

COMMON PROBLEMS WITH WELLS

What You Need to Know

Well water problems can have a range of causes. Many well owners know the importance of periodic maintenance and repairs but miss minor issues and thus fail to consult their water well contractor in a timely manner.

The well is pumping air

This is one of the most common well water problems and is caused by air trapped in the high points of the water supply system. To force the trapped air out, turn on every faucet in your house and run for 10 minutes. This should force water bubbles out of your water pipes. If this doesn't work, you may have a low water table or a damaged well pump drop pipe. If the pipes become cracked or broken, they allow air to be sucked in. These problems will require you to contact a professional well pump installer or water well contractor.

The well is pumping sand or sediment

There are generally two explanations for your well pumping sand. One could be that the well screen has degraded and is allowing sand or silt to enter the pump. Another could be that the water level has dropped and your pump is sucking in sand and sediment. Well pumps are typically installed at least 10-20 feet from the bottom of the well; however, when the pump turns on the water level in the well can drop to a lower level. If the pump is down near the bottom of the well, sand and sediment can be sucked in and can fill up the bottom of the well, quickly wearing out the pump. Contact a professional to resolve this problem.

Low water pressure or no water

There are several well problems that can cause low water pressure or no water at all.

- A failing well pump
- A check valve that is stuck
- A partially closed or bad gate/ball valve
- A leaking or failing pressure tank

There are some basic troubleshooting steps you can take.

- First, check your circuit breaker to make sure there is no power going to the well. Then reset your pressure tank, checking for any signs of a pipe leak or break.
- Iron bacteria are microorganisms that use iron as an energy source to survive. It is not hazardous to health, but in some cases they can cause well problems, especially if your water is high in iron. Iron bacteria produces slime/biofilm, which can clog pump intakes, well screens, filters, and water pipes. Testing for iron bacteria requires a specific test, as a standard water sample for detecting coliform bacteria is not adequate. To remove iron bacteria build-up, your well should be treated with a special solution designed to remove iron bacteria, slime, and scale. In addition to chemical treatment, flushing and hot water has also been effective in reducing iron bacteria.
- Water pressure issues can sometimes be corrected by adjusting the pressure switch to raise the pressure. This can be done only when the well pump and well are designed to operate at a higher pressure. If the pressure switch is adjusted, the air pressure inside the tank must be adjusted as well. If the bladder inside the tank is damaged and leaking, your tank will become waterlogged and water pressure will decrease. Contact a professional pump installer or water well contractor to have your well or pressure tank serviced.

Electricity bills have rapidly increased

Higher than usual electric bills can indicate a worn-out or clogged pump. Over time, pumps become blocked with sand or bacteria, which causes them to work harder than usual. It draws more power which can result in increasingly higher electric bills. If your pump is working fine, there is a possibility that your check valve has gone bad, allowing water from the pressure tank to flow back into your well. When the pressure switch senses pressure drop, it turns the pump on again. The on and off cycle occurs every few minutes, causing your pump to run almost 24 hours a day resulting in a higher electric bill. A pressure tank can become waterlogged. When the internal bladder fails and water fills the air space around the bladder inside the tank, the tank is waterlogged. This can also cause the pump to turn on and off rapidly, leading to a higher electric bill. A waterlogged tank will need to be replaced.

A change in water quality

Drinking untreated groundwater is different than drinking water from a public water supply. Naturally occurring minerals can affect the taste, odor, and appearance of well water. Hardness, iron, chloride, tannins, manganese, sulfates, and hydrogen sulfide are compounds that can affect the visual quality of the water, but most do not cause adverse health problems if they are monitored. If your water's taste, odor, or appearance is unpleasant, you may want to consider purchasing a water treatment unit. A reputable water treatment specialist can diagnose and treat the problem. Sudden water quality changes (taste, odor, appearance, or sand pumping, etc.) may signal a serious problem. If you notice a sudden change in water quality, this can indicate that something has happened to your well, casing, pump, pump screen, or drop pipe. If your well water quality changes suddenly, it is recommended to get your water tested. If you notice a considerable drop in your water quality, water pressure, or see sand, reach out to your water well contractor or a licensed pump installer.

Loud Noises

When your well pump makes loud noises, there's a good chance that you have a worn or damaged pump system that needs to be serviced or replaced as soon as possible. Contact a well contractor or a licensed pump installer.

Dissolved gases or bubbles in the water

Some groundwater tables do contain various types of gas. These gases may include carbon dioxide, methane, hydrogen sulfide, or other gases, and they may be dissolved within the water. Some of these gases can be harmful and cause health problems. If this is an ongoing problem, the well can be treated to eliminate these gases using aeration and degassing systems. A professional well or pump contractor must investigate and repair this problem.

For more information

- <https://www.cdc.gov/healthywater/drinking/private/wells/testing.html>
- <https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Programs/DWEHD/Water-Well-Construction/iron-bacteria-in-wells.pdf?rev=4d80d804ca214567930e03739fa37141>
- To find a well drilling contractor near you, visit <https://wellowner.org/find-a-contractor/well-drilling-near-me/>.
- For other questions or concerns, contact the Oakland County Health Division.

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