



DISASTER PREPAREDNESS: WATER WELLS AND SEPTIC TANKS

Why It Matters:

Flooding, heavy rainfall, and other disasters can damage water wells and septic systems, leading to contaminated drinking water, sewage exposure, and health hazards.

Know the Risks:

- Exposure to bacteria, viruses, and parasites
- Exposure to chemicals and pollutants
- Sewage backups and wastewater leaks
- Damage to homes and property
- Electrical hazards around wells, pumps, and control systems

Before a Disaster:

- Know your well logs (well number, owner information, GPS coordinates/location, well construction details, water quality testing records, geological information, et cetera)
- Take photos of your water well, septic system, and property for insurance record purposes.
- Locate and save copies of your well logs and septic records.
- Seal septic tank inspection ports and manhole covers.
- Turn off the well pump at the circuit breaker if flooding is expected.
- Protect electrical connections from floodwater when possible.
- Store emergency water for drinking, cooking, cleaning, and sanitation.
- Store at least 1 gallon of water per person per day for several days.
- Do not pump a septic tank more than halfway empty before flooding. An empty tank may float or shift.

List of Supplies:

- Contact information for local health department, well contractor, septic professional, and water testing laboratory
- Waterproof marker and labels
- Unscented household liquid bleach
- Emergency water supply (at least 1 gallon per person per day)
- Garden hose that reaches from an outdoor faucet to the well
- Protective gloves, boots, and safety goggles
- Extension pole/hook/wrench for well access
- Sample collection bottles from local water testing laboratory
- Obtain a temporary toilet, if possible

During a Disaster:

- Limit water use whenever possible: laundry, dishwashing, and bathing.
- Flush toilets only when necessary.
- Use a temporary toilet if available.
- Avoid contact with standing water that may contain sewage.
- Keep children and pets away from floodwater.
- Avoid opening well caps during flooding.

After a Disaster:

- **Do not** drink well water until it has been tested and confirmed safe.
- Avoid contact with damaged septic system components.
- Do not operate electrical equipment associated with the well or septic system until it is dry and inspected.
- Document all damage with photographs.
- Contact your insurance provider.
- Have your well water tested before returning to normal use.

Immediate Signs of Damage:

- Sewage backups or unpleasant odors
- Standing water near the septic system
- Bright green, unusually fast-growing vegetation
- Slow-draining sinks, tubs, or toilets
- Changes in water taste, odor, color, pressure
- Changes in water quality test results
- Electrical hazards around pumps or control boxes

Test Your Water:

E. coli bacteria, total coliform bacteria, nitrates, nitrites, arsenic, other contaminants

How Often Should Water Be Tested?

- Annually, for bacteria
- Every few years for general chemistry
- As frequently as needed/whenever you notice changes in water quality
- Check what your local health department or water testing laboratory says

The CDC recommends testing 24 to 48 hours after the floodwaters have receded, followed by a retest 30 to 90 days later.

Key Contacts and Records:

- Texas Water Development Board (wells completed in 2000 and later):
<https://www3.twdb.texas.gov/apps/WaterDataInteractive/GroundWaterDataViewer>
- Texas Commission on Environmental Quality Water Well Report Viewer (before 2000):
<http://www.tceq.texas.gov/gis/waterwellview.html>
- Well Driller Information:
<http://www.tdlr.texas.gov/LicenseSearch/>
- Local Contacts:
 - County Extension Agent
 - Water testing laboratory
 - Local health department
 - Local emergency management office



Turtle Tank Septic Systems. (2016). Flooded Septic System. [Photograph].

Resources:

Texas Well Owner Network (TWON):

<https://twon.tamu.edu/>

Texas A&M AgriLife Extension Onsite Wastewater

Treatment Systems: <https://ossf.tamu.edu/>

Septic System Maintenance & Inspection Pocket Guide

<https://twri.tamu.edu/wp-content/uploads/2024/04/em-126-septic-system-maintenance-inspection-pocket-guide.pdf>

EPA SepticSmart Program:

<https://www.epa.gov/septic/septicsmart>

Acknowledgements:

For their expertise and contributions to the development of this factsheet, we gratefully acknowledge:

- Texas A&M AgriLife Extension Service
- Texas Water Resources Institute (TWRI)
- Texas Well Owner Network (TWON)
- Harte Research Institute for Gulf of Mexico Studies at Texas A&M University-Corpus Christi

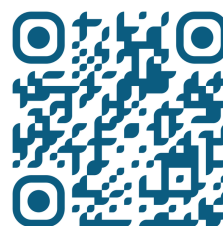
References:

Centers for Disease Control and Prevention. (2024, February 6).

Guidelines for septic and onsite wastewater systems.

<https://www.cdc.gov/floods/safety/guidelines-for-septic-and-onsite-wastewater-systems.html>

U.S. Environmental Protection Agency. (2026, June 18). What to do with your private well after a flood. <https://www.epa.gov/privatewells/what-do-your-private-well-after-flood>



**EXPLORE THE
HOMEOWNER'S HANDBOOK**

Scan to learn more.