

TUWaterWays

Water News and More from the Tulane Institute on Water Resources Law & Policy
August 29, 2018

Cryptocurrency! Blockchain! Dark Web! Other Scary Words! What Are They? Who knows? But They're Sure Dependent on Water

Bitcoin mining has been in the news quite a bit recently, with miners increasingly setting up shop in parts of the country with inexpensive electricity. Often, this ends up being within close proximity to large dams that generate hydroelectric power, like [East Wenatchee, Washington](#). Bitcoin mining requires the use of specialized computers to solve what essentially amounts to complicated [puzzles](#), which get progressively harder over time. Therefore, the need for electricity for bitcoin mining is only going to increase (assuming bitcoin [continues to be around long enough for that to happen](#)). Because of the high cost of electricity and the decreased profitability of bitcoin following its [well-publicized crash](#), mining is no longer [viable economically](#) for many. Others have responded with [the recent turn](#) to cheaper hydroelectricity to power large scale mining. This increased demand for hydroelectric power [has caused rates to increase dramatically](#), and some utility companies are now [charging higher rates for mining operations](#) or [rationing power to miners](#).

On the other hand, some small scale miners have started using the heat generated by mining for unconventional uses, like [heating up bathwater](#), and it wouldn't be a surprise for more people to use [water to cool their computers](#) – we already switched car engines air-cooled to water-cooled, why not computers? – prompting more-direct water use, not to mention more thermal pollution on top of the miners' already large environmental impact; if all mining relied on hydroelectric power, it would produce [9,000 kilotons of carbon dioxide and over 150 kilotons of methane](#) annually.

The least that these miners could do is create a new cryptocurrency named after the last great beneficiary of hydropower – [Dr. Richard Kimble](#). KimbleKrones? RichardRupees? FugitiveFrancs?

Houston One Year after Harvey

Property values in the Houston flood zones have [plummeted](#) in the year since Hurricane Harvey hit the city, with a premium being placed on homes that have [never flooded](#). This is unsurprising, given the fact that a recent study found that the air quality within homes flooded during Harvey was as poor as some of the [most polluted cities in the world](#), like Beijing. To make matters worse, many Houston residents have remained in their homes during reconstruction, further exposing themselves to mold. The health risks associated with flooded homes have been well documented and were even [widely predicted](#) in the days following Harvey, in large part due to the [lessons learned from Katrina](#). Respiratory infections are common among people living

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 stewardship of water.

Coming up:

[CPRA Board Meeting](#)

October 17, 2018

Cameron, LA

[Volunteer Oyster Shell Bagging](#)

September 9, 2018

Buras, LA

Water jobs:

[Program Manager for Watershed Outreach](#)

Pennsylvania Environmental Council
Pittsburgh, PA

[Associate Attorney, Oceans](#)

Earthjustice

Seattle, WA or San Francisco, CA

[Director of Development and Membership](#)

Coalition to Restore Coastal Louisiana
New Orleans, LA

[Director of Finance and Administration](#)

Coalition to Restore Coastal Louisiana
New Orleans, LA

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in homes that have flooded, and mold grows particularly quickly in warm places like Texas. As it turns out, [all the predictions were right](#).

Relatedly, voters in Harris County, at the heart of the Houston metro area, voted on Saturday to approve a [\\$2.5 billion bond](#) to fund improved flood prevention infrastructure in the county. Over the next decade and a half, the bond will fund projects from a [proposed 230 infrastructure related projects](#), including improvements to floodplain mapping, flood warning systems, and channels (the full list of projects can be found [here](#)). However, an estimated \$25 to \$30 billion would be required to fully prepare Harris County for a 100-year storm, which is particularly concerning given the fact that the area has seen three separate 500-year flood events within the last 3 years.

A Different Delicious Type of Seawall Can Prevent Coastal Erosion and Grow with the Times

Seawalls made of [oyster shells](#) are reducing the rate of erosion along coastal Louisiana, with protected areas eroding half as quickly as unprotected sites. It makes sense, doesn't it? After all, the Louisiana coast was protected for years by the [Great American Barrier Reef](#), a reef dominated by oysters. One of these new [living shorelines](#) was built on the Gulf Coast by The Nature Conservancy in Louisiana and the Coalition to Restore Coastal Louisiana, with roughly 1.7 million pounds of oysters shells donated from restaurants. Other communities around the country have created similar seawalls, including a comparable project on the Gulf Coast of [Texas](#). These non-traditional seawalls have a number of benefits, including the creation of new habitats for marine life within the shells. One [study](#) has found that seawalls built with oyster shells support increased fish populations and increased biodiversity. Oyster seawalls on the coast of North Carolina have also been found to grow at a rate that is [equivalent to sea level rise](#), which is an advantage over traditional seawalls. And, oyster seawalls are relatively cheap, as the shells themselves can be [recycled or purchased for around \\$5 per bushel](#), whereas a traditional seawall can cost more than \$10 million. [If only there was a way for regular citizens to participate](#). [Hmm](#).

Baton Rouge Continues its Fight against Saltwater Intrusion into its Water Supply

New test wells [have been authorized](#) for construction near downtown Baton Rouge in an effort to stave off saltwater intrusion into the city's aquifer. Baton Rouge is unique in that its aquifers are far deeper than those found in most other parts of Louisiana, creating a natural filtration process. For that reason, the city's drinking water requires relatively little treatment, at least [compared to New Orleans and other communities](#) that source their potable water from the Mississippi River. While water in Baton Rouge is relatively abundant, the depth of the aquifer makes it particularly susceptible to saltwater intrusion. Historically, that hasn't been a problem because Baton Rouge is located along a fault line that naturally prevents saltwater intrusion, but this process has been inhibited by manmade wells, which change the pressure in the ground and cause salt water to trickle into the aquifer. In the past, scavenger wells have been introduced in the city to interrupt the flow of the saltwater and divert it away, protecting the freshwater within the aquifer. So these new wells could serve as bandages to the saltwater intrusion problem, but it will take deeper changes to actually solve this problem. Might Baton Rouge follow attempts in other parts of the [country](#) (and [world](#)) to prevent saltwater intrusion by recharging aquifers with highly treated wastewater? Or follow San Antonio's lead and run saltier groundwater through desalinization? (Probably not, there's way too much fresh water around Baton Rouge to justify that expense.) The real genius in this fight will be the person who manages to link the city's sustainable groundwater management to an expansion of [Tiger Stadium](#).