

TUWaterWays

Water News and More from the Tulane Institute on Water Resources Law & Policy
[July 30, 2020](#)

[A Damn Good Set of Dam Folklore from Across the Globe](#) **California**

We have [written previously](#) about the [hydroelectric dam removal project on the Klamath River](#) in California. You know [the 1](#)—the dams threaten the survival of salmon in the river; and, local tribes, environmentalists, the owner of the dams (a utility company named PacifiCorp), Oregon, and California have finally all come to agree that the dams should be removed. A \$450 million plan to remove some of the dams, which constitutes the largest dam demolition project in history, was slated to begin as early as 2022 but recently hit [a potential roadblock](#) at the Federal Energy Regulatory Commission (FERC). The plan entailed PacifiCorp transferring the dams and their licenses to the Klamath River Renewal Corporation, which is a nonprofit established to manage the removal of the dams. However, while FERC approved the dam removal, the commission concluded that PacifiCorp must remain a co-licensee of the dams. This means that PacifiCorp will not just have an [invisible string](#) tying it to the project but will remain legally liable in the removal process, whereas a full transfer to the Klamath River Renewal Corporation would have protected PacifiCorp's customers from the removal project's costs. The full transfer was a key element that the utility emphasized in garnering the support of state regulators, so the utility is currently mulling over the FERC ruling. The FERC stipulation could destroy or drastically alter the plan but no word yet on whether it has been [exiled](#).

Africa

In other dam news about which we have previously written, recall that Ethiopia wants to build the Grand Ethiopian Renaissance Dam on the Nile River because the nation sees it as an opportunity to pull millions of its nearly 110 million citizens out of poverty and become a major power exporter. However, Ethiopia's downstream neighbors, Egypt and Sudan, depend on the Nile too, and they assert that the dam poses a threat to their water supply. (Kudos to any geography whiz who remembers that [the Nile flows from south to north](#).) The \$4.6 billion dam will be the largest in Africa, and Ethiopia announced last week that it reached its first-year target for filling the reservoir courtesy of a heavy rain season.

Ethiopia, Egypt, and Sudan have been in fruitless discussions about the dam for nearly ten years with a variety of mediators, including the Trump administration. A new round of talks, which the African Union is hosting, has not yet brought the parties to an [epiphany](#) or yielded a [peace](#) agreement on the matter. In particular, the countries still have not determined how the dam will operate during "dry years" of reduced rainfall and whether the agreement and its mechanism for

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 less stewardship of water.

Coming up:

[Association of California Water Agencies Virtual Conference: Resiliency Rising](#); July 30

[Council on Watershed Management Meeting](#); Baton Rouge, LA; July 30

[Webinar: Mining the Starry Skies: The Intersection of Environmental Law & Space Law](#); July 30

[Congressional Clean Energy Virtual Expo and Policy Forum](#); July 30

[Webinar: Smart Wastewater Infrastructure](#); July 31

[Pontchartrain Conservancy's Virtual Educator Open House](#); August 5

[Webinar: Legal Careers at the EPA](#); August 6

[Public Comment Deadline for Louisiana Watershed Initiative Regional Plans](#); August 6 (Region 1) & August 14 (Region 5)

[Early bird registration for WEFTEC Connect Virtual Conference](#); Now - August 14

Water jobs:

[Mississippi River Coordinator](#); National Caucus of Environmental Legislators; D.C.

[Legislative Associate/ Senior Legislative Associate](#); The Southern Environmental Law Center; D.C.

[Climate Strategy Director](#); League of Conservation Voters; Remote/Home-Based

[Communications Director](#); Izaak Walton League of America; Gaithersburg, MD

[Global Center for Species Survival Conservation Coordinator- Freshwater Species and Ecosystems](#); Indianapolis Zoo; Indianapolis, IN

[Communications Manager \(The Water Center\)](#); University of Pennsylvania; Philadelphia, PA

[Water Policy Development Manager](#); City of Phoenix; Phoenix, AZ

[Urban Waters Research Fellowship](#); EPA; D.C.

[Stream Restoration Manager](#); Ausable River Association; Wilmington, NY

[Adjunct Faculty \(Environmental Policy & Management\)](#); University of Dence; Denver, CO

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resolving disputes should be legally binding. Last week, in announcing the aforementioned filling of the reservoir, the Ethiopian foreign minister proudly proclaimed, “the Nile is ours”; and, the Ethiopian prime minister announced that the three countries had arrived at a “[major common understanding which paves the way for a breakthrough agreement](#).” Yet, at the same time, [Egypt and Sudan criticized](#) Ethiopia’s unilateral filling of the reservoir and still expressed concerns about their countries’ water supplies. After Ethiopia filled the reservoir, [some argued that](#) Egypt and Sudan should act like a [mad woman](#) and adopt a more confrontational attitude to ensure that there is a binding agreement governing operation of the dam. On July 28, however, Egyptian President Abdel Fattah al-Sisi [announced](#) that the country would not resort to military action to settle the dispute, instead emphasizing that negotiations are the only way to solve the issue. Egypt and Sudan simply hope that the negotiations are like a [mirrorball](#) that reflects their interests in ensuring their share of Nile River water.

Asia

[This is me trying](#) to wrap up this set of dam stories, and the final one takes us to Asia. Monsoon season is hitting South Asia where more than 9.6 million people have been affected by severe floods. As of July 23, approximately 550 people have died in India, Bangladesh and Nepal, and millions have been displaced from their homes since the flooding began in June. In East Asia, the monsoon season is wreaking havoc in China and Japan. Experts say the excess rain and flooding can be traced to [a warming hot spot in the Indian Ocean](#). Along the Yangtze River in China, the Three Gorges Dam, which is the world’s largest hydroelectric dam, is [under severe strain](#) and has faced speculation about a possible dam collapse. Currently, the operators of the dam are trying to hold as much floodwater as possible to buy time for cities downstream to ramp up their flood defenses. [My tears ricochet](#) for those affected by the flooding.

A Series of Unfortunate Studies

After months of COVID chaos, it seems hard to believe that we are closing out month [seven](#) of the year 2020 and almost into [August](#). The following studies are not a [hoax](#); rather, just more bad news because what else would we expect from 2020 at this point?

Heating up

No need for a [cardigan](#) if in the future. A [new study](#) claims to have narrowed the range of possible estimates as to how much warming greenhouse gas emission will cause in the coming years, specifically 4.9 to 7 degrees Fahrenheit. This factor is known as [climate sensitivity](#). The good news is that the worst-case climate scenarios may be somewhat less likely than previous studies suggested. But, the bad news is that the best-case climate scenarios, i.e. those assuming the least amount of warming, are almost certainly not going to happen. Another [recent study](#) points out that these higher temperatures could significantly slash farmers’ annual yields and revenues. Further, the study posits that while climate adaptation strategies to address warming will be pivotal to boosting crop production, they could also make it more difficult for the “parties involved in agricultural insurance programs” to predict crop yields on an annual basis. The study recommends that farmers can weather the increasingly warm growing seasons by using stronger seeds and reducing their dependence on disappearing snowbanks. In this warmer, dystopian future, good luck to everything from large scale farms to [Betty](#)’s garden.

High-tide flooding might bring down [the last great American dynasty](#)

According to projections recently released by the National Oceanographic and Atmospheric Administration (NOAA), coastal communities will experience high-tide flooding as many as 270 days a year by 2050. The projections are in [NOAA’s annual report on high-tide flooding](#), which is also called “sunny day” or “nuisance” flooding because it is not related to storms. NOAA projects that long-term sea-level rise will make coastal areas more vulnerable to short-term events not related to climate change, such as full-moon tides and shifts in winds or currents. Though high-tide flooding is not nearly as damaging as hurricane-driven storm surge, it occurs much more often and can inundate streets, shorelines, and basements. Close to home, the report states that Grand Isle, Louisiana, will have between 145 and 270 high-tide flooding days a year in 2050.

Are [the lakes](#) safe from plastic? The ocean certainly is not.

A new report from the Pew Charitable Trusts, which is titled “[Breaking the Plastic Wave](#),” concludes that the annual flow of plastic into the ocean could triple by 2040 if current levels of plastic production and consumption continue. The oceans currently hold 11 million metric tons of plastic. If no action is taken to address the projected growth in plastic production and consumption, the amount of plastic entering the ocean each year would grow to 29 million metric tons over the next two decades at an economic loss of \$100 billion just in the cost of plastic

packaging. That projection is equivalent to nearly 110 pounds of plastic per meter of coastline worldwide. Though government and industry have made efforts to address plastic waste, the study finds that current commitments will only reduce the amount of plastic flowing into the ocean by 7% over the next 20 years. The study advocates for simultaneous deployment of upstream solutions, such as material redesign, plastic reduction, and substitution, as well as downstream solutions, such as post-consumer recycling and disposal.

Changing course: a river runs through it

A new [study](#) in the *Proceedings of the National Academy of Sciences* outlines the factors that dictate how often rivers jump course, or avulse, and the effects this will have on river deltas, especially in light of the changing climate. The authors of the study discovered that there are three ways that deltas can respond to sea level rise, which depend on the balance between the rate of sea-level change and the sediment supplied by the river.

1. The first scenario is when a river has a lot of sediment and sea-level rise is relatively slow. According to the model, these rivers are resilient to sea-level rise, and their avulsion rates remain stable.
2. The second case occurs when a river has less sediment or the sea level rises more quickly. In this scenario, avulsions become more frequent. The rising ocean promotes sedimentation, and once a channel fills to a certain depth, the river will jump its course.
3. The third, most extreme case happens when sea level rise outpaces a river's ability to deposit sediment. As the ocean infiltrates the delta, the river will reach its maximum avulsion rate, and the whole system will begin migrating inland.

River avulsions can have huge societal implications. For example, since 1963, the Old River Control Structure has prevented the Mississippi River from jumping course and inundating parts of Louisiana. Accordingly, the authors of the study hope that it will be useful to groups like the Army Corps of Engineers and the Department of the Interior as they face management of rivers in a changing climate.

duunnn dunnn... duuuunnnn duun (cue the *Jaws* theme song)

Is there something fishy about the *Jaws* boat returning to the waters of New England? No, the boat is not entangled in [illicit affairs](#). Rather, ocean advocates and movie buffs are turning an old lobster fishing vessel into a replica of "[The Orca](#)" (the name of the boat captained by the shark hunter Sam Quint in the movie) so that it can be used as an educational tool to help the public understand sharks and as a research vessel for scientists. Regarding possible drivers of increased shark sightings, the head of the project, David Bigelow said that "[t]he need to educate people about the new ecosystem we're living in, because of climate change and the seal population, is probably our only defense[.]" Can't get enough of sharks? Check out "[The Truth about Sharks](#)" series from The Guardian; [Sharkfest](#) from National Geographic, which began on July 19; and [Shark Week](#), which starts August 9 on Discovery Channel.