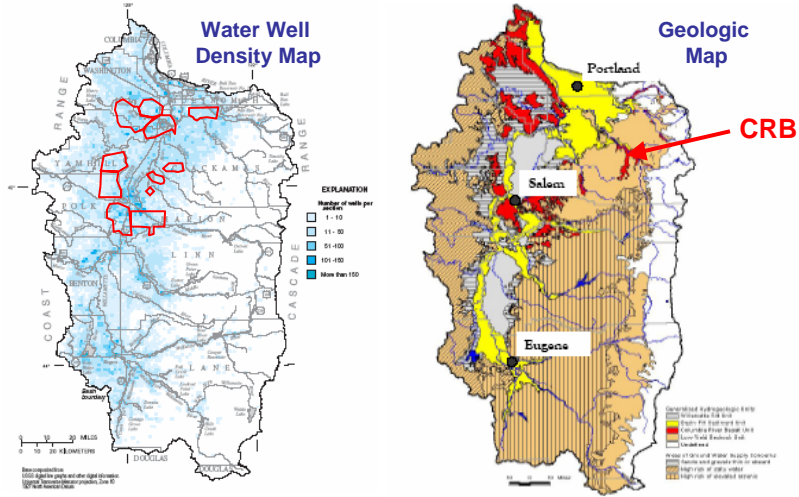
*Testimony of Gail Achterman on H.B. 2812 –
Director, Institute For Natural Resources*

Post Measure 37 Has Focused on Primarily on Land Use

Before Measure 37	After Measure 37
<p>Zone change applications for rural residential acreage within a Groundwater Restricted Area designed to comply with Statewide Planning Goal 5 (Conservation of Natural Resources)</p>	<ul style="list-style-type: none"> • Statewide Planning Goal 5 does not apply. • Measure 37 basically invalidates a Groundwater Restricted Area development inventory.

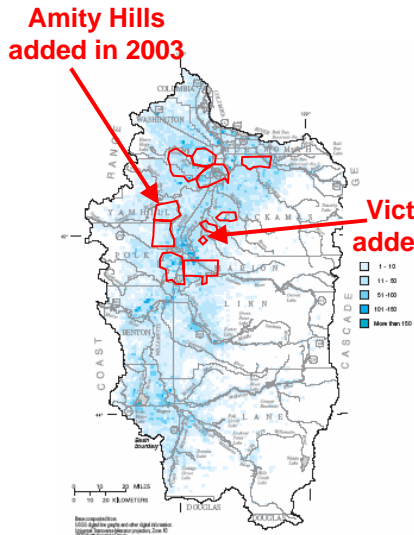
15 Groundwater Limited Areas in the Willamette Valley

Most focus on the Columbia River Basalt (CRB) Aquifer



Base maps modified after OWRD and DLCD (2002)

The Existing Situation



USGS and OWRD
Estimate 100,000 wells
in Willamette Valley
with 3,000 to 4,000 installed annually

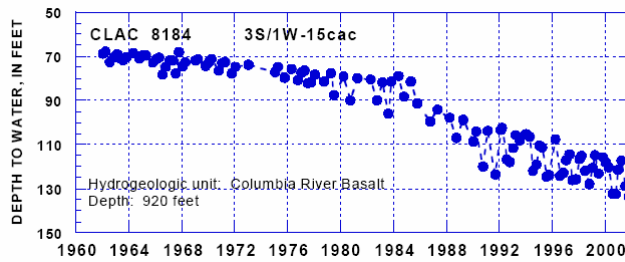
The bulk of the Groundwater Limited
Areas designated in 1992.

Victor Point near Silverton
added in 2001.

Amity Hills/Walnut Hill
added in 2003.

Base maps modified after OWRD and DLCD (2002). Dates provided courtesy of OWRD.

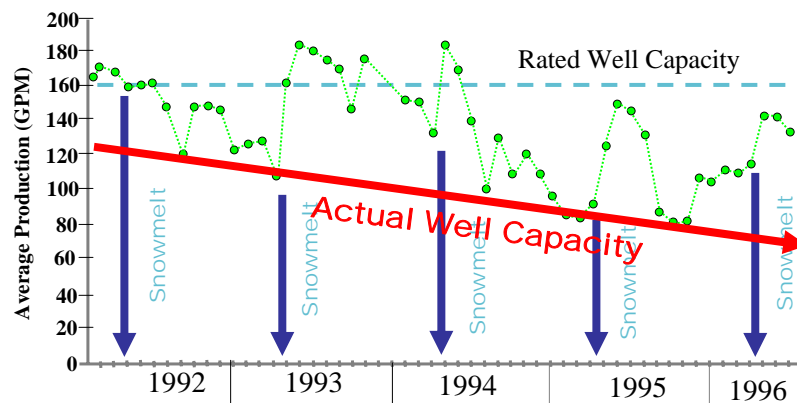
Groundwater Limited Areas Generally Based on Water Level Declines



Water levels in wells tapping the basalt aquifers have dropped over 60 feet in 40 years in Willamette Valley.

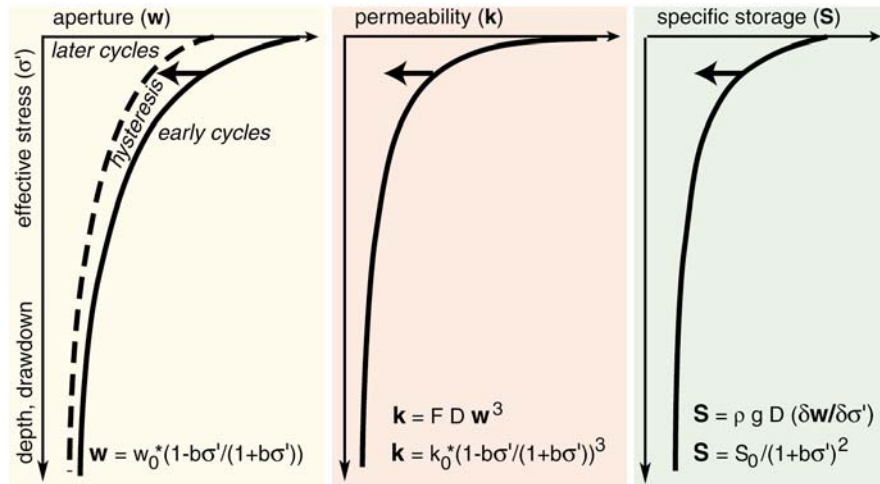
Modified after OWRD and DLCD (2002)

Experience Elsewhere in the Western US Reveals Long-Term Production Trends are a Better Planning Metric



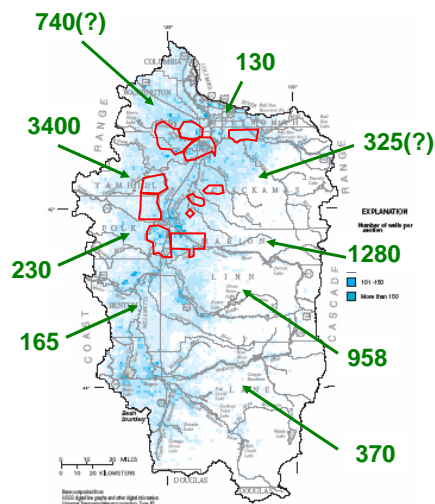
Data courtesy of Summit Park Water Special Service District, Utah

Permanent Loss of Aquifer Storage is Common in Conduit Flow Aquifers like CRB



Modified after Matyjasik, Yonkee and Jarvis (2002)

Measure 37 Claims may lead to 7,500 to 10,000 New “Exempt” Wells



Exempt wells allowed to pump 15,000 gallons per day.

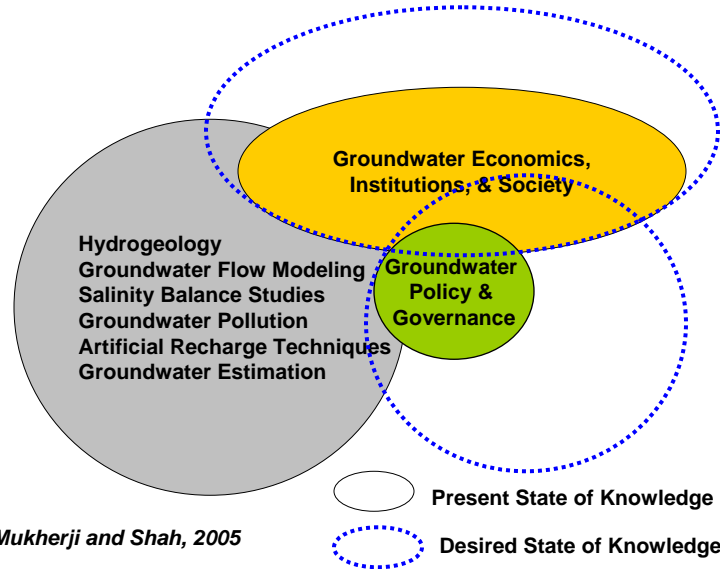
Bastach (1998) reports State-wide domestic well use at 90 MGD, so M37 wells may potentially double to triple State-wide domestic use.

Obvious future potential groundwater problem areas include Yamhill, Washington, and Marion counties.

Groundwater studies in Linn and Benton counties need updating to better predict impacts.

Base map modified after OWRD and DLCD (2002).

The Knowledge Development Challenge in Groundwater



After Mukherji and Shah, 2005

Water As Land Use Regulation

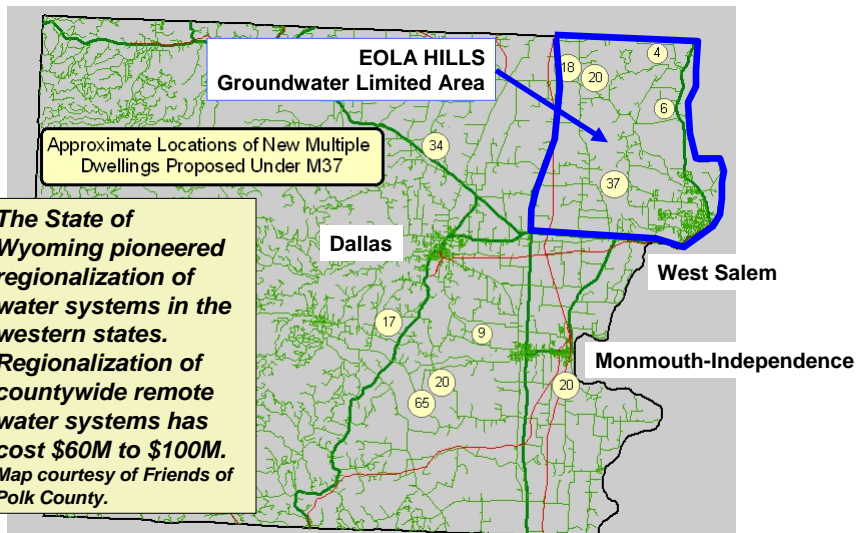
State	Concurrency Systems
Florida	<ul style="list-style-type: none"> • 1st Comprehensive Plan in US in 1970s • Enforcement relies on good faith of local govt. and citizen action
Vermont	<ul style="list-style-type: none"> • Permit for Development controlled by regional commission • Lacks flexibility
Maryland	<ul style="list-style-type: none"> • Encourages counties to adopt concurrency ordinances rather than by state requirement
Wyoming	<ul style="list-style-type: none"> • 1999 - Subdivision Law requires proof of water and wastewater • 2001 - "Repealed" by watered down version

Modified after Strachan (2001)

Water As Land Use Regulation

State	Concurrency Systems
Utah	<ul style="list-style-type: none"> • Dept. of Env. Quality System Standards exist but not enforced. • 2001 - Summit County requires developers to have “wet” water.
California	<ul style="list-style-type: none"> • California Subdivision Map Act • Subdivisions > 500 lots - sufficient water supply must be available with written verification of sufficient water supply.
Oregon	<ul style="list-style-type: none"> • No statewide standards. • Marion County Sensitive Groundwater Overlay Zones Studies • 2005 - Clackamas County Development Standards

Regionalization of Willamette Valley water systems is not a matter of “if” but “when”, and it will not be cheap



Expect Legal Challenges to Water As Land Use Regulation

**Rough Water Ahead:
Retain Experienced Counsel**

**Takings Clause of 5th
Amendment**

Right to Travel Due Process

Equal Protection

Antitrust

Modified after Strachan (2001)

Suggested Policies for Intensive Exploitation of Willamette Valley Aquifers

- Concurrency requirements for developers, both large and small, based on actual “wet” water, not paper water rights, hydrogeologic studies, or engineering projections.
- Public education and information programs using limitation of water availability warranty for homes based on groundwater systems.
- Apply a groundwater usage fee or “extraction tax” on all new wells to fund regular well testing, groundwater exploration and/or conjunctive use projects.

**Message from 2005 World Water Week in
Stockholm, Sweden**

- “Land Management is Water Management”

**Message from 2005 Groundwater Under the
Pacific Northwest Conference**

- “Land Planning is Water Planning”

A final thank you for your kind attention.