

Improving Domestic Well Stewardship In North Central Oregon

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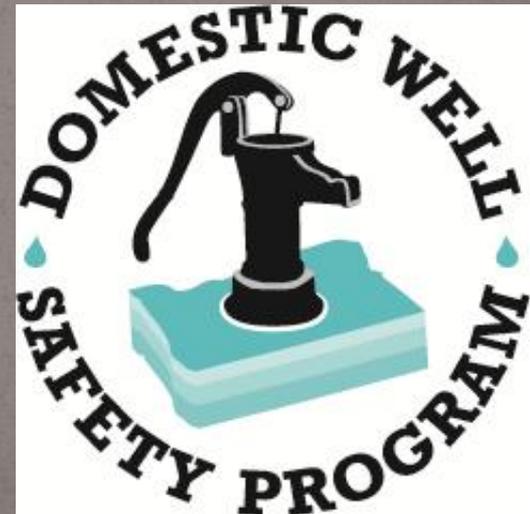
North Central Public Health District



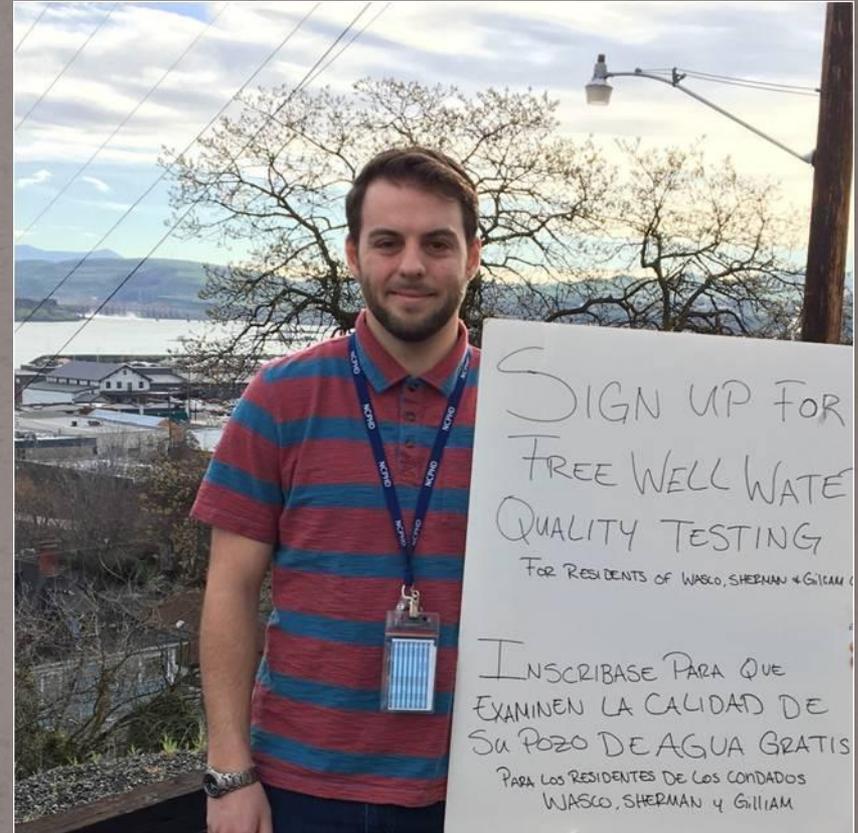
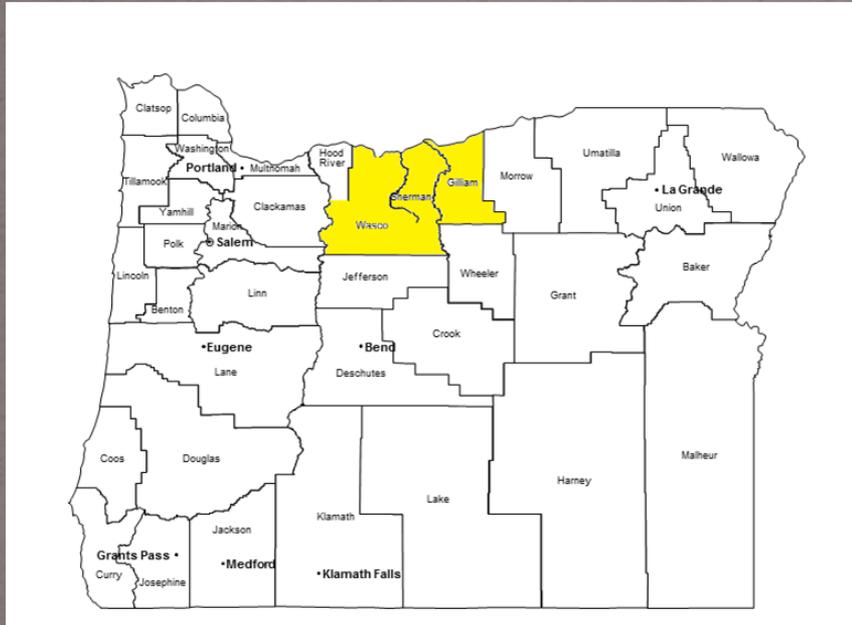
Public Health
Prevent. Promote. Protect.

NORTH CENTRAL PUBLIC HEALTH DISTRICT

“Caring For Our Communities”



Background



Partnerships

The Dalles Water Quality Lab



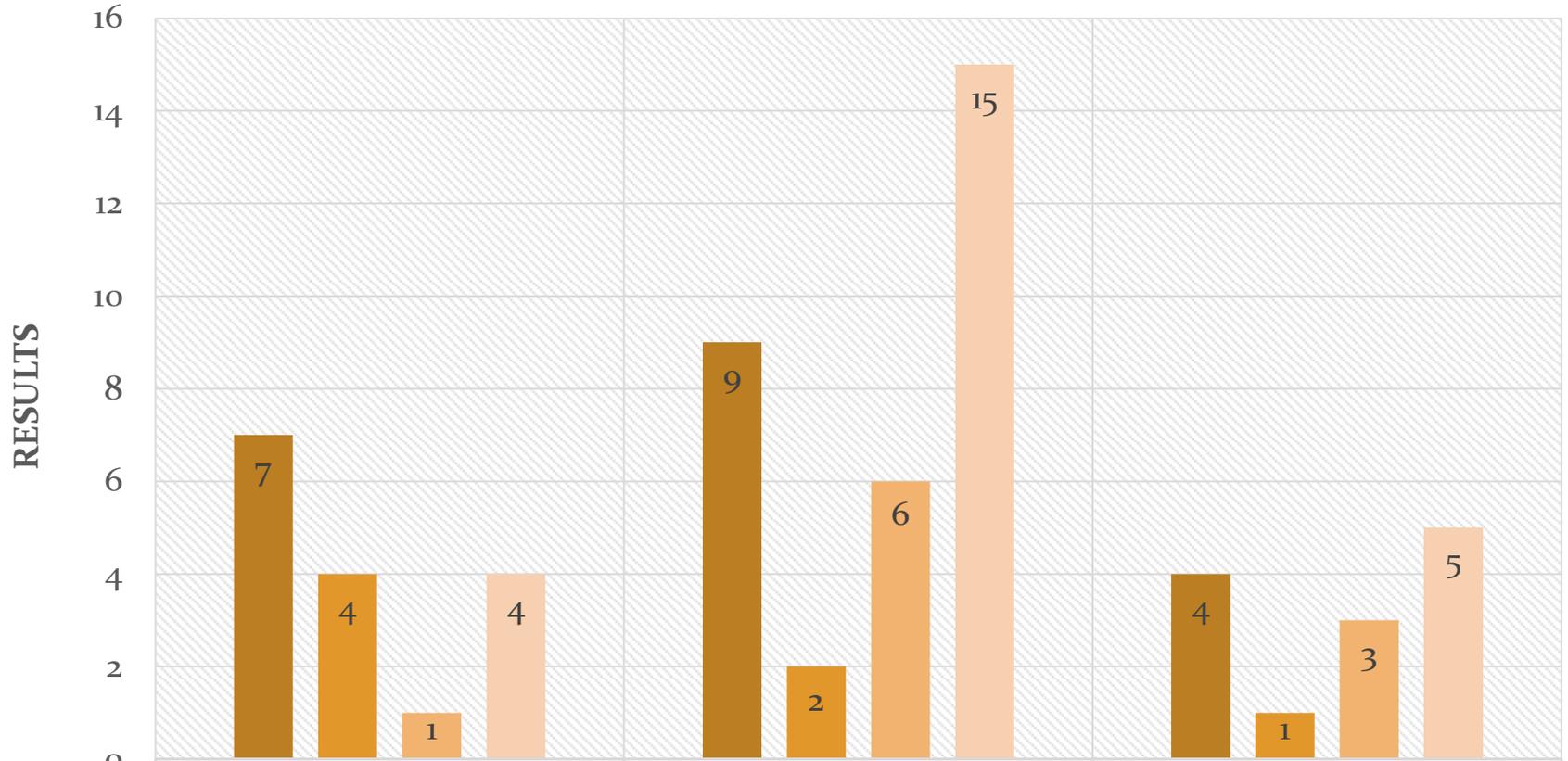
OSU Extension Services



Contaminants

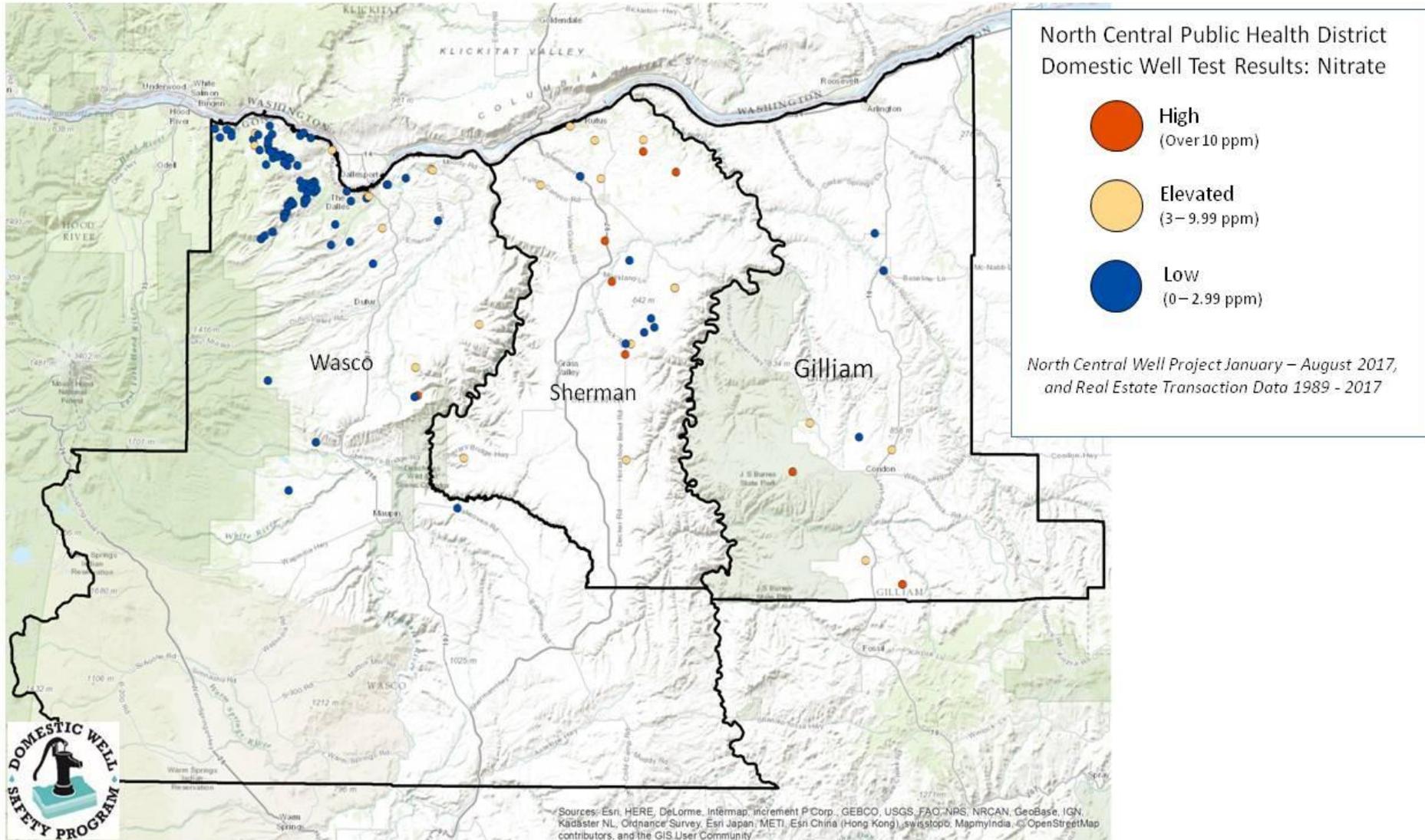
Test	Source	Interpretation	Remedy
Total Coliform Bacteria / E. coli	Enters well through groundwater, surface water run-off, cracked or broken well parts, poor construction, or leaking septic tanks	Qualitative result	Hyperchlorination of the system based on volume of the well, chlorine concentration, and contact time.
Nitrate	High rates are usually linked to human activities including animal manure, human sewage waste, and commercial fertilizers	Quantitative result: Maximum Contaminant Level (MCL) = 10.00 ppm	Distillation, Ion Exchange, or Reverse-Osmosis Filters

Summary of Lab Results



■ TCB	7	9	4
■ E. Coli	4	2	1
■ Nitrate >MCL	1	6	3
■ Elevated Nitrate	4	15	5

Nitrate Results Map



Conclusions

Challenges

- Identifying vulnerable populations
- Geography
- Time for additional follow up and analysis

Opportunities

- Sharing results with local government and community partners
- Capitalize on new public interest in water quality

To-Do's for Public Health Professionals

- Form relationships with willing partners.
- Identify or create workforce development opportunities.
- Collaborate with coworkers in different public health programs.

DROUGHT PREPAREDNESS

LAKE BED
OFF LIMITS

A PROLONGED DROUGHT CAN HAVE SIGNIFICANT CONSEQUENCES ON PHYSICAL AND MENTAL HEALTH. BY TAKING STEPS TO PREPARE NOW, AND APPLYING WATER CONSERVATION STRATEGIES, WE CAN LOWER THE HEALTH RISKS OF DROUGHT IN OUR COMMUNITY.

ADDITIONAL RESOURCES

OREGON DOMESTIC WELL SAFETY PROGRAM
www.healthoregon.org/wells

OSU EXTENSION SERVICE
www.extension.oregonstate.edu/tough_times/finding-help-tough-times

GOVERNOR'S DROUGHT PAGE
www.oregon.gov/gov/policy/Pages/Drought.aspx

OREGON CLIMATE AND HEALTH PROGRAM
www.healthoregon.org/climate

DROUGHT RISKS & TIPS FOR PROTECTING YOUR HEALTH

1. CONTAMINATION OF DRINKING WATER

Viruses, toxic algae, protozoa, bacteria, nitrates or arsenic contaminants could become more concentrated in wells with lower water levels and less flow.

WHAT YOU CAN DO: If you rely on a private well for your drinking water, consider testing the quality of your water for bacteria, nitrates, and arsenic each year, alternating testing in both wet and dry seasons. For more information on how to test your water, go to: www.healthoregon.org/wells

2. STRESS, ANXIETY, AND DEPRESSION

Severe and ongoing droughts can result in significant income loss for those who work in agriculture, landscaping, and related fields. Changes to a familiar place (such as dried-up creeks) or ways of life (such as impacts to hunting and fishing) can also trigger grief and depression.

WHAT YOU CAN DO: If you, or someone you know, is experiencing stress related to drought, consider using the services listed on OSU Extension Service's website "Finding Help in Tough Times": http://extension.oregonstate.edu/tough_times/finding-help-tough-times Or call the toll-free number: 1-800- 985-5990 or text "TalkWithUs" to 66746 (Spanish-speakers can text "hablanos" to 66746) for support and crisis counseling.

3. VECTOR-BORNE DISEASES

Mosquitoes carrying diseases, such as West Nile Virus, can move into new areas when stagnant bodies of water create new breeding grounds. Ticks carrying Lyme Disease are also moving into new areas.

WHAT YOU CAN DO: If possible, remove stagnant pools of water. When you observe the presence of mosquitoes, consider using repellent and wearing appropriate clothing, especially at dusk and dawn. After spending time outdoors, check your skin for ticks. If present, remove immediately and visit a doctor promptly. The risk of Lyme disease is greatest in late spring and summer and serious effects can be avoided if antibiotics are used soon after a bite.

4. WILD ANIMALS NEAR YOUR HOME

Wild animals, such as bats, rats, and rattlesnakes may enter into residential areas more often in search of water. Some wild animals can be poisonous or carry diseases, such as rabies.

WHAT YOU CAN DO: Remind young children not to touch live or dead wild animals. If a bite occurs, seek medical care.

5. EXTREME WEATHER EVENTS

Extreme weather events like wildfires, dust storms, floods, and heat waves may become more frequent. Smoke and dust add particulate in the air, which can aggravate asthma and other lung and heart diseases. When rain falls, flooding could be more likely. Heat waves can cause an increased risk of injury and death from heat exhaustion or heat stroke, especially among the young, pregnant or elderly.

WHAT YOU CAN DO: During a wildfire or dust storm event, keep indoor air as clean as possible by keeping all doors and windows shut and reduce your time spent outside. Stay informed with the Oregon Smoke Blog: www.oregonsmoke.blogspot.com

During a heat wave drink more water than usual, take cool showers or baths, limit outdoor activity, and seek shade. If you do not have an air conditioner, approach your health care provider about assistance with purchasing an AC unit for your home.

WATER CONSERVATION TIPS

- Store drinking water in the refrigerator. Do not let the tap run while you are waiting for water to cool.
- Repair dripping faucets by replacing washers. One drop per second wastes 2,700 gallons of water per year.
- Retrofit all household faucets by installing aerators with flow restrictors.
- Insulate water pipes to reduce heat loss and prevent them from future damage.
- Purchase appliances that are energy and water efficient.
- Operate automatic dishwashers and clothes washers only when fully loaded
- Plant native and/or drought-tolerant grasses, ground covers, and trees.
- Consider using recycled water to water your plants and garden.
- Install irrigation devices that are water efficient. For example, micro and drip irrigation, and soaker hoses.
- Use mulch to retain moisture in the soil.

Questions?

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