Active Water Management for the 21st Century

Washington Policy Center
Environmental Policy Conference

July 21, 2011

WASHINGTON STATE
Department of Ecology

Water is Key to Our Quality of Life






But we are facing many serious water challenges that threaten our quality of life now, and will for generations – **unless we act now**.

Water Resources 10 Program Activities Detailed in 6267 Report

- Clarify Water Rights
- Assess, Set and Enhance Instream Flows
- Ensure Dam Safety
- Manage Water Rights
- Prepare and Respond to Drought
- Promote Compliance with Water Laws
- Provide Water Resources Data and Information
- Regulate Well Construction
- Watershed Management
- Support Water Use Efficiency

Water Management Challenges:

We've Got Big Problems Today -- and Without Action, Things Will Get Worse

Today's Challenges
1. Lack of water for economic growth -- job creation and housing
2. Streams and rivers without sufficient water year-round for fish and wildlife
3. Groundwater levels sharply declining in many areas of the state
4. An outdated legal system, written to address the world of a different century
5. Unstable and insufficient funding for water management
Emerging Challenges
1. Increasing demands for water from population growth
2. Higher frequency of water shortages predicted due to climate change

Today's Challenges –

Lack of Water for Economic Growth

- Water provides "fuel" to our state's economic engine
- There is an increasing demand for water in our state to support economic activity, yet in many areas of the state supplies are limited
- An efficient and effective water management program is critical to supporting economic growth while protecting senior water rights and the environment

Today's Challenges –
Insufficient Water for Fish & Wildlife

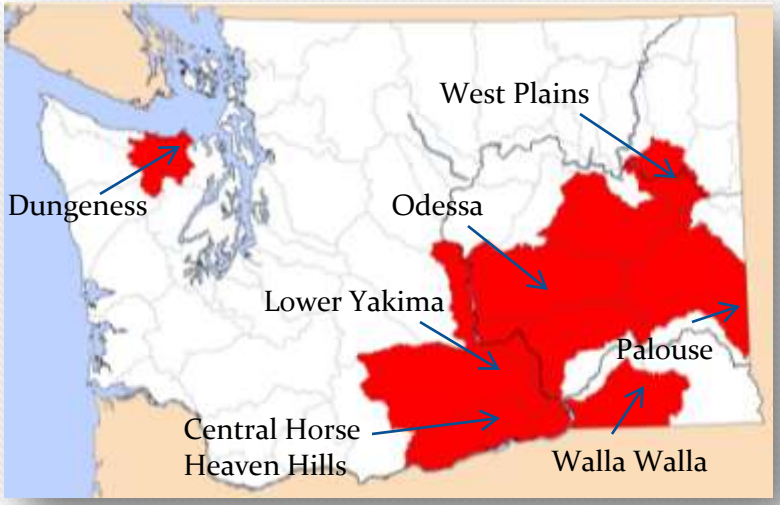
- In nearly every watershed in the state, salmon and trout species are in serious decline and listed under the federal Endangered Species Act
- Water is essential for fish migration, spawning, and rearing
- The state has committed millions of dollars to recover these populations
- Flows need to be protected and restored to avoid extinction of salmon and trout populations

Watersheds with one or more threatened or endangered fish species

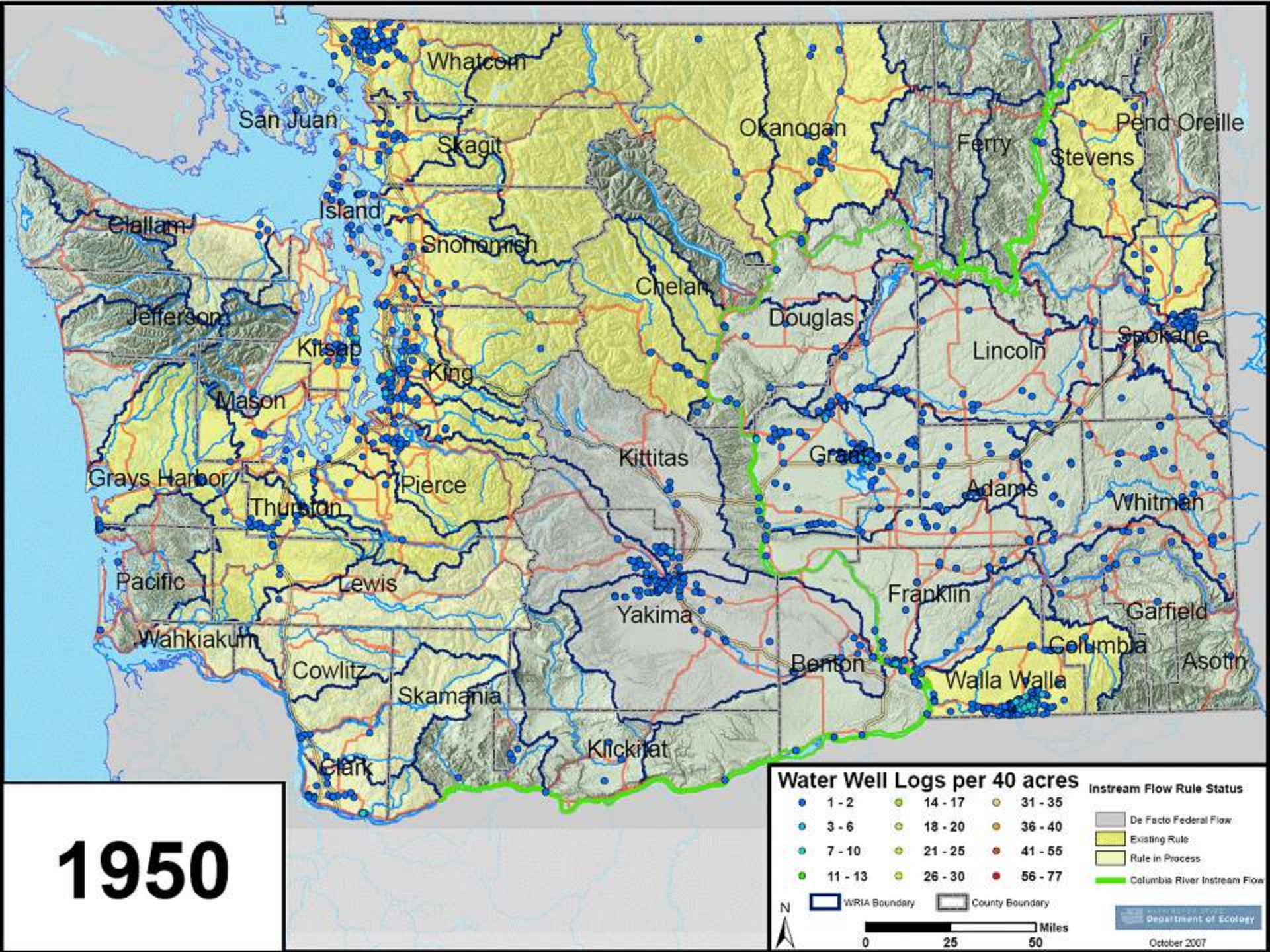
Today's Challenges –

Sharply Declining Groundwater Levels

- Groundwater plays a critical role in Washington's economic and environmental future
- We are using groundwater faster than it is naturally replenished
- For example, groundwater levels of the Columbia Plateau system show marked declines in the past 25 years in more than 80% of nearly 500 wells measured



Watersheds with significant groundwater declines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Department of Ecology
October 2007
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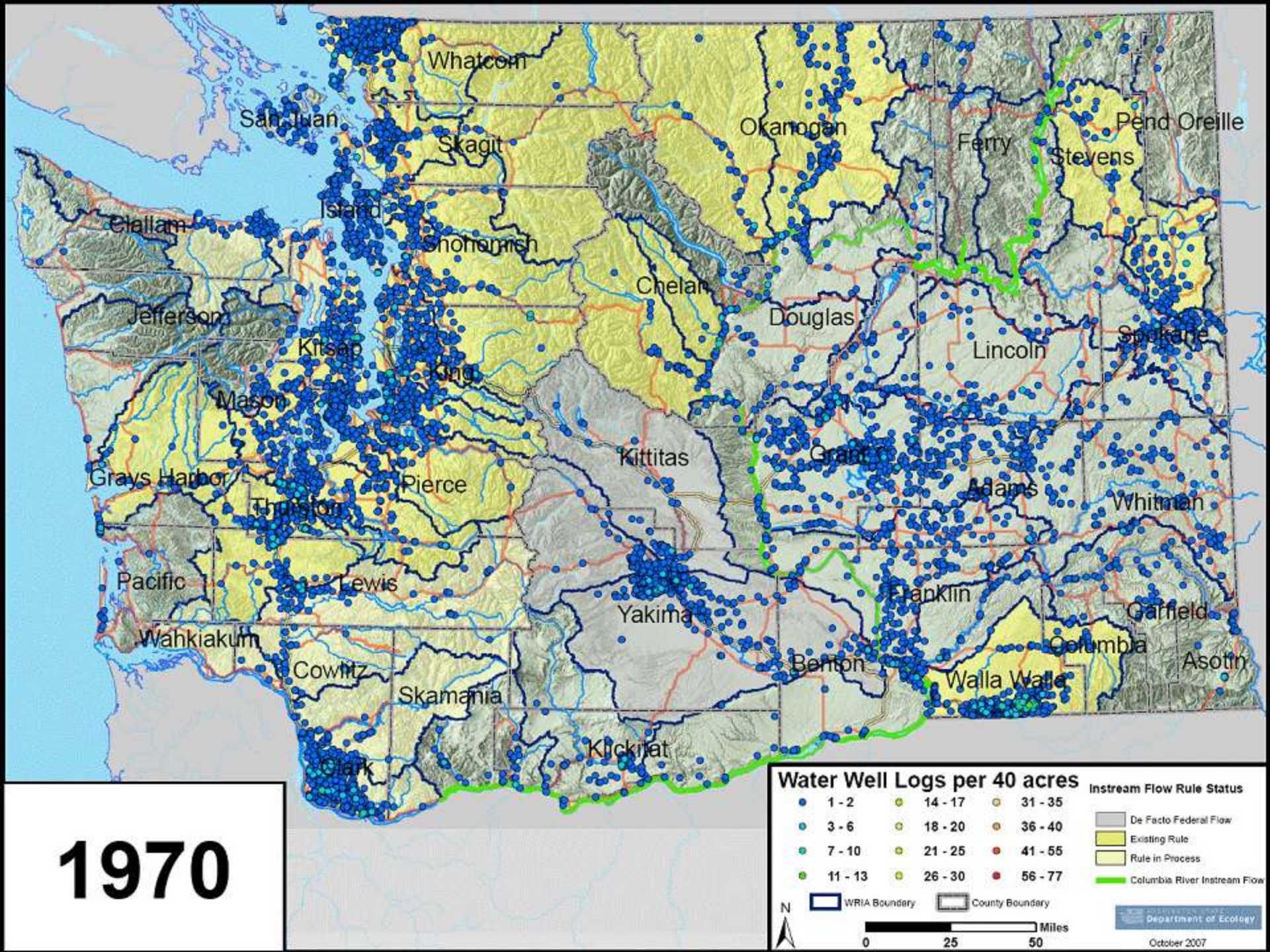
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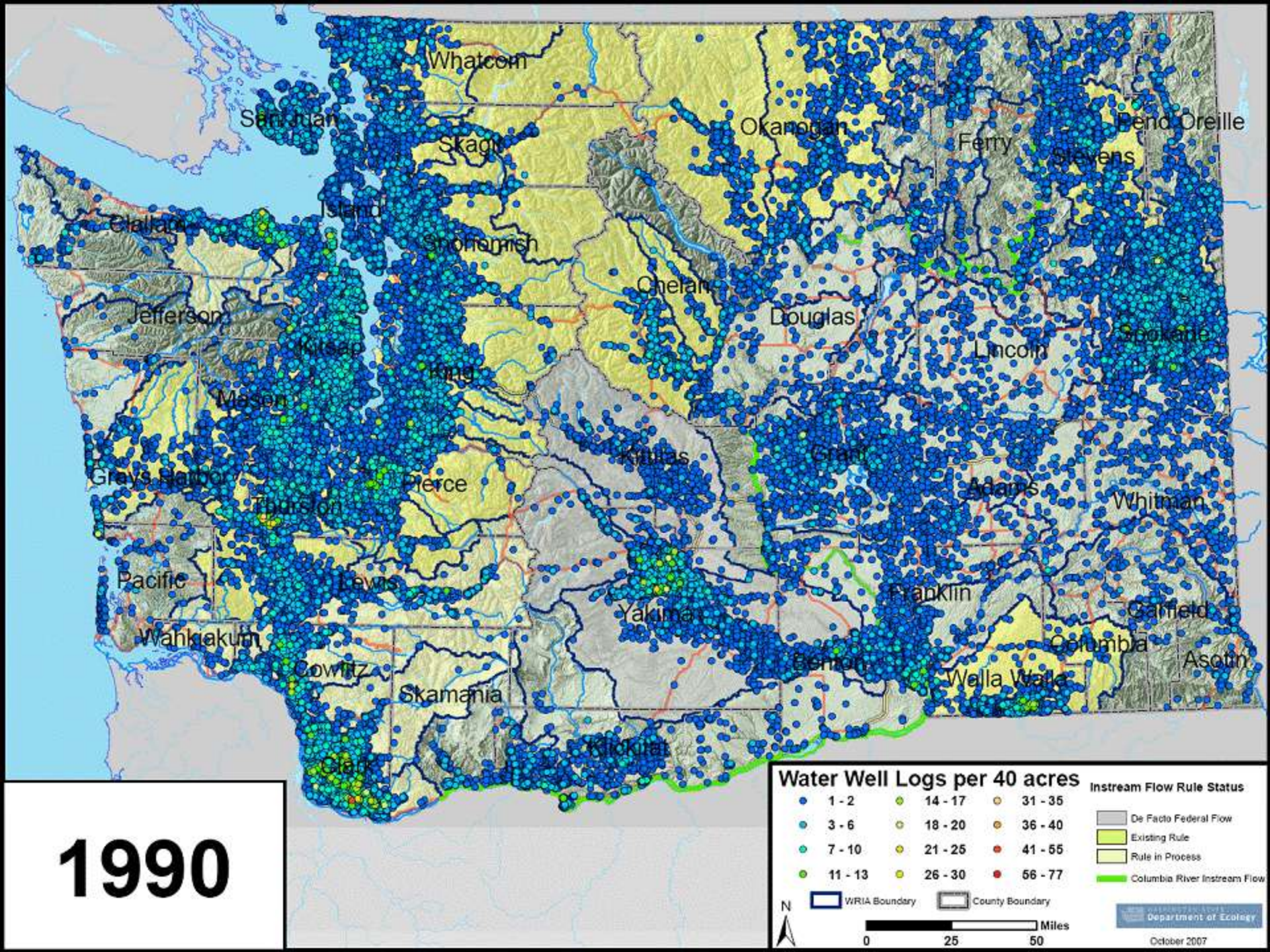
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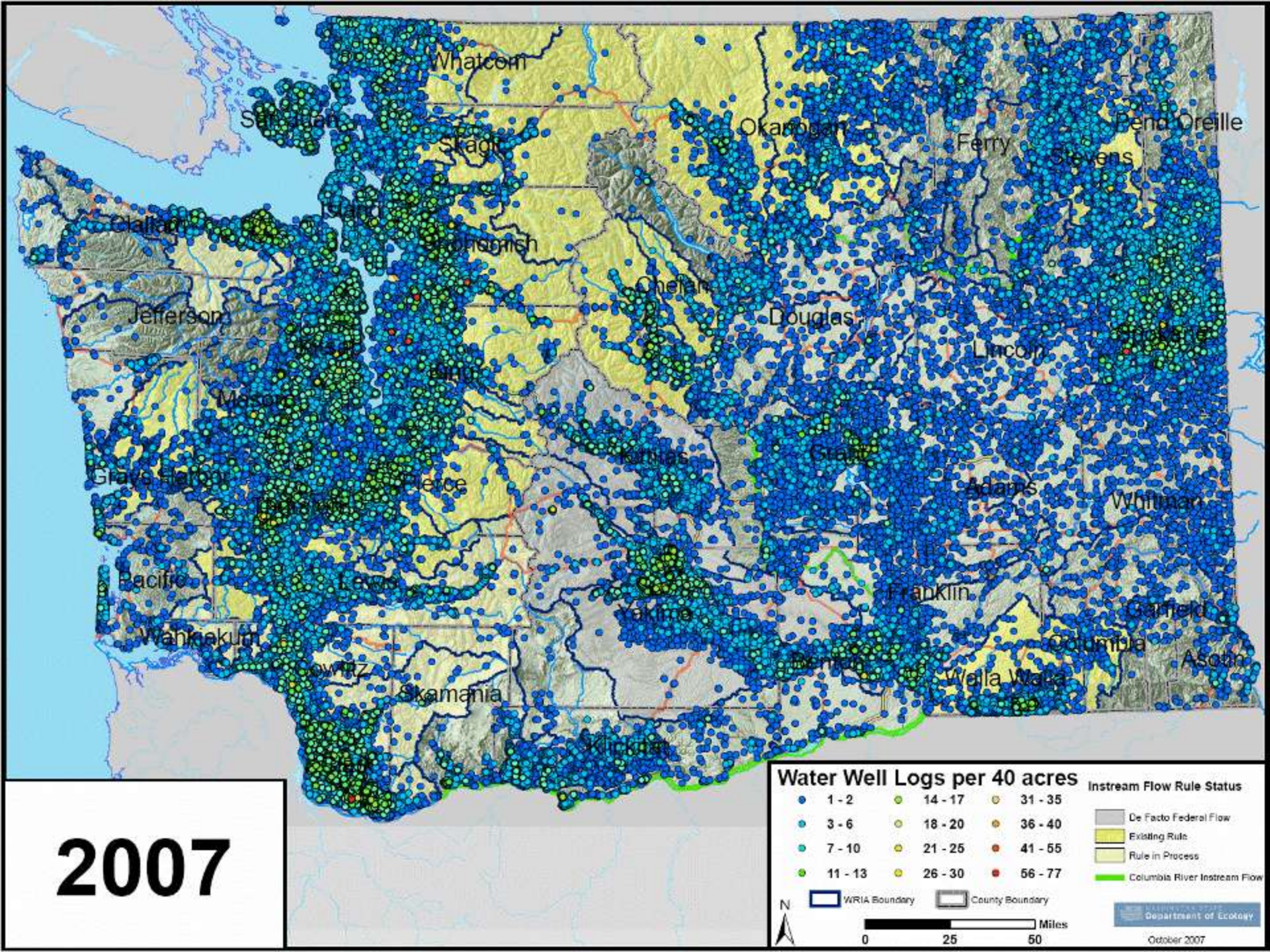
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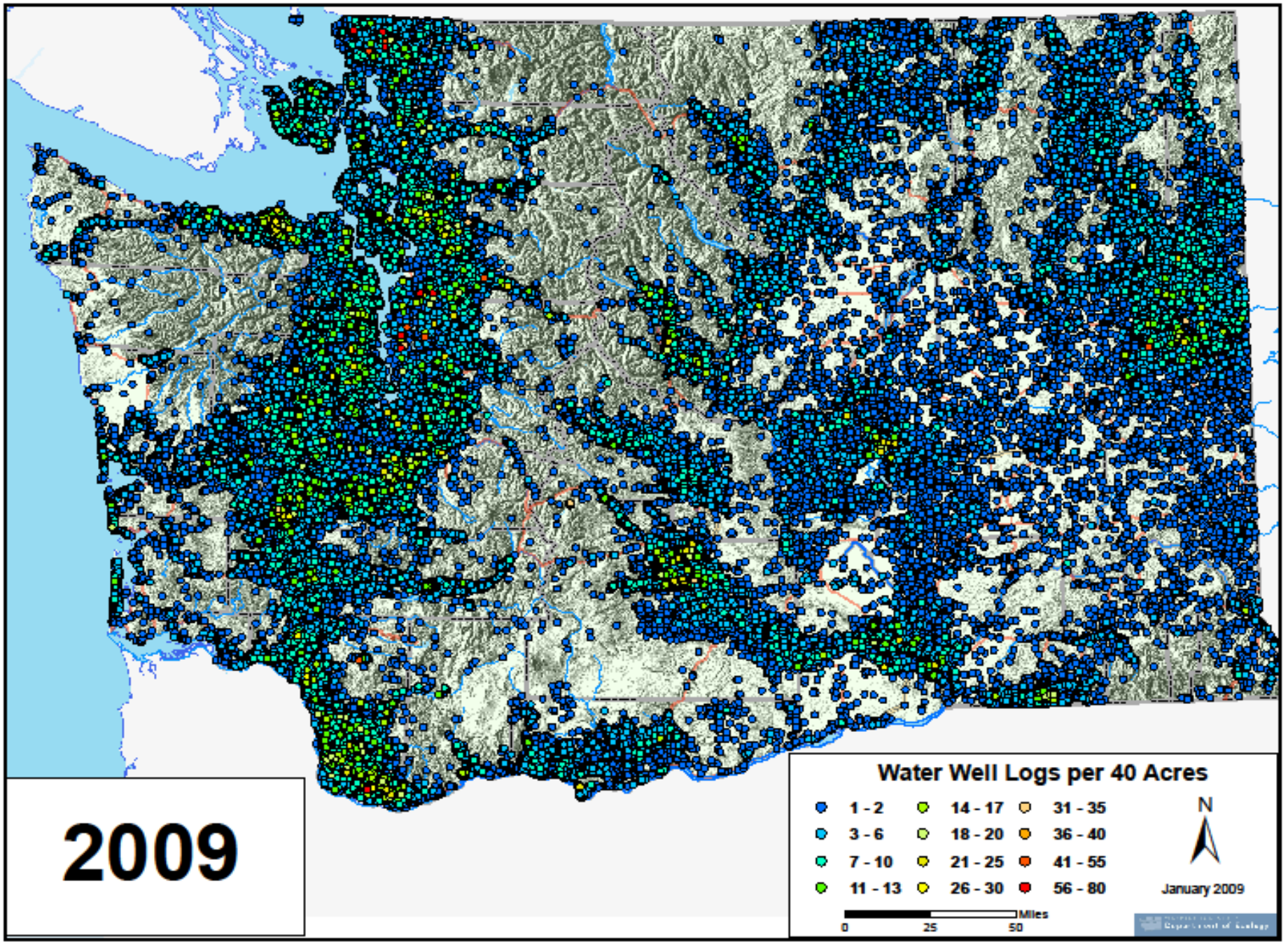
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Today's Challenges –

An Outdated Legal System

- The Water Code dates to 1917 and was designed to facilitate settlement
- Update current laws to better support water management. For example, extend the period of non-use for water rights under the "use it or lose it" relinquishment law which currently discourages water conservation
- Use of many water management tools are limited; more flexibility in use of mitigation, for example, will help allow new water uses while protecting water supplies

Moses Lake, 1911

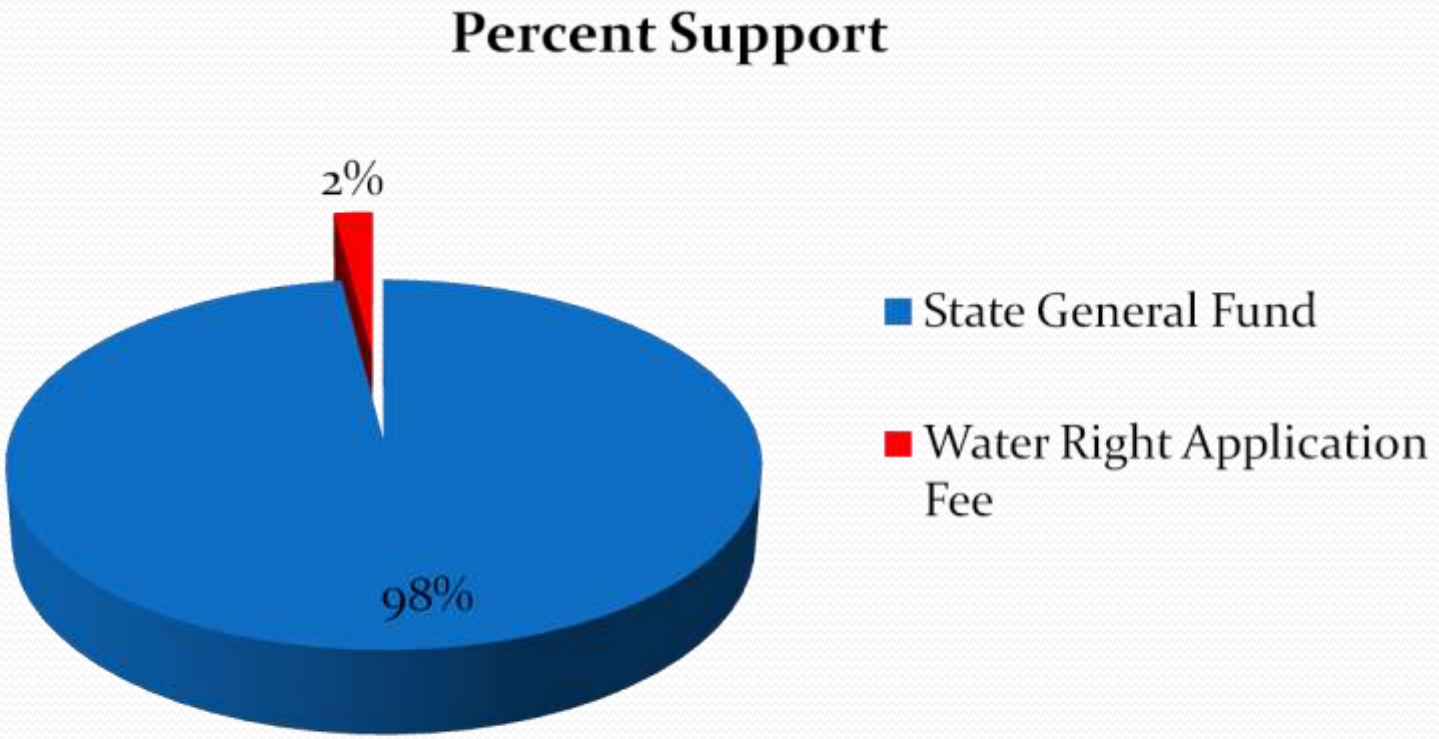
Modern day Seattle

Today's Challenges –

Unstable and Insufficient Funding for Water Management

- Water resource management is highly dependent upon state general fund dollars, a diminishing pool with many competing demands on it
- Since 2007, the biennial budget for water management has been reduced about $5 million and 20 staff positions
- Under-funded water programs will leave us unprepared to prevent future water conflicts and meet all of our state's water needs

Water Right Processing Costs



Emerging Challenges –

Increasing Demands for Water from Population Growth

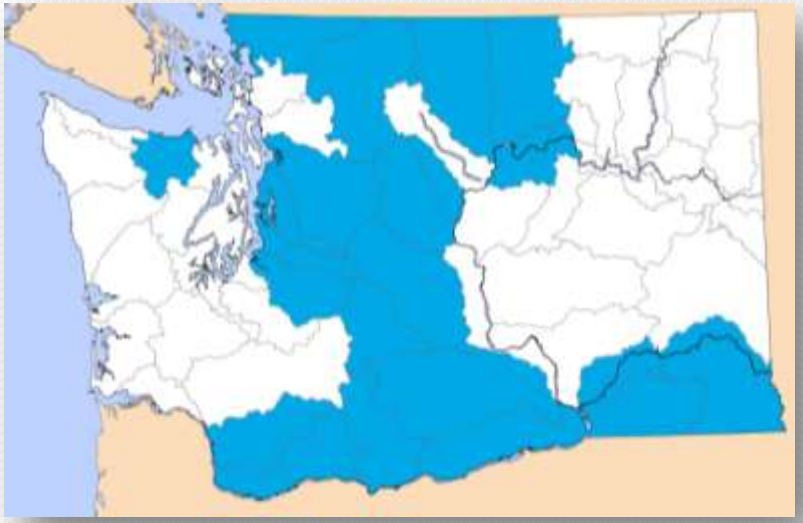
- Projected population growth of 1.7 million people within the next 20 years - equivalent to 3 cities the size of Seattle
- Finding water to meet this growth will be very challenging
- Some of this growth will occur in rural areas that lack water supply

* Based upon Office of Financial Management estimates

Emerging Challenges –

Higher Frequency of Water Shortages Due to Climate Change

- Climate change will dramatically reduce our current water availability in many areas of the state
- Adverse effects include:
  - Loss of snowpack
  - Reduced summer streamflows
  - Higher stream temperatures
  - Higher winter flows/flooding
- Irrigated agriculture is especially vulnerable, e.g. water shortages in the Yakima Basin are expected to occur twice as frequently



Projected "High Impact" to watersheds due to climate change

Meeting the Challenges:

Active Water Management is required to Meet Current and Emerging Challenges

- Anticipating water needs for people and ecosystems
- Finding solutions before water availability becomes critical
- Reforming water rights permitting process
- Linking land use and water availability
- Ensuring capacity to successfully manage water for all

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Yakima River

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http://www.ecy.wa.gov/ecyhome.html http://www.ecy.wa.gov/programs/wr/wrhome.html