

# Private Well Drinking Water Forum

October 23, 2018  
Southbury Town Hall

Presented By:

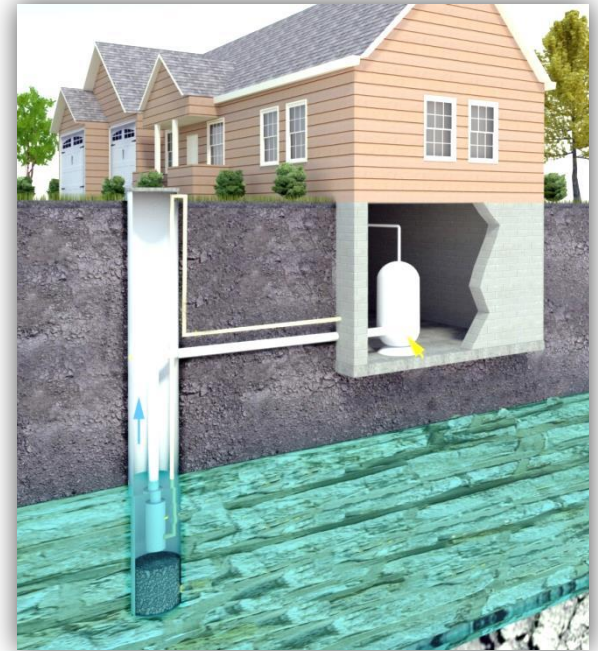
Pomperaug River Watershed Coalition

In Collaboration With:

Connecticut Department of Public Health  
Pomperaug District Department of Health

Sponsored by:

Southbury Community Trust Fund  
Connecticut Community Foundation



# Private Well Drinking Water Forum

## A Well Is A Deep Subject

- Welcoming Remarks / “Well Water 101”  
Len DeJong  
Pomperaug River Watershed Coalition
- Water Quality Issues and Testing  
Tiziana Shea  
CT DPH Environmental Health, Private Well Program
- Local Issues/PDDH as a Resource  
Neal Lustig  
Pomperaug Department of Health
- Follow-up Q&A/Closing Remarks

Please Visit the Exhibition Tables

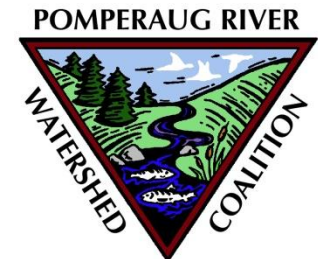
# Private Well Drinking Water Forum

## Well Water 101

### Well Water 101

Len DeJong – Pomperaug River Watershed Coalition

- What is a private well?
- Where does my water come from?
- How are private wells constructed?
- How much water is in my well?
- What are the types of pumps?
- How does my private well water system work?
- What are examples of treatment systems?
- What are five important ways to protect your private well water?

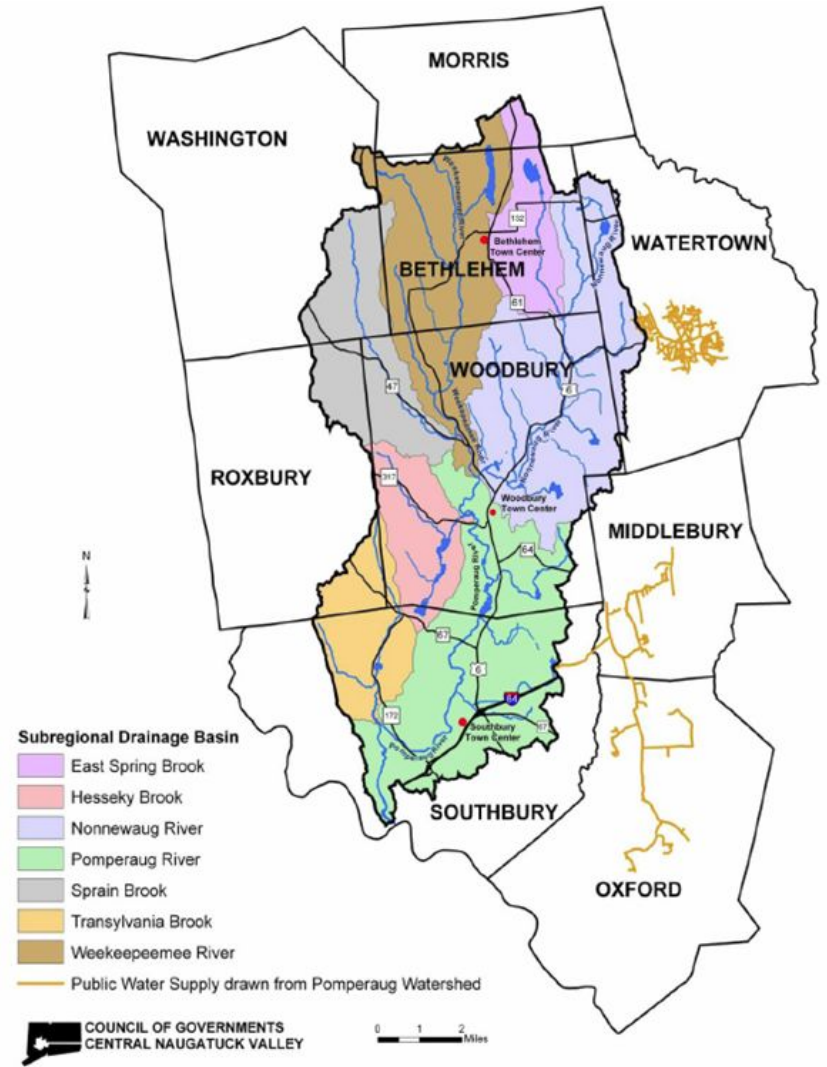
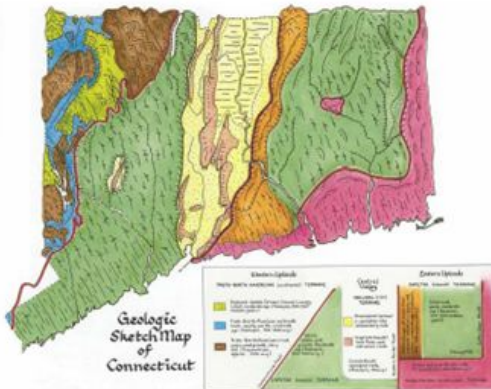
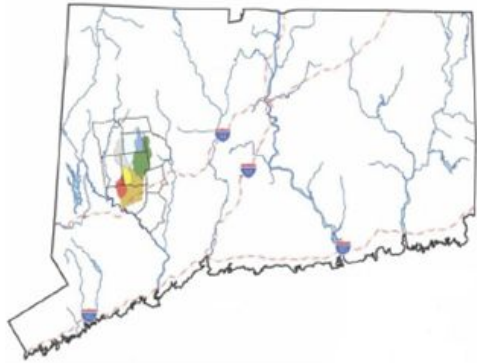


# Private Well Drinking Water Forum

## Well Water 101

### Pomperaug River Watershed

*A 90-square mile watershed that drains to the Housatonic River Watershed in western Connecticut and that has geology mimicking the centrally located Connecticut River Watershed.*





# Private Well Drinking Water Forum

## Well Water 101

### SCIENCE



*Science* is our first priority. We carry out studies that examine the river water, the groundwater, and the landscape to better understand and steward the health of our watershed. We want to ensure that our rivers, streams, and aquifer will be a trusted drinking water source, a vital habitat for aquatic wildlife, and a vibrant recreational resource for generations.

### THE POMPERAUG RIVER WATERSHED: A TREASURE IN OUR MIDST.

#### *What is a watershed?*

It is all the water in our rivers, streams, lakes, wetlands and underground aquifers. It is also the landscape that surrounds these waters.



Photograph by Dan Adams



A watershed is the land that stretches from water's edge to the tops of nearby hills. Rain that falls here is either absorbed into the ground, replenishing the aquifer, or flows downhill as runoff until it reaches a river, stream, lake, or wetland.

The Pomperaug River Watershed is a 90-square mile watershed that drains to the Housatonic River Watershed in western Connecticut and that has geology mimicking the Connecticut River Watershed.



### EDUCATION



*Education* is an essential service to our community.

We teach school children about the way and wonder of the watershed. We also teach our neighbors how they can protect this precious resource we all share. We provide information to governments and businesses that make critical decisions about how communities use our water.

### *Your stewardship matters!*

Learn more about the watershed. Become a Member. Make a donation. Volunteer to help. Like us on Facebook.



#### **For more information:**

(203) 263-0076

[www.pomperaug.org](http://www.pomperaug.org)

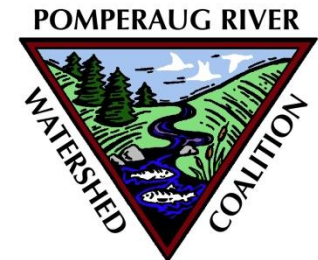
39 Sherman Hill Rd, Woodbury, CT

# Private Well Drinking Water Forum

## Well Water 101

### What Is A Private Well?

- Provides water to a single end user (residential home)
- Is not a public water supply (Heritage Village Water Company)
- Is not regulated by the EPA
- Is governed by local health regulations (placement of the well)
- Provides drinking water to an estimated 867,000 Connecticut residents

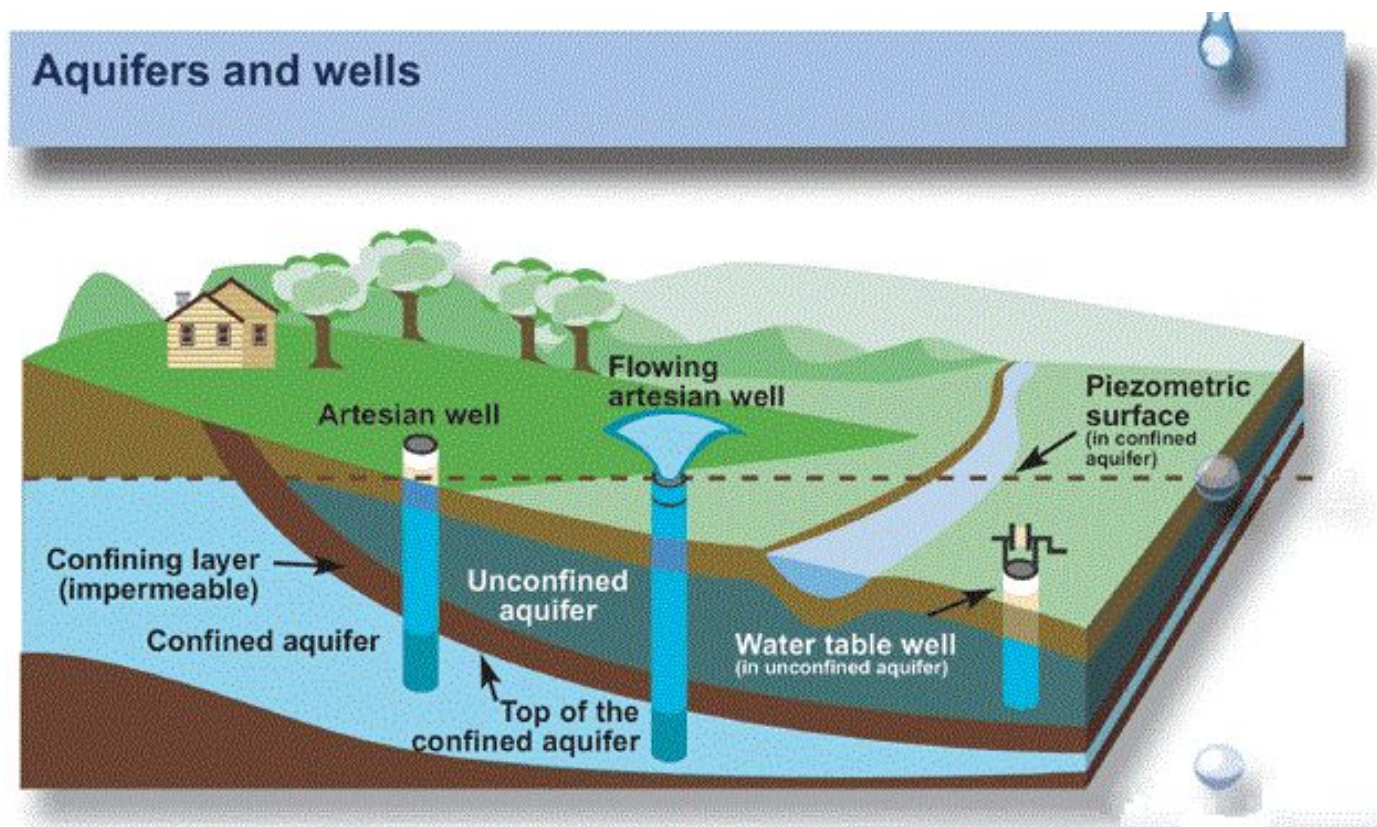


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## Well Water 101

### Where Does My Water Come From?

- Unconfined Aquifer (stratified drift)
- Confined Aquifer (bedrock)



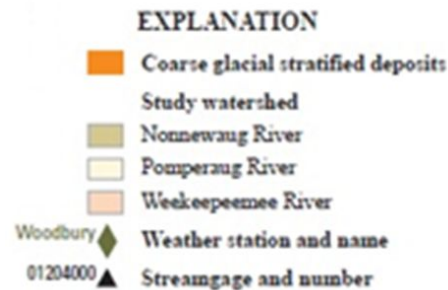


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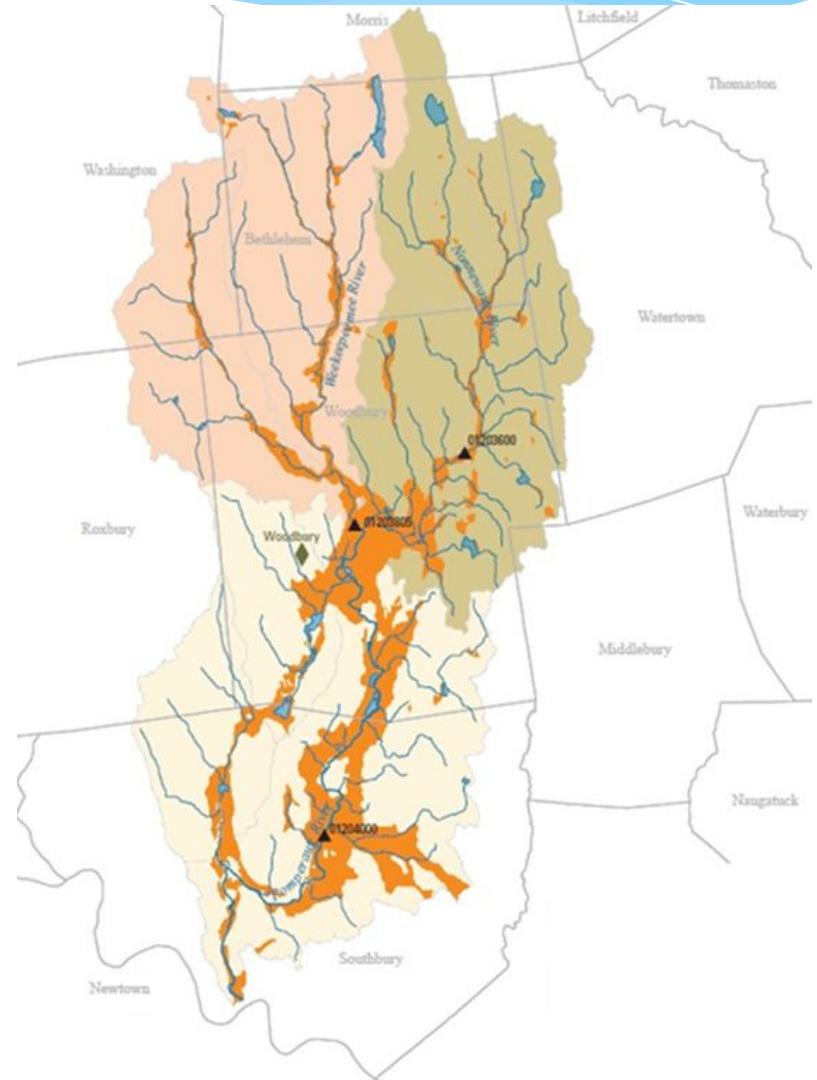
## Well Water 101

### Unconfined (Stratified Drift) Aquifer

### Pomperaug River Watershed



Base from U.S. Geological Survey, 1:24,000, 1969 to 1984  
Connecticut State Plane projection



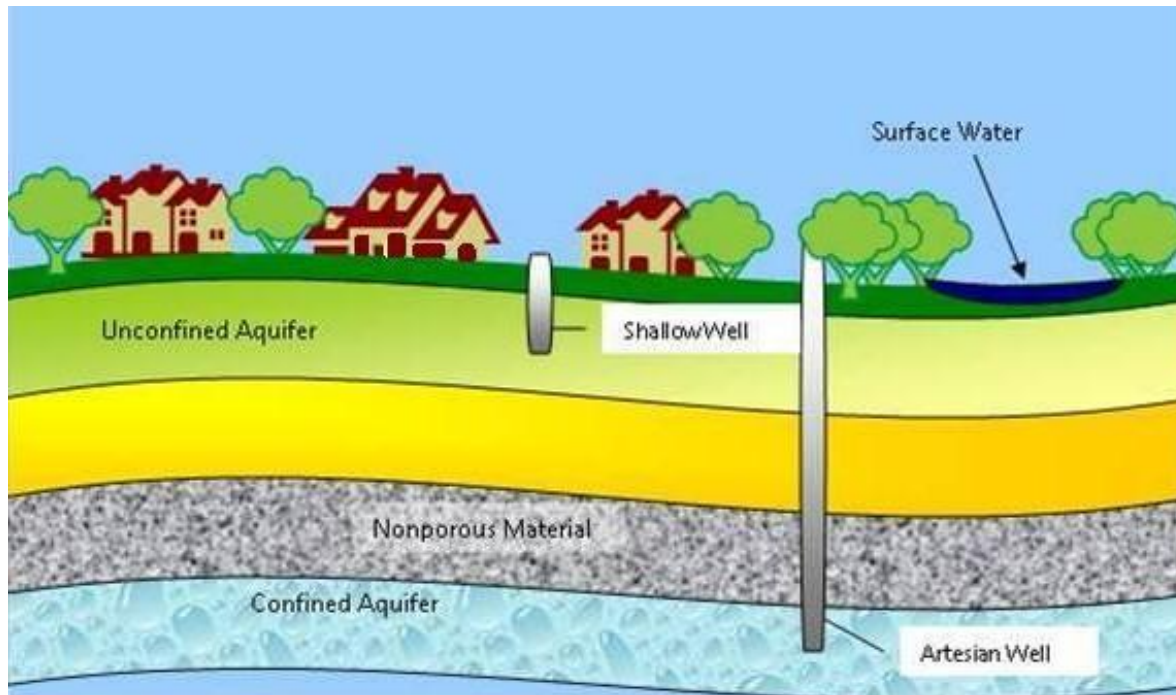


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## Well Water 101

### How Are Private Wells Constructed?

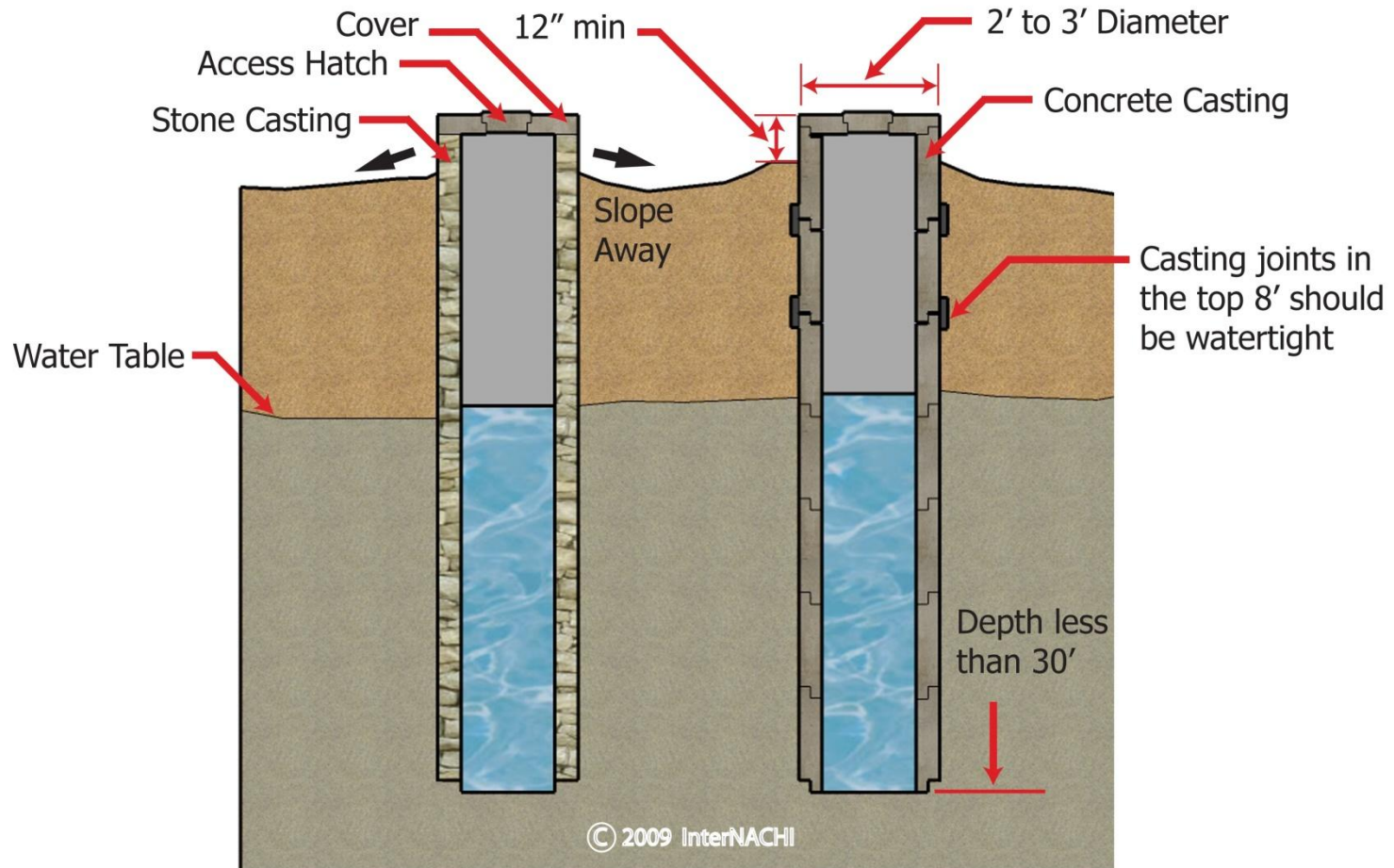
- Dug/Driven Wells – Unconfined Aquifer
- Drilled Wells – Confined Aquifer



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## Well Water 101

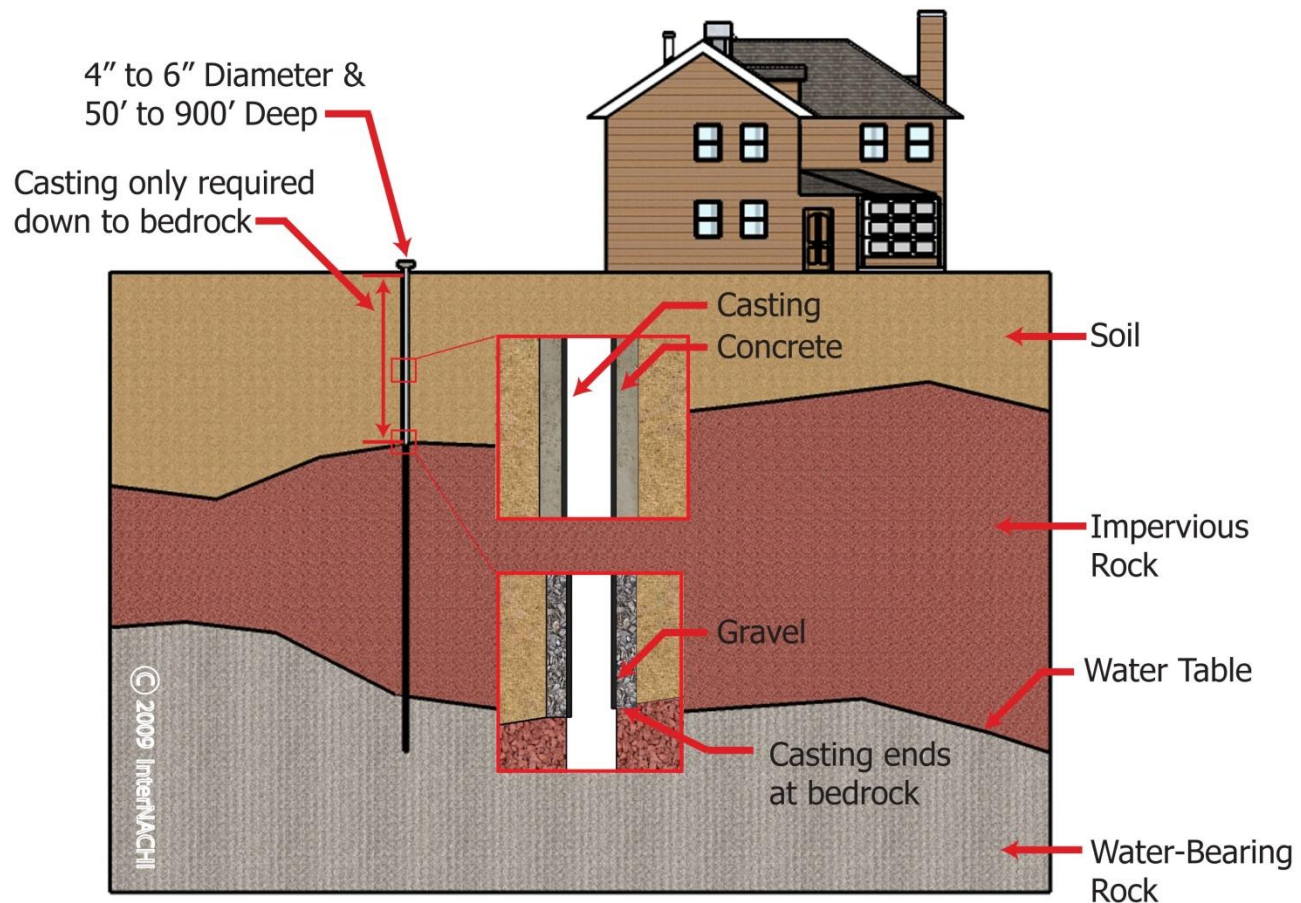
### Dug Wells



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## Well Water 101

### Drilled Well



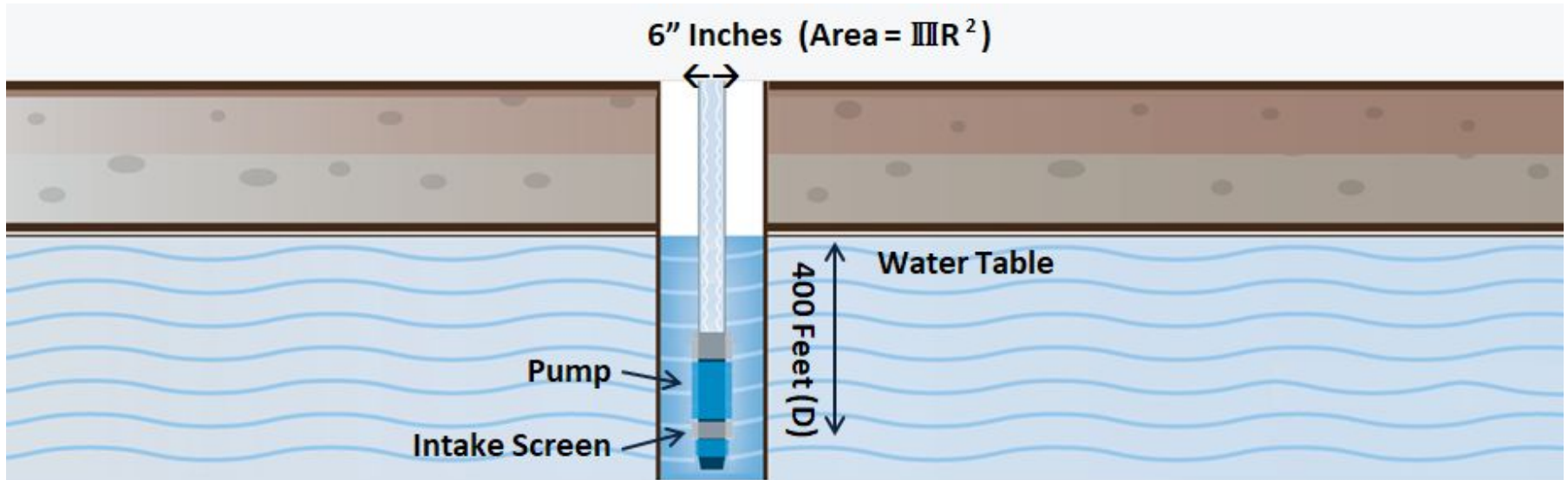




# Private Well Drinking Water Forum

## Well Water 101

### How Much Water Is In My Well?



Volume = Area x Depth of Water x 7.48 Gal/Cu Ft.

$$V = \pi R^2 \times D \times 7.48$$

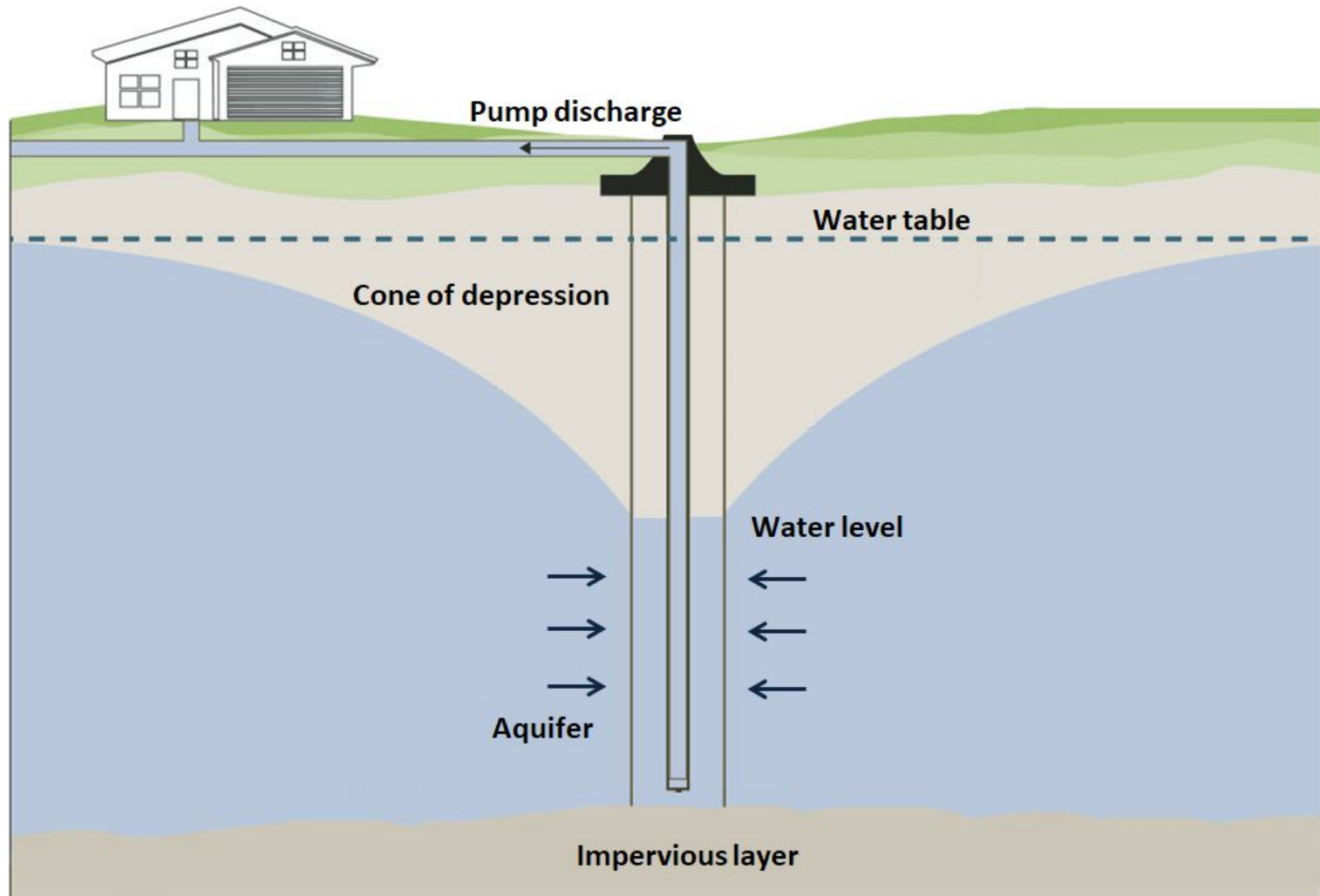
$$V = 3.14 (.25 \text{ ft})^2 \times 400 \text{ Feet} \times 7.48$$

$$V = 587 \text{ Gallons}$$

# Private Well Drinking Water Forum

## Well Water 101

### Static/Dynamic Pumping Levels



# Private Well Drinking Water Forum

## Well Water 101

### What Are The Types Of Pumps?

- Centrifugal
- Jet Pumps
- Submersible



# Private Well Drinking Water Forum

## Well Water 101

### How Does My Private Well Water System Work?





# Private Well Drinking Water Forum

## Well Water 101

### What Are Examples Of Treatment Systems?



# Private Well Drinking Water Forum

## Well Water 101

### What Are The Five Important Ways to Protect Your Private Well Water?

1. Proper Location – Follow All Health Codes
2. Proper Construction – Performed by a well driller or pump installer registered with the CT DCP
3. Keep Contaminants Away
4. Seal Abandoned Wells – Follow RCSA Regulations
5. Test Your Private Well Water

