



TUWaterWays

Water News and More from the Tulane Institute on Water Resources Law & Policy

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On This Season of America's Next Top Model

The host is climate change. Our first contestant is new to the scene. Introducing FSF-PM, who made its debut earlier this week in First Street Foundation's new report, [The Precipitation Problem](#), which examines flooding risk from heavy rainfall across the United States. The updated modelling reveals considerable shortcomings currently used at the federal level. As in 1-in-100-year rain events now happen every 5-to-10-years type of shortcoming. Which brings us to our next entry, the [NOAA Atlas-14 model](#). Public planners and engineers use NOAA's Atlas-14 data as a source of authority in designing infrastructure and related civil works. The influx of [federal funding](#) opportunities from the Bipartisan Infrastructure Law for flood risk reduction are largely based on the current Atlas 14 model. The FSF findings show that these projects could face flooding threats far earlier than expected. Given that contracts have already been awarded for many projects, the fear is whether [infrastructure investments will not provide the necessary protection against climate risks](#). While Congress appropriated funds to NOAA to make updates for its forthcoming [Atlas 15](#), it won't be released until 2027.

FSF-PM also has it out for the third contestant: FEMA's 100-year floodplain. This model doesn't incorporate precipitation data, and First Street's analysis shows that future precipitation patterns will place an additional 12.6 million properties at significant risk that are located outside the 100-year floodplain. Since properties located in the floodplain are required by law to purchase flood insurance, it's [kind of a big deal](#). Your typical homeowner's policy doesn't cover flood damage, so the new risk forecast is a warning that [communities across the country are not insured against flooding](#) from increasingly common extreme weather events.

But wait, there's one more model in the running! A [new study published in Nature](#) looks at precipitation intensity for liquid and solid precipitation separately—something that hasn't been done before in a single study. Turns out that projected rainfall extremes are much greater at high altitudes. Researchers found that a global temperature increase of 1°C would translate to a 15% increase in rainfall at elevations greater than 6,500 feet in the Northern Hemisphere. In such regions, these findings warn of increased frequency in [landslides](#), soil erosion, and downstream floods. Quite a triple threat. Who will prevail? There's "noaa" easy way to tell. At the very least, hope the models become friends and [work](#) together to keep the government and public informed. It's what [Tyra Banks would want](#).

Piping Hot Tea in London

The royal family has some serious competition for the media spotlight these days. Earlier this month we [covered England's worsening drought](#) conditions and sewage contamination and a world of other troubles that have been exacerbated by the structure of the country's water system, which is privatized. It certainly seemed like things were at a boiling point for the country's water sector. Fast forward [two weeks later](#). The CEO of the country's largest water company stepped down amid backlash of over its [environmental track record](#). Thames Water, which supplies drinking water to millions of customers in London and the surrounding region, is [scrambling to avoid collapse](#) as its debt mounts to €14bn. The [government is drawing up emergency plans](#) that may involve placing Thames into public

ownership to avoid the worst. Either way you spin it, structuring an essential public service around a shareholder-driven business model creates perverse incentives. Not to mention that the some of the major owners are a Canadian pension fund and UK university pension fund. A lot can change in [one week](#).

But even governments that guarantee access to water in their constitutions have plenty of room for improvement. For example, [Uruguay is being forced to take drastic measures](#) to avoid running out of water. Workers are drilling new wells in the capital to try and find new sources of groundwater. The public water utility has been mixing [salty water with reservoir freshwater](#) to stretch supplies. Apparently, pets won't even drink it. Bottled water sales have skyrocketed by 224% and the government has implemented [tax exemptions for bottled water](#). It's not just them either. South Africa also guarantees water access as a basic right. But [ongoing electricity failures](#) have cascaded into water system failures. Decades of underinvestment and mismanagement have now left entire communities without running water, often for days on end. Now the country is facing a [cholera outbreak](#) and many point to clean water and sanitation as the primary drivers. Hospitals in the Johannesburg have also struggled to access clean water. Whether these governments can restore their promises remains to be seen, but in an increasingly unpredictable climate, there's no easy way forward.

Come Take a Ride on the Tilt-a-World

Did you know there's an even bigger impact from groundwater extraction beyond subsidence, and environmental degradation? An impact that could shift the course of the Earth? Ok, that was a little dramatic—but excessive groundwater pumping has shifted [actually has altered the tilt of our planet](#). In terms of big picture matters, the change hasn't been significant enough to alter seasons or trigger catastrophe. However, overextraction has [contributed to sea level rise](#). And it's extremely important to understand where the axis is located, as its fundamental for [accurate GPS positioning](#). You get the [picture](#). So, next time you insist you know where you're driving and refuse to ask for directions and end up lost anyways, you can blame your misguided decisions on human depletion of water resources. You're welcome. We at TUWW are always looking out for our readers.

Coming Up:

[14th Louisiana Water Conference, Baton Rouge, LA, August 2-3](#)

Tulane Environmental Law Summit, New Orleans, February 23 & 24, 2024 (save the date!)

Water jobs:

[Senior Campaign Coordinator](#); National Wildlife Federation; New Orleans, LA

[Deputy Director](#); Bayou City Waterkeeper; Houston, TX

[Water Policy Advisor](#); The Nature Conservancy; Home-based/Remote

[Research Attorney](#); Roger Williams University (RI SeaGrant); Bristol, RI

[Senior Fellow \(Water Security\)-Global Food Security Program](#); Center for Strategic & International Studies; Washington, DC



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.

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