

World Water Day 3.13.18

Hi, I'm Jesse Schomberg and you're listening to the Sea Grant Files.

trumpet fanfare

Are you ready to celebrate? The United Nations' World Water Day is fast approaching. It falls on March 22nd and this year's theme, "Nature for Water", focuses on using nature as a model for solving some of the water problems we face today. This day and this subject particularly resonate with me and my colleagues who work on water-related challenges here in Minnesota. If you're a regular Sea Grant Files listener, you know we've done several episodes on green infrastructure an approach to water management that protects or mimics the natural water cycle. It takes the form of planting trees, restoring wetlands, and building rain gardens to slow the pace of stormwater runoff.

Since World Water Day is just around the corner, I want to talk about the world's water... and how you can be water smart.

Earth is effectively a closed system and the total amount of water it contains is essentially constant. It gets recycled over and over again so quite possibly ... once upon a time a dinosaur drank the same water that you are drink. Water makes live on Earth possible; wwe can't live without water. But water's unequal distribution over Earth is problematic: too much can cause destructive flooding that uproots people and costs millions in damages; too little causes droughts and social unrest associated with demand and famine.

Water has been called "the new oil." Unlike oil though, water cannot be replaced with other alternatives. It is tough to talk about world water problems without talking about Cape Town, South Africa. The world is watching the unfolding Cape Town water crisis with horror. "[Day Zero](#)", the point when water in a six-dam reservoir system falls to where engineers must turn off the water supply, is predicted to happen on April 16th. After that, the city's four million residents will have to queue at one of 200 water collection points.

Other dry places, like Australia, are working on technologies to desalinate salt water, but the process is still almost prohibitively expensive.

Unequal water distribution also means that some places, like California, are dry enough that forest fires make annual runs within the state. Droughts have set the stage for wildfires, but lack of precipitation has also caused people living and farming there to rely heavily on their groundwater supply, which is being depleted faster than it can be refilled.

Globally, nearly two billion people rely on groundwater. Using groundwater excessively is causing the land above the aquifers to sink. In Beijing, one of the most water-stressed cities in the world, the ground is sinking in some places at a rate of four inches a year.

Beijing isn't alone. Parts of Shanghai, Mexico City, and other cities are sinking, too. In California, sections of Central Valley have sunk between a foot to 28 feet. Even so, some places ... out of economic necessity or naivety ... continue to use the aquifers.

Take the Ogallala Aquifer in the central United States. Farmers continue to plumb the water from this aquifer at unsustainable rates, though policy makers have been aware of the water supply challenges there for six decades.

In other parts of the world where water is scarce, conflicts have broken out. Water shortages cause a decline in economic growth and a spike in food prices. Unrest in Yemen, which relies on groundwater, experienced water based riots in 2009. Some contest that water is among the complex reasons the civil war in Syria started and continues.

Unequal water distribution also means that some places, like parts of India, have too much water. India experiences seasonal river flooding which puts a large part of their population at risk. An analysis done in 2015 shows that around 21 million people worldwide on average are affected by river floods each year. In 2030, that number could reach as high as 54 million. Climate change is the main driving force of this increase. Climate change will increase the frequency and intensity of storms that cause flooding.

Whether there's too much or too little, the unequal and sometimes sporadic distribution of water causes problems in society that the world is still trying to figure out how to solve.

World Water Day is designed to raise awareness and action. Take this day to reflect on how important water is in your daily life. Here are 10 ways you might celebrate:

1. Learn a few facts about the World Water Crisis
2. Understand the relationship between sanitation and water
3. Watch a water documentary or a related YouTube video
4. Encourage your friends to think about water through social media
5. Get together with friends and colleagues and talk about water
6. Take steps to save water in your home
7. Pledge to limit your access to water for a day (You'll quickly realize how much you rely on water!)
8. Start a community project like making a greenroof or a raingarden to slow stormwater runoff.

9. Go outside and show your commitment by cleaning trash from shorelines and river banks.
10. Hoist a large glass of H - 2 - O and toast the wonderful liquid that makes your life and the life around you possible.

Here's wishing you a happy World Water Day, everyone!

This episode of the Sea Grant Files was produced by Rachel Wachtler, Sharon Moen, Maija Jenson, KUMD, and me, Jesse Schomberg. For more information or to listen to more episodes of The Sea Grant Files visit Minnesota Sea Grant at www.seagrant.umn.edu. You can also follow Minnesota Sea Grant on Facebook or Twitter. Thanks for listening.