

**OELA/ORELAP**

*Annual  
Environmental  
Laboratory  
Workshop*

05.21.2015



# PRESENTATION...

- ➔ Private Wells 101
- ➔ Program Introduction
- ➔ *Who, what, why of R.E.T ??*
- ➔ A Deeper look: *Data*
- ➔ Program Limitation and a Quick discussion
- ➔ Questions??

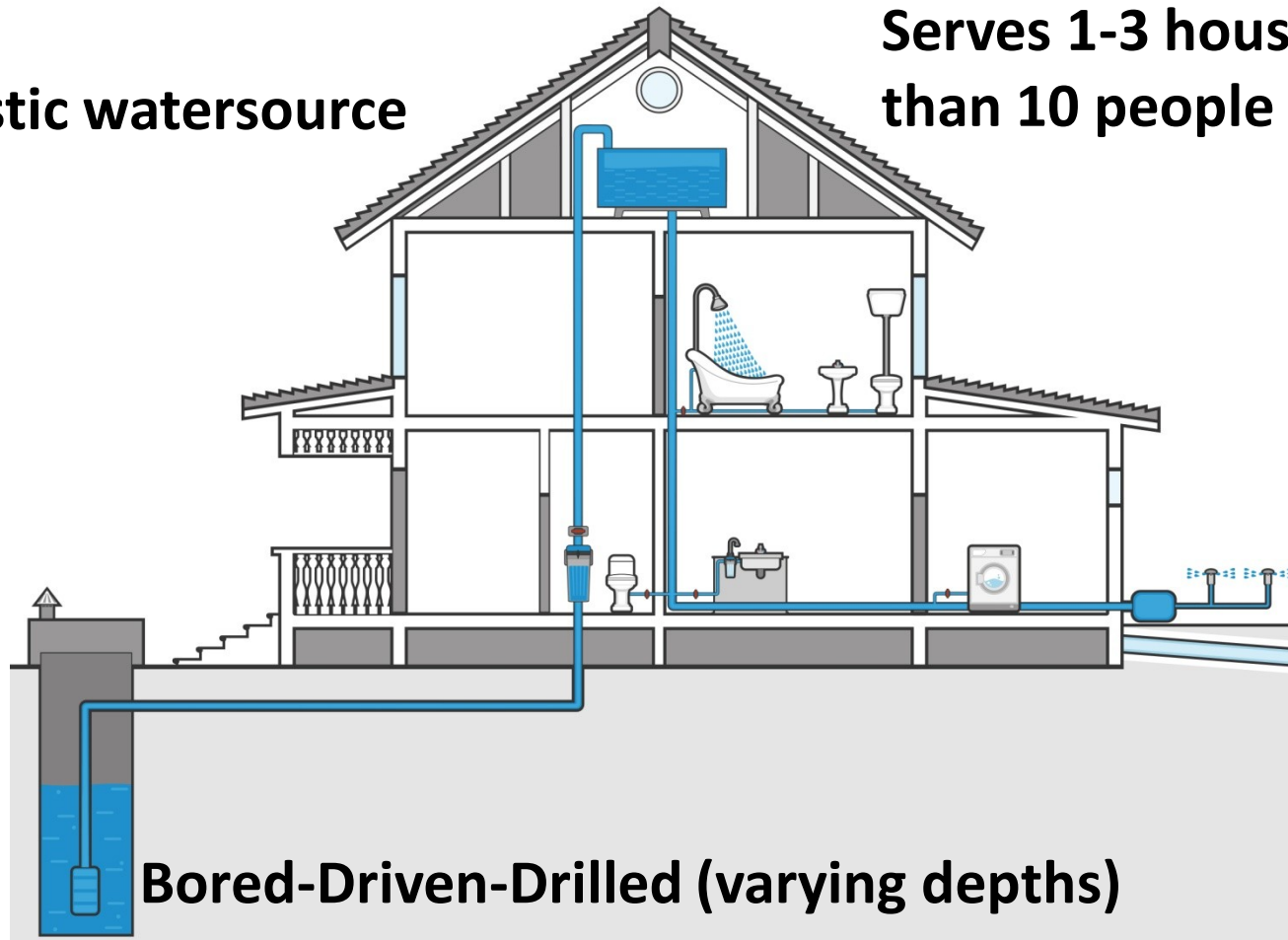


# DOMESTIC WELLS 101

Y PRO

**Domestic watersource**

**Serves 1-3 households/less than 10 people**



**Bored-Driven-Drilled (varying depths)**

**Definition**

**START**

4+ connections or 10+ users per year?

YES



15+ connections, or 25+ users?

YES



Serves same 25+ users daily?

YES



Same 25 users are served 6+ months a year?

YES



Are users year round residents?

YES



**COMMUNITY Water System**  
(cities, mobile home parks)

NO



Not a PWS

NO



STATE REGULATED Water System

NO



TRANSIENT NONCOMMUNITY Water System  
(parks, restaurants, rest stops, campgrounds)

NO



NONTRANSIENT NONCOMMUNITY Water System  
(schools, hospitals, work sites)

NO



Private Well

**PUBLIC WATER SYSTEM (PWS)**

# Private Wells are NOT regulated by the Federal Safe Drinking Water Act



Responsibility



# PROGRAM OVERVIEW



**90% rural OR depends on groundwater**



**23% of Oregonians are well dependent**



**350,000 Active wells**



**3,800 New wells drilled every year**

## **BACKGROUND**

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Oregon Health Authority (OHA)

Improve the lifelong health of Oregonians



Public Health Division (PHD)

Promoting health and preventing the leading causes of disease, death, and injury



Domestic Well Safety Program (DWSP)

Promote domestic well safety to users throughout the state

**PURPOSE**



## DATA

- High Quality environmental hazard data will become available for all areas of the state where domestic wells are located, revealing areas of higher risk from contaminants.



## PARTNERSHIPS

- Partners throughout Oregon become engaged in efforts to promote domestic well safety.



## PREVENTION

- Domestic well users throughout Oregon understand the importance of well testing and ways to mitigate risks.

# OUTCOMES



RET RULE

100 YEARS PRO

In any transaction for the sale or exchange of real estate that includes a well that supplies ground water for domestic purposes, **the seller of the real estate shall, upon accepting an offer to purchase that real estate, have the well tested for arsenic, nitrate and total coliform bacteria.** The Oregon Health Authority also may, by rule, require additional tests for specific contaminants in specific areas of public health concern. **The seller shall submit the results of the tests required under this section to the authority and to the buyer within 90 days of receiving the results of the tests.**

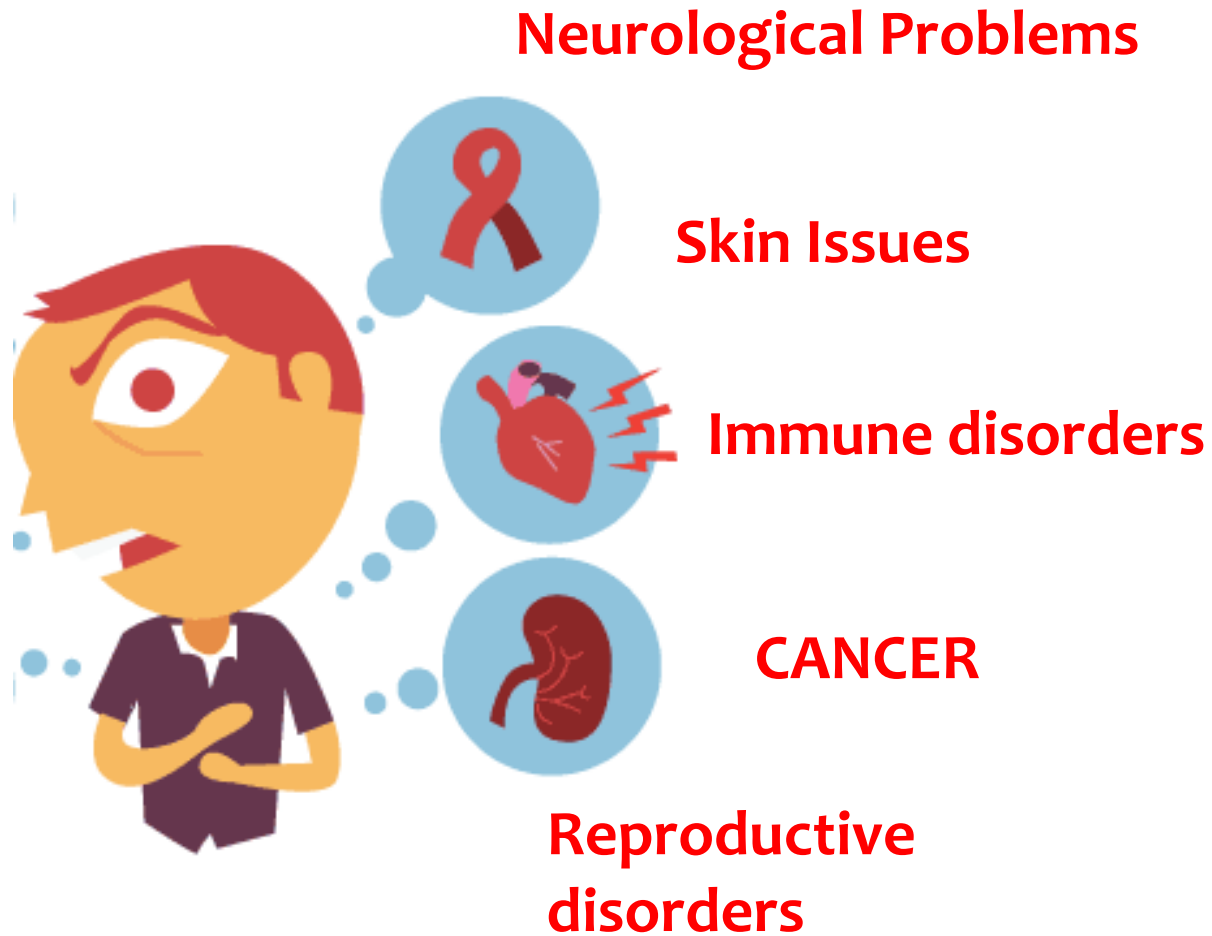
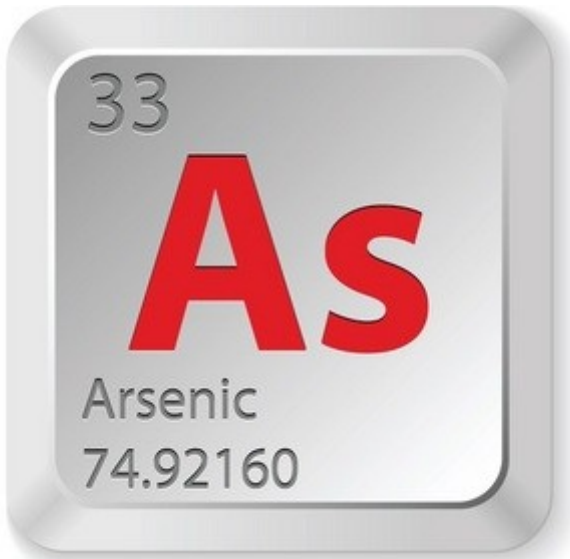
**ORS 448.271**

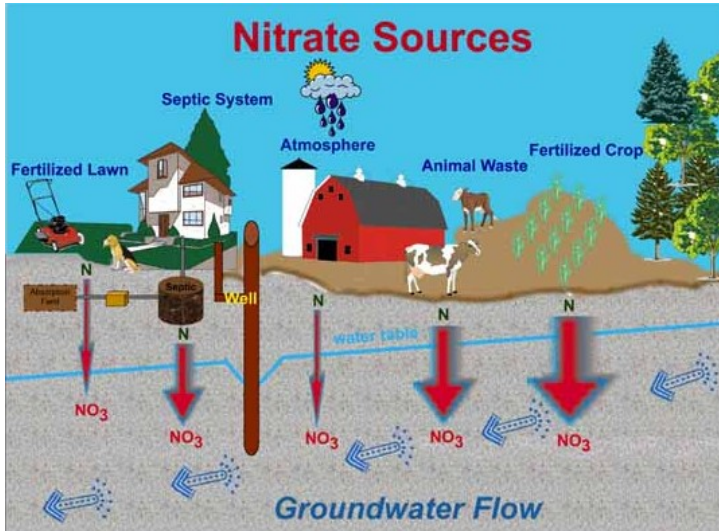


Only laboratories accredited according to **Oregon Environmental Laboratory Accreditation Program (ORELAP)** standards, as prescribed by OAR 333-064-0005 through 0065, shall be used to conduct the water tests required by these rules.

**Rule- 333-061-0330**

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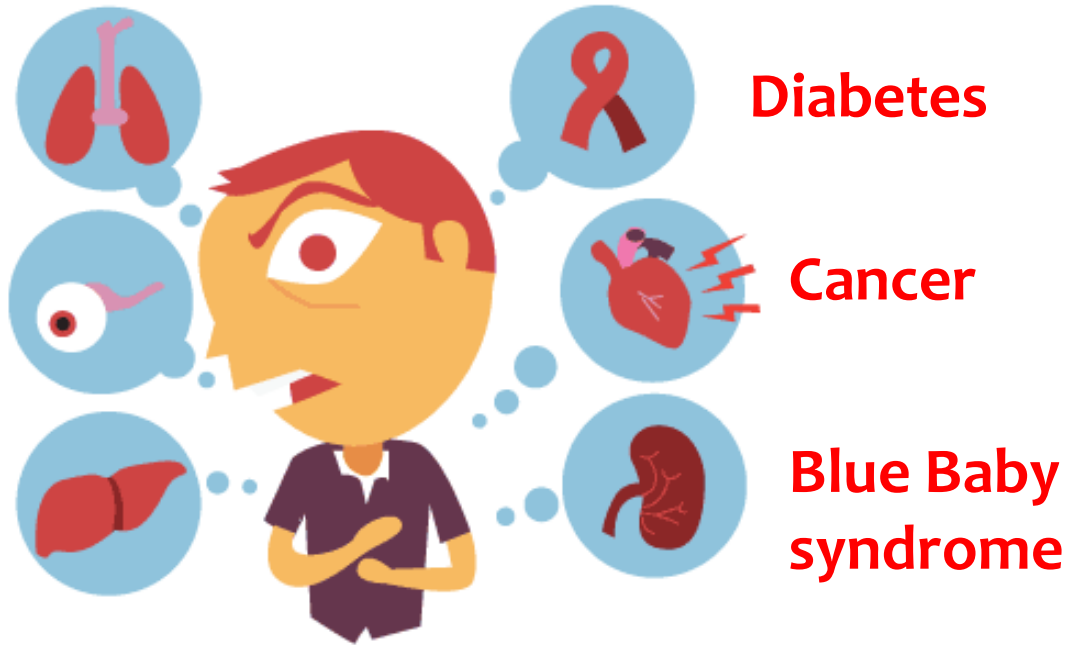




Abdominal pain

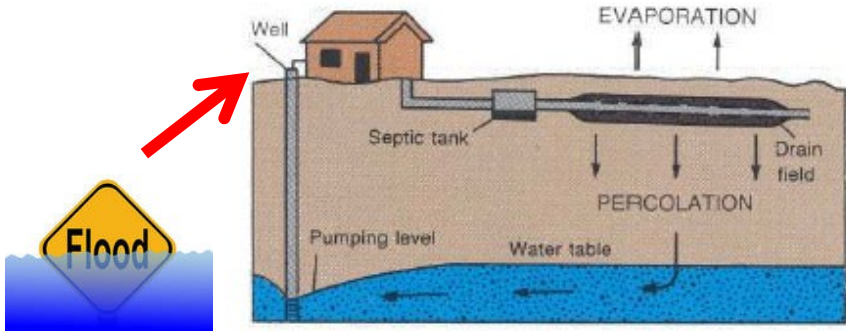
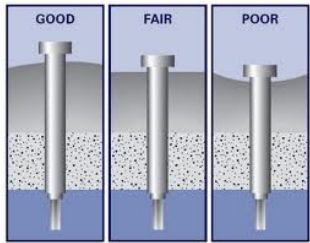
Respiratory infections

Thyroid disorders



**Public Health- Nitrate**

Oregon  
**Health**  
Authority



Fatigue

Nausea

Cramps

Jaundice

Vomiting

Headaches



**Public Health- Bacteria**





Real Estate Transaction Data

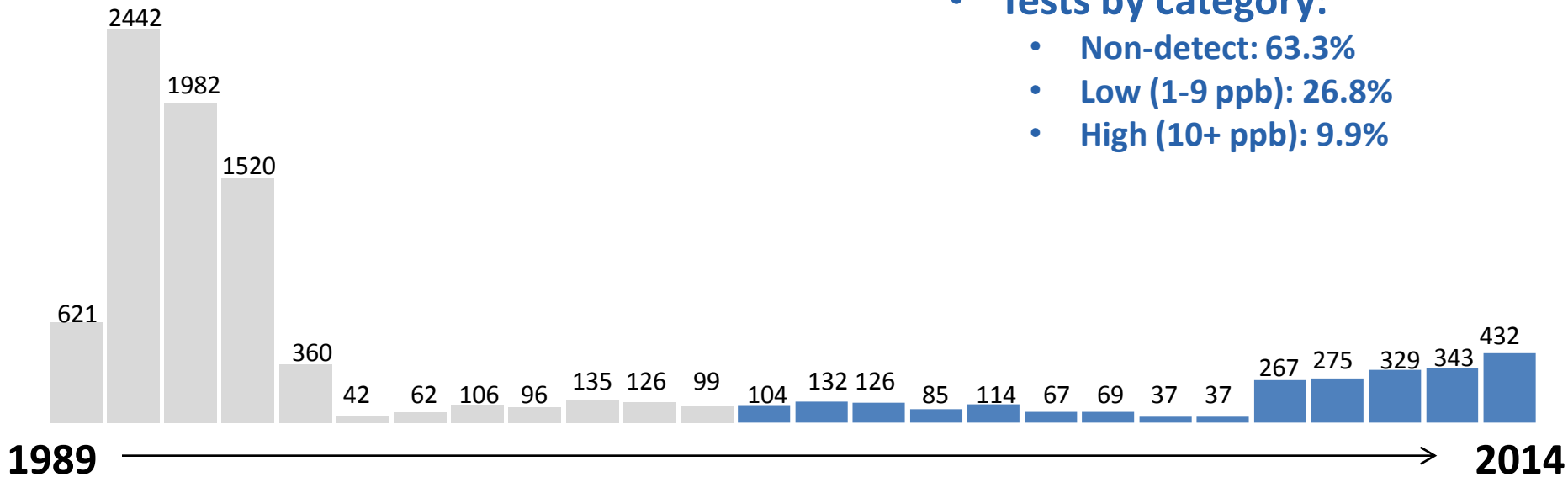
100 DAYS PRO

# All Tests:

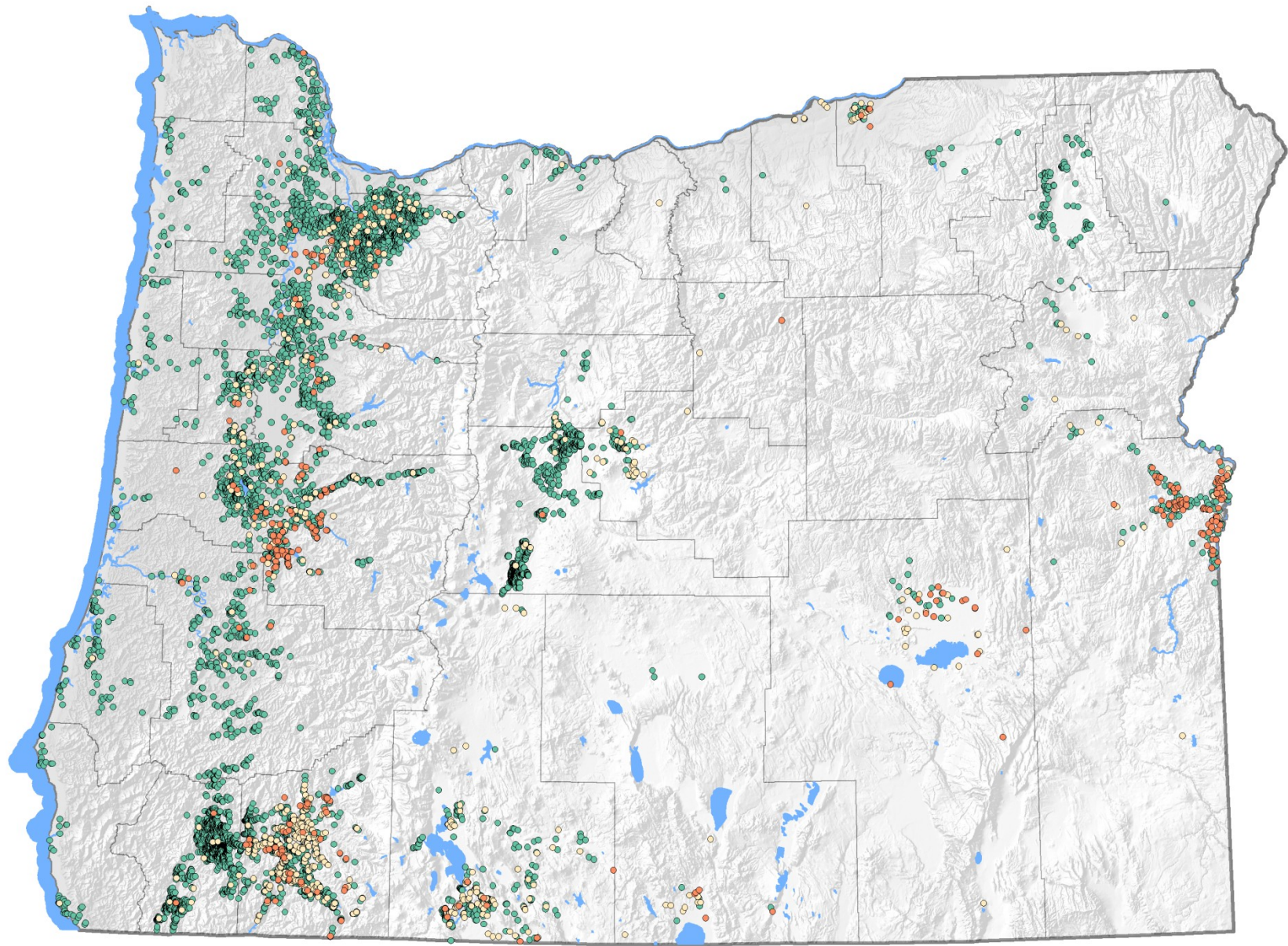
- Years: 1989-2015
- Total number: 10,015
- Range: Non-detect – 850 ppb
- Tests by category:
  - Non-detect: 89.1%
  - Low (1-9 ppb): 7.4%
  - High (10+ ppb): 3.4%

# Recent Tests:

- Years: 2001-2015
- Total number: 2503
- Range: Non-detect – 490 ppb
- Tests by category:
  - Non-detect: 63.3%
  - Low (1-9 ppb): 26.8%
  - High (10+ ppb): 9.9%



## Arsenic Tests- by year



0 25 50 100 Miles

● 0 ppb    ● 1-9 ppb    ● 10+ ppb

Real Estate Transaction Data  
Arsenic 1989 - 2015



## All Tests:

- Years: 1989-2015
- Total number: 24,201
- Range: Non-detect – 100 ppm

## Tests by category:

Background (0-2 ppm):

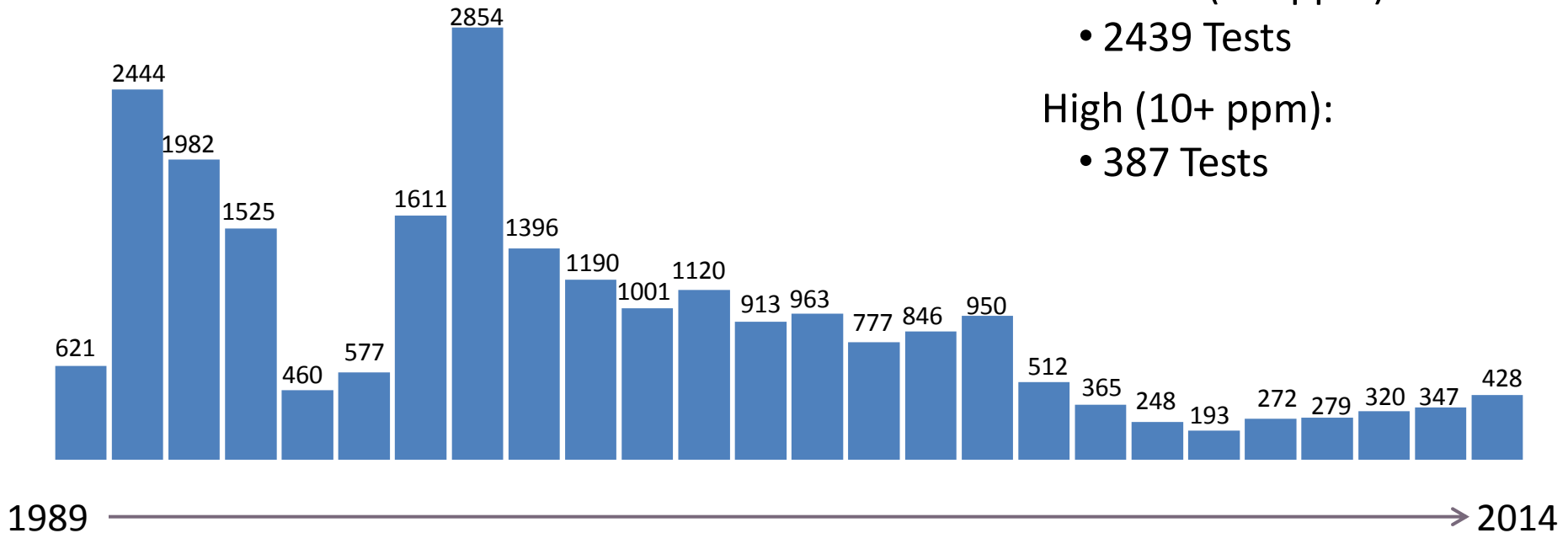
- 21,375 Tests

Elevated (3-9 ppm):

- 2439 Tests

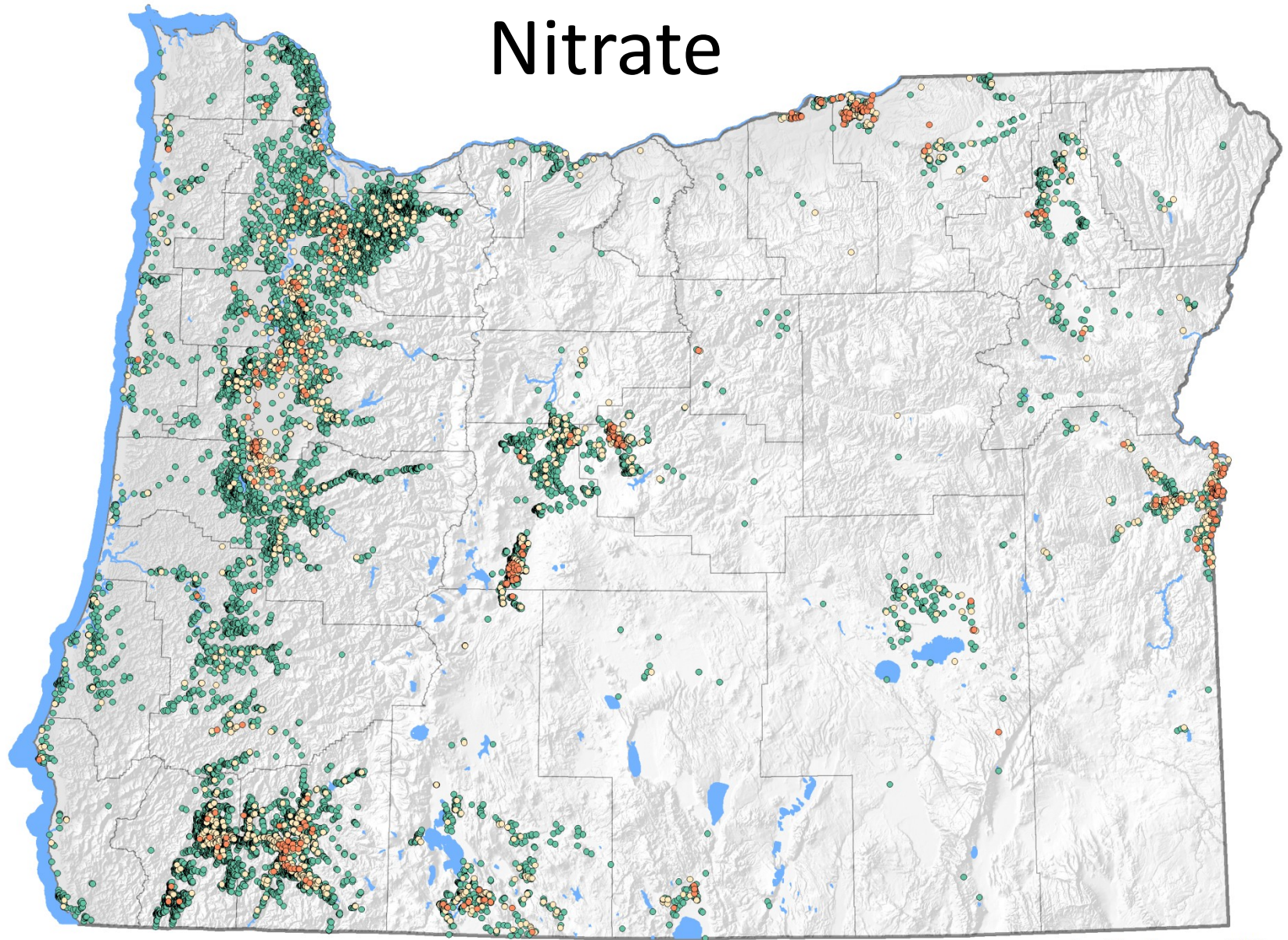
High (10+ ppm):

- 387 Tests

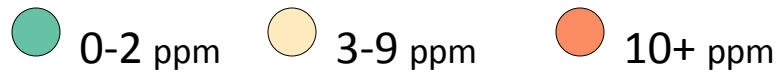


# Nitrate Tests- by year

# Nitrate



0 12.5 25 50 Miles



Real Estate Transaction Data  
Nitrates 1989 - 2015



## All Tests:

- Years: 1989-2015
- Total number: 27,242

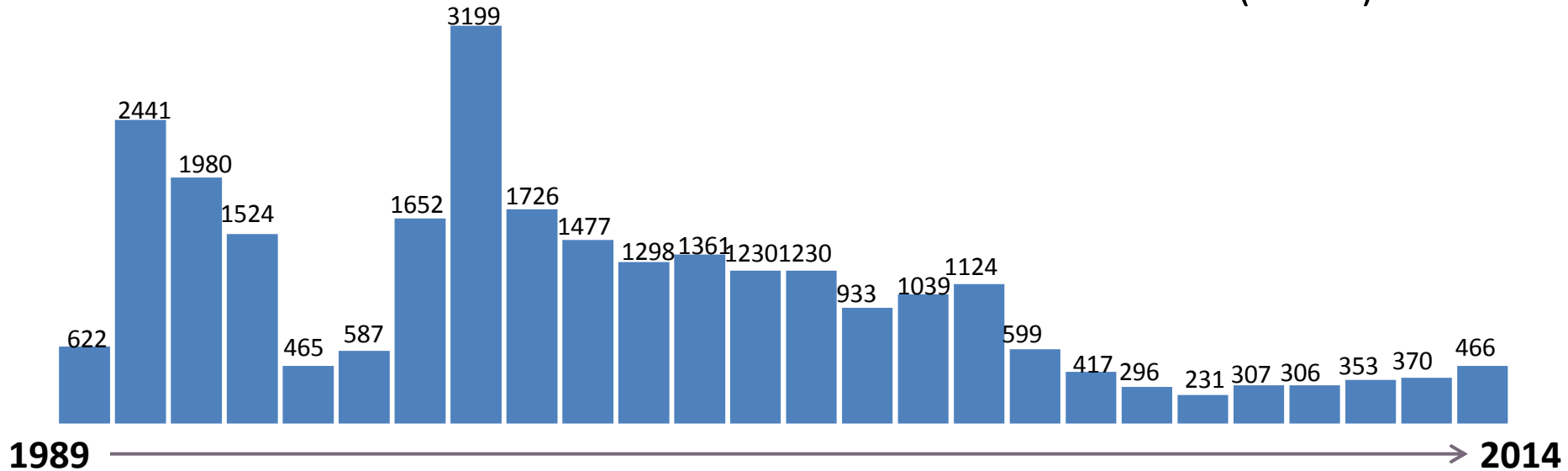
## Tests by category:

### Absent:

- 24,384 Tests (89.5%)

### Present:

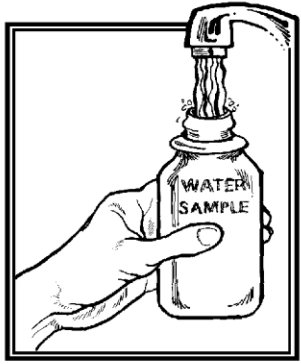
- 2857 Tests (10.5%)



**Bacteria Tests- by year**



Some Limitations



Only persons who **have knowledge of the appropriate procedures** .... shall collect the samples...Specific instructions for the collection, preservation, handling and transport of the samples may be obtained from certified laboratories, county health departments or the Authority and must be strictly adhered to.

The samples must be drawn **from the source** prior to any form of water treatment. Samples may be collected after treatment injection points where water treatment has been bypassed or temporarily disabled.

In the event that the well has been **shock chlorinated**, no follow-up samples shall be taken until **five days have elapsed**.



# COLLECTING A WATER SAMPLE

A how to guide.



**Collect the water sample from the well head.** If you cannot access the well head, take the sample from a non-swivel faucet (if possible) commonly used for drinking water. Samples may be collected from a swivel faucet or outside faucet but may be contaminated and not reflect the actual water quality. If the well has been disinfected (e.g., chlorinated), the water must be used for 5–7 days<sup>1</sup> before the water can be sampled.



**1. Use the water collection kit supplied by the lab.** Most will provide detailed instructions and sample bottles for various tests. Not all tests use the same type of bottle, amount of water or preservative. If no information is provided, follow these guidelines. Remove screens, aerators or other attachments and clean the tap with alcohol or a sanitizing wipe prior to sampling.



**2. After sanitizing, run the water for three to five minutes before sampling.** While the water is running, complete any necessary paperwork and carefully open the sample bottle. Do not touch the lip or inside of bottle. Do not rinse the bottle out or discard any powder that may be inside.



**3. For coliform collection, adjust the water to get a slow and steady flow and fill past the 100 ml fill line.** Do not fill past the 120 ml line. If there are no fill lines, and for all other test collections, leave one inch of space between the water level and the lid. **Secure lid and label the bottle.** If no label or codes are already on the sample bottles, please label yourself (where sample was collected, well ID, and date and time of collection).

**4. Complete the lab form.** Type or print legibly. Include all information asked for on the form.

**5. Mail or deliver samples to the lab as soon as possible.** The lab must receive the samples within 24 hours of collection. If mailing, put the samples in a small cooler with ice. If delivering, store the samples in the refrigerator and place on ice during delivery. This is especially important for bacteria and nitrate samples.

**6** If you are testing for a real estate transaction (RET), a non-biased third party should collect the samples. Please see [OAR 333-061-0335](http://OAR.333-061-0335) for more information. You must send a copy of the lab results and the [RET form](#) to the Oregon Health Authority's Drinking Water Program. Test results should also be sent to the prospective buyer within 90 days.

## Drinking Water Results



Test results will usually be ready one to three business days after the lab receives the samples. Some tests (e.g., arsenic) may take up to 10 business days or longer dependent on analysis type.



Copies of the lab reports are sent to the persons/ company listed on the lab paperwork and kept by the lab.

For a real estate transaction, see step 6.

## Your test may not be valid if:

- The water sample is too old.
- Information provided on the lab form is incomplete.
- Sample container wasn't labeled.
- Not enough water was taken (step3).
- Sample wasn't kept at proper temperature.

Oregon  
Health  
Authority

For more domestic well safety tips and information, visit [www.healthoregon.org/wells](http://www.healthoregon.org/wells)

For more information on Drinking Water Services, visit [www.healthoregon.org/dwp](http://www.healthoregon.org/dwp)

<sup>1</sup>Five days are required for real estate transactions; seven are recommended for more accurate test results.

OHA 8312 (11/14)

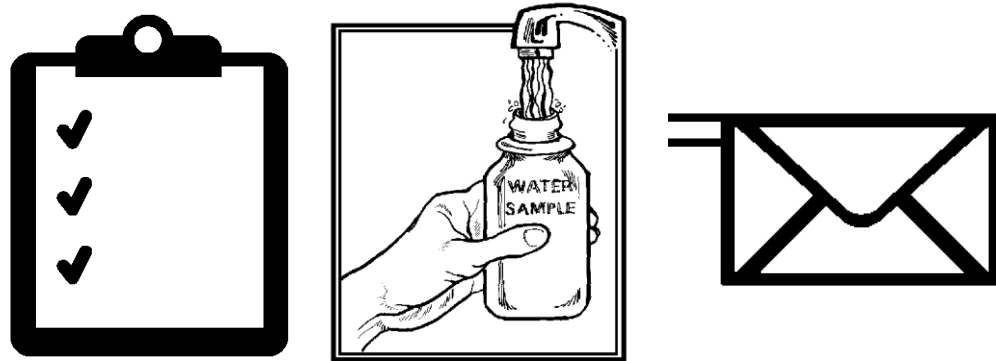


**Submission**

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Oregon  
**Health**  
Authority

# We want to hear from you!



Thank you!

# *Questions??*

Visit us at: [healthoregon.org/wells](http://healthoregon.org/wells)

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