

# TUWaterWays

Water News and More from the Tulane Institute on Water Resources Law and Policy  
August 27, 2014

## We're Co-hosting a WEBINAR!

On Thursday, August 28, from 11:00 to 12:30 (CDT) the Environmental Law Institute and the Tulane Institute on Water Resources Law & Policy will host a [free webinar](#) on the new RESTORE Act regulations, notice, and guidelines recently released by the Treasury Department. We have a great slate of panelists and think it will be a valuable experience for anyone interested in RESTORE Act implementation across the Gulf Coast.

## Get Talkin'! Mississippi River Nutrient Dialogues Come Up with Strategies that Utilities and Farmers Can Agree on

The [US Water Alliance](#) has [published the recommendations](#) that came out of conversations among leaders in agriculture and water utilities. In sum, they feel that decision-making should take place on a watershed-based approach, nutrient-trading markets are the way to go, better data and monitoring would be good, and they want states to create new finance and governance entities to function as watershed protection utilities (WPU). The WPUs would implement the decision-making, monitoring, and nutrient-trading markets. While this is encouraging, lots work remains to develop meaningful nutrient-trading markets, it is unclear whether or not they would actually earn enough to fully fund WPUs. Where other funding for WPUs would come from is unclear. While it's good that water and agriculture are coming together to discuss nutrient pollution in the Mississippi River Basin, there remains the caveat that consensus solutions are not always effective solutions – we might not be able to leave everyone well “gruntled<sup>1</sup>” and still get nutrient pollution under control. Here's to hoping otherwise.

## Cause and Effect? Shreveport's Water Planning Shapes Up.

Two weeks ago, our Director, Mark Davis, spoke about the future of water policy in Louisiana at an event in Shreveport-Bossier City, where plans for a new water plant have been in the works for a few years. Now, Caddo Parish Commissioner Matthew Linn is [pushing for a second, larger plant](#) and a multi-parish Northwest Louisiana Utility District that would attract development and provide growth capacity for future generations in Northwest Louisiana. Could there possibly be a connection?

<sup>1</sup> If disgruntled is a passable word, it stands to reason that gruntled must be its contented opposite. No, we most certainly did not have a conversation about this in the office this week.

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:

### [WEFTEC 2014](#)

September 27-October 1, 2014  
Morial Convention Center  
New Orleans, LA

### [Restore America's Estuaries and Coastal Society Summit on Coastal and Estuarine Restoration](#)

November 1-6, 2014  
Washington, DC

## Water jobs:

### [Water Resources Manager & Coordinator](#)

National Wildlife Federation  
Water Protection Network & MS River Network  
Washington, DC

### [Communications Director](#)

Coalition to Restore Coastal Louisiana  
Baton Rouge, LA

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## War in Iraq Now About Controlling Water and Water Infrastructure

The Fertile Crescent. 7,500 years of civilization. The birthplace of agriculture (one of them, anyway). The Tigris and Euphrates Rivers have been a center of history and civilization since Gilgamesh. Now, the ever-mutating conflict in the Middle East has come to center on controlling these two rivers. ISIS, or the Islamic Caliphate, has [pushed to control](#) these rivers as they flow through northern Iraq and Syria. Last year, they took the Taqba Dam on the Euphrates in Syria, in April they took the Fallujah Dam on the Euphrates in central Iraq, and this summer they took the Mosul Dam on the Tigris in Northern Iraq. At such dams, the Caliphate can starve, shut down, or flood dependent populations as they see fit. Well, they could if they possessed the water management skills.

It's a terribly dangerous situation for millions – especially given that these dams [weren't the most stable](#) to begin with. So dangerous, that once the American airstrikes began this month, [two days of assaults](#) were concentrated on the Mosul Dam so that Kurdish and Iraqi fighters could reclaim the dam from the insurgents. While the Mosul Dam is held by the Iraqi government, for now, insurgents can still wreak havoc in at least two countries simply by mismanaging the other dams they still control.

## New USGS Report Growing Level of Salt in Surface Waters

Are we salting the earth ourselves? A USGS [report](#) found that sodium, sulfate, chloride, and magnesium salts are being found in [increasing amounts](#) in our surface waters. Most of the salts come from natural sources – underlying geologic features, but the rest is manmade. Although large amounts come from pastures, urban land uses, and farms, the largest culprit is road de-icer. 37,000,000 metric tons of the stuff winds up in the country's streams. Not only does it increase costs for water treatment, stunt agricultural productivity, and limit industries that rely on clean water, but it could deprive us of the next great energy source.

MIT engineers are undertaking a study to use the salt differential between river water and seawater to create power using [pressure retarded osmosis](#). If our streams keep getting saltier, the next great energy hope has little hope of succeeding.

## American West So Dry It's Rising Like a Souffle'

Let us take a moment to talk, again, about the drought in California and the American West. How dry is it? So dry that [the earth is lifting](#)! A new [study](#) by USGS and Scripps Institution of Oceanography shows that the West has lost 63 trillion gallons of water in a year and a half. The loss of groundwater and [emptying of reservoirs](#) is so great that the West, on average, has lifted 1/6 of an inch since 2013. This is because, although loss of water makes soils sink (like in New Orleans or Houston), loss of water makes bedrock rise because the weight of the water is lifted off of it. Those 63 trillion gallons of water that has left the West in the last 18 months weighed 525,240,000,000,000 pounds, so places that have seen the greatest rise are where the loss of snowpack and groundwater has been the greatest.

What is being done? Well, [surface water withdrawals](#) of freshwater in California are actually at their lowest in almost 50 years, but that might be just because there is less surface water to withdraw. Groundwater withdrawals are extremely high, and the [collapse of aquifers](#) unable to sufficiently recharge seems imminent. Lawmakers in Sacramento have responded with a \$7.5-billion [water bond](#) that will be decided by the state's voters in November. Will that be enough? Who knows? It partly depends on whether this is "just" a drought or this is the new normal for the West. Either way, they better figure out something. A new [study](#) just published by Earth Economics shows that the ecosystems supported by the Colorado River Basin alone provide up to half-a-trillion dollars in economic benefits each year.

## It Came From Beneath the Ice!

You [know all those horror and sci-fi movies and stories where monsters who are](#) thawed out from frozen depths? Maybe they're not that far off. A [new study](#) published in [Nature](#) shows just what is lurking down there beneath Antarctica's glaciers, and it's a whole lot! They drilled through 800 meters of ice near the South Pole to reach Lake Whillans – 60 square kilometers in area, but only 2 meters deep – to take a baseball bat-sized cylinder's worth of water from one of the world's most isolated water bodies. They found nearly 4,000 species of bacteria and archaea making up a rich ecosystem that hasn't seen the sun for at least 120,000 years. They get oxygen from air bubbles in the ice above, have little access to carbon dioxide, and get energy by oxidizing iron, sulfur, and ammonium. So before you decide to head down to Antarctica to open up the next

frontier in freshwater harvesting, read some Lovecraft and watch [The Thing](#) (also because when Kurt Russell and John Carpenter team up, horrifically-entertaining things happen).