TUWaterWays

Water News and More from the Tulane Institute on Water Resources Law & Policy <u>May 21, 2021</u>

DEIS Summary Updated

We made a few small changes to our summary of the Draft Environmental Impact Statement for the Mid-Barataria Sediment Diversion Project. The most significance edit involves a clarification on the effects of the fecal coliform levels on oyster health and population. While increased fecal coliform can adversely impact oysters for human consumption, it does not impact the health of the oysters themselves. As a reminder, you can read the summary <u>here</u>.

Silent but Deadly

Scientists have recently discovered that dead trees emit greenhouse gases. Yes. You heard that right. There's no glitch in the matrix. The trees are farting. And much like cow farts, these gaseous releases add to the carbon dioxide in the atmosphere. "Ghost trees," as they've been named, make up "ghost forests" and are the result of rising sea levels and saltwater infiltration. Cypress trees, as any good Louisianian knows, are the things holding down our swampland soils. And they don't do very well with salt. While scientists have been experimenting with salt-tolerant strains, the trees that currently line our bayous, lakes, and swamps are dying due to increases in salinity. When they die, they don't just go to The Great Beyond; they stay around and release greenhouse gases that contribute significantly to total emissions. According to a new study, they can increase the amount of greenhouse gases emitted by ecosystems by 25%. The study is still uncertain about the drivers behind these emissions and how they differ between tree species, but one thing is for sure: this stinks.

Going Against the Grain

Kernza, the grain developed from intermediate wheatgrass, has the ability to reduce nitrate contamination from cornfields and soybeans by 96% and 86%, respectively. Decades of deliberate and careful breeding have given Kernza plants roots that are twice as long and thicker than most found in Minnesota. But wait, there's more! As perennials, their roots stay in the ground year-long and prevent erosion and runoff. Guess you can say they were *bread* for it. In contrast, regular ol' wheat needs to be replanted every year. When planted around a well, it is able to absorb the nitrates in the soil and water, preventing fertilizers from leaching into water supplies. Agriculture is a leading source of nutrient pollution into groundwater and water ways. In fact, a big contributor to the Mississippi River's nutrient pollution issue is <u>agricultural activity</u>. Researchers have done some experiments with the grain in Minnesota and found some <u>promising results</u>. But just so we're in 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.

Coming up:

EPA Small Drinking Systems Webinar Series: Harmful Algal Blooms and Algal Toxins; May 25

Webinar: Community-enabled Lifecycle Analysis of Stormwater Infrastructure Costs; May 26

Youth Climate Litigation: Juliana vs. United States; June 2

State of the Coast 2021; June 2-4

Comments due for Mid-Barataria Sediment Diversion Draft Environmental Impact Statement; June 3

Virtual Beach Webinar; June 3

Basics of the Clean Water Act; June 22

Water jobs:

Legal Fellowship – Tribal and Federal Natural Resources Mitigation Law and Policy; Environmental Policy and Innovation Center; Washington, D.C.

<u>Federal Policy Manager – Plastic Pollution Campaign;</u> Oceana; Washington, D.C.

Director, Sustainable Land Science; Conservation International; Arlington, VA

Lands and Rivers Senior Policy Analyst; Western Resource Advocates; New Mexico

<u>Vice President of Regional Conservation</u>; American Rivers; Washington, DC

<u>Climate Adaptation Planner</u>; Center for Planning Excellence; Baton Rouge, LA

Law Clerk; San Francisco Baykeeper; San Francisco, CA

Attorney III; State Water Resources Control Board; Sacramento, CA

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the same *oat*, there are some problems: Kernza yields are a fraction the size of wheat yields, and it takes about 2 years to grow. However, researchers and companies alike see potential in this wheatgrass and are putting in quite the effort to <u>multiply their numbers</u>. You know what they say: no pain, no grains. Hopefully, nothing goes a-*rye*. Unless the government has <u>something to say</u> about it, we might have Kernza loafs someday. Just don't go <u>poisoning any pigeons</u> with it.

It's Time to Step It Up

While cities around the world are experiencing the impact of climate change, many may not be ready to meet the challenge. <u>Forty-three percent of cities</u> around the world lack a climate adaptation plan, many citing budgetary constraints. One <u>needn't look far</u> to see how important climate resiliency is, especially considering the forecast for the <u>upcoming hurricane season</u>. Climate change tends to exacerbate already-existing challenges by increasing frequency of extreme weather, and that doesn't always mean floods. Take Peru, for example. Despite accounting for 4% of the world's renewable water resources, Peru is one of the most water insecure countries, a problem stemming from mismanagement of water resources and compounded by its lack of rainfall, climate change, population growth, and unsustainable agricultural practices. In fact, domestic consumption takes up just 7% of water withdrawals in Peru, and 80% is due to irrigation. But sometimes, finding solutions for the future requires looking back to the past, and <u>Peru is utilizing water management techniques that were developed ages ago</u>. In a village in the Peruvian highlands, the residents use water canals called *amunas* to diverts wet-season flows and route them to natural basins, where they collect it for irrigation, which eventually soaks into the ground and back to the rivers. Repairing abandoned *amunas* may be able to extend that water to the cities. So while we may not be able to stop hurricanes like <u>Neo stops bullets</u>, we can try to better equip ourselves to handle the impacts.

Please Sir, I Want Some More (Rights)

At the end of April, Orange County, Florida <u>passed a "rights of nature" law</u> that recognized the rights of rivers and streams, as well as the residents' rights to clean water. Quickly following the initiative was its own enforcement lawsuit claiming that a housing development project would destroy wetlands and streams and violate that very law. The case, *Wilde Cypress Branch et al. v. Beachline South Residential, LLC and Noah Valenstein, Secretary of the Florida Department of Environmental Protection* (talk about a mouthful!) has already garnered <u>local</u> and <u>national</u> attention. For those curious, the Complaint can be found at the <u>Orange County Clerk</u> <u>website</u>.

And in either a twist of <u>fate</u> or simply coincidence, <u>Christopher Stone</u>, an environmentalist and legal scholar whose work helped develop rights of nature, <u>passed away on May 14</u>. His <u>1972 seminal paper</u> argued for the idea that nature should have its own voice and rights independent from its use for humans. He continued this fight throughout his career, publishing books and articles on the topic and no doubt educated his students at <u>USC</u> <u>Gould School of Law</u> about it. He also found himself in good company on the list of people who held similar views, alongside high-profile leaders like <u>Pope Francis</u> and <u>Prince Charles</u>. Not to mention our own (<u>retired</u>) Professor Houck, who frequently taught a Rights of Nature course at Tulane Law School. Christopher Stone's work helped lay the foundation for laws like the Florida initiative. In a way, it was poetic that his passing came shortly after such a novel change in one of Florida's most populous county.