Wyoming Ground Water Association

WATERLINE

What does the severe flooding in the Midwest mean for the groundwater industry?

How can I tell if my well could be impacted by flooding?

As Michael Schnieders, PG, PH-GW, noted in his September 2014 *Vater Vell Journal* article wells that are susceptible to flooding or potential contamination include:

- Older wells completed in areas now designated as floodplains
- Wells in which the casing is not finished above the high-water level
- Wells not adequately capped or sealed, or older wells with shallow grout or insufficient surface seal
- Wells in areas structurally unstable, or where previous erosion or subsidence has compromised the structure and landform
- Wells with an abnormal affinity for bad luck.

Any well that has been flooded or is suspected of having been influenced by floodwaters should be viewed as unsafe for potable use until such time the well has been evaluated and tested to make sure it is safe for use as drinking water.

What can I do to protect my water and prevent injury?

Bacterial contamination is common following a flood, so disinfection and wellhead repair is important to ensure safe drinking water. Well relocation and elevation may be other options for wells impacted by rising water levels. NGWA recommends taking the following steps before and after flooding to protect your wells:

- Do not drink the water or wash with it, instead, use an alternative supply such as bottled water
- Stay away from the well pump while it's flooded to avoid electrical shock
- Get a qualified water well contractor or pump installer to:
 - Clean and turn on the pump
 - Rush the well
 - Disinfect the well
 - Performany necessary maintenance
- Check with the local emergency management agency about any guidance relating to local conditions or specific contamination threats due to area flooding.

10 Flood-Impacted Midwest States Have 1 Million Wells in 300 Affected Counties



April 2019

Become a Member

March 1, 2019—February 29, 2020 Associate Member: \$160/person Sustaining Member: \$410/business Manufacturer/ Supplier: \$160/business

Benefits:

- Discounted Convention Prices
- Monthly Newsletters
- Area Representation
- CEU Opportunities
- Discounts at WGWA Sponsored Events
- Contact Info Listed on Website
- Opportunity to Serve on the Board of Directors or Committees

Forms are available on the WGWA Website.

Important Dates

WWCB Meeting April 10, 2019 9 am, Cheyenne

WGWA Board Meeting July 26th, 2019 @ 10am Ramkota Hotel—Casper

Renew your WGWA membership now!

Renewals have been sent out. Please call Jade if you haven't received yours.

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National Welding Month

April is National Welding Month. The American Welding Society says National Welding Month is an important opportunity to highlight an industry where trade skills are in dire need, with the industry predicting a shortage of more than 200,000 skilled welding professionals by 2020.

Have something you would like to see in the newsletter? Please submit it by the 25th of the month.



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WWCB Board Vacancy

The WWCB has an At– Large Pump Installation board position available.

If you are interested and would like to apply for the vacancy, please visit:

https://governor.wyo.gov/state-government/boards-commissions

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Trivia

What use withdraws the most total groundwater per day in the U.S.?

A. Irrigation B. Public Supply C. Industry



Answer: A—Irrigation Irrigation uses 53.5 million gallons of water per day, public anpply 14.5 million, and industry 3.1 million. U.S. Geological Survey

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Groundwater at Risk for Contamination Adapted from Information by the U.S. Geological Survey

According to a new study by the U.S. Geological Survey (USGS) National Water Quality Program, approximately one-third of the wells tested across the country are at risk for lead contamination. The study revealed those wells had chemical characteristics which could cause lead, if present in plumbing, to leach into tap water at levels above the EPA (Environmental Protection Agency) Action Level. These characteristics are most common in groundwater in the East and Southeast. A total of 11 eastern states and the District of Columbia have an elevated frequency of potentially corrosive groundwater.



Groundwater at the wellhead is rarely the source of lead in drinking water; the source is typically within the plumbing system. When water corrodes lead pipes, lead solder, or brass fittings, lead can actually dissolve into the drinking water. This study measured chemical characteristics of groundwater from more than 8300 wells between 2000 and 2016, to estimate the potential solubility of lead for each sample. Groundwater chemistry was able to show where contamination is most likely to happen at high concentrations. The greatest lead solubility potential came from groundwater with low pH, low alkalinity, and/or low phosphate concentrations.

Potentially corrosive groundwater can be treated to minimize the leaching of lead into drinking water. In fact, this treatment is required for public water supplies to prevent corrosion of lead-bearing materials if water at the tap contains lead. However, lead testing and corrosion treatment for domestic wells are not required by federal law or by most states.

Roughly 44 million people rely on groundwater from domestic wells for drinking water, these households are at greater risk of consuming lead-contaminated water than households relying on public water supplies.

Did you know?

Approximately 500,000 new residential wells are constructed annually, according to NGWA estimates. The construction of these vitally needed water supply systems involves the use of more than 18,460 drilling machines by an estimated 8,085 groundwater



Need a reason to be apart of NGWA. Here are a few of the benefits!

Contractor member benefits:

- Serve as a Wyoming delegate at the NGWA Groundwater Week
- Free \$50,000 accidental death and dismemberment policy
- A company listing on NGWA's Web site for consumers, <u>www.WellOwner.org</u>, which includes <u>Contractor Lookup</u>
- Free subscription to Water Well Journal
- Online access to Groundwater and Groundwater Monitoring & Remediation
- Advocacy with legislators and policymakers to protect your interests
- <u>Networking</u> on members-only discussion groups, where you can seek practical answers and solutions from your peers
- <u>Education</u> classes and resources to enhance expertise
- Certification programs to give you a competitive edge
- Member pricing on <u>bookstore items</u> and <u>NGWA educational programs</u>
- Discounts on business services, such as a variety of <u>insurance and HR products</u>

For more benefits visit https://www.ngwa.org/members/join-ngwa/Contractors



If you would be willing to host a class at the 2020 convention...

Please contact Jade.

We are looking for classes for Thursday and Friday.





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Study finds coal ash tainting groundwater near most U.S. coal plants

NGWA March 6, 2019

A study released by environmental groups on March 4 says more than 90 percent of U.S. coal-fired power plants show unsafe levels of toxic metals near their coal ash dumps.

The study's findings indicated 241 of the 265 plants, or 91 percent, subject to the monitoring requirement showed unsafe levels of one or more coal ash components in nearby groundwater compared to the U.S. Environmental Protection Agency standards, according to Environmental Integrity Project and Earthjustice.

These environmental groups said their findings show potential harm to drinking water from coal ash and make the case stronger regulations are necessary.

The study also found 52 percent of those plants had unsafe levels of cancer-causing arsenic in nearby groundwater, while 60 percent showed unsafe levels of lithium, which can cause neurological damage.

Data reviewed by the environmental groups came from 4600 groundwater monitoring wells near the coal ash dumps of two-thirds of the coal-fired power plants in the United States.

Coal ash is the residue produced from burning coal in coal-fired plants and is stored at power plants throughout the country.

In July 2018, the EPA revised the 2015 rule that established minimum national standards for the disposal of coal ash, including a requirement companies monitor groundwater and publish their data. The revised rule

suspended groundwater monitoring requirements at coal ash sites if it is deemed there is no

potential for pollutants to move into certain aquifers. The rule also extended the life of some coal ash ponds from early 2019 to late 2020.

NGWA engaged with EPA during its rulemaking process on urging the importance of groundwater monitoring and groundwater protection.

The coal ash rule does not require tests of local drinking water.







Don't miss out on groundwater's biggest event of the year, start planning your trip today!



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