To the Columbia County Planning Commission
8/23/2023
From Gene and Lynn Hester
33340 Tide Creek Road
Deer Island Oregon, 97054
And the people that have ask us to speak for them

We are writing this letter strongly opposing the Lupine Meadow Subdivision. Our property is tax lot #1001 and is directly across the street from the proposed development. I have entered in this package 12 total Tax Lot numbers surrounding the proposed lupine meadows that are having the very same issues.
To start with I purchased and moved into my home in 1982. I purchased this home 41 years ago.The well logs date back to 1975 when our home was built. Things have changed significantly since that time. This area has grown and a lot of new wells have been established. As time goes on we have less water and lower flow rates. In addition several years running there has been annual shortages of ground water that feeds aquifers. We as well as most people around us are experiencing serious water issues . I have had my well cone out three times and every time they shorten my well. We are on our 4th pump. The majority of my neighbors have had to have water storage tanks installed to deal with the water shortages.. Water is pumped into the tank a little at a time accumulating in low and slow use time. This supplies you with a minimum amount of water for daily use. You can still run out particularly in the summer. We recently had $4200 work done on our well. Justin from McMullen Wells in St. Helens told us it was just a bandaid and we will probably have bouts of no water. Justin told us that putting in storage tanks was a good option but a new well would be better. Justin Says that issues with our current well are not ideal to dig it deeper. The problem with a new well is the only location we can put a new well is too close to our septic drain field.
What is helping us is that there are only 2 of us living here. My wife did not even have her hanging baskets this year. We have ran out of water 3 times.. I am planing a new building to house water storage tanks. We are 100% dependent on the low-flow rate well we have. Justin told me we have only 28 feet of water and around 2.5 gpm.

The laws for developing land partitions are written very poorly. It lets developers use well logs from nearby properties that they submit to the county proving that there are good flow rates. Those well logs are usually very old and obsolete. (You will see how I proved that Petersons well log reports for the proposed project are not current or correct). My well flow rate was established in 1975. Some Houses

around me are even older . In addition the Oregon State Water Master has no information on our area aquifer.
8 new 4 bedroom homes will likely have a detrimental impact on surrounding wells. I ask Justin McMullen what will happen to our wells with that much usage. He simply said the guy with the deepest well wins. Severe coning will develope. Also water depletion establishes a very high risk of septic systems leaking into the Aquifer . When all of our homes were built there were different stands pertaining to how close our septic systems and wells could be to each other in a neighborhood.

Most of the current long time residences of this surrounding area cannot endure the financial hardship of drilling a new $25,000 plus well. Even then we will be competing with a huge amount of very nearby water usage.

Everything we are going through is nothing new to the other families up here on Tide Creek Road. Please read through all of the illustrated documintation I have included in this package from the USGS and the EPA concering wells, well water, aquifers and the reality of what really happens when new subdivisions move in around already weak systems. I have been told don't worry you have rights and you can sue and have wells shut down. That is something none of us ever want to experience. Then it is probably too late. And what about the unsuspecting families that purchase those 8 homes ?? Will they be forced not to use their wells because of our water rights?? We hope and pray that we can save our water here on a local level but in the event that does not work we are prepared to take this to Oregon State with our measure 49 Attorney. We have absolutly no choice. We have to save our water. Aggie Peterson once said that it is no problem for us because we are all land owners so we can all borrow money to drill wells. We are asking the Peterson's as neighbors to please back off and take this to one of your other many properties and help your neighbors save our depleting aquifer. Again queoting Justin McMullen..... "The person with the deepest well wins". We will not be able to compete with the Petersons new 8 deep water wells.

Again please study the illustrations that I have included in this package that clearly outlines what we will be in for. The info I have included just barely scratches the surface of what is out there to study. Please take time to google well water problems and you will see what we are facing is very very real and it is happening all over the country. If need be please bring this to a halt to at least do an impact anylasis study on the plight we are facing. And let the burden of this study be on the Peterson's . They have the money obviously and we should not have to spend money to defend our long time homes that our greedy neighbor could care less about.

Thank you so very much for reading this and giving us all the opportunity to be

heard. This subdivision that the Petersons have the wherwithall to put anywhere they want on their many many properties is a very very real threat to our long time homes . We beg you to give this serious situation your upmost attention. It is a huge threat to all of us up on the hill near this proposed project . I just cannot express enough how scary the potential of this coming to fruition is for all of us.

Thank You so much from all the people on Tide Creek Road that this impacts.

Sincerly, Gene Hester

Gene Hester

We the following are on the list opposed to the Lupine Meadow Subdivision. We each are giving our permission for Gene Hester, Frank Hall, or their representative to speak on our behalf at any meeting against said subdivision:

Frank Hall 33268 Tide Creek Rd.
Janice Hall

Maria Christie 32829 Tide Creek Rd
TY Christie DEER Island, OR 97054

TY C ISRAEL REA 32830 TIDE CREEK RD DEER ISLAND, OR 97054

Karla Rea 32830 Tide creek RD Deer Island OR 97054

EMMA KIRCHHOFF 33562 Tide Creek Rd Deer Island OR 97054
ANDREW AHRNSBRAK

Patty Parsons 33220 Tide Creek Rd. Deer Island OR 97054
Johnny Parsons

Glennis McFarland 33300 Tide Ck Rd DEER ISLAND, OR 97054
Jim McFarland

Ron 33386 Tide Ck Rd DI OR

Mary Weaver 33378 Tide Ck Rd DI 97054
L.B. Weaver

Gene Hester 33340 Tide Creek Rd
Lynn Hester

We're giving Frank & Gene our time just like all others.

~~#15~~

This is the list of neighbors that are apposed to the Lupin Meadow Sub-division:

Mary Wells Larry B Weaver 33378 Tide Creek 503 397 2073

Jan & Frank Hall 33268 Tide creek Rd 503 3961218

[illegible] 33460 Tide creek [illegible] 503-366-4285

Lynn & Sam Peeples 33340 Tide Creek Rd. Deer Island Or 503-367-057[illegible]

Tim Rose & Joyce Smithkline 33396 Tide Creek Rd 503-366-3554 Deer Island OR 9705

Karl Klein 5039369714 33470 Tide Creek Rd Deer Island OR 97054

Peterson's submitted this well log data in an attempt to show that the Residents in the proposed lupine meadow area on Tide Creek Road have plenty of water. Because the well log data came from McMullens I am sure it is very legit. However since the data was collected as far out as 52 years ago it is mostly not current and obsolete.

Peterson also claimed on this well log sheet that OWRD states that half a gallon a minute can establish a well. He does not tell you the whole story . That is only if you instal a very expensive big storage tank system that the water can trickle into to build up over time when you are not using it. And a huge water supply. Just normal common sense clearly dictates that you cannot run a household on one half gallon a minute. You can have 5 gpm water but run out of water with 30-40 minutes of steady running. Most all of us have had extensive well work done and a large percentage are on storage tanks. Storage tanks are a last ditch effort and you are limited with them when it comes to garden watering and pressure washing etc.

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WELL LOG DATA

Startcard # (if listed)	Well Log #	Date	Tax Lot No.		Yield (gal/min)
1028595	COLU 55121	10/26/2015	6225-00-00400	1	10.0 Petersons new well
	COLU 1704	7/13/1976	6225-00-00900	2	~~37.0~~ duplicate
	COLU 1706	8/7/1971	6225-00-00700	3	~~10.0~~ 3 gpm
83956	COLU 50307	10/30/1995	6225-00-01009	4	25.0 out of area
83964	COLU 50308	10/26/1995	6225-00-01006	5	~~12.0~~ 3 gpm
126399	COLU 52001	2/6/2002	6225-00-00900	6	10.0 2002
148019	COLU 52165	12/31/2002	6225-00-01007	7	~~20.0~~ 2 gpm
1043597	COLU 55494	7/15/2019	6236-00-00300	8	60.0 out of area

Submitted with this application as Attachment 8 are copies of the above well logs. This data establishes a yield for wells in the area ranging from 10 to 60 gallons per minute.

The OWRD well logs clearly establish adequate potential for water for the proposed lots.

1 This is Petersons new deep water well

2 This is a duplicate on Jim McFarland property. (#2 and # 6 above) He lost 150' of well and dropped to 10 gpm 2002. He is not sure what it does now . 2 people in house. Lite use.

3 John Parsons. Several reworks on well. Sulpher smell.Runs out of water often.Cannot drill again

4 Out of area well

5 Tim Rose installed large storage tanks due to low water. 3gpm

6 Jim Mcfarland. Had 37 gpm. Major well rework .Dropped 150' off of well. 2002 10 gpm

7 Mary Wells. Had to put in new well at the same time as Jim Mcfarland. Was 14 gpm now down to 2 gpm

8 Out of area well

WELL INFORMATION

The 7 or 8 well logs that are being used to justify the subdivision water is stated by the water resources as archaic and not reliable.

Water volumes and levels from neighbors are as reported by the **property owner. The property owners Tax Lot # (TL) is included.**

1 Christie, 32829 Tide Creek Rd., 4 gal. per min., has storage tanks. **TL00200**

2 Andrew Ahensbrak, 33562 Tide Creek Rd., 4 gal. per min., relies on storage tanks. **TL01100**

3 Parsons, 33220 Tide Creek Rd., 3 gal. per min. Has gone empty often. and has sulfur odor. **TL00700**

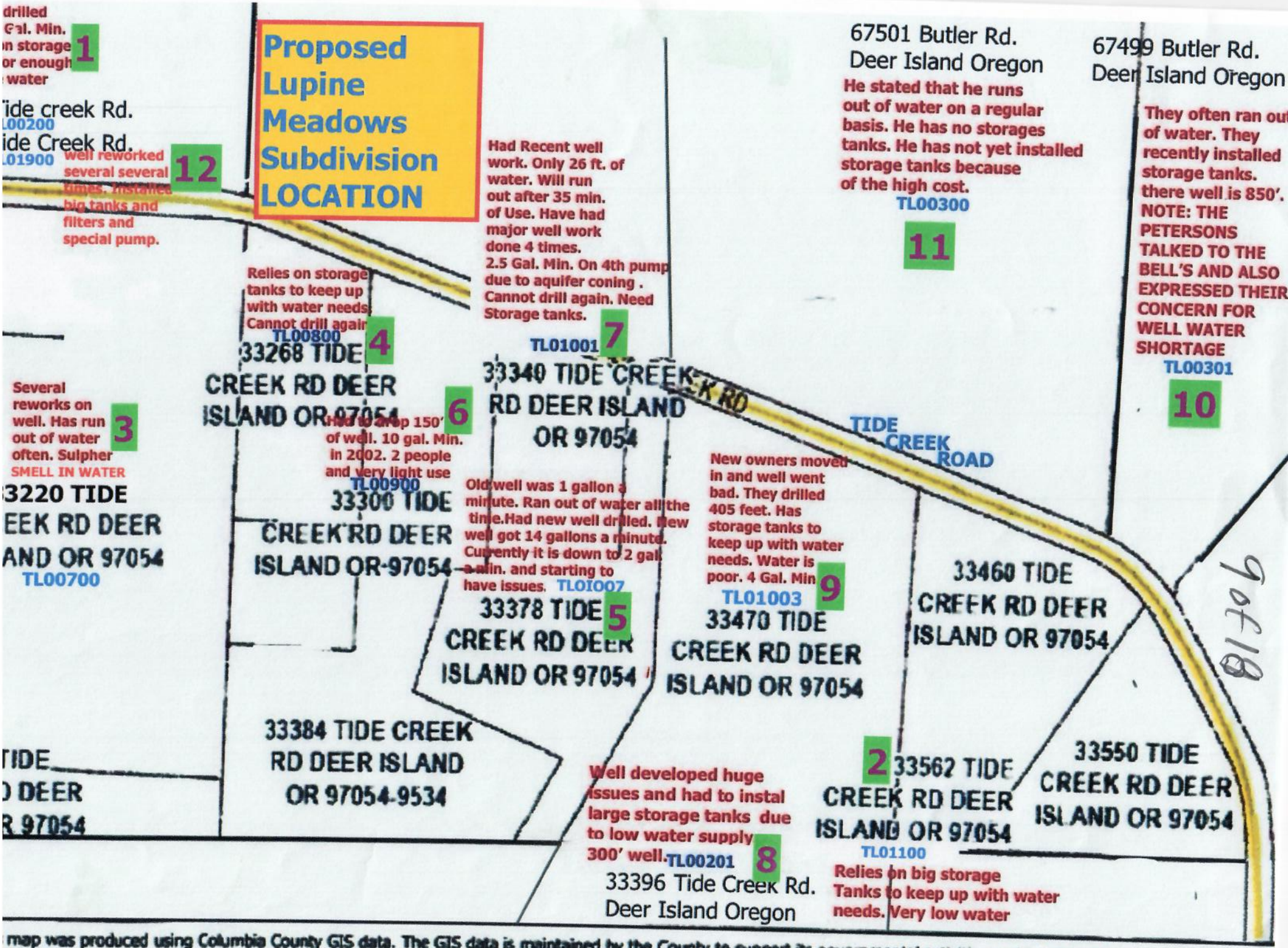
4 Hall, 33268 Tide Creek Rd., .4 gal. per min. and relies on storage tanks and can't re-drill. **TL00800**

5 Mary, 33378 Tide Creek Rd. they are on their second well and getting 2 gal. per min. **TL01007**

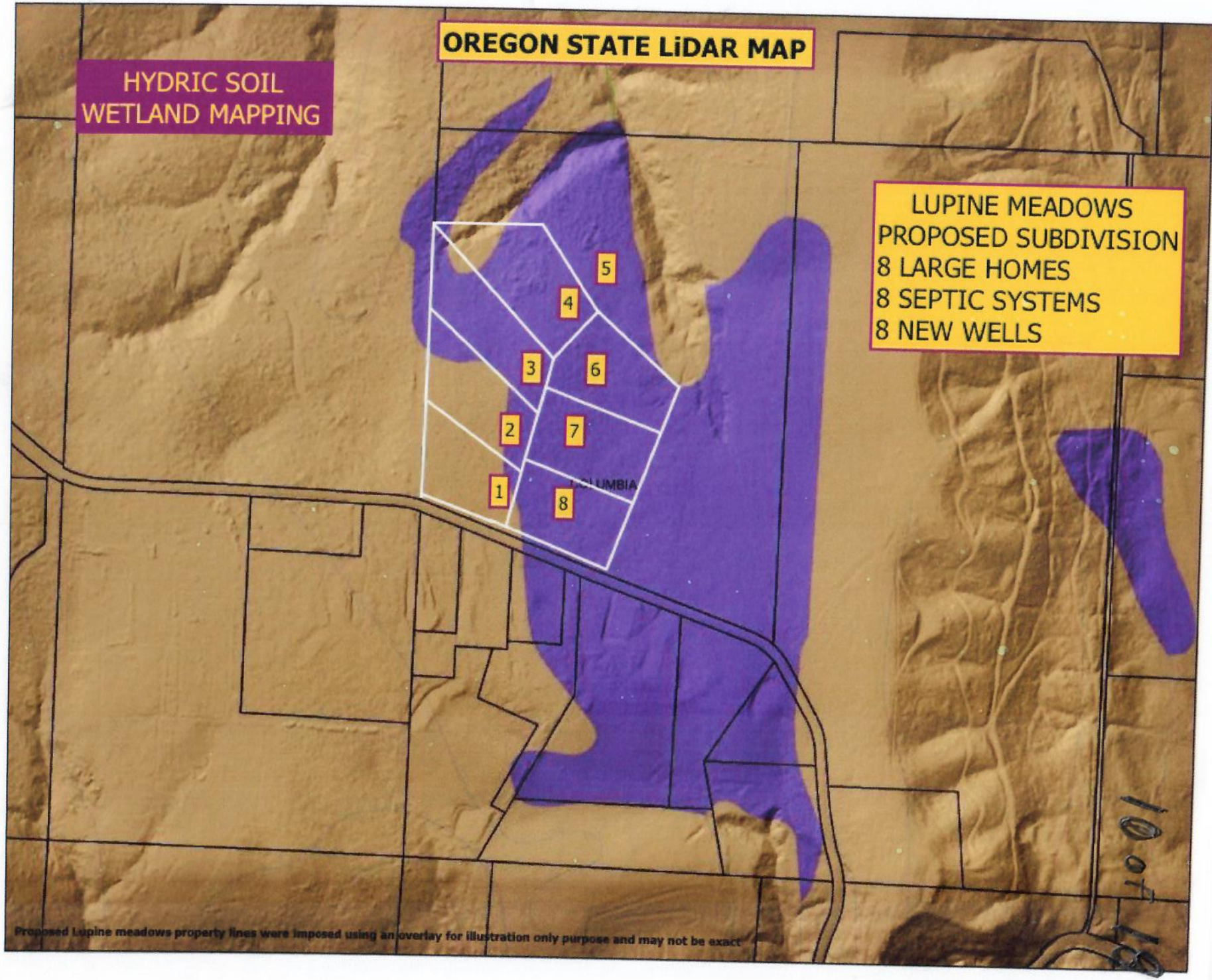
6 McFarland, 33300 Tide Creek Rd., well level has dropped 150' and has had rework done. **TL00900**

7 Gene Hester, 33340 Tide Creek Rd., 28' of water in well, goes empty in 45 min., has had recent rework cost 4K, McMullen said was only a bandage. Has sulfur odor. Pump replaced 4 times do to aquifer coning. Can't re-drill, need storage tanks. **TL01001**

8 Tim Rose, 33396 Tide Creek Rd., has a large storage tank due to low water. **TL00201**



map was produced using Columbia County GIS data. The GIS data is maintained by the County to support its governmental activities and is subject to change without should not be used for survey or engineering purposes. Columbia County assumes no responsibility with regard to the selection, performance or use of information on this


OREGON STATE LiDAR MAP
HYDRIC SOIL
WETLAND MAPPING
LUPINE MEADOWS
PROPOSED SUBDIVISION
8 LARGE HOMES
8 SEPTIC SYSTEMS
8 NEW WELLS
5
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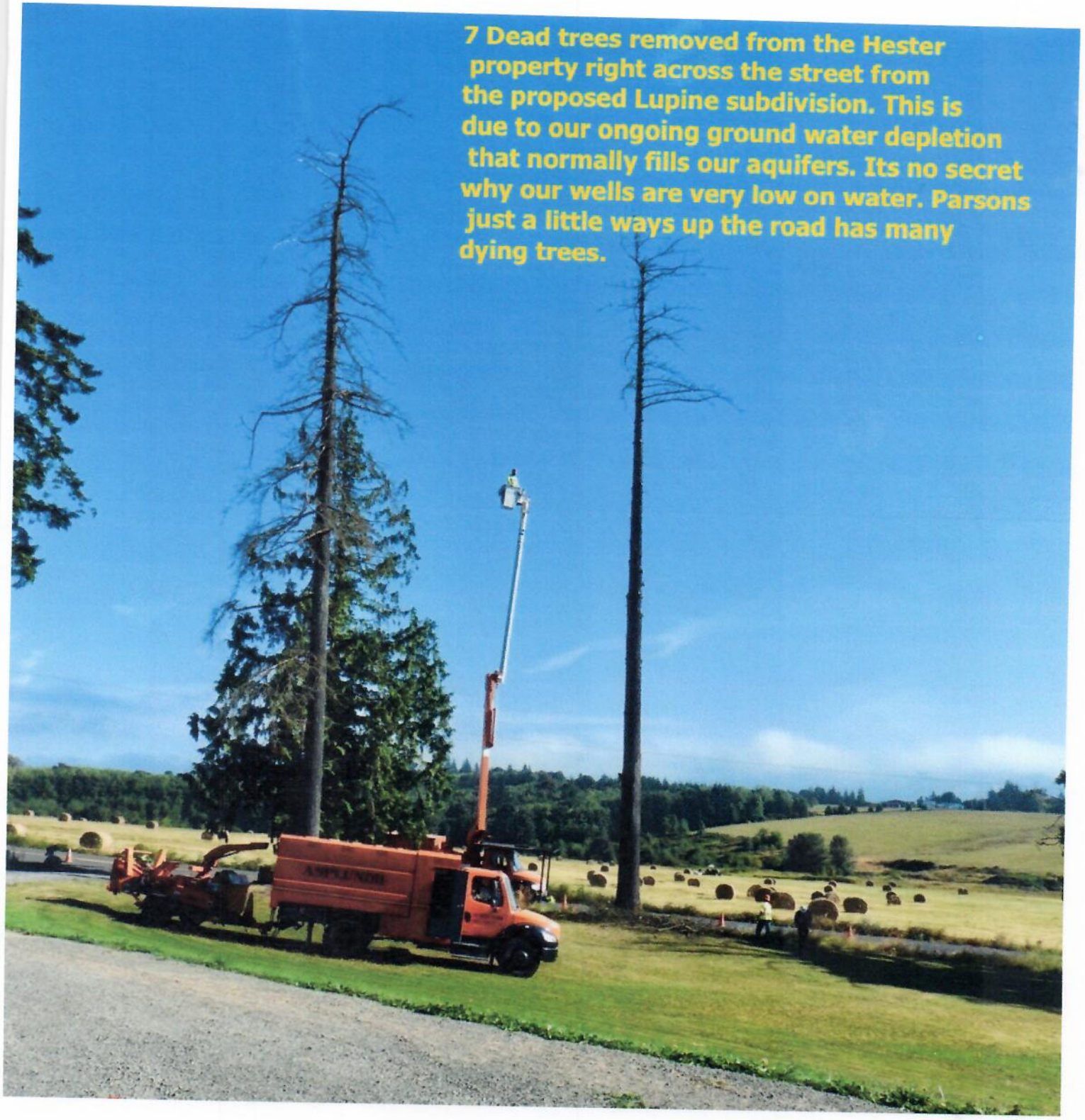
COLUMBIA
Proposed Lupine meadows property lines were imposed using an overlay for illustration only purpose and may not be exact


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.

3322D Tide Creek

Dead Trees on Parsons

1/2023

Patty + John Pars

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33220 Tide Cr. N
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TL 00700
1/2023

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.

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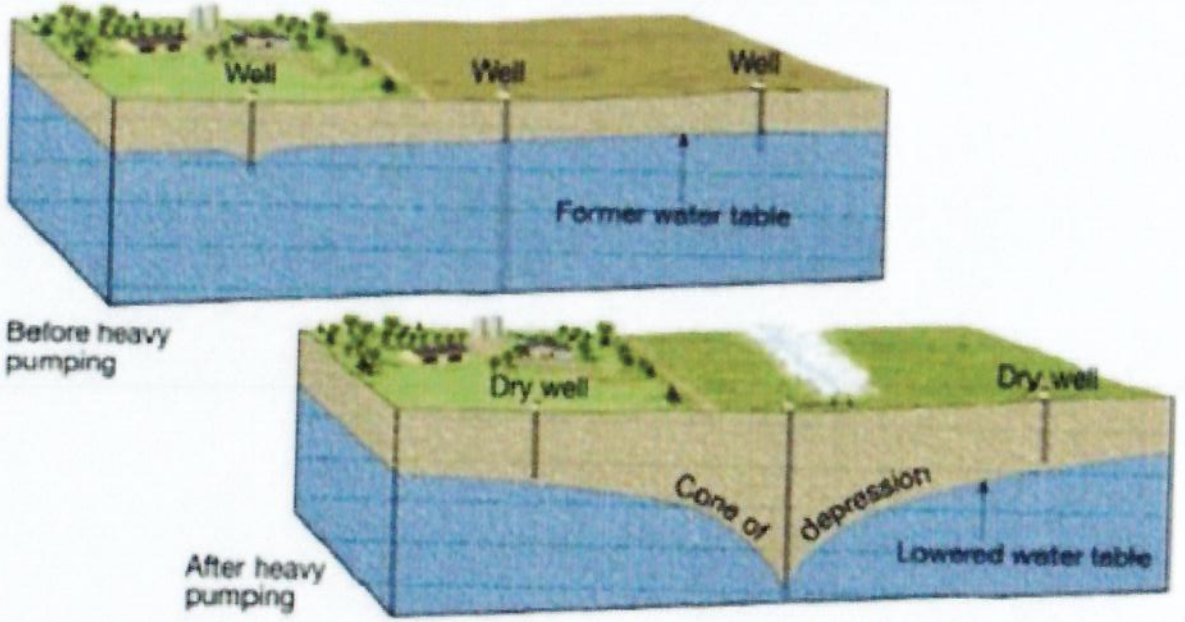
EFFECT OF DEEPER WELLS

Formation of a cone of depression in the water table



NOTICE HOW A DEEPER WELL CAN RUIN NORMAL WELLS AROUND THEM

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

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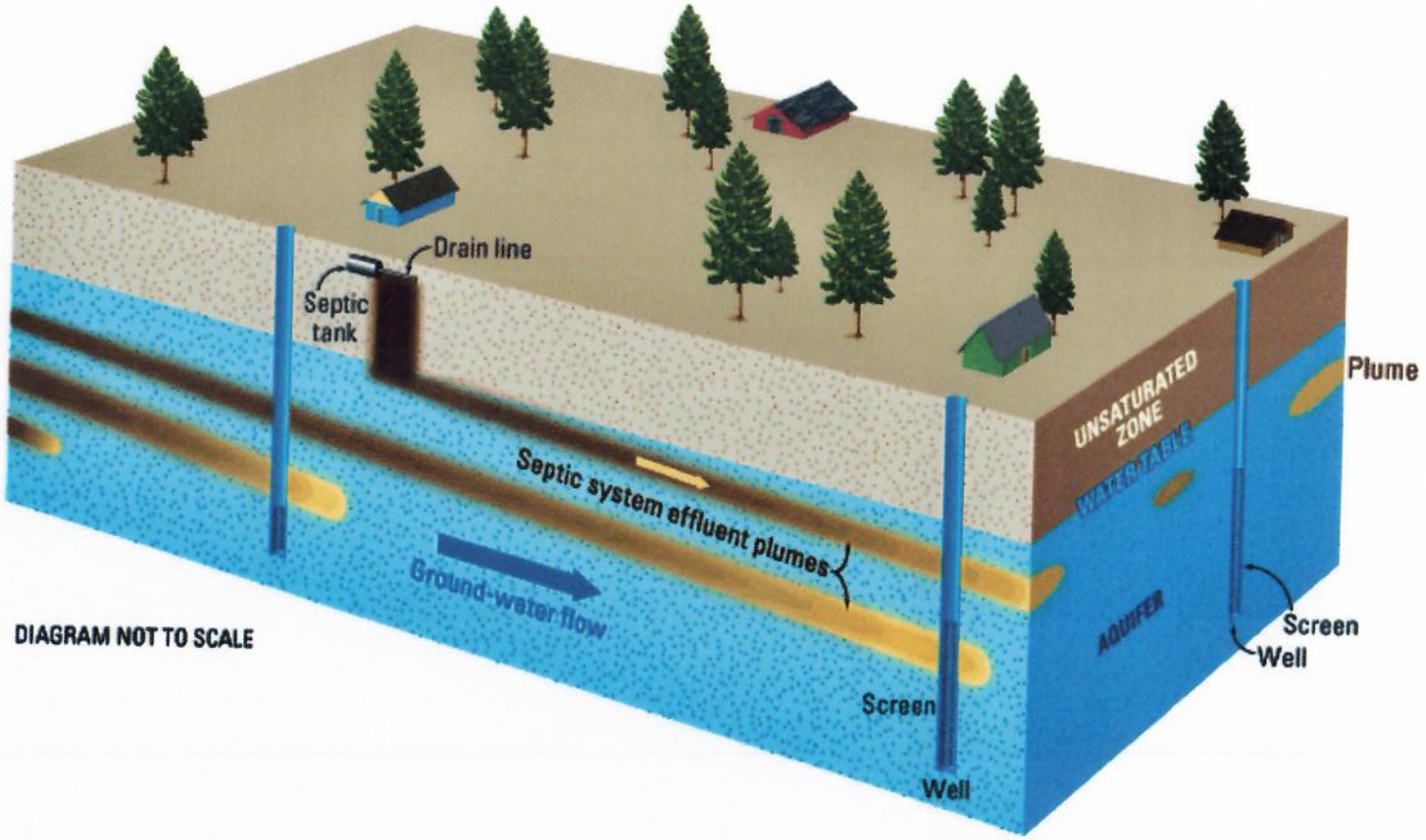


Figure 3. Wastewater from septic systems contains nitrogen in the forms of ammonia and organic nitrogen. As wastewater leaves the septic system drainfield and percolates through the unsaturated zone, these forms of nitrogen are converted to nitrate. When the wastewater reaches the water table it forms 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.

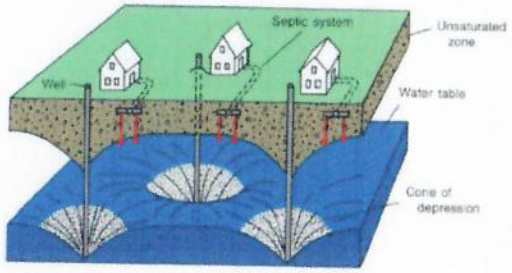
PLEASE READ THIS CAREFULLY. FROM USGS WEBSITE

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.

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Driven wells are still common today. They are built by driving a small-diameter pipe into soft earth, such as sand or gravel. A screen is usually attached to the bottom of the pipe to filter out sand and other particles. Problems? They can only tap shallow water, and because the source of the water is so close to the surface, contamination from surface pollutants can occur.

Example of a pump and plumbing configuration used by public water systems. (Credit: Roland Tollett, USGS)

DRILLED WELLS

Most modern wells are drilled, which requires a fairly complicated and expensive drill rig. Drill rigs are often mounted on big trucks. They use rotary drill bits that chew away at the rock, percussion bits that smash the rock, or, if the ground is soft, large auger bits. Drilled wells can be drilled more than 1,000 feet deep. Often a pump is placed in the well at some depth to push the water up to the surface..Wells and Pumpage

Water Levels in Wells

Groundwater users would find life easier if the water level in the **aquifer** that supplied their well always stayed the same. Seasonal variations in rainfall and the occasional drought affect the "height" of the underground water level. Withdrawing water from a well causes the water levels around the well to lower. The water level in a well can also be lowered if other wells near it are withdrawing water. When water levels drop below the levels of the pump intakes, then wells will begin to pump air - they will "go dry."

Pumping a well lowers the water level around the well to form a cone of depression in the water table. If the cone of depression extends to other nearby wells, the water level in those wells will be lowered. The cone develops in both shallow water-table and deeper confined-aquifer systems. In the deeper confined-aquifer system, the cone of depression is indicated by a decline in the pressure and the cone spreads over a much larger area than in a water-table system. For a given rate of withdrawal, the cone of depression extends deeper in low-yielding aquifers than in high-yielding ones.

Even though water is present at some depth at almost any location, the success of obtaining an adequate domestic supply (usually 5 gallons per minute) of water from a well depends upon the permeability of the rock. Where permeable materials are near land surface, a shallow well may be adequate. Elsewhere, such as where clayey material directly overlies bedrock, a deep well extending into bedrock may be needed.

9 **Meador, 33470 Tide Creek Road. New property owner. They had to dig a new well. 405 ft. 4gpm. Poor water. They are on storage tanks to get enough water. TL01003**

10 Sheila Bell, 67499 Butler Rd., They rely on newly installed water storage tank, before that they often ran out of water. Also the (Petersen's talked to the Bell's and also expressed their concerns about well water shortages). Well at 850' **TL00301**

11 Parlot, 67499 Butler Rd., He stated he runs out of water on a regular basis, he also has no storage tanks due to the 4100 cost of installation. **TL00300**

12 Hughes, 32506 Tide Creek Road. Ken has ran out of water often. He has had extensive well work done. He is now on big expensive tanks and a filtration system to handle bad water . About 3 gallons a minute but without tanks he runs out of water. **TL01900**