

Inspect On-Site Water Wells

Overview

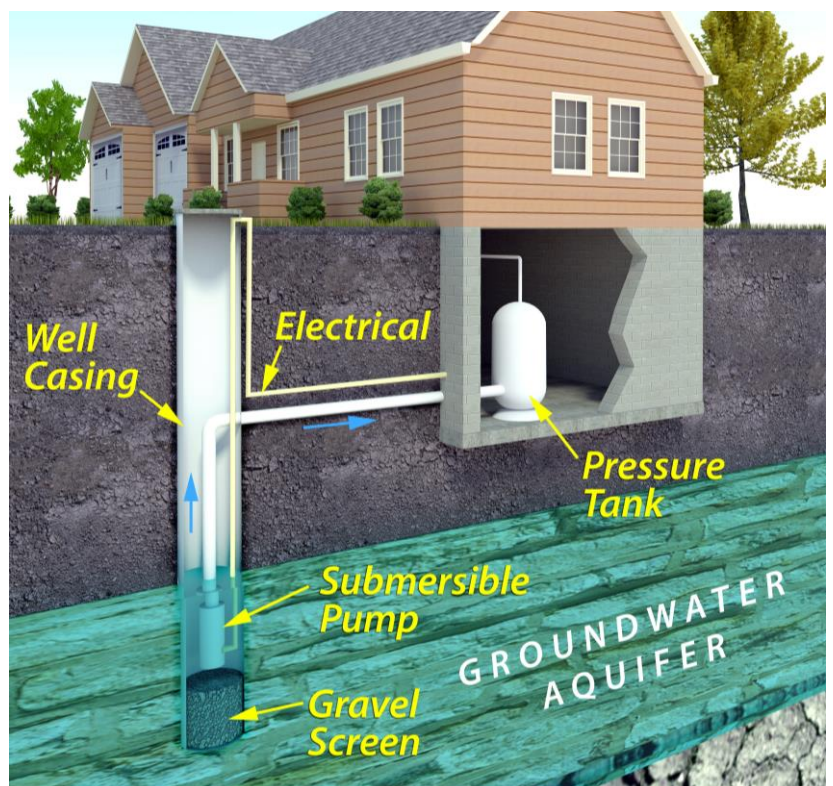
- Flooding events can contaminate the water within on-site water wells or cause damage to the well itself.
- Well water can be contaminated if floodwaters containing hazardous substances or salt that seep into the well.
- In areas that experience velocity flooding, the wells and associated plumbing fixtures can shift and be damaged due to the high velocity of the floodwaters, wave action, and/or impact from debris.
- Additionally, buoyancy forces can displace wells and/or plumbing fixtures during flooding events.
- A licensed inspector should inspect the well for damage on a yearly basis or after major storm events.
- Both the US EPA and the Centers for Disease Control and Prevention recommend annual water testing to ensure that the on-site water well drinking water supply is not contaminated. Consider more frequent water quality testing in the following situations:
 - There is a pregnant or nursing mother in the house
 - Water is being used to prepare formula for an infant
 - Any neighbors find any dangerous contaminants in their wells
 - There is a change in water taste, odor, color or clarity
 - When any part of the well or plumbing system is replaced/repaired
 - There was a recent large storm

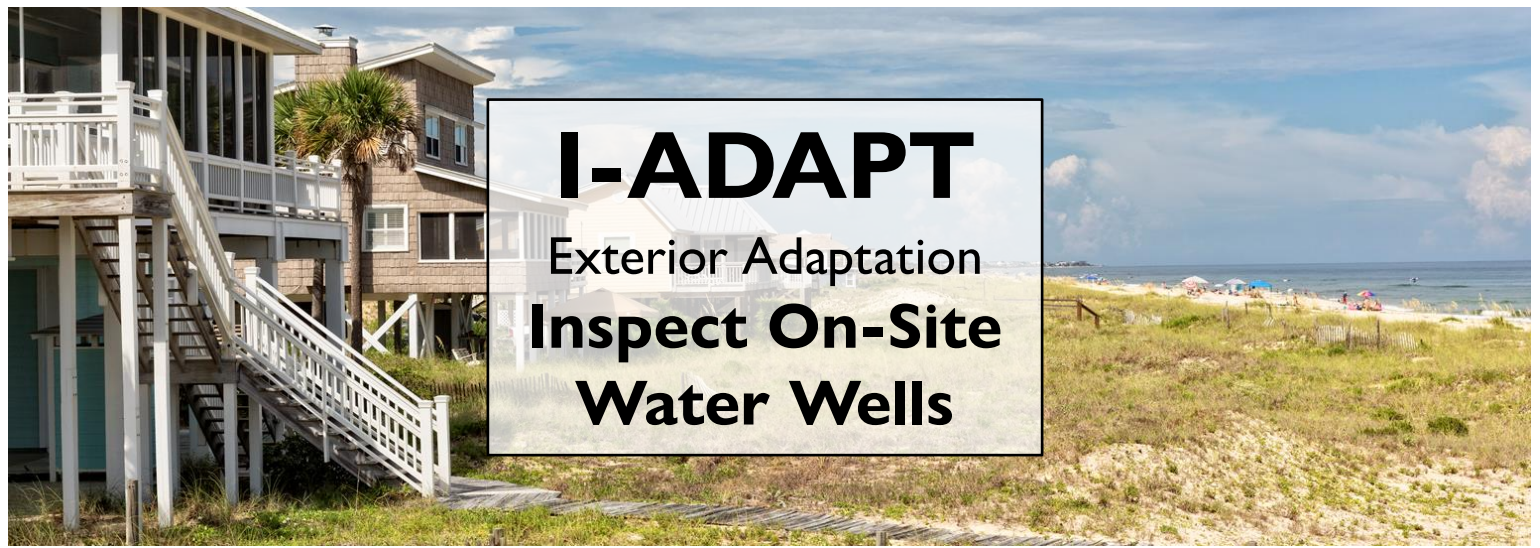


Key Takeaways

During flood events, contaminated floodwater can seep into on-site water wells and/or damage the well and associated plumbing infrastructure.

To make sure the on-site well has no drinking water contamination or flood damage, get the on-site water well inspected for water quality and mechanical issues at least once per year.





I-ADAPT

Exterior Adaptation Inspect On-Site Water Wells

Estimated Costs/Benefits

*U.S. dollars (2022), estimates are subject to change

Potential Costs		Potential Benefits	
Item	Estimate	Post-Flood Recovery Actions	Estimate
Chemical and bacteriological kits from the DE Public Health Laboratory	\$4 (\$2 each)	Replacing the well due to compounded damage	\$1,000-\$10,000
Well inspection	\$300-\$500		
ESTIMATED TOTAL COST	\$304-\$504	ESTIMATED TOTAL SAVINGS	\$1,000-\$10,000 + Maintaining a clean water supply

Additional Resources

- [EPA: Private Drinking Water Wells](#)
- [Delaware Public Health: Private Well Owners](#)
- [Delaware Public Health Laboratory](#)
- [DNREC: Water Supply](#)
- [DNREC: Well Permits](#)

Resources can also be found at <https://de.gov/iadapt>

Additional Actions

- In addition to inspecting the well, consider installing backflow valves in water and sewer piping to prevent water from entering the structure through the pipes during flooding events.
- Consider modifying the well top with watertight casing to prevent seepage.
- If your well water is contaminated, notify your neighbors.

Permitting Agencies

- No permit required for hiring a licensed well inspector or for water quality testing.

Expected Maintenance

- Inspect the on-site water well yearly for damage.
- Test the on-site well water yearly for drinking water quality.

Who to Contact

- Licensed well inspector
- [Delaware Public Health Laboratory](#)

Technical definitions and more information are located on the I-ADAPT website: <https://de.gov/iadapt>.



This information is intended to be used for planning purposes. It is not intended to substitute or take precedence over the guidance of design engineers, contractors, utility companies or regulatory agencies.

For more information, contact DNREC's Division of Climate, Coastal and Energy at DNREC_IADAPT@Delaware.gov

