Ah water infrastructure – the stuff that dreams are made of. No really, if you dream of a strong economy and steady jobs, water utilities will get you there, according to a recent report by the Water Research Foundation. The report studied 30 water utilities scattered across the country that have a combined market of 83 million people and directly employ 36,500 people. In order to operate and upgrade their systems, an average of $23 billion will be spent each year over the next decade, which in turn will support 289,000 jobs and generate $524 billion in revenue. Thanks to the Water Infrastructure Finance and Innovation Act, part of the 2014 Water Resources Reform and Development Act, utilities will get help in financing these upgrades through loans and loan guarantees backed by the U.S. Treasury.

Clearly China got the memo about all this years ago, as it is now close to completing the second phase of the South-to-North Water Diversion Project. Conceived by the Chairman, the largest water-pipeline project in history is sure to help alleviate the water shortage in the dry northern parts of the country, which includes Beijing. People in the capital are so desperate for usable water, they are starting to illegally drop wells and jury-rig piping into their houses. The $62 billion project, however, has its detractors, primarily those who live in southern China and see their economic potential and environmental health getting siphoned off along with the water. They argue the $62 billion would have been better spent on desalination and rainwater harvesting infrastructure, especially since by the time the water reaches the end of the Project’s first phase in Tianjin, it is too polluted to use. The wisdom of this project will be determined in the decades to come, but, in the short-term, let’s hope they can get the commemorative stamp right.

Detroit and Suburbs Agree on Water Deal

While water utilities may generally be strong economic drivers, Detroit’s beleaguered water utility is proof that the dream can turn into a nightmare. The city’s water utility has been one of the major liabilities for the bankrupt city, so it appears to be great news that the city has struck a tentative 40 year deal with surrounding suburbs that will create a regional water authority to manage the regional parts of the systems. Under the agreement, the city water department will continue to manage the system within the city’s limits.
Newsflash: Fracking Itself Doesn’t Contaminate Water, but Getting In and Out Can

A recent peer-reviewed study published in the Proceedings of the National Academy of Sciences has concluded that fracking isn’t the cause of tainted drinking water in the Marcellus and Barnett shale plays. The study looked at seven cases of tainted drinking water and determined that leaky wells were at fault. Evidence suggests that small pockets of gas migrated into aquifers when the vertical wells were drilled, which are used to get to the deeper shale and to bring the gas to the surface. The commonly quoted statistic is that roughly 15% of all cement sealing of wells may be imperfect, which can lead to leaks and contamination. The Deepwater Horizon oil spill is probably the most disastrous example of a bad cement job. However, in the optimistic words of one petroleum geologist, “It is good to know which parts of the fracking process are the ones we need to worry about.” Amen. The study is also an important reminder that fracking is also just a piece of the broader process of finding and bringing oil and gas to market. Understanding the entire process and where the risks lay is central to protecting water resources.

With Missouri River Flood of 2011, Study Says Army Corps Did All It Could

The Government Accountability Office just released its report on the propriety of Army Corp decision-making over when to release water from its reservoirs during the Great Missouri River Flood of 2011. The Corps managed the highest volume of runoff since 1898 and released a record amount of water from its reservoirs on the Missouri River system. The report found that the Corps acted in accordance with the Master Manual and that the manual didn’t need to change. The report found the Corps was hamstrung by technological limitations in weather forecasting, which was recommended for an update.

Water Monsters: Past, Present, but Future?

If you haven’t heard the latest dinosaur news, prepare the 10 year old kid in you. In addition to finding the remains of an 85 foot long, 65 ton herbivore called the Dreadnoughtus – the largest dinosaur known to roam the Earth – paleontologists also discovered the only dinosaur adapted to aquatic life. Well, actually, the Spinosaurus was discovered about 100 years ago, but the fossils and research were destroyed in WWII. After decades of work, paleontologists have concluded that the Spinosaurus, in addition to being the largest predator to roam the Earth, would spend most of its time swimming. Think of a giant cross between an alligator and a duck. Yikes.

While we might be glad those monsters are extinct, scientists and conservationists are fretting that Mexico’s water monster, the axolotl, might soon meet the same fate. This 30cm long carnivorous salamander lives in the canals of Mexico City and is experiencing a population collapse due to water pollution and invasive species. While the water monster’s small stature won’t raise any eyebrows, it has the remarkable ability to regenerate organs (including complex brain tissue) and resist cancer. This Institute’s in-depth analysis: we might not want to lose that one.

California Drought Leads to Naked Water Grab

Residents of Lupin Lodge are getting a bit testy these days with the local open space district. The nudist colony says it was stripped of its right to tap into an upstream waterfall in times of emergency. Cut off from the supplemental water source, the lodge’s water tank and emergency skinny-dipping pool cannot be filled, increasing their exposure to wildfires. The open space district says the water is publicly owned and that the Lupin Lodge has no right of use. The dispute lays bare the tenuous nature of decades-old water agreements and their dubious legality, which can go unnoticed as they sit dormant in the years between droughts.

Behind the Scenes Look at Bringing Coastal Wetland Loss to Your Computer Screen

For those who have yet to peer into Louisiana’s collapsing coast from the comfort of your home or office, you should check out Losing Ground, a joint effort by The Lens and ProPublica. Curious about how the project was developed? Head over to Loyola University tonight for a panel discussion on how it came together.