



# WELL...

**LET'S TALK WELL WATER  
SAFETY & PROTECTION**



**Stephanie Butcher**  
Ag & Natural Resources  
Agent, Coweta County



**Gary Hawkins**  
Water Resource  
Management and Policy  
Specialist

**November 12, 2020 | 10:30 AM**

<https://zoom.us/j/96350056401>

*Extension Webinar Series  
Thursday, November 12,  
10:30 a.m.*

*Please submit questions in the  
Q & A for our panelists*

*Send suggestions for future  
topics or speakers to Maria  
Bowie -- [mbowie@uga.edu](mailto:mbowie@uga.edu)*

# **Well water – what you can do to protect and test it.**

Stephanie Butcher, Coweta County ANR Agent

Gary L. Hawkins, Ph.D., Water Resource Management Specialist and Assistant Professor,  
Crop and Soil Science Department

# What is a Well?

Definition: A deep hole or shaft sunk into the ground to obtain water, oil, or gas.



Image from: <https://lovebackyard.com/wp-content/uploads/2017/05/a-water-well.jpg>

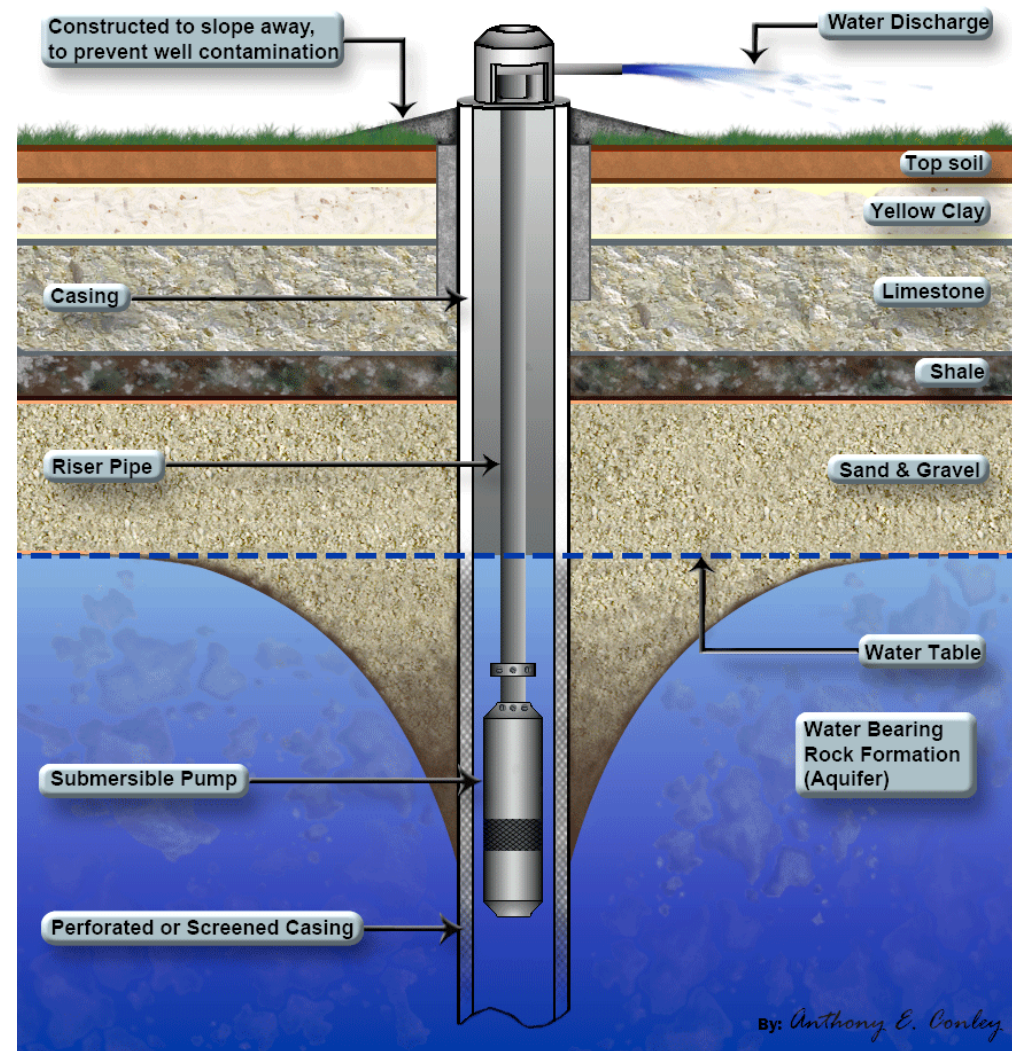


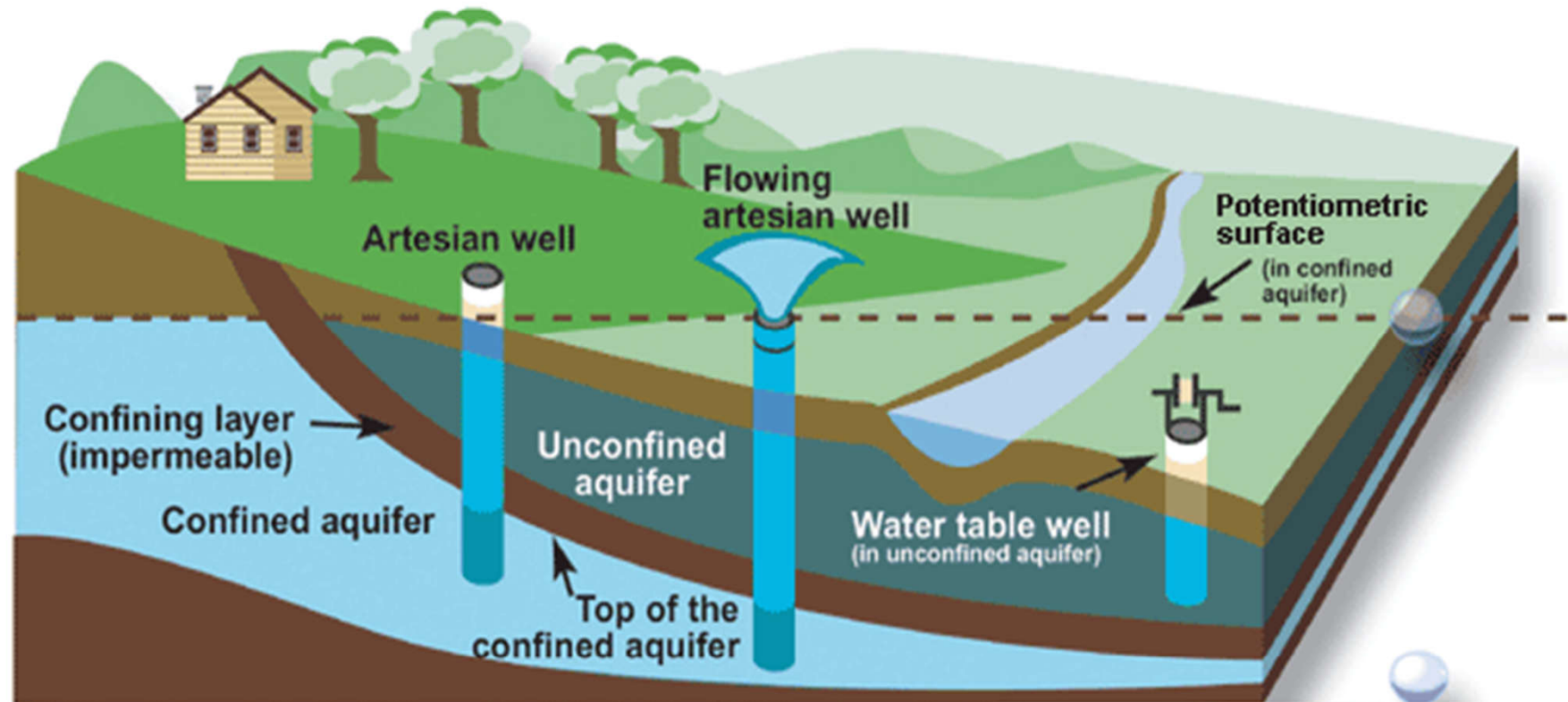
Image from: <https://4.bp.blogspot.com/-8teYKYLkOsU/VKBaxUfQmWI/AAAAAAAAAWs/Gp34rzDP7kc/s1600/well-diagram.gif>



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# Aquifers and wells



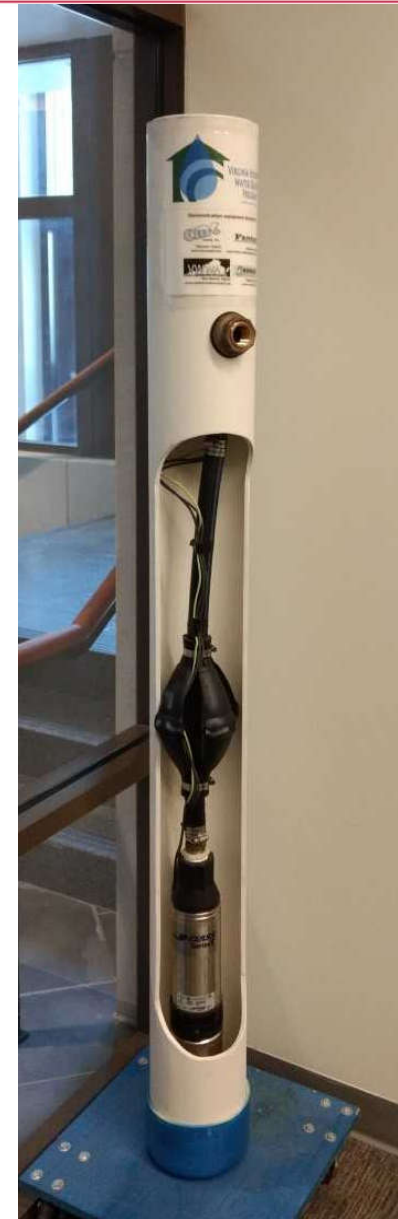
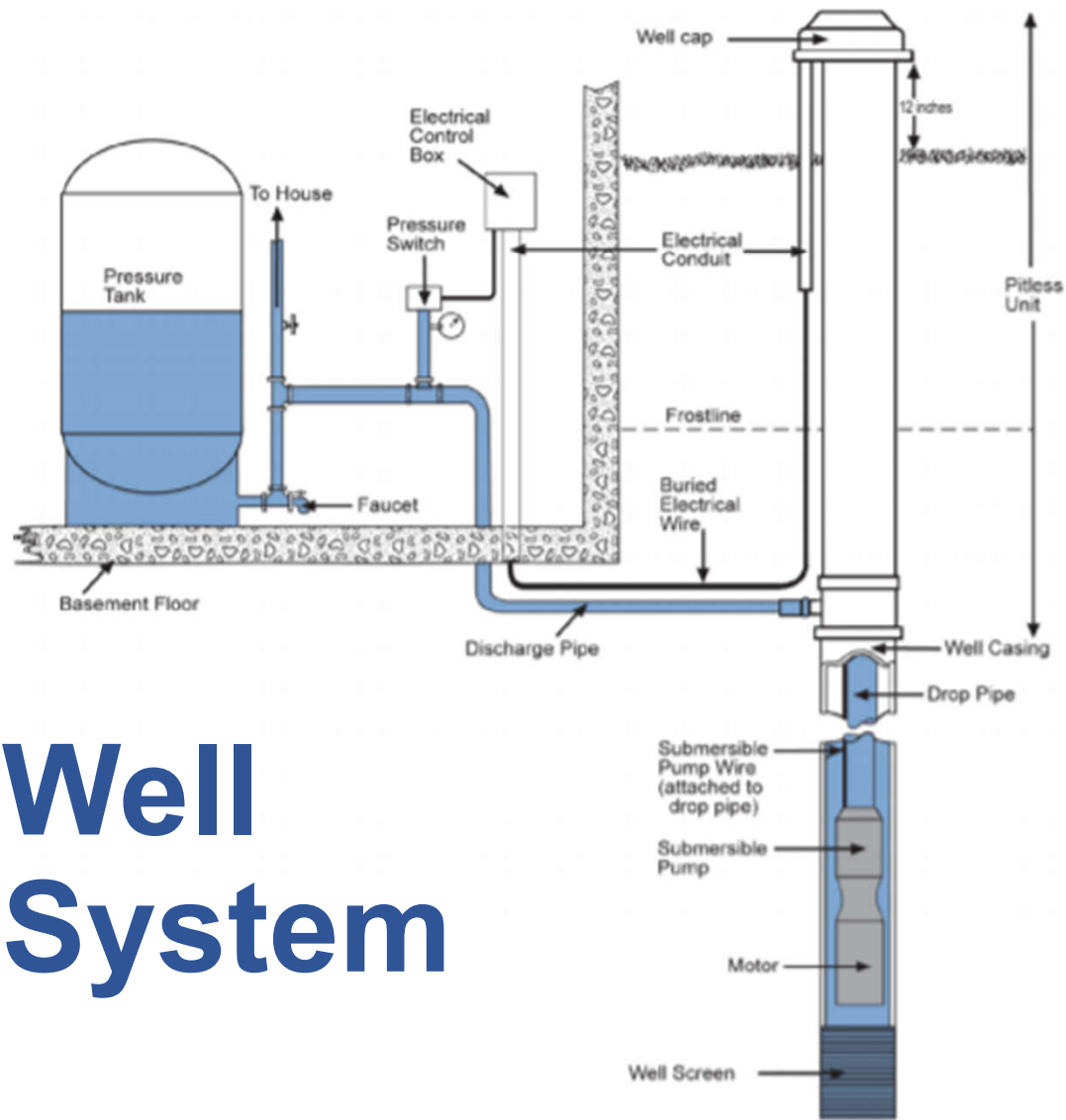
Source: Environment Canada, USGS



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Image from: <https://courses.lumenlearning.com/geology/chapter/reading-wells/>

# Well System

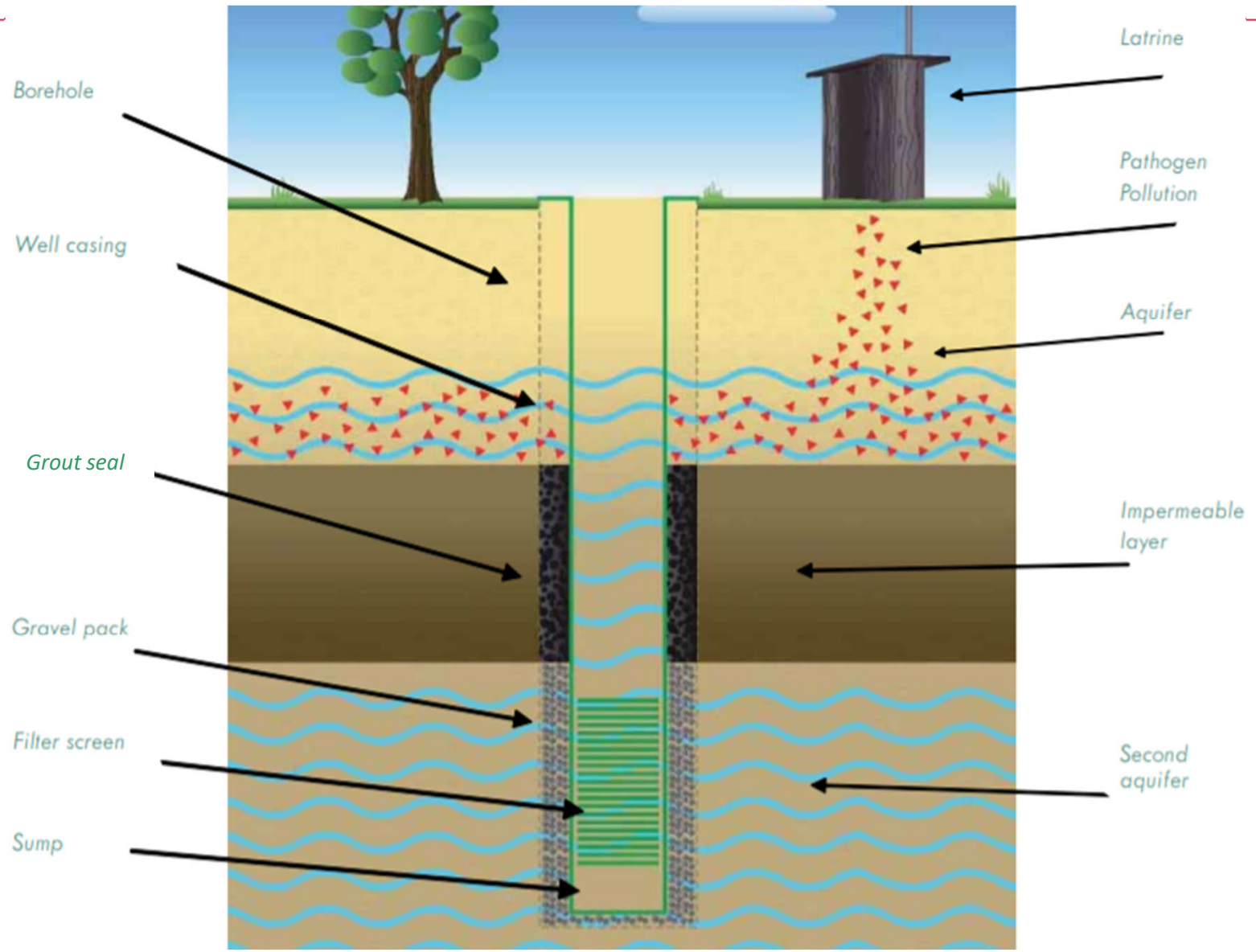


Picture by: Dr. Gary Hawkins

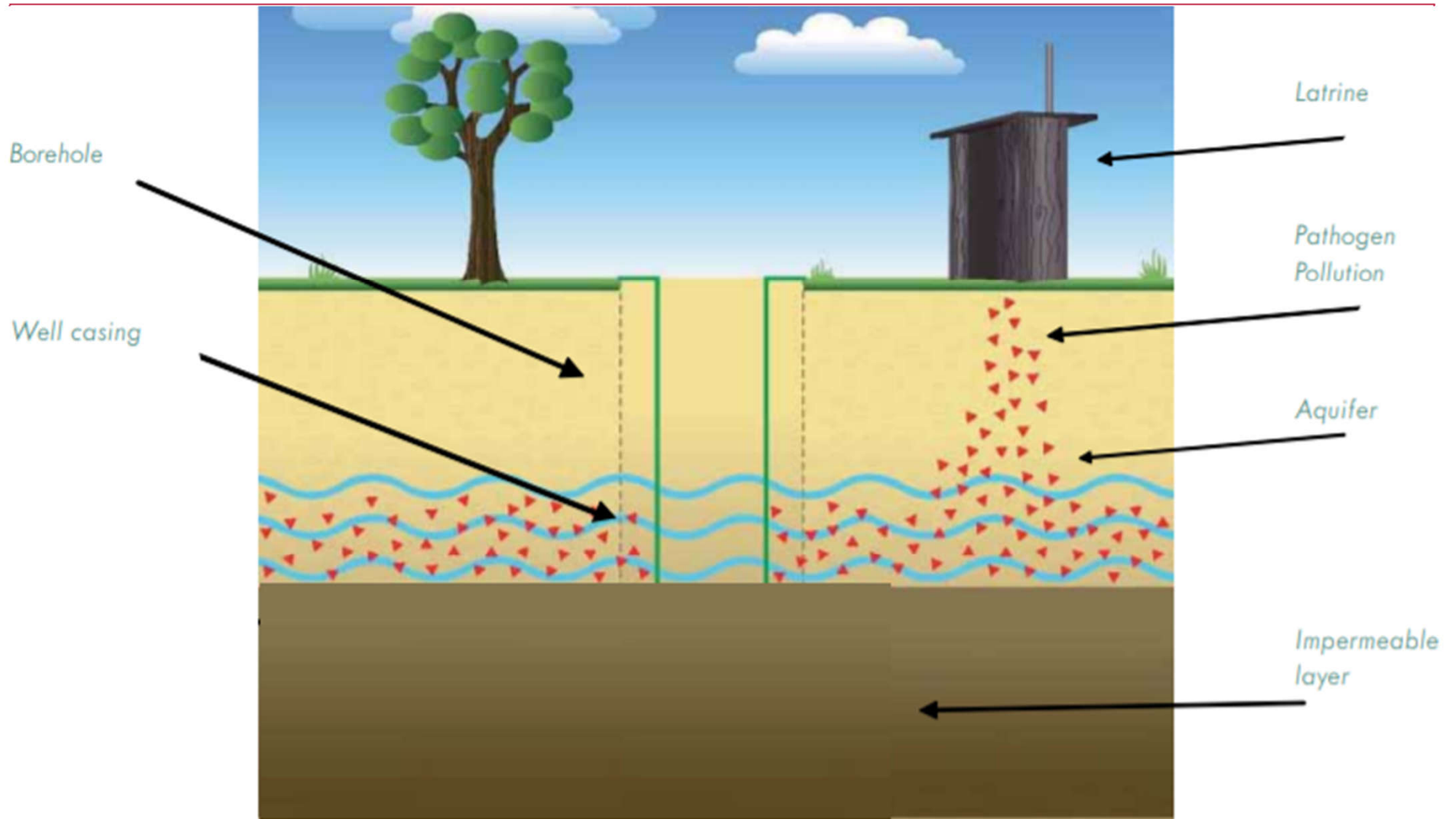
[https://www.youtube.com/watch?v=592Aw\\_ExaaY](https://www.youtube.com/watch?v=592Aw_ExaaY)



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# Deep Well Layer View



## Shallow Well Layer View



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Source of image unknown

# Well Maintenance & Protection

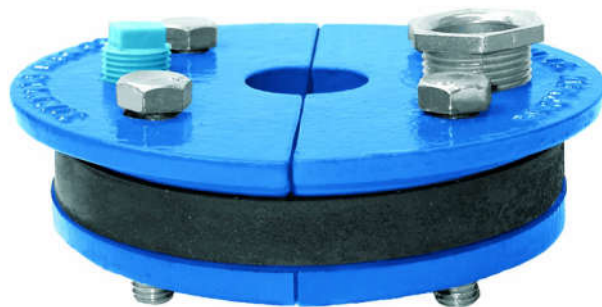
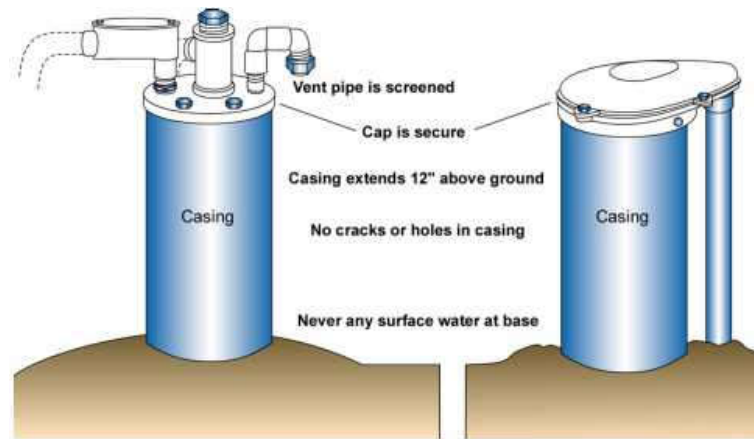


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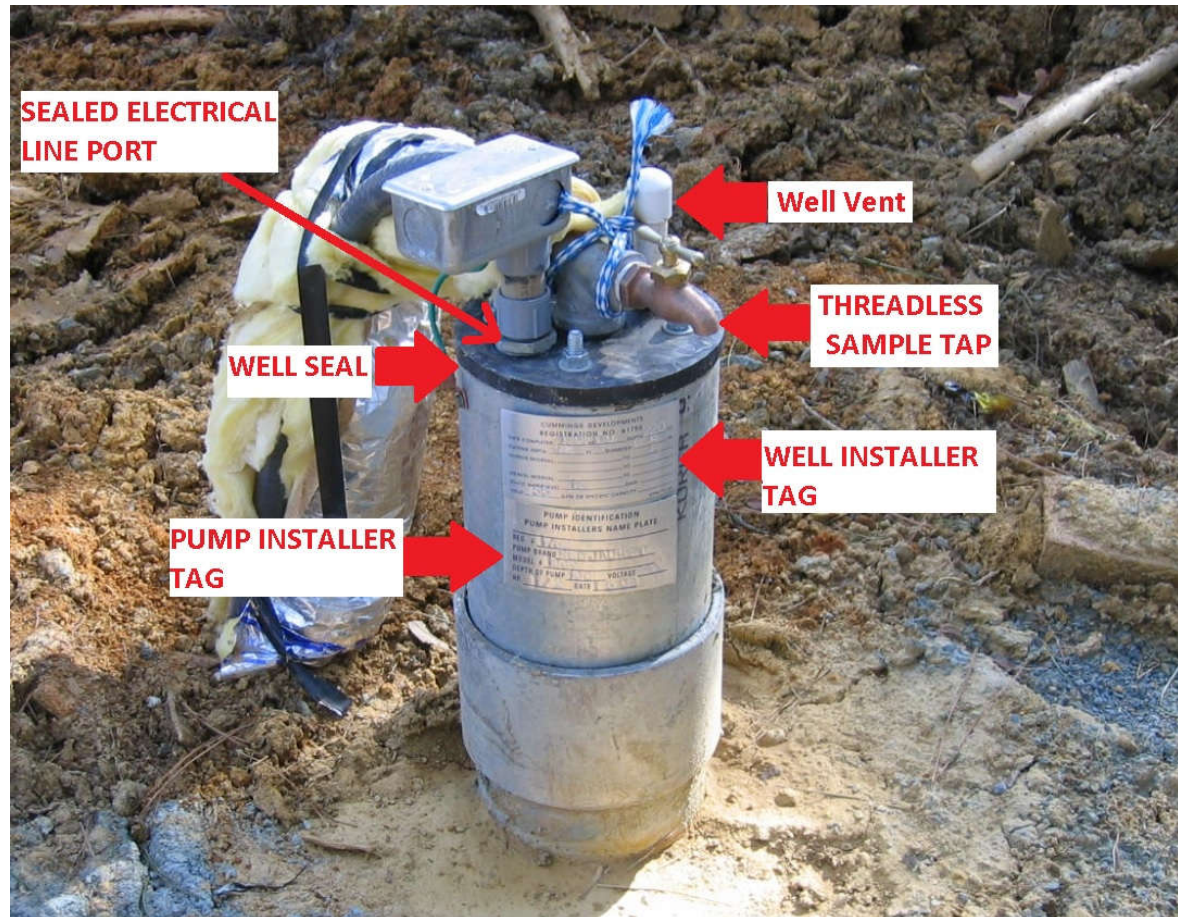


# Maintenance

- The well cap needs to be tightly secured and properly screened to help protect your well from the following environmental contaminants:
  - Surface water
  - Vermin (insects, etc.)
  - Fertilizers
  - Herbicides
  - Pets



# Maintenance – Well Cap



<http://www.wakegov.com/water/wells/PublishingImages/Website%20Wellhead%20Photo.jpg>



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# Maintenance – Well Caps

Which one is Good and which is Bad?





# Maintenance

- Maintain the area around the well to be clean and accessible.





# Maintenance

- Do not store any chemicals, gasoline, or fertilizer within 50 feet of the well.





# Maintenance

- Divert surface water away from the well. Install a water tight curbing, sloping away from the casing that is sufficient to prevent contamination.



# Warning Signs of Well System Problems



<https://www.flickr.com/photos/personaldevelopment/4910183534>

1. Continuously cycling pump
2. Drop in water pressure
3. Water has strange odor or taste
4. Particles in water
5. Damaged casing



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# Troubleshooting Well Problems

Problem	Possible Cause
Sand in water	Improperly constructed well or hole in well screen
Pump turns rapidly on and off (cycling)	Waterlogging in pressure tank
White/gray scale in cooking pots when water is boiled	Water Hardness
Red staining on plumbing fixtures, clothes during laundering	High iron concentration in water
Oily sheen on water in containers; slime in toilet tanks	Iron bacteria
Rotten egg smell in water	Sulfur bacteria and/or hydrogen sulfide gas
Change in color, taste, or odor of the water	Possible contamination of the water
Well damaged (cracked casing, loose or missing cap, or exposed wires)	Well struck by plows, vehicles, or other heavy equipment



# Well Water Testing and Analysis

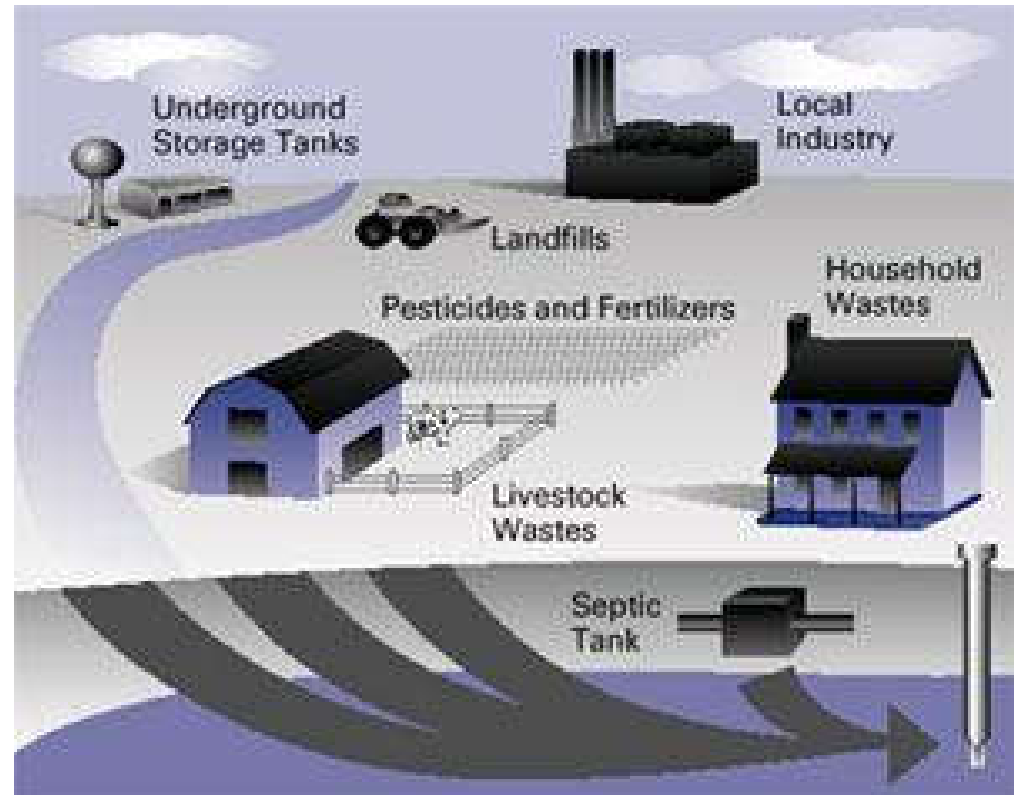


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# Why Test Your Well Water?

Your home well needs to be tested for many different reasons:

1. Some chemicals can not be seen
2. Pathogens can not always be seen
3. Nutrients cannot be seen
4. Sometimes what looks bad is only sediment that can be filtered



# Reminder:

- Know your state well regulations.

## O.C.G.A. § 1-1-1

Copy Citation

Current through the 2019 Regular Session of the General Assembly and HB 276 and HB 444 of the 2020 Regular Session of the General Assembly

[GA - Official Code of Georgia Annotated](#) > [TITLE 1. GENERAL PROVISIONS](#) > [CHAPTER 1. GENERAL PROVISIONS](#)

### § 1-1-1. Enactment of Code

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### History

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# Reminder:

- Protect well water by having a good well seal.





# Reminder:

- Keep area around well clean.



# Reminder:

- Have a good pad around well head.



Good



Bad

# Reminder:

- Store chemicals/fuels away from well.





# Reminder:

- Test water.





# Thanks for joining us today

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College of Agricultural &  
Environmental Sciences

*Department of Crop and Soil Sciences*

**Please join us for our next webinar:**

December 10, 10:30 a.m.

Peach Production in Georgia:

Growing tips and recipe from a local grower

Jeff Cook, Peach & Taylor Co. ANR Agent



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