

Building A Small System Support Network

Jamie Porter, PE

Eugene, Oregon
Autzen Stadium

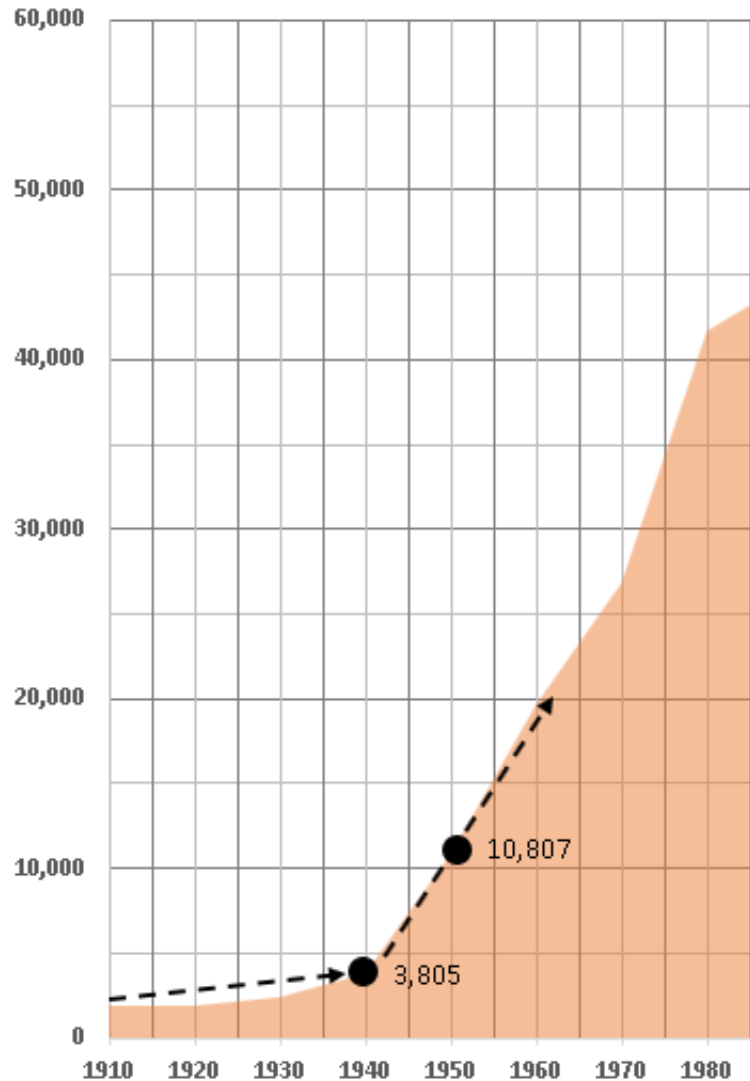


Springfield, Oregon



Growth 1940-1950+

Springfield Population



Design No. 5135

A PROFESSIONALLY PLANNED TRULY MODERN HOME

The architect who designed this modern home had far more in mind than simply being "different." As you study the plan, you will see how practical this home is for comfortable, convenient living. The two-compartment bath is one of many desirable features.

For those who prefer a more conservative design, the architect has prepared an alternate exterior with the same floor plan.

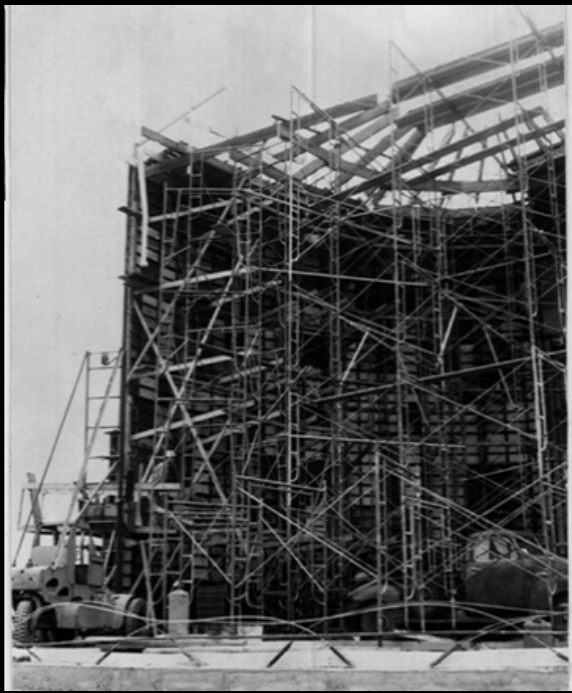
To appreciate the outstanding home value of this modern design, ask to see the large illustrations and floor plan in our 4-Square Home Building Service. Blueprints are available.

MANY OTHER IDEAL DESIGN SELECTIONS --
are here -- ready for your study. Skilled architects created each of the homes in our 4-Square Home Building Service. Ask to see this encyclopedia of fine modern homes. Blueprints are available for each design.

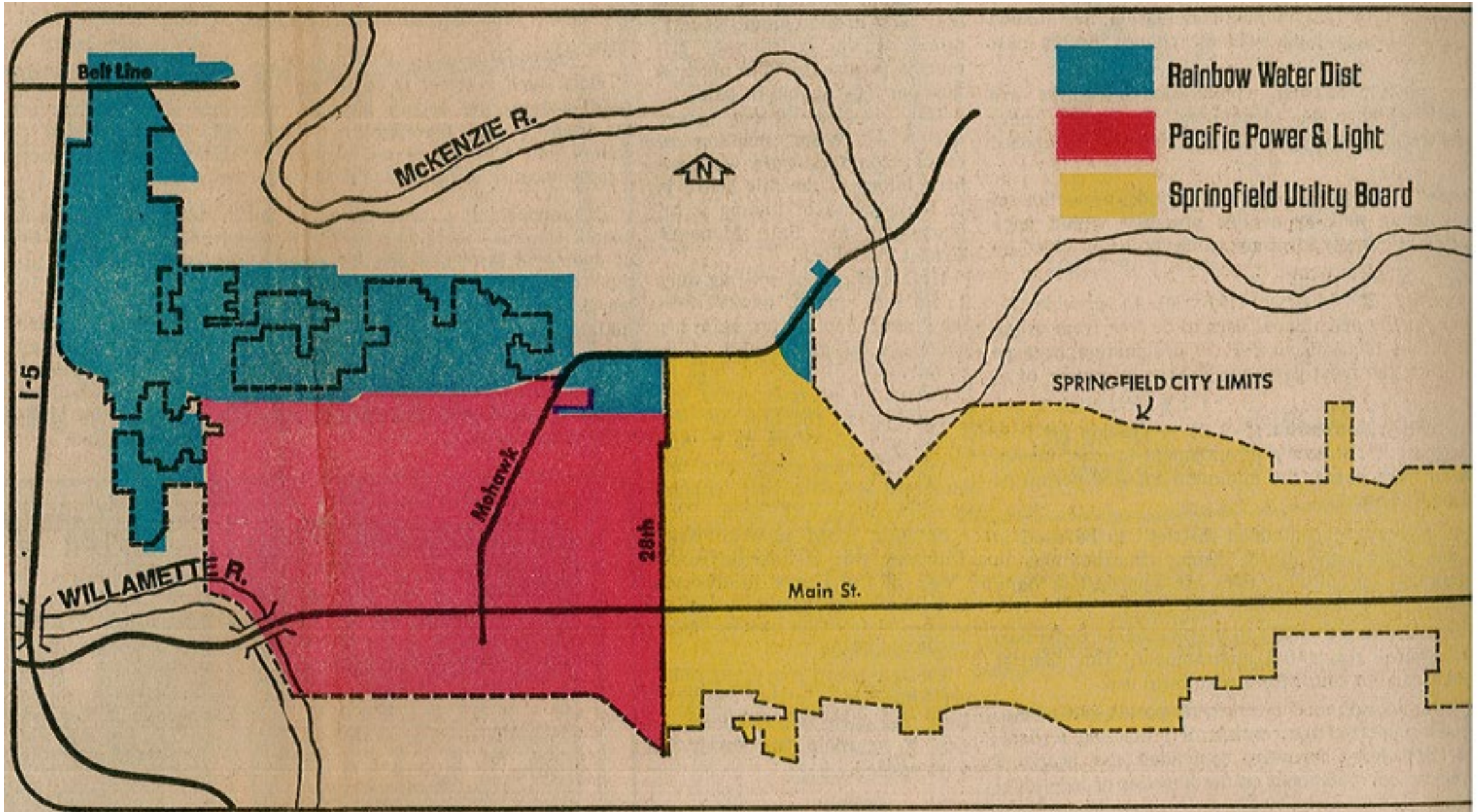
WEYERHAEUSER 4-SQUARE HOME BUILDING SERVICE

HP-133

1959 Kelly Butte Reservoir



1960-75 Joint Operations

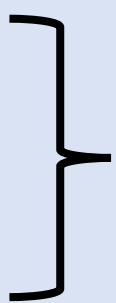


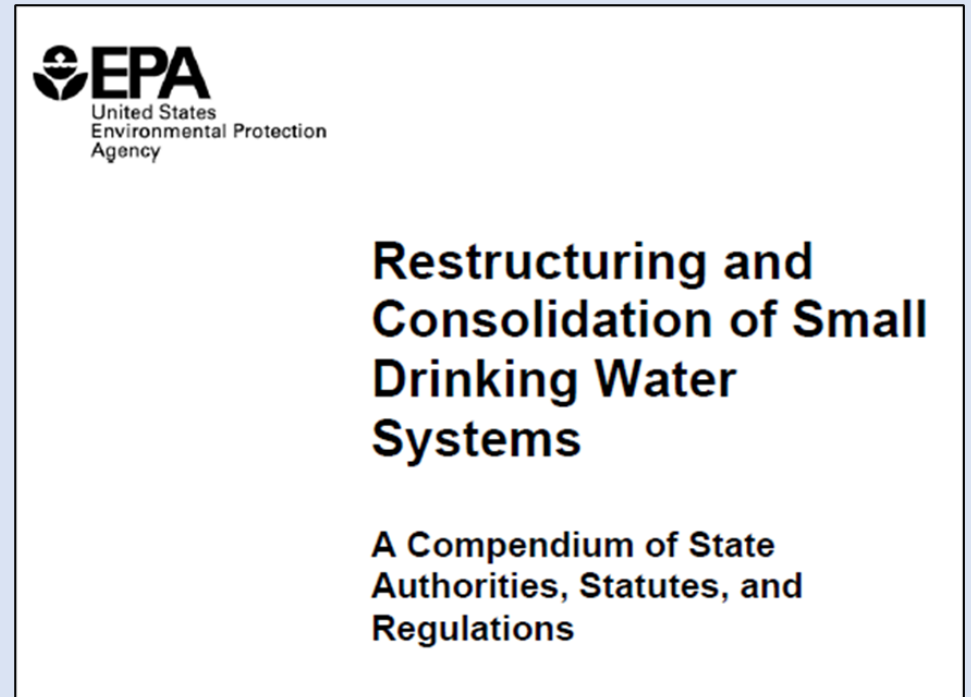
1980's Economic Development



Safe Drinking Water Act (SDWA) Definitions

US EPA PUBLIC WATER SYSTEM SIZES (based on population served)

- Very Large: Greater than 100,000
 - Large: 10,001-100,000
 - Medium: 3,301-10,000
 - Small: 501-3,300
 - Very Small: 500 or less
- 



IDAHO

- 10 extra points for DWSRF projects that consolidate
- Systems may share water operators
- New systems must look at the feasibility of obtaining water service from existing public water system.



DWSRF PRIORITIZATION OF CONSOLIDATION PROJECTS

Idaho's DWSRF program awards 10 extra points to projects that include consolidation or regionalization. Projects that will enhance sustainability efforts, energy conservation, water conservation, extending life of capital assets, green building practices and other environmentally innovative approaches to infrastructure repair, replacement, and improvement can earn up to 50 additional points.



OPERATOR SHARING

Idaho allows public water systems to share operators so long as the operators are available and on-call to direct staff and assistants. The Idaho Public Drinking Water System Switchboard provides links that allow public water systems to search for licensed operators available for contract.



NEW SYSTEMS MUST CONSIDER INTERCONNECTION TO EXISTING SYSTEMS

The Idaho DEQ requires new systems to investigate the feasibility of obtaining water service from an established PWS. "If existing water service is available, but an owner elects to proceed with an independent system, the owner must explain why this choice is in the public interest in terms of environmental protection, affordability to water users, and protection of public health" [IDAPA 58.01.08 §500 (6)]. The Public Utility Commission (PUC) can deny a certificate to a small water company if it is shown that there is no need for the service or that another company whether municipal, cooperative, or investor-owned, is willing and able to provide similar or better service (IDAPA 31.36.01. §102).

Idaho State Code 42-5224

Ground Water Districts – Powers and duties of Board of Directors.

The board shall, in addition to any other powers and duties provided in this chapter, and provided that nothing in this chapter shall abrogate or impair the right of any person to take any action necessary to acquire, protect, challenge or defend any water right, have the following powers and duties:

- (1) To acquire, and/or construct, operate, control or use by appropriation...
- (2) To sell, lease, encumber, alienate, or otherwise dispose of works or facilities, water, water rights, wells, pipelines, ditches, reservoirs...
- (3) To enter into contracts and agreements, cooperative and otherwise, including contracts with the United States of America and any of its agencies or instrumentalities, and tribes, and contracts with corporations, public or private, municipalities, or governmental subdivisions necessary or convenient to fully exercise its powers;

WASHINGTON

- PWS Coordination Act was adopted in 1977
- Helps prevent creation of new water systems in the service area of an existing system
- Ensures systems in a geographic area adopt consistent minimum design standards
- 1991 Amendments allow for SMA programs



Washington



Washington State Department of

Health

www.doh.wa.gov
a healthy dose of
information

I. Overview of State Restructuring and Consolidation Efforts

Washington State recognizes the importance of restructuring/consolidation and how it contributes to the state's capacity development strategy (restructuring an existing system that is having problems may be the only way to ensure that a system ultimately achieves and maintains compliance with drinking water regulations).

Washington incorporated restructuring/consolidation of existing PWSs into its overall program with the adoption of the Public Water System Coordination Act (PWSCA) of 1977 (Chapter 70.116, Revised Code of Washington). The foundation of this act is a process whereby systems identify existing and future service areas. The Coordination Act, by identifying service areas and directing water systems seeking restructuring and new water applicants to existing water systems for service, helps prevent the creation of new isolated systems within the service area of existing water system. Another critical function of the act is to ensure systems in a specific geographic region adopt consistent minimum design standards, which makes future restructuring efforts more efficient.

Washington State RCW 57.08.011

Authority to manage, operate, maintain, or repair public or private water system—Contract.

A district may enter into a contract with any person, corporation, or other entity, public or private, that owns a water system located in the district to manage, operate, maintain, or repair the water system. Such a contract may be entered into only if the general comprehensive plan of the district reflects the water system that is to be so managed, operated, maintained, or repaired.

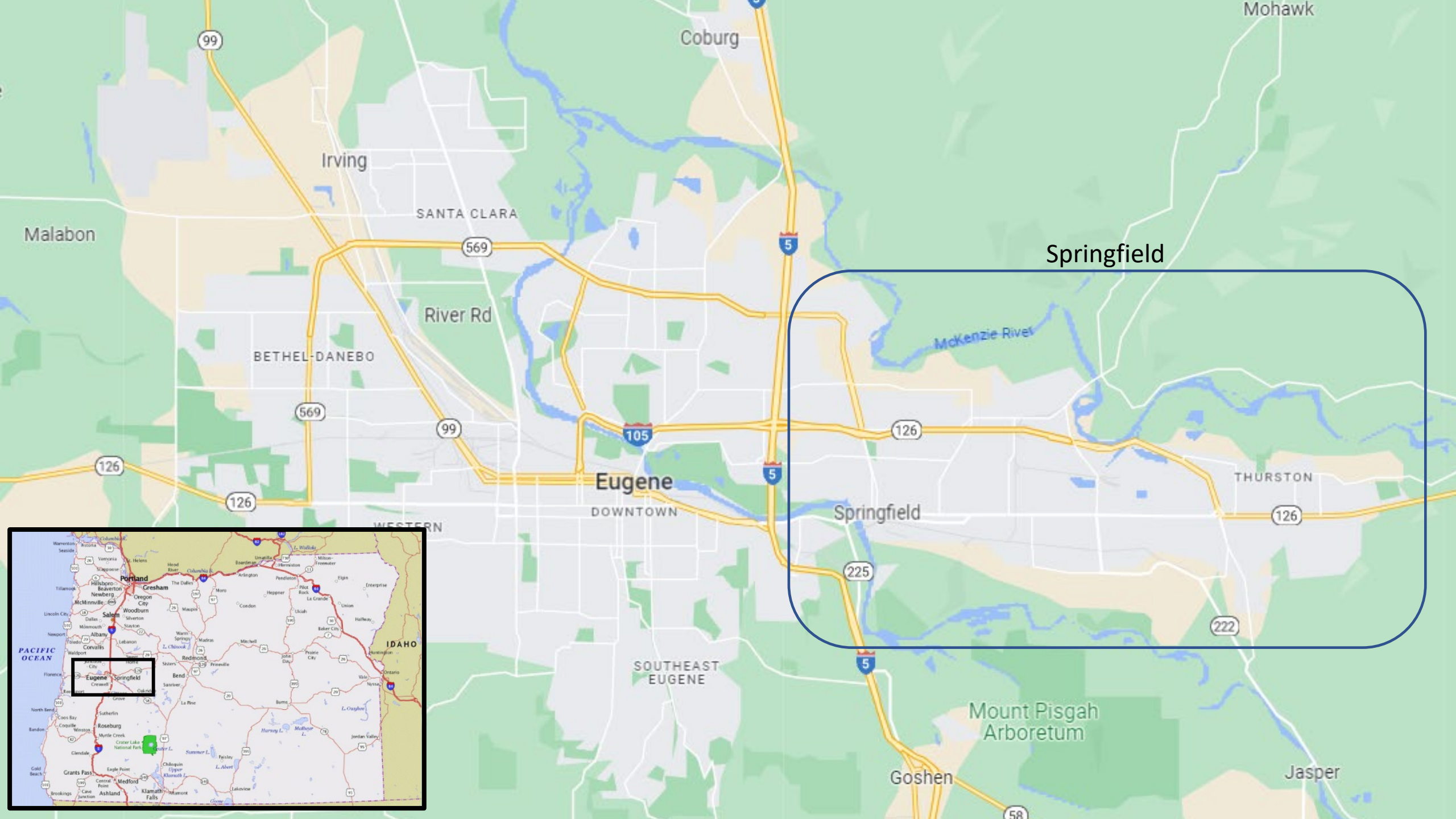
OREGON

- Counties to encourage small systems to combine management functions and merge or consolidate where possible
- Systems may enter into cooperative agreements
- Authorities of the existing systems apply, which can restrict or limit some opportunities for mergers and consolidation



I. Overview of State Restructuring and Consolidation Efforts

In accordance with Oregon Revised Statutes (ORS), counties, in developing water service plans, should encourage small water systems to combine management functions and consolidate where possible. In addition, the many different types of water entities in Oregon (domestic water supply districts, people's utilities districts, water authorities or joint water and sanitary authorities, and water control and improvement districts) can enter into cooperative agreements with each other and can merge and consolidate. Mergers, consolidations, and annexations must be approved by the governing body of the districts and in general, the rights, responsibilities, obligations, and liabilities of the districts survive the merger, consolidation, or annexation and flow to the newly created entity.



Springfield

Springfield

Eugene

DOWNTOWN

SOUTHEAST
EUGENE

Mount Pisgah
Arboretum

Irving

Coburg

Malabon

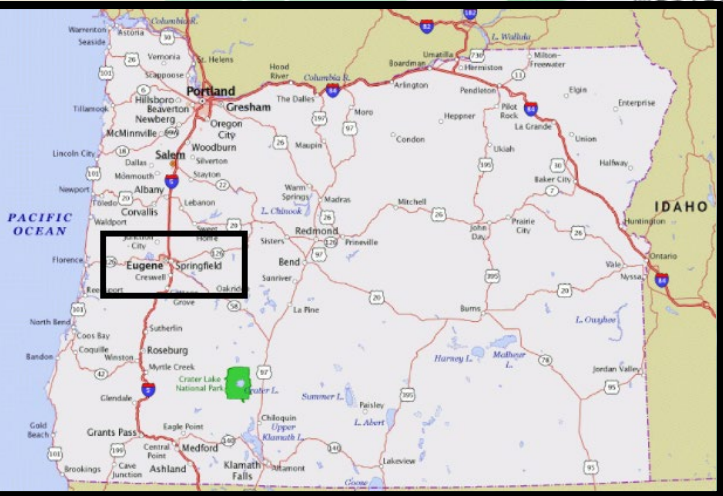
SANTA CLARA

BETHEL-DANEBO

THURSTON

Jasper

Goshen



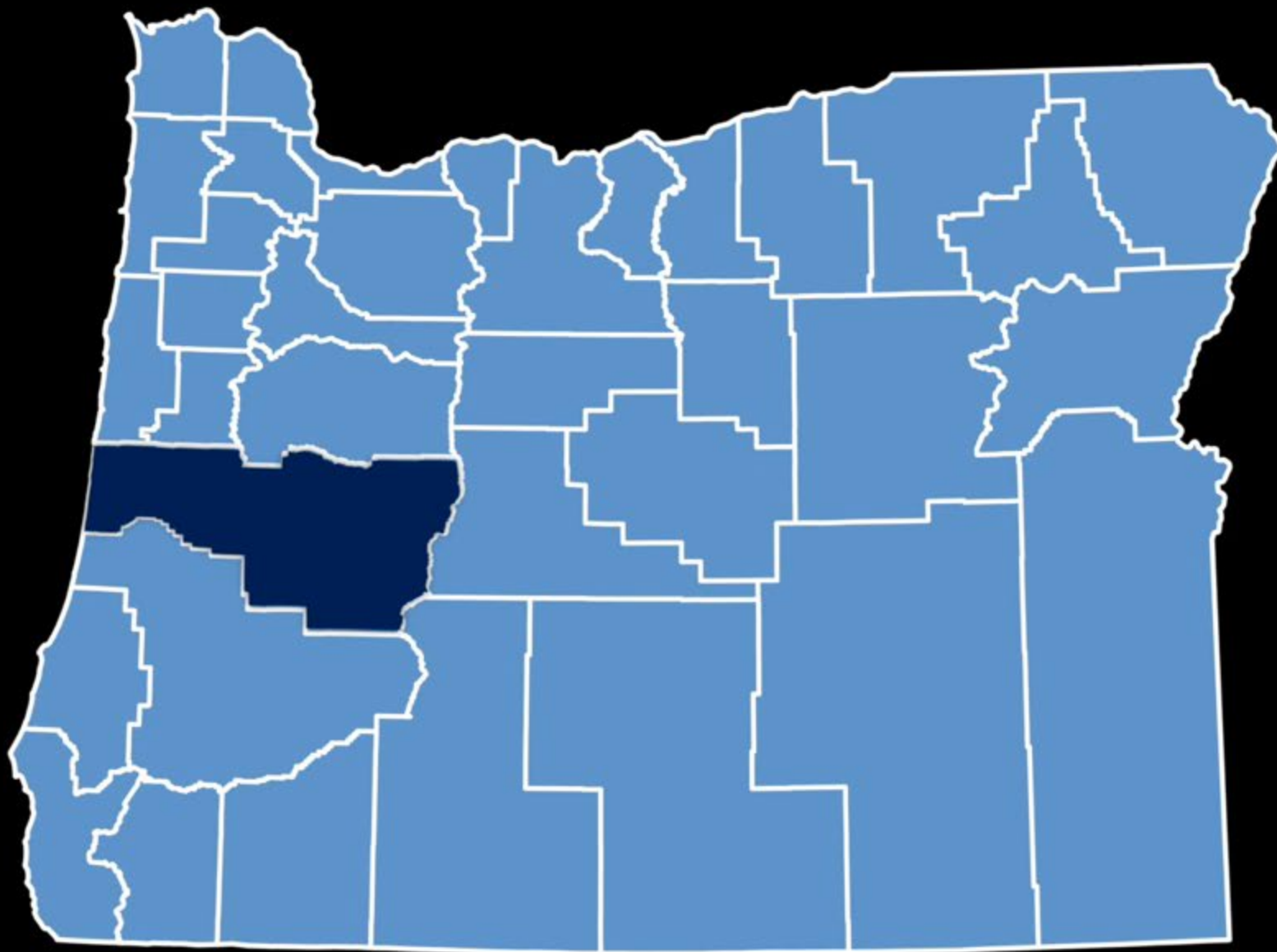
2022 Special District
Program Award

**Rainbow Water
District**

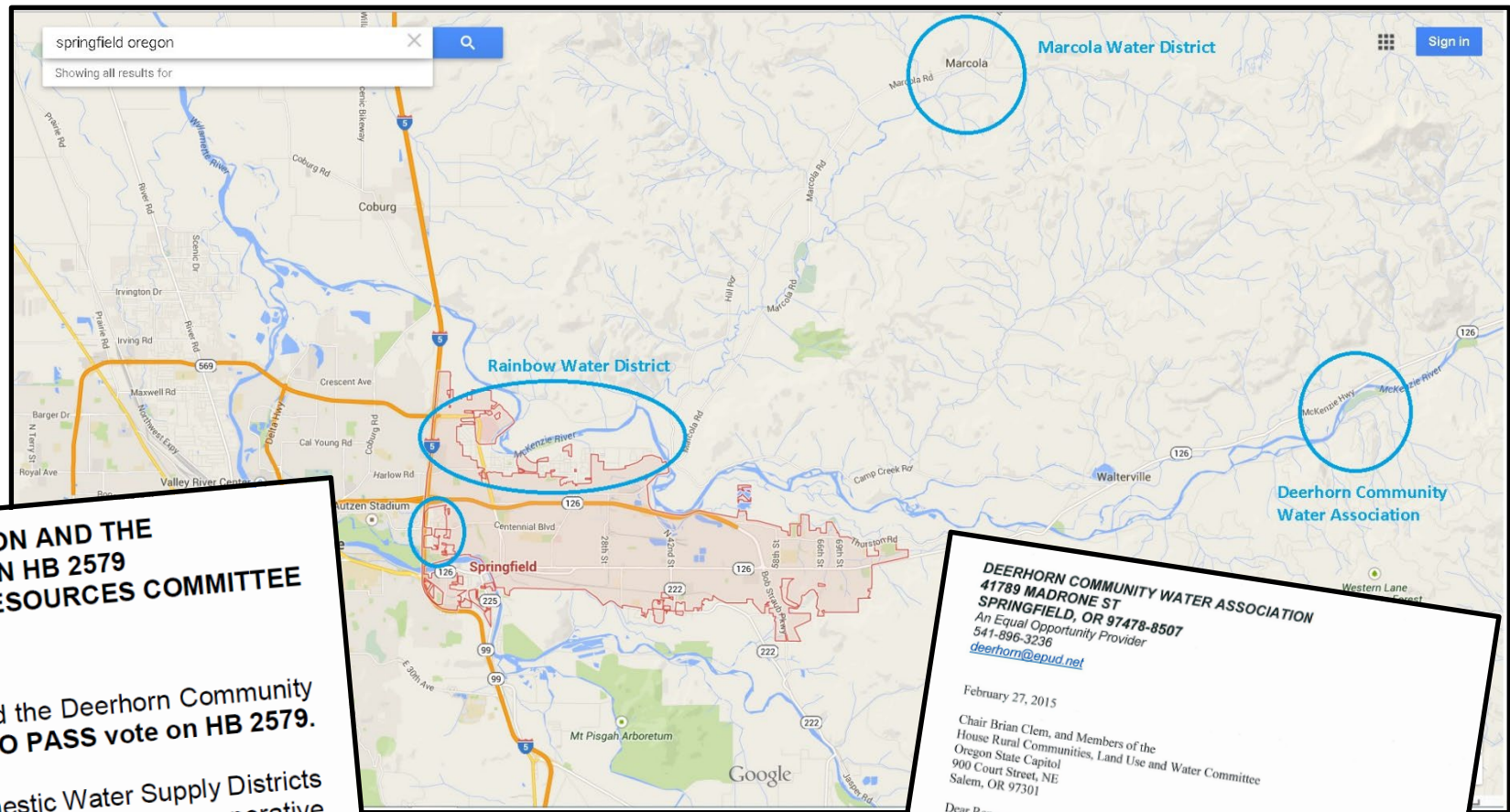
Lane County



SPECIAL DISTRICTS
ASSOCIATION OF OREGON



In Oregon? Laws Can Be Changed



DEERHORN COMMUNITY WATER ASSOCIATION AND THE RAINBOW WATER DISTRICT TESTIMONY ON HB 2579 BEFORE THE SENATE ENVIRONMENT AND NATURAL RESOURCES COMMITTEE DATE: APRIL 29, 2015

Rainbow Water District (a domestic water supply district) and the Deerhorn Community Water Association (a private water corporation) both urge a **DO PASS** vote on **HB 2579**.

What the Bill Does: This bill amends ORS 264 to allow Domestic Water Supply Districts to enter into contracts with private water corporations (specifically cooperative corporations under ORS 62 and mutual benefit corporations under ORS 65) to provide administrative and maintenance services.

What Problem Are We Trying to Fix? Private water corporations provide domestic water to many of Oregon's unincorporated communities. They are typically small and sometimes need assistance from nearby Domestic Water Supply Districts, who have professional staff, maintenance expertise and greater resources. Presently, ORS 264 does *not* allow Oregon's Domestic Water Supply Districts to provide this kind of contracted help, even for a reasonable fee. This is because Domestic Water Supply Districts have no statutory authority to enter into such contracts. To have such authority, it must be *specifically listed* in the districts' authorizing statutes, ORS 264.

DEERHORN COMMUNITY WATER ASSOCIATION
41789 MADRONE ST
SPRINGFIELD, OR 97478-8507
An Equal Opportunity Provider
541-896-3236
deerhorn@epud.net

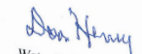
February 27, 2015

Chair Brian Clem, and Members of the
House Rural Communities, Land Use and Water Committee
Oregon State Capitol
900 Court Street, NE
Salem, OR 97301

Dear Representative Clem and Committee Members;
Deerhorn Community Water Association requests your support to pass HB2579 because:

1. The Oregon Drinking Water Section has many stringent rules and regulations that are sometimes hard to follow. We have done our best to meet their criteria, but always have doubts. We have provided safe potable water to approximately 120 homes in our service area for the last 46 years.
2. The members of our Association are aging and it's very difficult to find people with expertise in operating and managing a water system. Therefore we want to be able to contract for services to continue our service to the Deerhorn community.
3. Our organization is small and we don't have the equipment or manpower to properly maintain or upgrade our system as needed.

The passage of HB2579 would allow us (an ORS 62 organization) to enter into a contract with Rainbow Water District (an ORS 264 organization) for both administrative and maintenance services as needed in the near and long term.


Water Board President
Don Henry

Oregon State ORS 264.560

264.560 Permissible services; agreement required.

A domestic water supply district may perform services related to the administration or operation of a corporation organized to supply water for domestic purposes, including maintenance, repair or replacement of infrastructure owned or operated by the corporation, pursuant to an agreement entered into by the domestic water supply district with:

(1) A cooperative corporation organized under ORS chapter 62 that supplies water for domestic purposes; or

(2) A mutual benefit corporation organized under ORS chapter 65 that supplies water for domestic purposes. [2015 c.107 §2]

Safe Drinking Water Act (SDWA) Definitions

US EPA PUBLIC WATER SYSTEM SIZES (based on population served)

• Very Large:	Greater than 100,000	EWEB
• Large:	10,001-100,000	SUB
<hr/>		
• Medium:	3,301-10,000	RAINBOW
<hr/>		
• Small:	501-3,300	MARCOLA
• Very Small:	500 or less	DEERHORN
		SHANGRI-LA
		BLUE RIVER
		SHENANDOAH

Contract Districts

- Marcola Water District, 1994, IGA
- Shangri-La Water District, 2015, IGA
- Deerhorn Community Water Association, 2015, contract
- Shenandoah Homeowners, 2019, contract
- Blue River Water District, 2020, IGA



Blue River lost homes during the 2020 Holiday Farm Fire, but is rebuilding. We directly support 500-600 homes (at least 1,000 people) in our larger county, beyond what we do for our urban customers.

Services provided range from planning and engineering, operations and maintenance, DRC services, billing and bookkeeping. (After we lobbied and successfully modified ORS 264, we now contract with three public and two non-profit private water systems.)

Rainbow Staffing

Staff of just 6-7
since 1992

Superintendent

Assistant
Superintendent

Office Manager and
Utility Billing Clerk

Three Water
Operators
(Treatment and
Distribution)

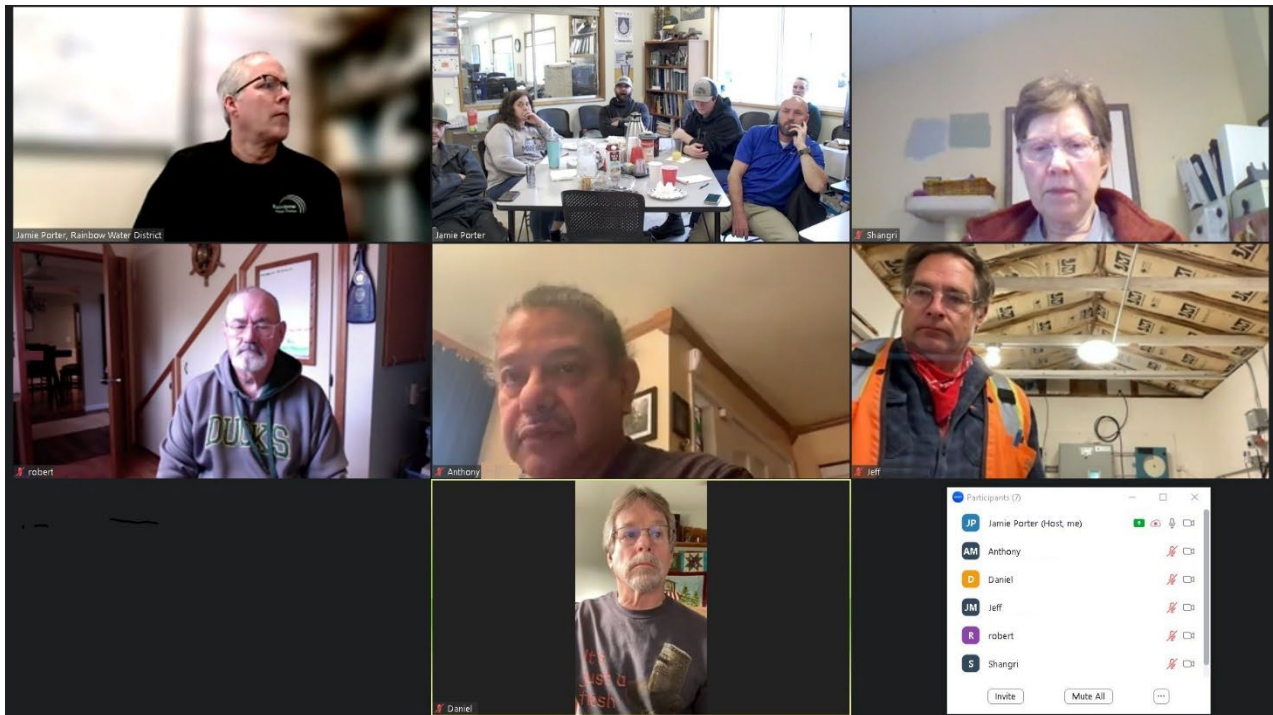


Provided Services Matrix

PUBLIC WATER SYSTEM	PWS ID #	Year Services Started	# Connections	# Own Employees	Bookkeeping	Billing & Office Services	Payroll	Customer Service	24/7 Alarm Response	DRC / System Operation	Planning/Engineering	Construction/Repair	Operations/Maintenance	Employee Training
Rainbow Water District	OR41-00839	1949	2400	7	X	X	X	X	X	X	X	X	X	X
Marcola Water District	OR41-00508	1994			X	X		X	X		X	X	X	
		1995			X	X		X	X	X	X	X	X	
		2012	240	1.2	X	X	X	X	X	X	X	X	X	X
Shangri-La Water District	OR41-00835	2015	80	2							X	X	X	
		2017	80	2					X	X	X	X	X	X
Deerhorn Community Water Association	OR41-00833	2015	120	5	X	X	X	X	X		X	X	X	X
		2017	120	3	X	X	X	X	X	X	X	X	X	X
Shenandoah Homeowners Association	OR41-00836	2019	33	0					X	X	X	X	X	
Blue River Water District	OR41-00125	2020	95	0	X	X	X	X			X			X

Monthly Operator Trainings

- OSHA / Safety Component
- Operational Sharing / Discussions
- Our April meeting had 9 in person at our conference room, 5 remote, with representatives from 3 of the 4 contract systems with employees



Monthly Safety Meetings (open to others)

Typical Agenda

- 08:30 Welcome & Introductions
- 08:35 Safety Updates
(review near misses, SDS)
- 08:40 Safety Training Topics
- 09:20 Operational Training
Topics & Discussion Time
- 10:00 Adjourn

DATE	SAFETY TOPICS	OPERATIONS TOPICS
January 14	Safety officer role in incident monitoring Hazard Assessments	ICS 100/200 Highlights
February 11	PPE Overview Responding to an OSHA Visit	Repairing valve actuators Counting turns / checking valve position
March 11	Hazard Communication	Thrust Restraint
April 14	Hearing Loss Prevention	How Directional Drilling Works
May 12	Silica Dust Awareness General Safety Orientation	Fire Hydrant Maintenance Demonstration Measuring Fire Flows
June 10	Oregon Excessive Heat Rules Oregon Wildfire Smoke Protection Rules	Drought and Wildfire Risk Monitoring
July 15	Fall Protection NIOSH Heat Index App	How Ion Exchangers Work
August 12	Oregon Wildfire Smoke online course	Review Recent Power Outage Wildfire Updates
September 22	Electrical Safety	Fall Operational Changes Electrical Troubleshooting
October 14	Fire Extinguisher Safety Fire & Explosion Hazards	Introduction to Corrosion
November 3	Lockout / Tagout Safety Data Sheets	Understanding Paints vs. Coatings
December 15	Winter Driving	Freeze Protection Winter Operations

Marcola's Spicer Well Before & After



Marcola's Irish Well – Before & After



Marcola Partnership with Fire District



BIG(GER) UTILITIES HELPING SMALL(ER) UTILITIES (every day things beyond WARN emergencies)

- Invite outsiders to your in house training events
- Find opportunities to barter and exchange
- Examples Include:
 - Safety training
 - First Aid/CPR/AED
 - Confined space
 - SCBA Mask Fits*
 - Crane training for boom truck operators
 - Pipe tapping, ice pigging, other vendor demonstrations



BIG(GER) UTILITIES HELPING SMALL(ER) UTILITIES (every day things beyond WARN emergencies)

- Share specialty services and equipment
 - Leak detection
 - Utility locators
 - Laboratory services
 - Source protection and water quality experts
 - Backhoe and dump truck for repair jobs



BIG(GER) UTILITIES HELPING SMALL(ER) UTILITIES (every day things beyond WARN emergencies)

- Sharing resources and technical expertise is not just about operators!
 - Engineering and plan review staff
 - GIS, surveying or drafting staff
 - Billing, finance and customer service staff
 - Communications and public relations staff

Communications/Public Information Support

- Sharing a graphic artist for joint brochures.
- Communications team partnering for routine education, boil water notices, etc.



BIG UTILITIES HELPING SMALL UTILITIES (every day things beyond WARN emergencies)

- Share or loan hand-me-down equipment. Pay-It-Forward!
 - Chlorine residual analyzers
 - Chart recorders for pH, reservoir level, chlorine
 - Early access to fleet vehicles going to auction
 - Chemical feed pumps
 - Service line crimper
 - Repair bands
 - Older PLCs



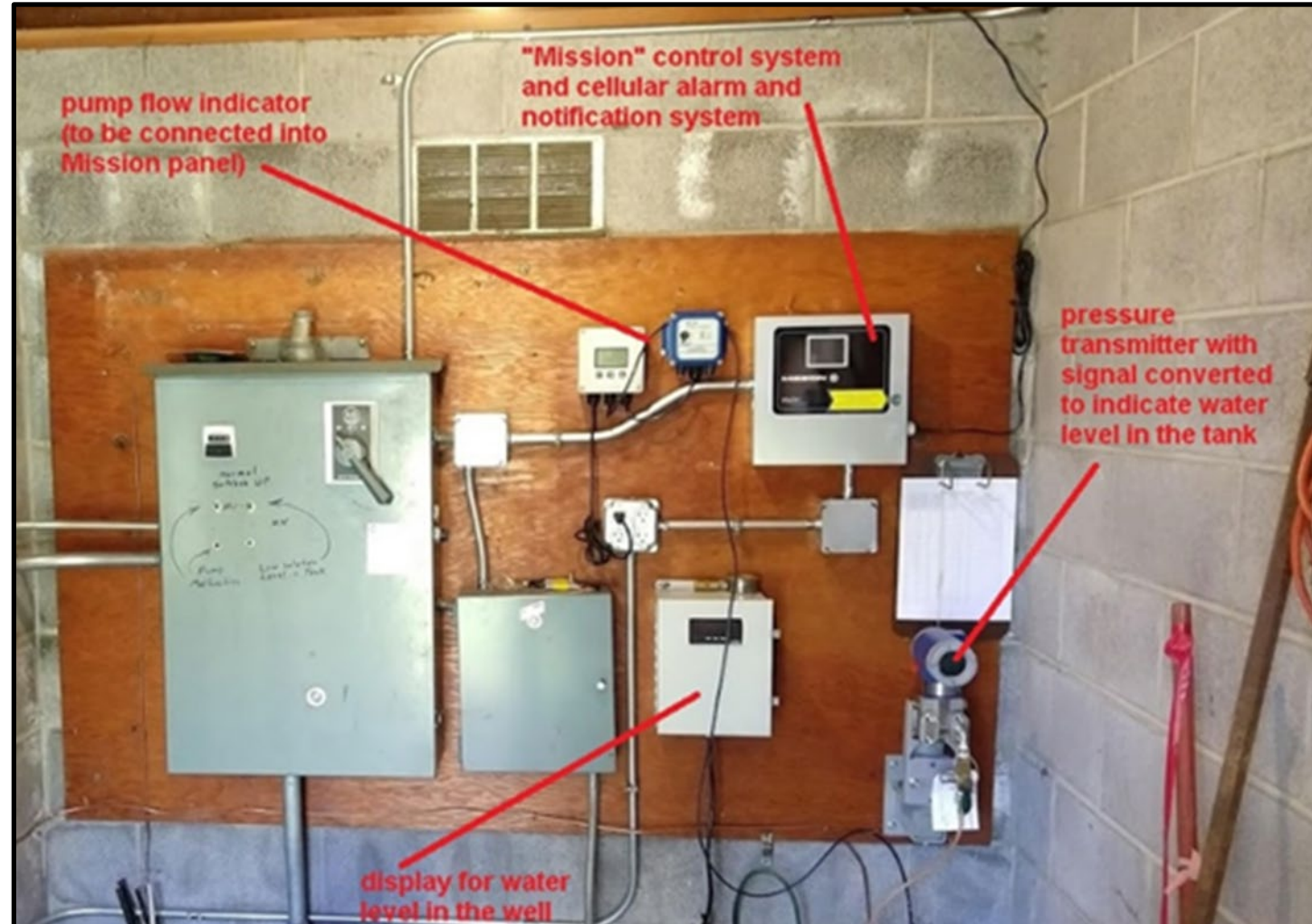
Confined Space Entry & Fall Protection

- Rainbow has training in fall protection and confined space entry for our larger reservoirs.
- We were able to help Deerhorn install safety cables for roof access after an OSHA visit revealed the need.
- Rainbow has a blower and air monitor to allow us to allow us to conduct confined space entry and help with tank and vault checks.



BIG UTILITIES HELPING SMALL UTILITIES (every day things beyond WARN emergencies)

- Emergency Management
 - Larger utilities have direct connections with Media and City/County EOC.
 - Develop network of small folks. Check on them and help pass news to EOC.
 - Rainbow uses Mission Communications for all of our contract districts to allow remote monitoring and backing up the part-time local operators.



BLUE RIVER DAMAGE

Loss of Electric Service to the
District's Wellfield Site

Loss of Well 1 Building and
Motor (Vertical Turbine Pump)

Loss of Well 2 Building and
Motor (Vertical Turbine Pump)

Loss of Backup Generator

Loss of District's Paper Records

39 days on generator power
during the recovery period



Better Access to Backup Power



BIG(GER) UTILITIES HELPING SMALL(ER) UTILITIES (every day things beyond WARN emergencies)

- What are some things you do or have done to help your neighbors?
 - What are some ways your neighbors have helped you?
 - What are some ways you need help with? Unmet needs?
-
- What are some hurdles that stop you from helping more?
 - What are some benefits of collaborating that would be worth the effort of removing some of those hurdles?

Rainbow Highlights

ORS 264

Domestic Water
Supply District

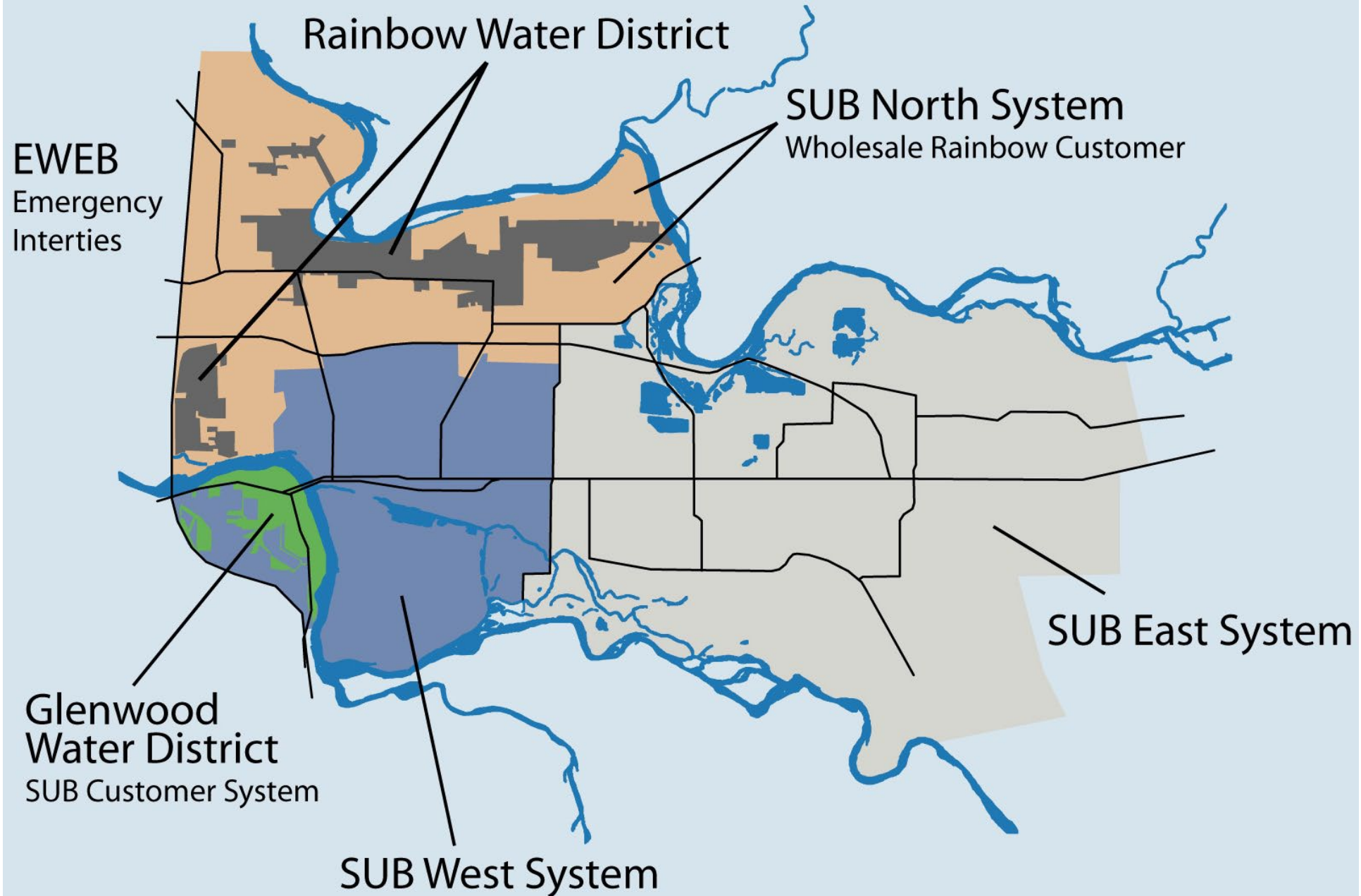
Groundwater Utility

Formed in 1949

2,400 Connections
(99% Residential)

Wholesale Provider
to City of Springfield
(SUB) Customers

Less Private
Development =
More Consulting
Opportunities





Wastewater System*

*Those on septic are not connected to wastewater system

Drinking Water System

Stormwater System

EUGENE & SPRINGFIELD AREA
 URBAN WATER CYCLE

Closing Thoughts and Ideas

- Be creative! If current rules limit what you want to do, change them.
- Look for things you are already doing, and invite someone else along.
- Be generous! Share your resources, both people and equipment.
- Ask for help. Advocate for your own utility.
- Help smaller neighbors feel like part of a larger team. Build morale.
- Prepare for emergencies by building rapport during routine stuff.

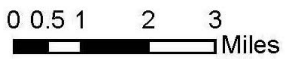
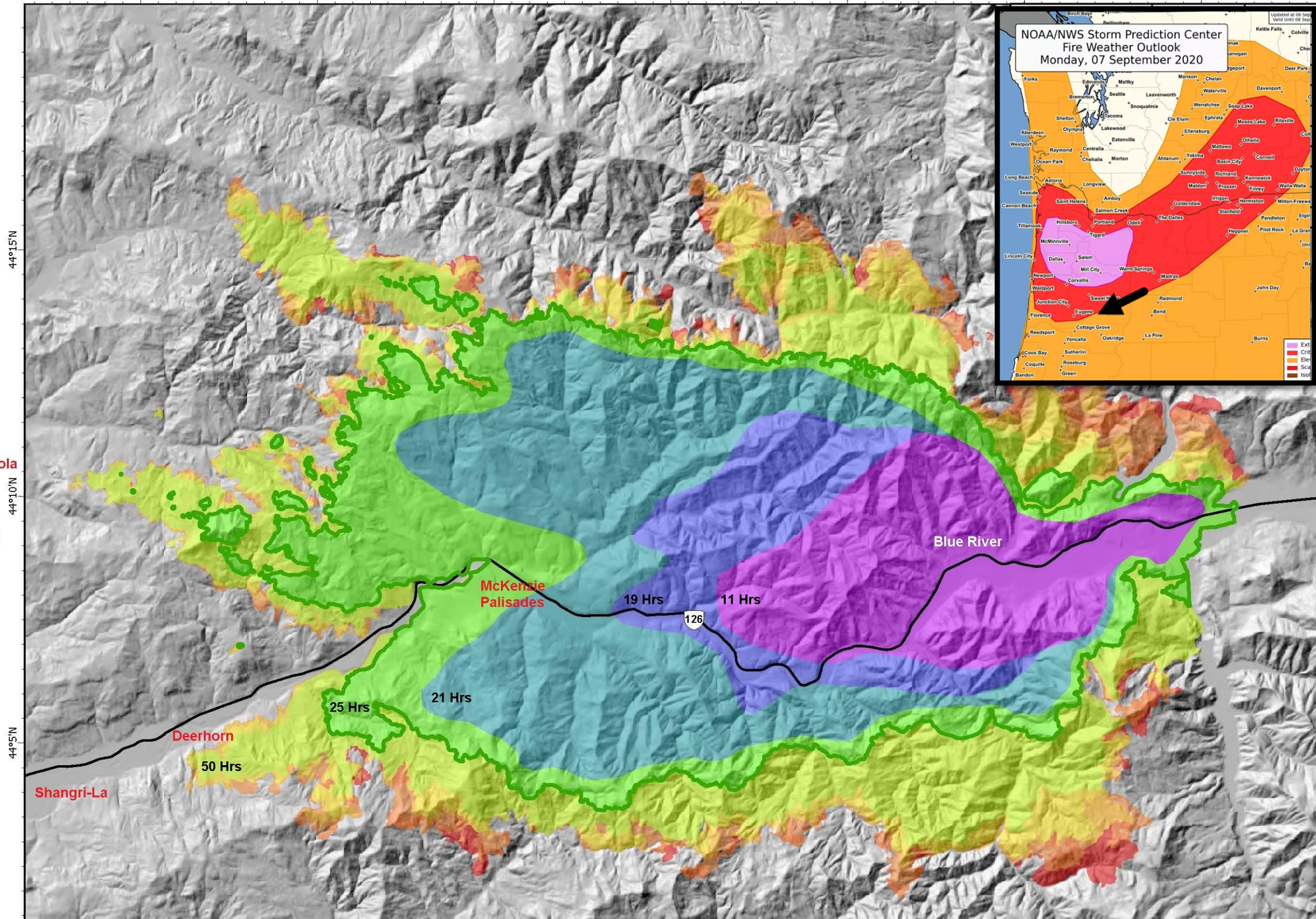
Want to discuss this further?
Feel free to contact me after the conference!

Jamie Porter, PE
Superintendent
Rainbow Water District
Jamie@rwdonline.net
541-746-1676

Progression

Holiday Farm
ORWIF-200430
FINAL

173,094 acres at 09/21/2020 1440 hrs



ODF IMT 3
09/26/2020 2011
Acres from IR and GPS
North American 1983 Datum.
LatLong Grid

EUGENE SPRINGFIELD

*Fire perimeters are estimates only
based on MODIS data, and are not
official acres

HOLIDAY FARM FIRE

Communities of McKenzie
River Valley, Blue River, Rainbow

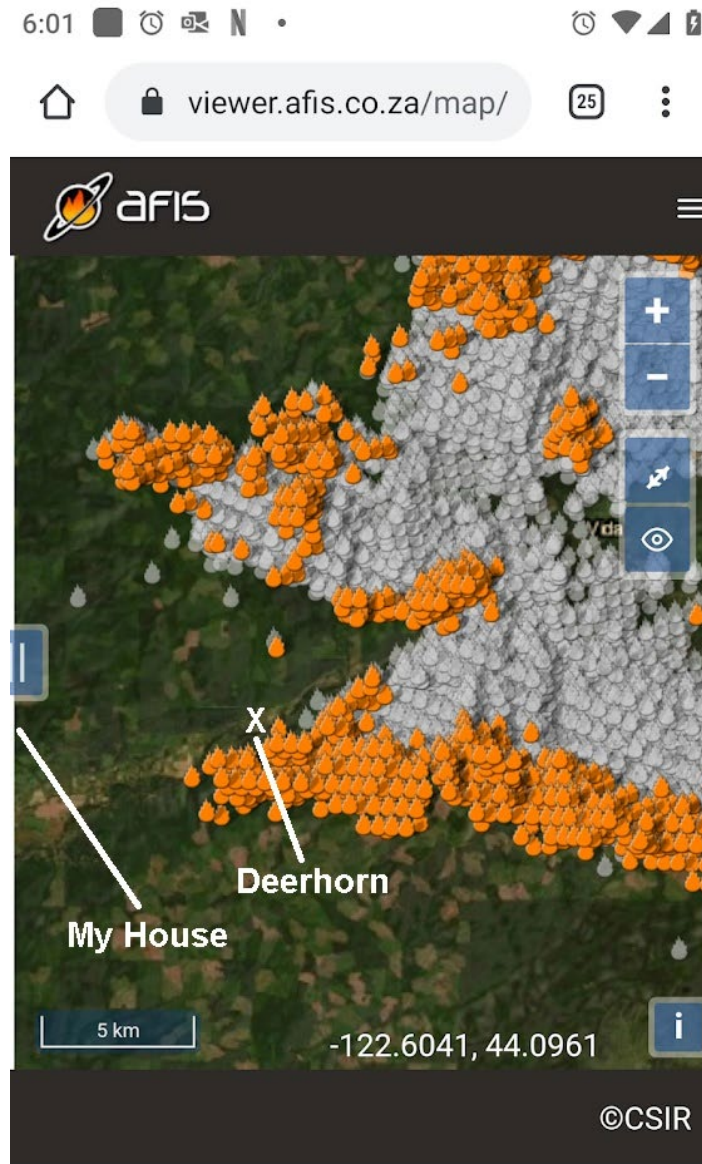
Fire Size: 173,393 Acres

576 livestock + pets sheltered

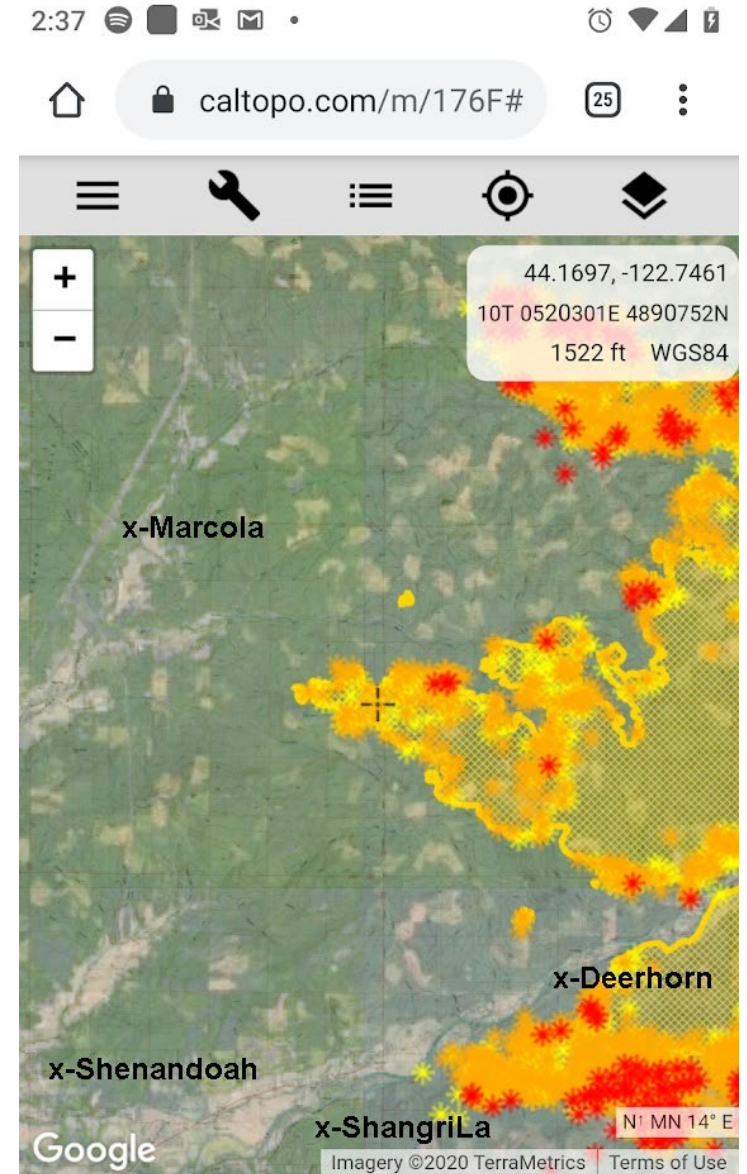
5,000 people evacuated, 1
death

\$162 million in property damage

547 dwellings lost
(over 1,100 structures)



6 am on Sept. 10, starting Day 3.



2:37 AM on Sept. 11