



TUWaterWays

Water News and More from the Tulane Institute on Water Resources Law & Policy

Authors: Christopher Dalbom, Mark Davis, Haley Gentry, and Ximena De Obaldia

April 5, 2024

There's Something Fishy Going on in Iowa

Well, figuratively, because in a literal sense there seems to now be a lack thereof. [Let us explain](#). On March 11, the Iowa Department of Natural Resources learned that an agricultural company, New Cooperative, [discharged 1,500 tons of liquid nitrogen fertilizer into a drainage ditch in Red Oak, Iowa](#). (not to be confused with [Black Oak Arkansas](#)). During the following weeks after the spill, the chemicals made their way to the East Nishnabotna and Nishnabotna Rivers and across 60 miles, [killing an estimate of 789,000 fish along the way](#). But how did it happen? According to Iowa DNR, New Cooperative claims that a valve connected to an above-ground storage tank was accidentally left opened [overnight](#), or weekend (depending on your news source). Regardless if it was one night or a whole weekend, we know one thing for sure, those 1,500 tons of liquid nitrogen fertilizer, concentrated in a 32% solution, equal to 265,000 gallons, and, because of ongoing [hiccups](#), the levels of the river's water is very low which makes the fertilizer more concentrated, and therefore stronger, giving it the [fourth place on Iowa's Fish Kill Database](#), by now (yes, Iowa has a fish kill database).

Iowa DNR then advised private well owners in proximity with the river to contact their county health department and to test their wells for nitrate, which they state is free using the Iowa's Grants-to-Counties program. Due to the course of the river, the agency had to contact and warn the Missouri Department of Natural Resources, since the Nishnabotna River flows into the state and merges into the Missouri River. So, what does Missouri say about it? Well, the Missouri River is the source of water for a lot of people in the state, including Kansas City. Now don't be alarmed yet, Missouri officials say that they *think* that ["it'll be fairly diluted by the time it gets down"](#).

Of course, we lawyers all know what the next step should be: litigation. Although the [Iowa Code](#) prohibits pollutants to be discharged into a river without a permit, this situation opens the door to [conversations](#) about how Iowa treats polluters and potential need for harsher consequences to their actions. However, some environmental groups are not so certain there will be tough consequences for this spill.

On the other hand, liquid nitrogen has to be extremely cold, right? Perhaps those companies [consuming Iowa water to cool down their AI servers](#) would benefit more from these spills more than the fish. It could go hand-in-hand with [Microsoft expanding](#) once again across Des Moines.

Beware of the Zombie Wells

It may be a movie cliché by now for troubles to come via holes drilled in the ground (from [Tremors](#) to [Pacific Rim](#), there are some great examples). Crossing it with zombies, though? That might make for a whole new genre. Yet if you are in the oil and gas business, you know this concept very well. A zombie well is a well, which after being pumped and drained (at least to the point of no longer being economically productive), is plugged, [but its plug fails](#). It's different than an orphaned well which just means that its operator abandoned it without plugging it. Like a baby left on a doorstep.

A zombie well can have the unfortunate side effect of allowing demons to escape hell, er, allowing fluids and gases to move across geologic layers and up to the surface. The problem increases as the action of injecting fluids,

be they wastewater or fracking fluids, underground for oil and gas purposes (or for any purpose really), increases pressures on the well. These zombie wells have long caused impactful problems, including sinkholes, toxic gas, environmental pollution, health concerns, and more.

If you are thinking to yourself, “well, is that so bad? I mean it’s technically plugged”, then you haven’t recently visited Crane County, Texas. In December of last year, one of the worst-case scenarios involving a zombie well finally happened: a leak. Don’t think this a small thing that can be fixed with [the most important tool known to man or beast](#). Au contraire, the brine water was flowing to the surface at 13,860 gallons per hour at times, with water that contained [154,000 chloride parts per million](#). Back in horror/action movie territory, right?

It took the Railroad Commission of Texas nine days to identify what, where, and why the water was coming from, finally plugging the problem by late January of this year. To recap, it took a span of almost two months to solve this urgent and toxic problem. So, who is to blame? Who is in charge of plugging an abandoned well? [Well](#), it’s a complicated answer. [According to the Railroad Commission](#), the landowners and/or the operators are responsible for plugging abandoned wells, but the Railroad Commission administers a program to plug abandoned wells. While all of this finger-pointing occurs, events like the one in Crane County happen, leaving behind damage that cannot be undone, but could have been prevented.

This isn’t just a [Texas problem](#); zombie wells can be spotted across a number of states in the country, but some people are getting tired of having to deal with them. For instance, in [Colorado, landowners and farmers](#) have filed a lawsuit against oil and gas companies to hold them responsible for cleaning-up wells after they have been abandoned. On the other hand, in Louisiana, the DENR has estimated that the state had more than [4,600 wells considered orphaned, and an estimated of 17,000 are non-productive wells with future utility](#) (meaning it doesn’t have to be plugged because it may be used in the future). Even if it’s not your usual horror movie, it’s still pretty scary to think these wells are so close to where you are right now (not quite calling from inside the house, but stalking the neighborhood to keep up the cliches), and that states don’t seem ready to spring into action (like the mayor in Jaws?). Consider this screenplay the next project after [our Colorado River drama series](#).

What Will be the New Trend in 2024?

This week, the government of Aruba announced a new draft to amend their constitution [to protect the rights of nature and to recognize the human right to a clean environment](#), or “the twin environmental rights”, as the media branded it. The new article will recognize that nature has inherent rights, and also acknowledge that humans need nature to be protected to keep their own human rights, for a “clean, healthy and sustainable environment” is interdependent on the quality of life a person lives. The public had the opportunity to give their comments until yesterday, April 4th, but government officials hope to get the bill approved by the end of the summer. If you are excited about this environmental milestone, but cannot understand how this would play in practice, just ask [Ecuador](#) which has recognized the rights of nature since 2008 with the adoption of a new constitution.

These moves are especially important as the rights of nature are gaining more and more traction, from [recognition of the United Nations](#), to [international landmark decisions](#), and even [lawsuits in the U.S.](#) Maybe this trend will catch the attention of [TikTokers before its too late](#).

Coming Up:

[Coastal Law In Louisiana CLE](#); New Orleans, LA;
April 18-19, 2024

[The PAR Perspective: Coordinating Coastal Protection](#); Zoom; April 12, 2024

Water jobs:

[Environmental Reporter](#); The Times-Picayune | The Advocate; New Orleans, LA

[Gulf of Mexico Campaign Manager, Offshore Wind Energy](#); National Wildlife Federation; Gulf Region

[Communications Senior Coordinator](#); Coalition to Restore Coastal Louisiana; New Orleans

[Policy & Partnerships Manager](#); Bayou City Waterkeeper; Houston, TX



The [Tulane Institute on Water Resources Law and Policy](#) is a program of the Tulane University Law School. The Institute is dedicated to fostering a greater appreciation and understanding of the vital role that water plays in our society and of the importance of the legal and policy framework that shapes the uses and legal stewardship of water.

6325 Freret Street, 1st Floor

New Orleans, LA 70118

504-865-5982

tulanewater.org

