

TUWaterWays

Water News and More from the Tulane Institute on Water Resources Law & Policy
June 6, 2019

[When the Levee Breaks + Hurricane Season](#)

As discussed in [last week's edition of TUWW](#), historic levels of flooding continue on the Missouri and Mississippi Rivers and their tributaries. The water has already breached levees in [Missouri](#), [Illinois](#), and [Arkansas](#), as well as a temporary levee in [Iowa](#), resulting in flooding in the communities. The latest news in Louisiana is that the Army Corps of Engineers has again [delayed the operation of the Morganza Spillway](#) until Sunday, June 9.

Not to be the bearer of bad news, but the elevated Mississippi River levels are even more worrisome because the [2019 hurricane season](#) officially began on June 1. The Mississippi River usually begins to decrease from its bloated spring state before strong hurricanes develop, so there is not much research into the potential effects of a significant storm while the river is near its flood stage. However, this year [the river is expected to remain at 16 feet above sea level](#) at New Orleans' Carrollton gauge (just a yard or so below the lowest points of the river levees) well into the summer. John Lopez of the Lake Pontchartrain Basin Foundation's coastal sustainability program has said that while there's no immediate threat of high water coinciding with a strong storm surge, state and federal agencies should begin thinking about the possibility. At the same time, Alex McCorquodale, a professor emeritus of civil engineering at the University of New Orleans and senior technical adviser at The Water Institute of the Gulf, has expressed concern that even after the swelling of the river decreases, the levees might be somewhat compromised and weak in the face of storm surge because they've been under high water for a long time.

Just a quick refresher: hurricane season lasts until November 30. The busiest time is between August and October, with a peak around September 10. In order to make sure hurricanes don't have [the last word](#), don't act like a diva or a [princess](#) and wait until the last minute to be hurricane ready. Rather, those of us [down in New Orleans](#) and other hurricane susceptible areas should check out this helpful set of [hurricane safety checklists](#). For those of you thinking "I [never knew I needed](#) all those things," make sure to [dig a little deeper](#) in prepping this year. For example, touch base with [friends on the other side](#) of the hurricane risk if you need a place for evacuation purposes. And, if you do not have the means to travel to an evacuation spot on your own, arrange for someone who is [gonna take you there](#) or work with the [Evacuteer](#) program to receive assistance (see the "Coming up" tab on the right side of your screen if you're interested in learning how to become an Evacuteer). Once you're [almost there](#) in completing your hurricane safety preparation, perhaps you can reward yourself with a

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:

[Green Infrastructure 101 Workshop](#)

June 8, 2019; New Orleans, LA

[LA Watershed Initiative Interstate Summit](#)

June 12, 2019; Bossier City, LA

[Water Management Basics Workshop](#)

June 14, 2019; New Orleans, LA

[Bayou Bonfouca Marsh Planting](#)

June 14, 15, and 18, 2019; Lacombe, LA

[Evacuteer Training](#)

June 17, 2019; New Orleans, LA

[Stormwater Management Lunch & Learn](#)

June 18, 2019; New Orleans, LA

[Water Collaborative Summer Social Hour](#)

June 19, 2019; New Orleans, LA

Water jobs:

[Mystic River Ambassador](#)

Groundwork USA; Somerville, MA

[Director of Water & Agricultural Programs](#)

The Nature Conservancy; Topeka, KS

[Environmental Analyst \(Drinking Water\)](#)

New England Interstate Water Pollution Control Commission (NEIWPC)

Various locations, NY

[Drinking Water Policy & Data Analysis](#)

U.S. EPA; Washington, DC

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[second line](#) or by listening to our [storms and hurricanes playlist](#) while constantly refreshing [spaghettimodels.com](#).

Wouldn't it be nice to feel [good vibrations](#) and go [surfin' USA](#) on a beach like [Kokomo](#) knowing it is a clean beach?

The EPA agrees—it is summer beach season after all! While [other beaches](#) might be more prominently featured in news stories this week, the EPA has begun awarding up to \$9.24 million across 39 states, territories, and tribes to develop and implement beach monitoring programs. EPA is awarding the money under the [Beaches Environmental Assessment and Coastal Health \(BEACH\)](#) Act, which provides grants to eligible state, territorial, and tribal applicants to help them and their local government partners monitor water quality at coastal and Great Lakes beaches. When bacteria levels are too high for safe swimming, these agencies notify the public in several ways, such as signage, posting beach warnings, or closing the beach. The grantees also identify local pollution sources, and report results of monitoring and notification activities to EPA. The BEACH Act is part of a broader EPA effort to address sources of water pollution that contribute to beach closures. On the Gulf Coast, Florida will receive \$419,000, Texas will receive \$343,000, Louisiana will receive \$314,000, Alabama will receive \$256,000, and Mississippi will receive \$254,000.

Managed retreat! It's all the rage!

Let's talk about beaches a little more. California created the [California Coastal Commission](#) in 1977 under the [California Coastal Act](#) to protect its beaches from overdevelopment and to preserve public access to beaches. The commission oversees development on 1,100 miles of coastal land, and it possesses the partial power to approve or deny the construction of homes and hotels. These days the Commission is looking to combat the effects of climate change. The agency expects to adopt "Residential Adaptation Guidance" by the end of the year with proposed language for managing sea-level rise in residential areas. The most recent draft of that document offers options that include "[managed retreat](#)": removing homes so beaches can migrate inland rather than disappearing under the ocean. While the limits of the Commission's authority have not been legally tested thus far, that is likely to happen soon. Local governments, homeowners, and the real estate industry have already voiced their opposition. This is of course an issue in Louisiana too, so we'll be keeping an eye on how everything plays out in California.

Singapore is taking the bull by the horns

The city-state is taking a decisive stance to combat climate change, rolling out a range of initiatives and releasing a [draft master plan](#) in March. Approximately one-third of Singapore sits a mere five meters above sea level ([hmmm wonder what that's like](#)), and Singapore is one of the world's smallest nations. Thus, building land is considered both an environmental imperative and a way to create additional space. Singapore has been successfully using [polders](#), or dykes, to reclaim land. The concept, borrowed from the Dutch, is preferable to using sand to fill in the sea because it is cheaper and better for low-lying areas.

Singapore also makes up for its lack of space by careful planning. The draft master plan outlined a strategy to rejuvenate the island's central area so that more people can live closer to work. It also proposed creating another 1,000 hectares of parks and park connectors so that in the future, at least 90% of households will be within walking distance of a green space. Additionally, the master plan suggested the use of underground space for the first time for utilities, transport, storage, and industrial facilities, with an aim of freeing up surface land (see above) and being more energy efficient when it comes to utilities.

While food security is another issue for Singapore (currently, 90% of what the population eats is imported), the nation seeks to meet 30% of the country's nutritional needs with home-grown produce by 2030. The goal is driven by a desire to enhance food security in case environmental factors disrupt supply chains globally. However, because Singapore is lacking land space (see above), this cannot be achieved through traditional agricultural methods. Rather, Singapore will consider innovative methods, such as [vertical farming](#). [Hats off to Singapore!](#)