Application to claim your water from competing wells 2 pages

OREGON WATER RESOURCES DEPARTMENT

Groundwater Well Interference Complaint Form

This form is intended to be jointly completed by the local Watermaster (WM) and well owner during a scheduled office visit or phone call. The well owner may initially fill out the fields marked with an * before their meeting with the Watermaster and are encouraged to bring any supporting documents with them to the meeting. Find your local WM at www.oregon.gov/owrd/aboutus/contactus/Pages/RegionalOfficesandWatermastersDirectory.aspx

Date:_____WM District:_____ WM Staff:_____

***Well Owner Contact Information:**

Name:_____

Phone Number:_____ Cell Number:_____

Email Address:_____

Mailing Address:_____

Well & Water Right Information:

*Well Tag: L-_____Well Log ID (e.g., HARN 99999): _____

County:_____Township _____ N/S Range _____ E/W – Section _____, Tax Lot _____

Well Location Lat:_____ / Long:_____ (decimal degrees)

*Well Address:_____

***Power Meter** s/n _____ Reading/Date/Units _____

***Flowmeter** s/n _____ Reading/Date/Units _____

***Attach Map:** tax lot map, Google Map, or other map showing well of interest and location of any suspected problem-causing wells

*Include other well information if no well log is available:
Depth: _____
Casing Size: _____
Date Drilled: _____
Original Owner: _____

Well Use: ☐ Exempt Use: Type (e.g., domestic, stock, etc.):_____

☐ Permitted Use: Use Code (e.g., IR, IS, etc.):_____

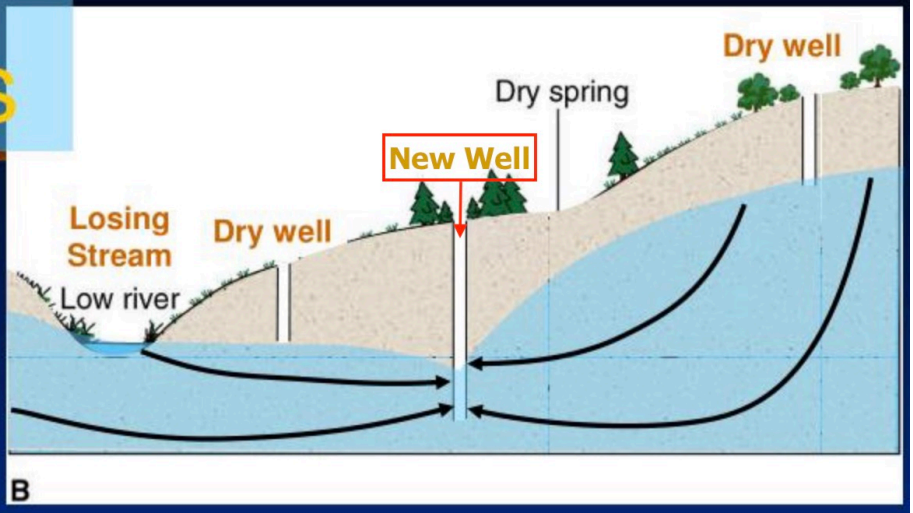
Water Rights Related to Well (Permit, Cert, etc.): _____

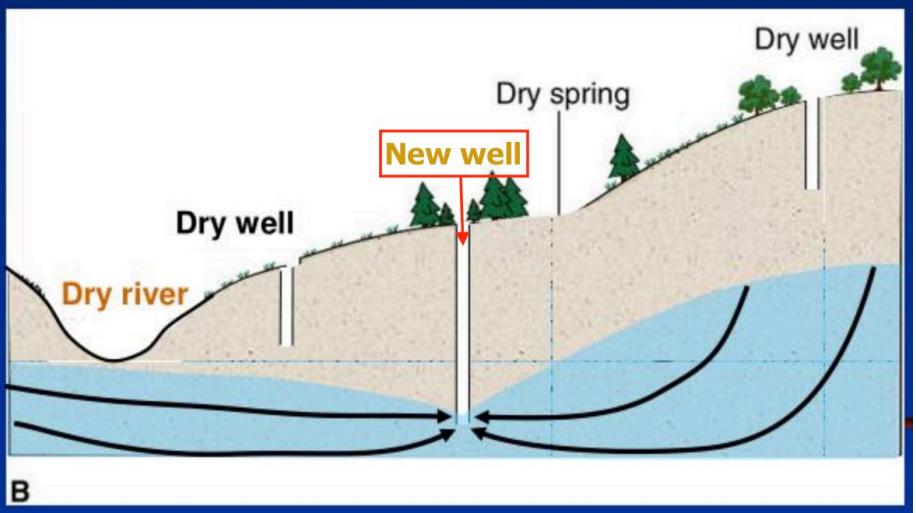
***Complaint details** (describe the type and timing of the problem, suspected cause of the problem [as described by the well owner], any previous well problems or complaints, any past maintenance on the well, any changes to pump set depth, well deepening, etc.)**:**

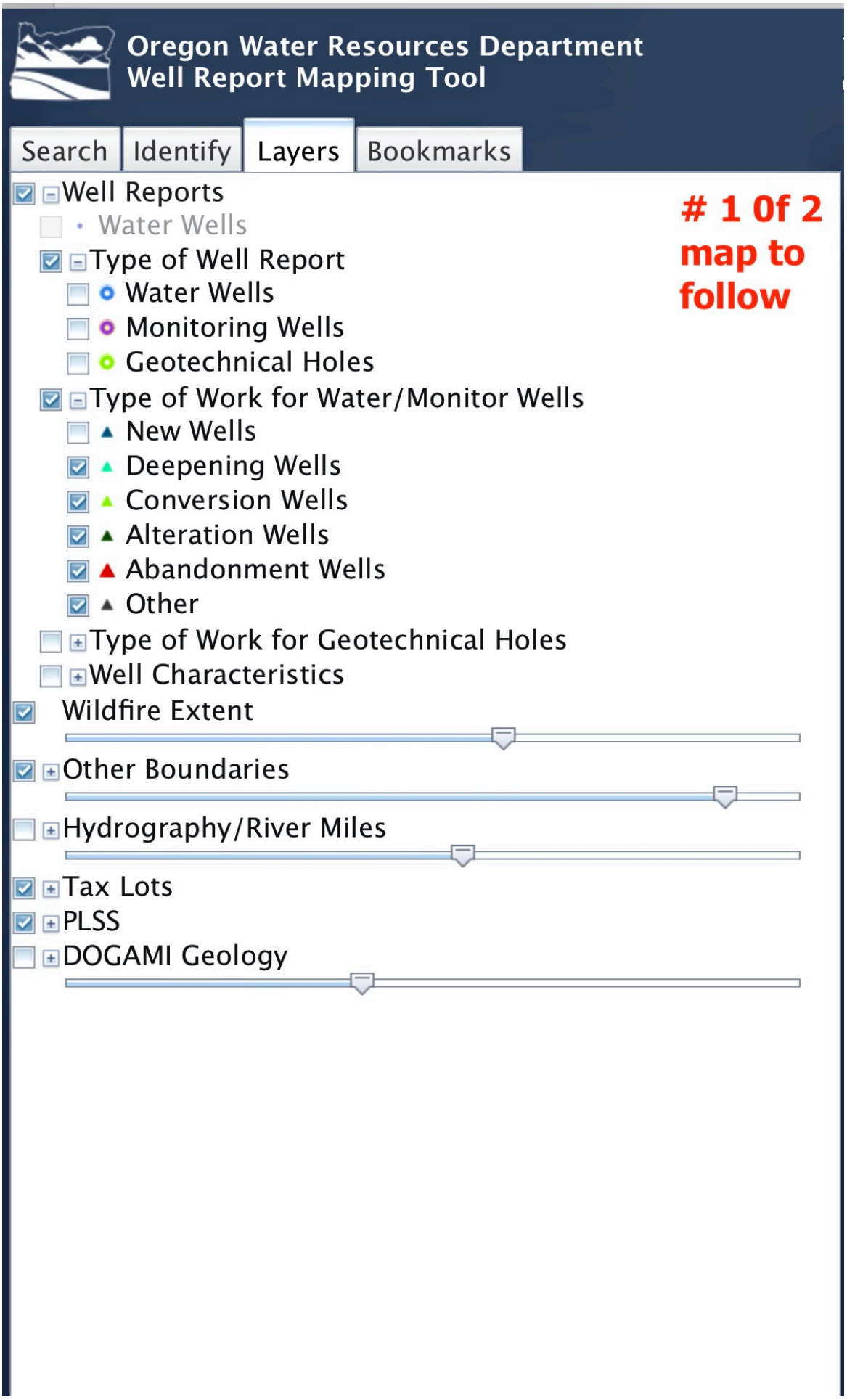
Next Steps / Resolution:

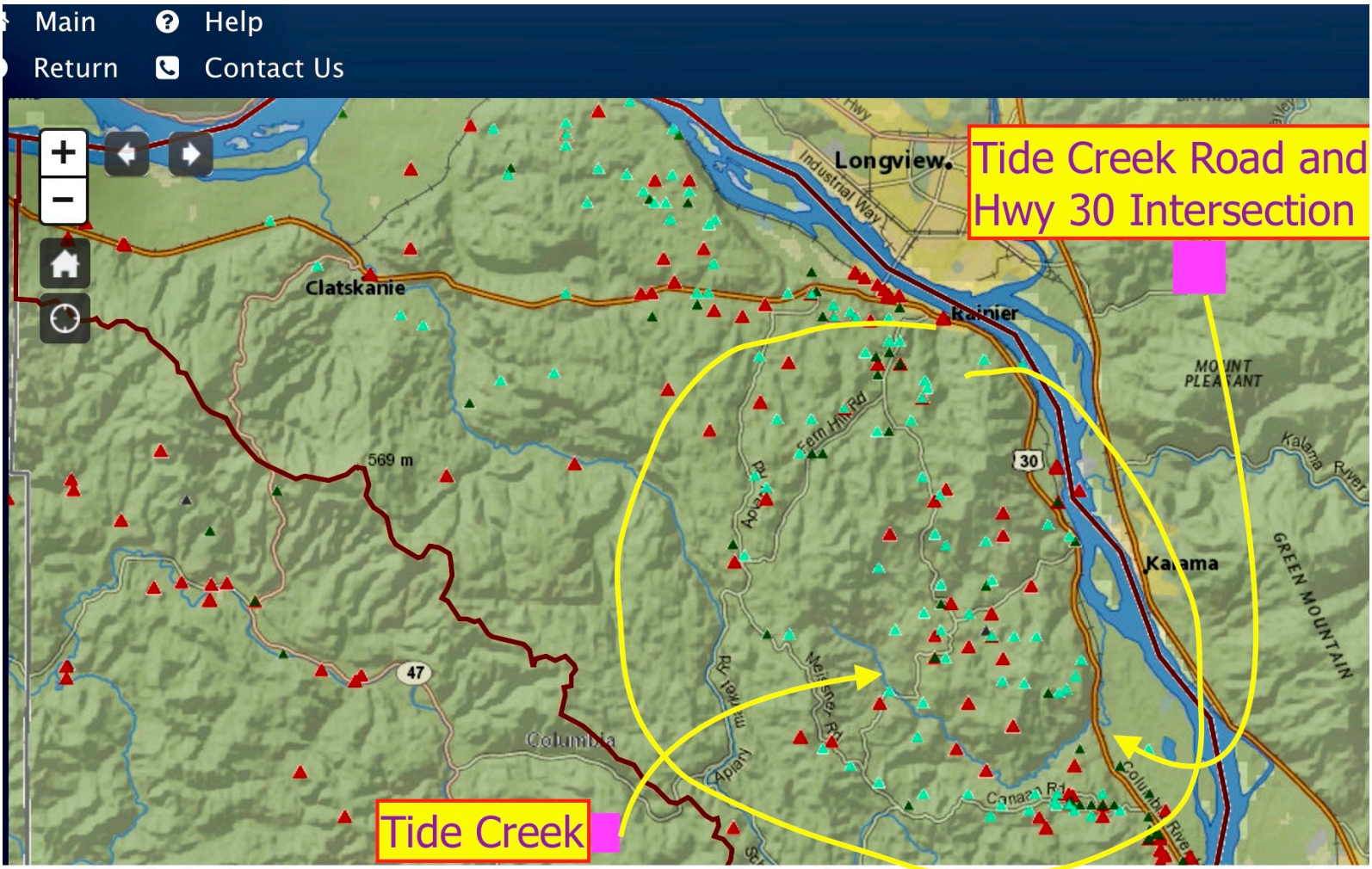
Effects of Pumping Wells

- Continued water-table drawdown
  - May dry up springs and wells
  - May reverse flow of rivers (and may contaminate aquifer)
  - May dry up rivers and wetlands






Oregon Water Resources Department
Well Report Mapping Tool
Search
Identify
Layers
Bookmarks
Well Reports
Water Wells
Type of Well Report
Water Wells
Monitoring Wells
Geotechnical Holes
Type of Work for Water/Monitor Wells
New Wells
Deepening Wells
Conversion Wells
Alteration Wells
Abandonment Wells
Other
Type of Work for Geotechnical Holes
Well Characteristics
Wildfire Extent
Other Boundaries
Hydrography/River Miles
Tax Lots
PLSS
DOGAMI Geology
1 0f 2
map to
follow



Deepening Wells and Dead Wells in our area
These are only the ones that have been reported

 # 2 0f 2

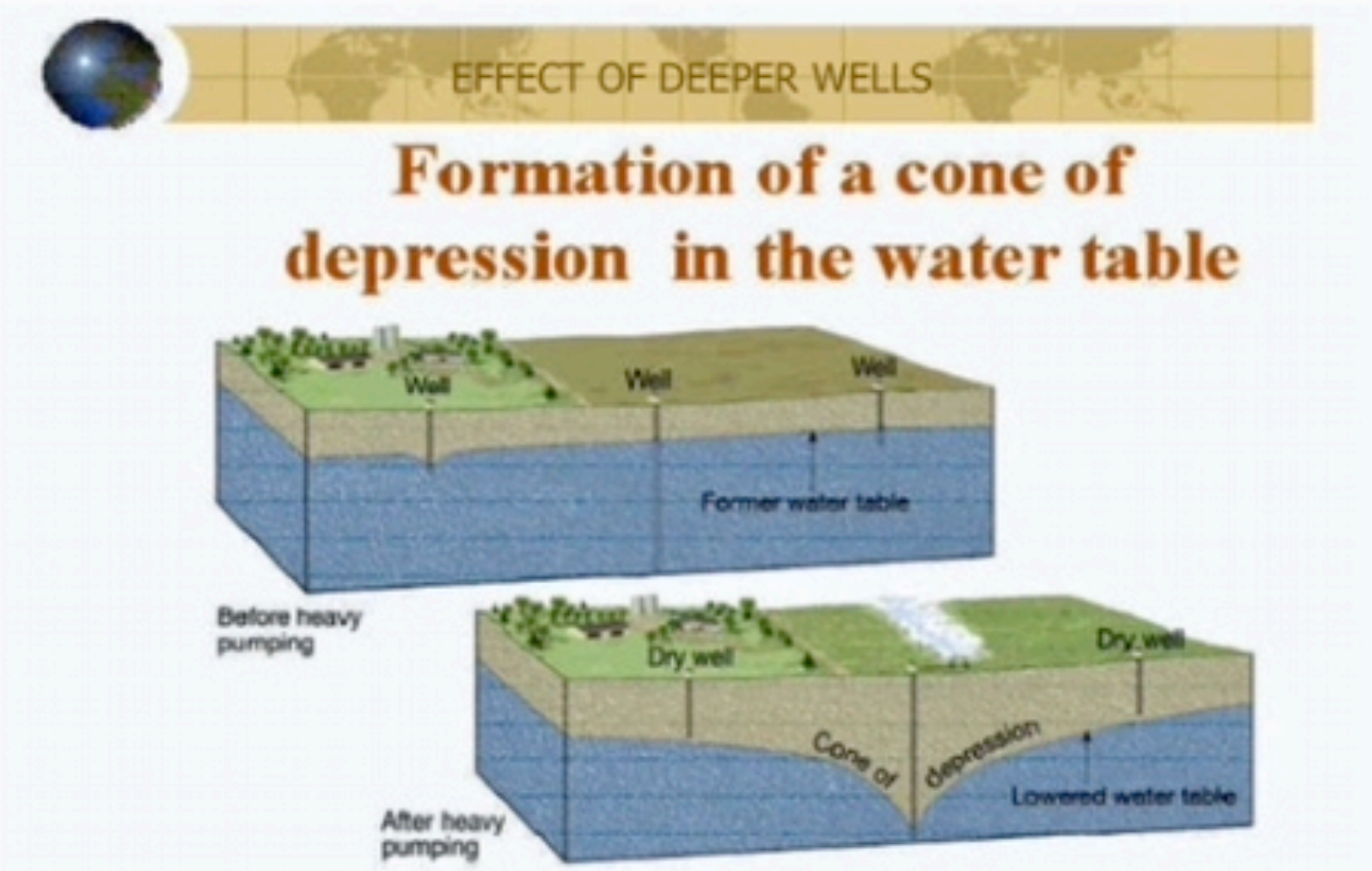


Figure 1. Formation of a Cone of Depression around a Pumping Water Well Source: Fayette County Groundwater Conservation District, TX

USGS
science for a changing world

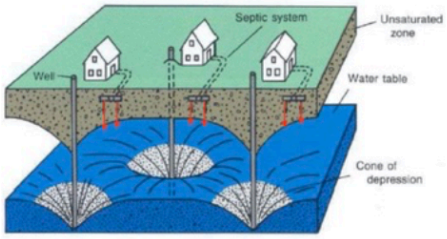
PLEASE READ THIS CAREFULLY. FROM USGS WEBSITE

by Roger M. Waller

This report is available in PDF format.

INCREASED PUMPING IN THE IMMEDIATE AREA

Another reason that wells "go dry" is the lowering of the water table by increased pumpage in the immediate area. Housing developments with small lots and individual wells have been built in many rural areas. If the aquifer is low yielding so that pumping causes a large drawdown, a cone of depression will develop around each well. Thus, several domestic wells close together can create a steady lowering of the water table if pumpage exceeds the natural recharge to the system (unless the withdrawn water is returned to the aquifer through septic systems). A third major reason that rural wells "go dry" is the installation of larger capacity wells for municipal, industrial, or agricultural purposes adjacent to residental areas. The increased withdrawals may cause large widespread cones of depression that intersect one another and cause general water-level declines that affect nearby domestic wells.



Effect of concentrated housing on ground-water level.

As you can see from this USGS report lowering our water tables from over-use and deeper wells from a neighboring subdivision can not only make our current shortages worse but can cause cones of depression around our wells and cause water to return to our aquifer from our septic systems. Compounding this scenario is the fact that all of our older homes in close proximity to the proposed subdivision have WELLS and SEPTIC DRAIN FIELDS way closer together then current laws allow. This damage is IREVERSABLE.

USGS states that new water wells can very easily lower our water table. If that happens it will pull the water table level down lower than our wells can reach. Our septic drain fields then have the potential to leach nitrates into the aquifer which will result in total contamination, once this occurs it is IRREVERSIBLE.

Questions **ENVIROMENTAL PROTECTION AGENCY**

a. Describe what happens to groundwater when the rate of pumping is less than the rate of infiltration.

The level of the water table drops a little, but overall it is fairly stable, and doesn't change much.

b. In this situation, how do you think water needs can be met over the long-term?

As long as rainfall and infiltration replenishes the groundwater faster than humans use it, the groundwater supply is reliable and steady. Groundwater is a renewable resource in this situation, and can meet water needs into the future.

c. Describe what happens to water levels when the rate of pumping is greater than the rate of infiltration.

The water table drops a lot, so much that some of the shallower wells run dry.

d. In this situation, how do you think water needs can be met over the long-term?

When infiltration is unable to replace groundwater as quickly as pumping removes it, the water table drops. Deeper wells could be dug to chase the table, but then the water table will just drop even further. Over the long-term, groundwater is a non-renewable resource in this situation, and won't be able to supply all the needed water.

The population will either have to reduce its water usage, or find other sources of water.

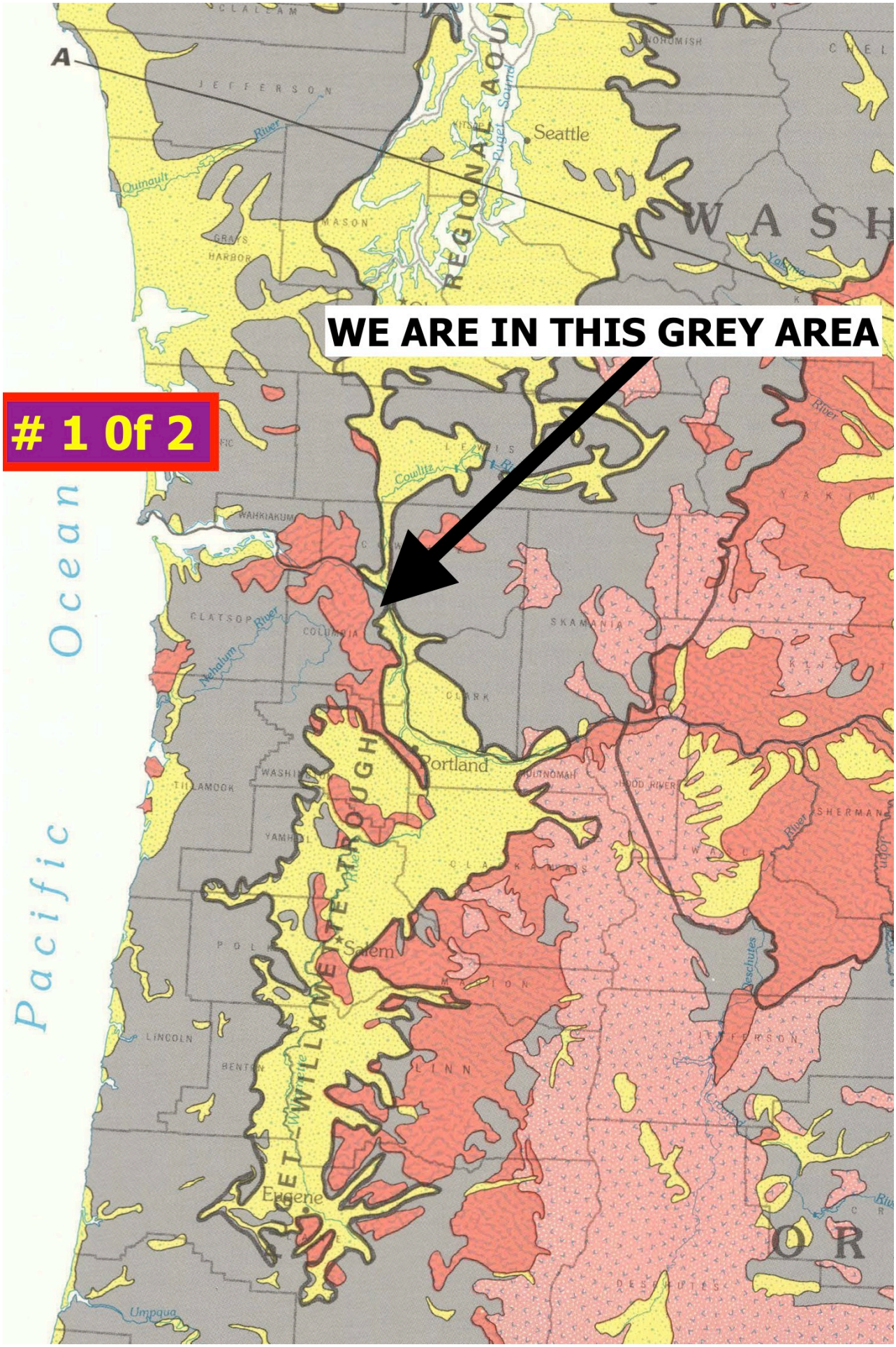
Overuse of groundwater can cause wells to dry up. This often leads to expensive and ultimately futile attempts to keep up with the dropping water table by drilling deeper and deeper wells. Other serious consequences can also follow groundwater overuse.

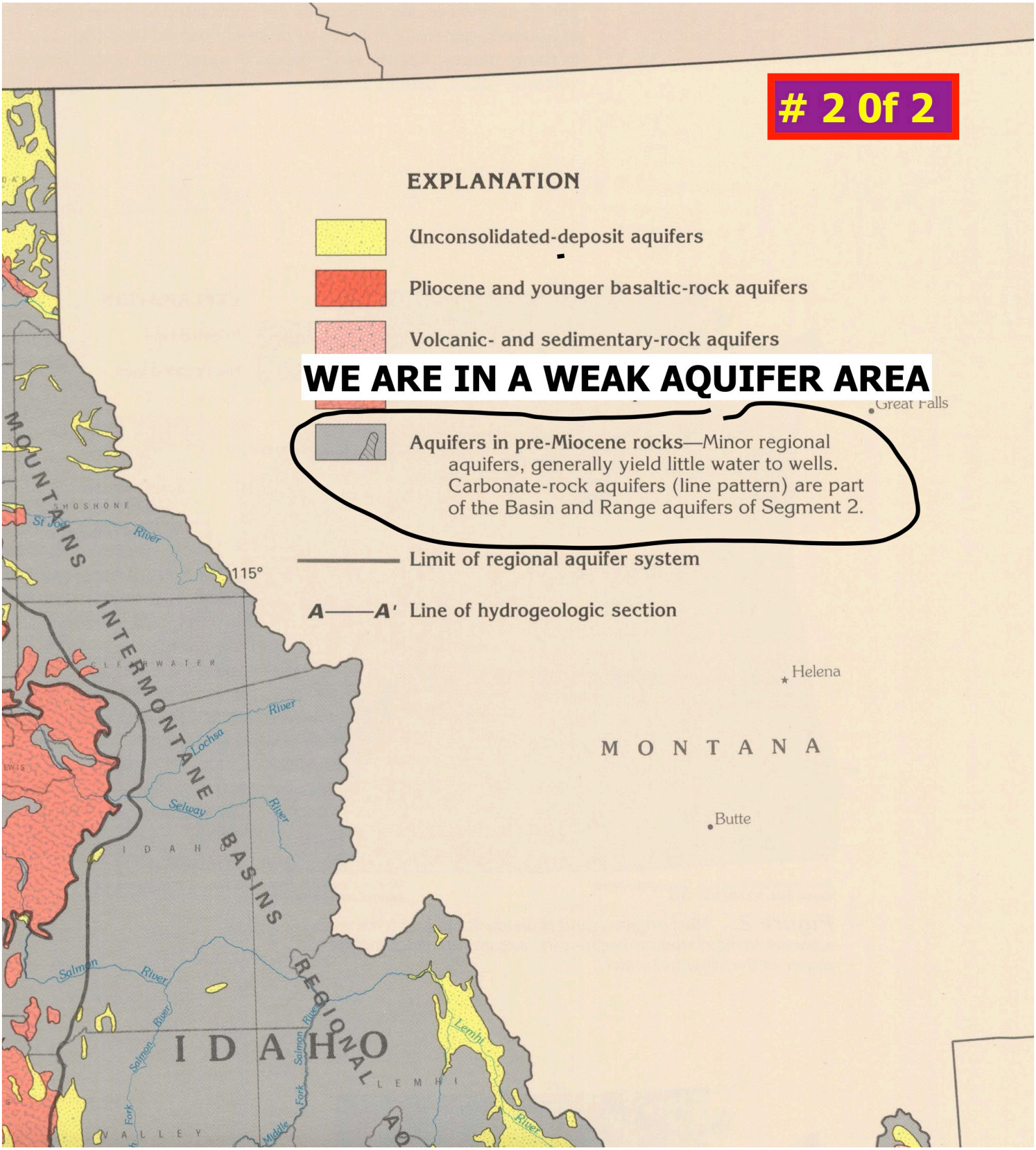
e. What happened to the stream as the water table dropped? What would have happened if that water body wasn't a stream, but an ocean?

Water was pulled out of the stream back into the groundwater as the water table dropped. If that had been an ocean, the water moving into the groundwater and into the nearby wells would be seawater. This would contaminate the water supply - salt water is toxic to land plants and animals, so it couldn't be used for drinking or irrigation, and it would harm machinery, so it couldn't be used industrially either.

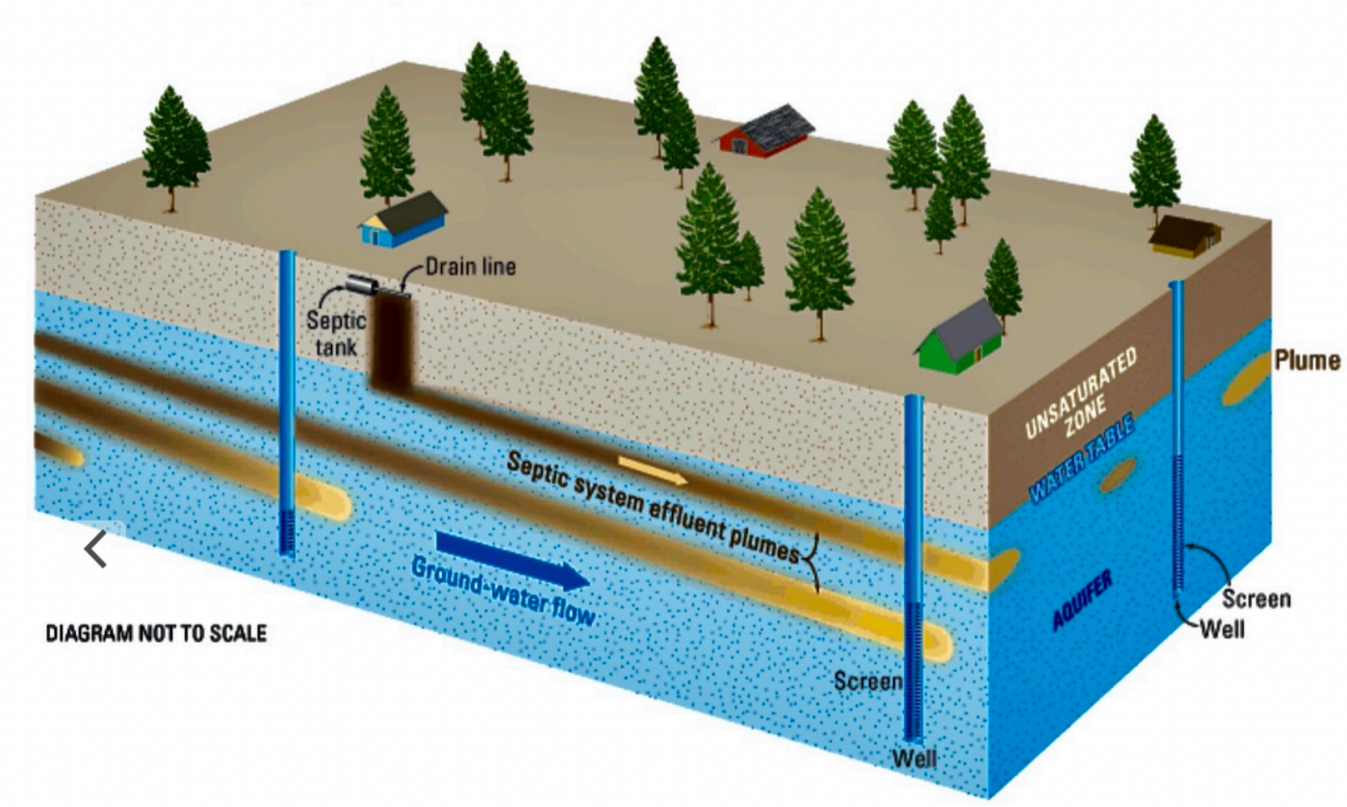
When too much water is withdrawn from the ground, the land can collapse, a process called subsidence. When groundwater fills spaces in the soil, it supplies part of the internal strength of the ground. When the water is removed, leaving openings filled only with air, the weight of the overlying earth compacts and crushes the spaces.


7 Dead trees removed from the Hester property right across the street from the proposed Lupine subdivision. This is due to our ongoing ground water depletion that normally fills our aquifers. Its no secret why our wells are very low on water. Parsons just a little ways up the road has many dying trees.
ASPLUNDH


A
WE ARE IN THIS GREY AREA
1 0f 2
Pacific Ocean
Seattle
Portland
Salem
Eugene
WILLAMETTE TROUGH
REGIONAL AQUI
JEFFERSON
MASON
GRAYS HARBOR
LEWIS
WAHKIAKUM
CLATSOP
COLUMBIA
SKAMANIA
CLARK
MULTNOMAH
WASHINGTON
TILLAMOOK
YAMHILL
POLK
MARION
LINCOLN
BENTON
LINN
JEFFERSON
DESCHUTES
SHERMAN
WASCO
HOOD RIVER
KLICKITAT
YAKIMA
Quinault River
Puget Sound
Cowlitz River
Nehalem River
Yakima River
Deschutes River
John Day River
Umpqua
OR


2 0f 2
EXPLANATION
Unconsolidated-deposit aquifers
Pliocene and younger basaltic-rock aquifers
Volcanic- and sedimentary-rock aquifers
WE ARE IN A WEAK AQUIFER AREA
Aquifers in pre-Miocene rocks—Minor regional aquifers, generally yield little water to wells. Carbonate-rock aquifers (line pattern) are part of the Basin and Range aquifers of Segment 2.
Limit of regional aquifer system
A——A' Line of hydrogeologic section
Great Falls
Helena
MONTANA
Butte
115°
MOUNTAINS
INTERMONTANE
BASINS
REGIONAL
IDAHO
Salmon River
Selway River
Lochsa River
Lemhi
St Joe River
Middle Fork Salmon River
Salmon River
Fork
SHOSHONE
LEMHI
VALLEY

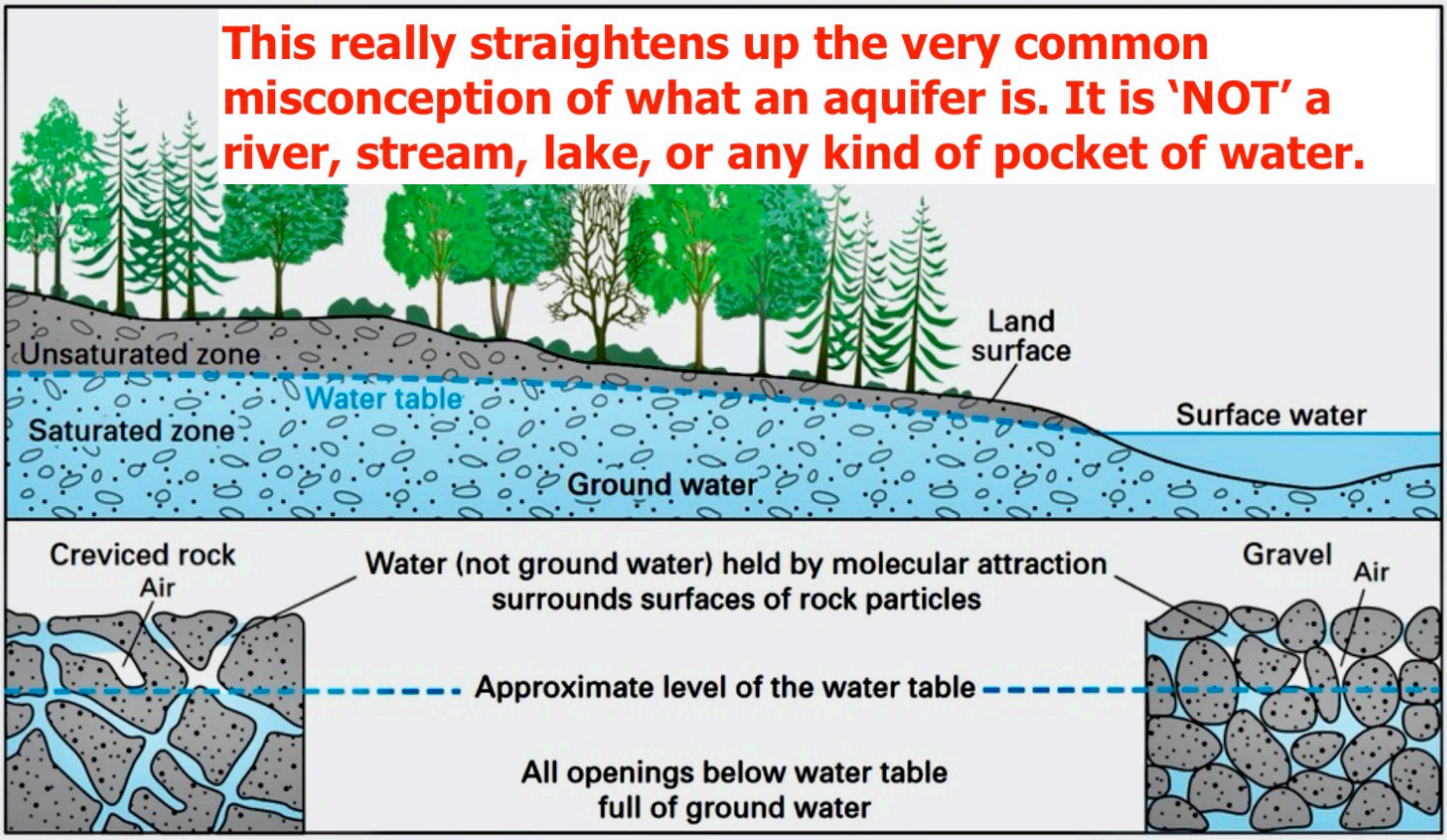
58 percent of home lots are 1 acre and 82 percent are less than 2 acres make residential densities relatively high for an area where homes are dependent on individual septic systems and wells. A cluster of homes with weak water supplies can be highly effected by new close by housing with water wells. When the low flow water tables are pulled on the results can be septic affluent into the aquifer.



Wastewater from septic systems contains nitrogen in the forms of ammonia and organic nitrogen. As wastewater leaves the septic system drainfield and percolates through the unsaturated zone, these forms of nitrogen are converted to nitrate. When the wastewater reaches the water table it forms plumes of elevated nitrate within the aquifer. The plumes move downward with the ground water and slowly spread. Currently, relatively few wells have water with high nitrate concentrations because these plumes have not had time to reach the depths where most domestic supply wells draw water. As more homes are built, and as plumes move deeper and spread, many more supply wells will be affected.

Groundwater is the saturated zone of soil/rock below the land surface
By Water Science School 1999 (approx.)

This really straightens up the very common misconception of what an aquifer is. It is 'NOT' a river, stream, lake, or any kind of pocket of water.



How ground water occurs in rocks.

VERY IMPORTANT TO READ THIS

Original Thumbnail Medium

Detailed Description

How Ground Water Occurs

It is difficult to visualize water underground. Some people believe that ground water collects in underground lakes or flows in underground rivers. In fact, ground water is simply the subsurface water that fully saturates pores or cracks in soils and rocks. Ground water is replenished by precipitation and, depending on the local climate and geology, is unevenly distributed in both quantity and quality. When rain falls or snow melts, some of the water evaporates, some is transpired by plants, some flows overland and collects in streams, and some infiltrates into the pores or cracks of the soil and rocks. The first water that enters the soil replaces water that has been evaporated or used by plants during a preceding dry period. Between the land surface and the aquifer water is a zone that hydrologists call the unsaturated zone. In this unsaturated zone, there usually is at least a little water, mostly in smaller openings of the soil and rock; the larger openings usually contain air instead of water. After a significant rain, the zone may be almost saturated; after a long dry spell, it may be almost dry. Some water is held in the unsaturated zone by molecular attraction, and it will not flow toward or enter a well. Similar forces hold enough water in a wet towel to make it feel damp after it has stopped dripping.

- Water Science photo gallery
-

ENVIRONMENT HEALTH

As wells run dry, Oregon residents depend on a state program that trucks in water

The legislative Emergency Board approved $5 million for the program in early June, and Klamath County residents are the first to need it

BY: **ALEX BAUMHARDT** - JUNE 30, 2022 6:00 AM

Klamath County has struggled with persistent drought. A report from the Secretary of State's Office found Oregon agencies in charge of ensuring water quality and quantity are understaffed, underfunded and lack coordination and planning for the future, compromising the state's water security. A new drought package from bipartisan lawmakers hopes to tackle these issues. (Courtesy of the governor's office)

Rhonda Nyseth's well dried up on Sept. 15, 2021, nine months after she bought her house in Klamath Falls.

"When it happened, I won't lie, I started crying immediately," Nyseth said.

She was familiar with the situation. She's a social services emergency liaison for the Oregon Department of Human Services Office of Resilience and Emergency Management.

Last summer, she helped oversee the distribution of more than 100 water tanks, each holding 500-gallons, to residents in Klamath County with empty wells.

Paying the price

Burdick had no running water for weeks as she waited for a drilling company with a monthslong backlog. She was ultimately saddled with more than $30,000 in costs.

“It was a nightmare,” she said. “And the story just gets worse.”

Burdick is among the Oregonians paying the price of declining groundwater in the state’s fastest-growing region. Over the past 10 years, Deschutes County residents have deepened an average of 29 wells per year. Last year, that shot up to 60, and so far this year the problem is worse. Meanwhile, development is booming, with more than 1,100 new wells drilled since 2020 alone.

State regulators have long taken a timid approach to safeguarding groundwater for domestic wells, which aren’t regulated like larger commercial or agricultural uses. People who complain about dry home wells are often told that the only recourse in state law is to keep digging deeper.

Aiken Well Drilling operators bore a domestic well at a new rural home site about ten miles east of Bend, Ore., July 5, 2022.
Emily Cureton Cook / OPB

Even in the upper Deschutes, one of the most regulated river basins in the state, lawmakers and officials have focused on appeasing rather than reining in wealthy developers who are allowed to buy groundwater rights in one place and then extract that water from miles away, where aquifer levels are dropping at alarming rates.

Oregon lawmakers seek more funds for well repair amid declining aquifer levels

By MICHAEL KOHN EO Media Group Sep 13, 2023 Updated Sep 13, 2023

2 of 3

Neil Fagen, left, and Tate Waldbillig, with Aiken Well Drilling, perform a flow test during the reconstruction of a well in Tumalo on Monday. A state program that helps pay for the cost of repairing wells could receive additional funding next year.

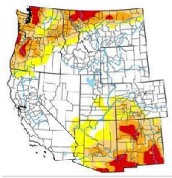
Dean Guernsey/The Bulletin

Listen to this article now
Powered by **Trinity Audio**
1.0×
00:00 00:27

Funding Help

Homeowners with problematic well who need financial assistance can connect with

BEND, Ore. — A state program that helps pay for the cost of repairing wells could receive additional funding next year. That's good news for the scores of homeowners who have seen their wells dry up amid drought and climate change challenges.



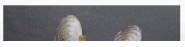
U.S.
grap
ens
wat

Fed
on r
salr
Colu

Idah
mar
sup

Eco
star
by V

Som
spo
grov
pro



Qua

‘Trying to survive’: Wells dry up amid Oregon water woes

By GILLIAN FLACCUS and NATHAN HOWARD (Associated Press)

MALIN, Ore. July 29, 2021 10:51 a.m.

Dozens of domestic wells have gone dry in an area near the Oregon-California border where the American West’s worsening drought has taken a particularly dramatic toll

Rylee Buckley, 17, drives home in an ATV loaded with two, 7-gallon containers after borrowing water for her animals from a neighbor, Saturday, July 24, 2021, in Klamath Falls, Ore. The Buckley's house well ran dry in May following a historic drought in Southern Oregon.
Nathan Howard / AP

CONTAMINATED DRINKING WATER: A HIDDEN PROBLEM

The Problem:

More than 70% of Oregonians get some of their drinking water from wells, and 23% of Oregonians rely on privately owned wells as their primary source of water. Yet in many parts of the state, this water is polluted. Thousands of Oregonians may be unknowingly drinking water that could lead to cancer, miscarriage and other serious health risks.

The most common contaminants in well water are nitrate, bacteria, arsenic and pesticides. This contamination can come from failing septic tanks, fertilizers, livestock waste, and poorly constructed or maintained wells on a homeowner's property or property nearby.

Well water contamination is common in many parts of our state, from coastal communities to the Willamette Valley, Rogue Valley, Central and Eastern Oregon. While water from public systems is tested for safety, domestic well water may not be.

The Solution:

Oregonians need to know whether the water they are drinking is safe so they can act to protect their families. Our state needs to do a better job of monitoring groundwater quality and reducing sources of contamination.

<u>Ensure that more well owners test.</u>

The Safe Well Water Bill supports local well testing education programs and establishes financial assistance to help low- income property owners repair wells or install water treatment systems when necessary. It also requires certain landlords to test wells and share the test results with tenants.

<u>Identify groundwater quality hot spots.</u>

Analyze well test results to identify areas with groundwater contamination problems and make sure the community is informed.