

## Installation

Typically, temporary wells are no deeper than 15 feet. However, this depth depends on soil type and other factors. Consult the public health district.

- Pipe casing should rise at least 24 inches above the original soil surface.
- Perforate the plastic pipe for 50% to 75% of its total length with slots or holes one-eighth inch or less in size.
- Cap the end of the pipe above ground.
- Wrap the perforated section of pipe with geotextile filter fabric and secure in place with duct tape.
- Place the prepared pipe in the test pit as close as possible to the pit's vertical wall. The pipe must be placed on undistributed soil to prevent settling. Hold the pipe as vertical and straight as possible while soil is backfilled around it, otherwise ground water measurements will be unusable.
- Measure the height of the pipe above the native soils surface and record in the monitoring table.
- Mound the soil around the pipe as high as practical without covering the top. Account for soil settling so that the mound surrounding the pipe remains after settling.
- Measure the internal depth of the pipe to the top lip and record in the monitoring table.

### Water-Level Measurements and Monitoring

Measuring the water level inside the temporary well gives the depth to ground water. Sites with high ground water may not be suitable for septic systems.

- Take measurements with a commercial water-level sensor or a steel tape marked with carpenter's chalk. Record measurements in the nearest one-quarter inch.
- Measure at least weekly throughout the time when the ground water levels are expected to be highest. Continue until you are sure the time has passed when ground water levels are highest. Local conditions will vary; work with the public health district to determine acceptable ground water monitoring periods for your property.

## For more information

### Idaho Department of Environmental Quality

1410 N. Hilton  
Boise, ID 83706  
(208) 373-0502

[http://www.deq.idaho.gov/water-quality/wastewater/septic\\_systems.aspx](http://www.deq.idaho.gov/water-quality/wastewater/septic_systems.aspx)

### Idaho Public Health Districts Panhandle Health District

8500 N. Atlas Road  
Hayden, ID 83835  
(208) 415-5100

[www.phd1.idaho.gov](http://www.phd1.idaho.gov)

### North Central Health District

215 10th Street  
Lewiston, ID 83501  
(208) 799-3100

[idahopublichealth.com](http://idahopublichealth.com)

### Southwest District Health

13307 Miami Lane  
Caldwell, ID 83607  
(208) 454-7722

[www.publichealthidaho.com](http://www.publichealthidaho.com)

### Central District Health Department

707 North Armstrong Place  
Boise, ID 83704  
(208) 375-5211

[www.cdhd.idaho.gov](http://www.cdhd.idaho.gov)

### South Central Public Health District

1020 Washington Street North  
Twin Falls, ID 83301  
(208) 734-5900

[www.phd5.idaho.gov](http://www.phd5.idaho.gov)

### Southeastern Idaho Public Health

1901 Alvin Ricken Drive  
Pocatello, ID 83201  
(208) 233-9080

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

### Eastern Idaho Public Health District

1250 Hollipark Drive  
Idaho Falls, ID 83401  
(208) 522-0310

[www.phd7.idaho.gov](http://www.phd7.idaho.gov)



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# Installing a Temporary Well for Measuring Depth to Ground Water

## For Proper Septic Drainfield Placement



For homeowners, real estate  
professionals, and developers



Idaho Department of  
Environmental Quality  
[www.deq.idaho.gov](http://www.deq.idaho.gov)



## Who Regulates Septic Systems in Idaho?

The Idaho Department of Environmental Quality (DEQ) established the Individual/Subsurface Disposal Rules for the design, construction, siting, and use of individual and subsurface sewage disposal systems, which includes septic systems.

Idaho's seven public health districts administer these rules under a formal agreement with DEQ. The health districts issue permits and inspect septic system installations under this agreement.

### Installing a Septic System

Careful, early planning is essential for proper septic system installation. Some building sites have limited areas suitable for septic systems, so septic system placement may take priority over choosing a house location. Septic system drainfields must be sited and constructed properly to ensure continued operation and to prevent ground water contamination.

Before a septic system can be properly installed, the landowner must obtain a permit from the public health district and have the health district conduct a site evaluation to determine if the site is suitable for a septic system.

### Temporary wells

During site evaluation, a contractor will dig test pits to inspect the soil. If soil mottling or other signs indicate possible high ground water, a temporary well to measure the depth to ground water may be required. A temporary well can be installed in the test pit or in an auger hole. Temporary wells must be removed before finalizing the permit.

### Temporary Well Design

Temporary wells made from plastic pipe buried in the soil can be used to estimate the highest seasonal ground water level. This estimate is important for proper placement of septic system tanks or drainfields.

## Site Selection and Well Construction

Before installing a temporary well to measure the depth to ground water, take these steps:

- Examine the lay of the land, such as the overall slope and high or low spots. Avoid areas with marshy or wetland-type vegetation, standing water, and the bottom of slopes.
- Avoid areas close to streams or irrigation canals; they are more likely to have high ground water.
- Install the temporary well in an area where soil conditions are appropriate for a septic drainfield and where the depth to ground water is expected to be greatest. Install several wells if needed.
- Temporary wells are installed in test pits dug by backhoes. Try to orient the test pit's long axis with the slope to minimize surface water runoff that may enter the test pit and be mistaken for ground water.

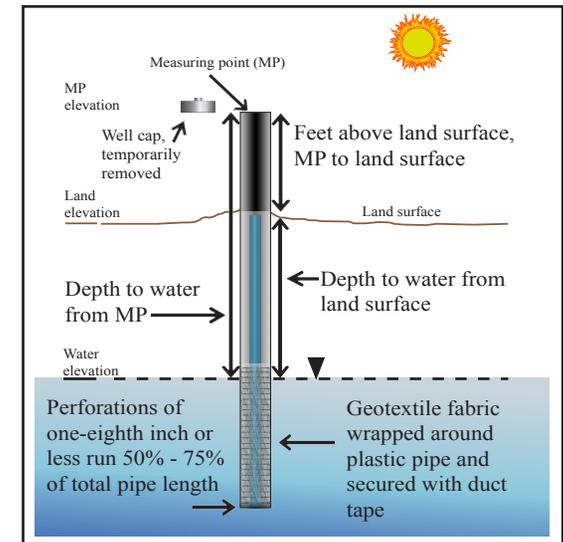
### Materials

- Perforated or solid plastic pipe at least 1 inch in diameter and approximately 15 feet long to use as well casing. The pipe can be one piece or two pieces threaded or glued together.
- Caps that fit snugly on the plastic casing pipe.
- Filter cloth or sock to protect the perforated pipe from clogging. Geotextile fabric used for landscaping or a nylon stocking might be used.

### Equipment

- Backhoe or hole auger. The auger should be at least 2 inches larger in diameter than the plastic pipe used to case the temporary well.
- Steel tape long enough to measure the length of the longest pipe.
- Carpenter's chalk to coat the initial length of measuring tape that will encounter water.
- Power tools to perforate the plastic pipe.
- Water-level monitoring table (see sample table).

Sample water-level monitoring table	
Height of pipe above native soil surface: _____	Internal depth of pipe after installation: _____
A. Date and Time	B. Depth of Well from Measuring Point (MP)
C. Wetted Chalk Point	D. Depth to Water from MP (item B minus item C)
E. Water Depth Below Ground Surface (item D minus MP elevation)	F. Notes (weather conditions, well conditions, person measuring)



Well design