



# Water Wells

## in Las Animas County, Colorado

### Common Problems. Common Solutions.

Water wells are an essential part of life in Colorado for irrigation, livestock watering, and indoor home use.

To promote longevity of a well, it is helpful to understand the problems that can occur, solutions and available resources to help solve issues, and how best to maintain your well.



## Common Problems. Common Solutions.

**Common Problem:** The well smells stagnant or like rotten eggs. This is the result of naturally forming bacteria. The rotten-egg smell is caused by bacteria giving off hydrogen sulfide gas.

**Common Solution:** A chemical treatment system such as one that uses chlorine should be done to kill the bacteria. A filtration system may be recommended if the water is used for drinking.

**Common Problem:** The water is colored or cloudy. This can be from sediment, dissolved minerals and/or bacteria.

**Common Solution:** A Bacterial Activity Reaction Test (BART) and a normal water quality test can determine what minerals and bacteria are in the water. Then either chemical treatment and/or a well filtration system can be used to remove what is causing the color.



*Clean*



*Bacteria*



*Iron*



*Sulfate*

**Common Problem:** The water tastes bad. A metallic or salty taste can indicate a high dissolved mineral content in your water.

**Common Solution:** Water quality tests can show whether the minerals are present above drinking water standards. A water filtration and treatment system may be needed to lower the mineral content.

**Common Problem:** There is sediment in the water. This can be caused by sediment entering the well and is often due to damaged well screens, poor original well construction or lack of a sand/filter pack around the screens.

**Common Solution:** Additional maintenance may be needed in the well, and specialized cleaning may be required.

**Common Problem:** Water well fouling (excess deposits or encrustations on the pipe, pump and/or casing within the well bore).

**Common Solution:** Treatment options may include high pressure jetting, chlorine shock, or acid treatments to remove deposits.

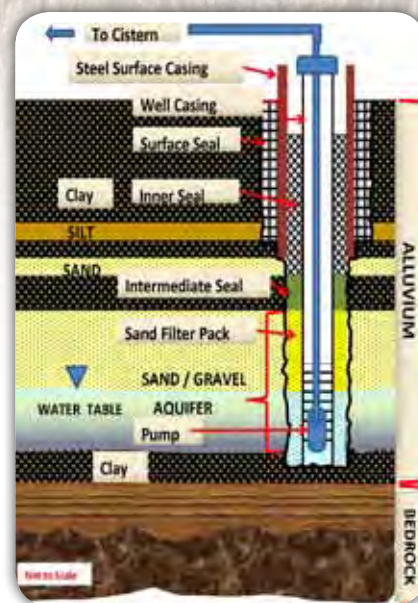
**Common Problem:** Pump damage or failure. Your pump may simply be worn out or excess sediment entering the well may have caused damage.

**Common Solution:** If the well was not built or maintained correctly, additional work and cleaning may be required as sediment can make a pump wear out more quickly.

**Common Problem:** The water flow from my well is low, goes dry intermittently or seasonally. This is the most common issue for well owners and can be caused by some of the previously listed problems such as bacteria fouling, excess sediment or pump failure. Other problems can include:

- Poor quality well design or poor well screens
- Naturally tight or low yield aquifers
- Seasonal drop in ground water table or drought
- Over-pumping the aquifer
- The well has reached the end of its life span

**Common Solution:** Addressing these problems can be more complicated and could require deepening or drilling a new well. You should contact a licensed water-well expert to look into why your water flow has dropped.



## Frequently Asked Questions

**Question:** What impacts the quantity and quality of water a well produces?

**Answer:** Key parameters include:

- 1) The well's construction materials
- 2) How and when it was installed
- 3) The quality of the aquifer
- 4) The age of the well
- 5) Routine maintenance
- 6) Location of the well
- 7) Utilizing licensed professional

**Question:** Is there anything unique to Las Animas County with regard to my well?

**Answer:** Yes. The area is rich in natural gas (primarily methane) that is trapped in the coal beds present in the western portion of the county. Water quality varies significantly across the county.



**Question:** How often should a well be inspected and its water be tested?

**Answer:** It depends on its use. It is recommended a domestic well have a basic inspection of the well and system and the water tested annually. A well used for stock watering could be tested less frequently.

**Question:** Are aquifers underground rivers?

**Answer:** No. They are water-saturated sands and gravels or porous and fractured bedrock.

**Question:** How long is the lifespan of a water well?

**Answer:** That depends on its construction, installation, maintenance, and the quality of the aquifer from which it gets its water.

This brochure is intended to provide general information regarding water wells. It is not intended to address any specific circumstances regarding individual water wells. For specific questions regarding your individual circumstances contact one of the agencies listed above or a qualified water well maintenance or repair contractor. The sponsors make no representation express or implied as to the accuracy or completeness of the information in this brochure, and are under no obligation to update or correct such information. The sponsors expressly disclaim any liability resulting from the use of this brochure or any errors therein or omissions therefrom.

**Question:** Can my water well get contaminated?

**Answer:** Because most water wells are relatively shallow, risks to water quality can include leakage from septic tanks, livestock or animal pens, illegal dumps, fuel or solvent spills, road salt, improperly stored or applied fertilizers, pesticides and herbicides, historic improperly abandoned mines or wells or industrial sites, especially if any of these sources are located near your well. Proper location of a water well relative to the potential sources of contamination will reduce the risk.

## **Important Notice to All Water Well Owners:**

**If your well was drilled after May of 1972, it should be registered with the Colorado Division of Water Resources (DWR). They should have your original permit and well construction reports on file. Water well registration before 1972 was not required and may not exist. Contact them if you do not have this information.**

### **To learn more about...**

- **Water testing laboratories**  
Contact: Colorado Department of Public Health & Environment.  
[www.cdphe.state.co.us/wq](http://www.cdphe.state.co.us/wq)
- **Well construction, permits, registration, licensed drillers and pump installation contractors**  
Contact: The Colorado Division of Water Resources & State Engineers Office  
[www.water.state.co.us/groundwater](http://www.water.state.co.us/groundwater)  
**Ground Water Information Desk**  
303-866-3587
- **Experts on Ground Water - Colorado Ground Water Association**  
[www.coloradogroundwater.org](http://www.coloradogroundwater.org)
- **Contractors - Colorado Water Well Contractors Association**  
[www.CWWCA.org](http://www.CWWCA.org)
- **Drinking water standards**  
Contact: Environmental Protection Agency  
[www.water.epa.gov/drink/info/well](http://www.water.epa.gov/drink/info/well)
- **Safe drinking water**  
Contact: The Safe Drinking Water Hotline  
800-426-4791
- **Electronic copies and other links**  
[www.PurgatoireWatershed.org](http://www.PurgatoireWatershed.org)
- **Colorado Oil & Gas Conservation Commission**  
[www.cogcc.state.us.co](http://www.cogcc.state.us.co)
- **Las Animas/Huerfano County Health Department**  
[www.la-h-health.org/las\\_animas\\_contacts.html](http://www.la-h-health.org/las_animas_contacts.html)