

# Water Supply

Where is the fresh water?



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# How do we use water?

"WHISKEY'S FOR DRINKING,  
WATER'S FOR FIGHTING  
ABOUT." Mark Twain

Heading off wars over  
water in the 21st century



More Precious or  
More Recycled?

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**1. Cape Town's Water Crisis: Little Rain for A Lot of People**  
Feb 2018



Cape Town's four million residents are expected to run out of water very soon. By the end of January, the dams holding the city's water supply were down to 26% of their capacity, and the government is warning that a "Day Zero"—when capacity drops below 13.5%—is increasingly likely in the coming months.

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**2021 Cracked Pipes, Frozen Wells, Offline Treatment Plants: A Texan Water Crisis**




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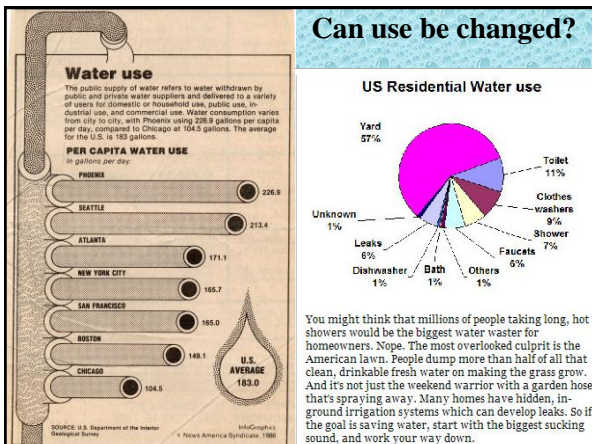
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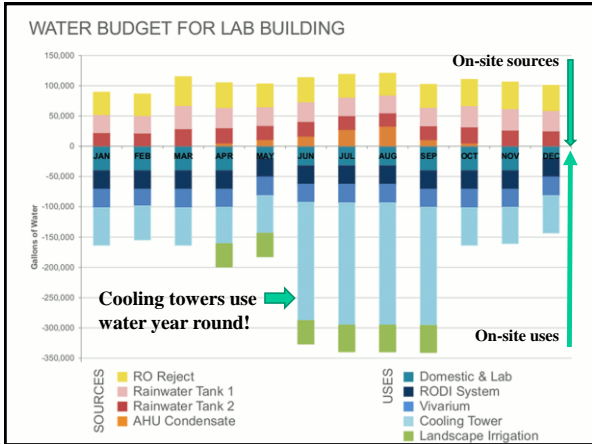
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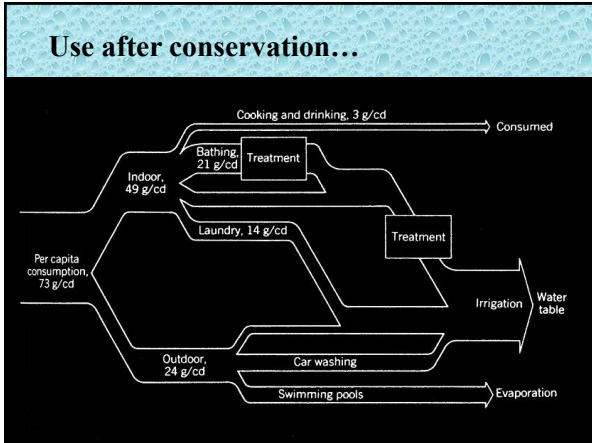
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### Water Supply Options:

**City Water**

- Aquifers
- Surface Water
- Reservoirs

**Site Water**

- Surface
- Wells
- Cisterns
- Recycling

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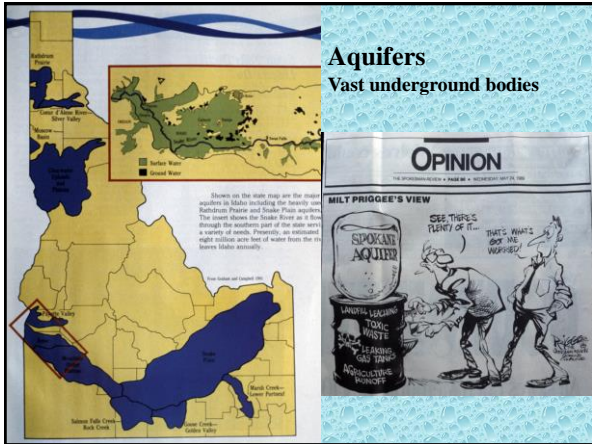
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**Aquifers**  
Vast underground bodies

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**Mississippi River drainage**

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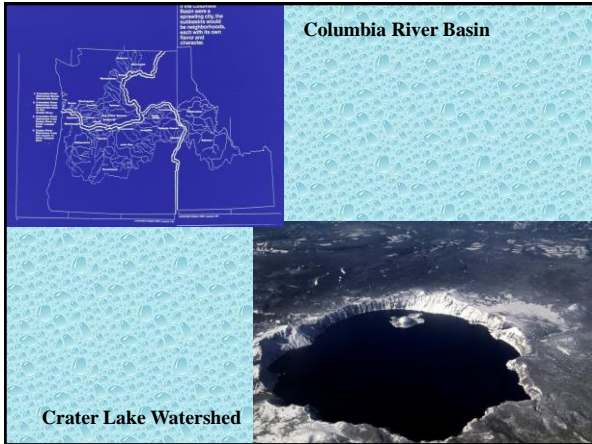
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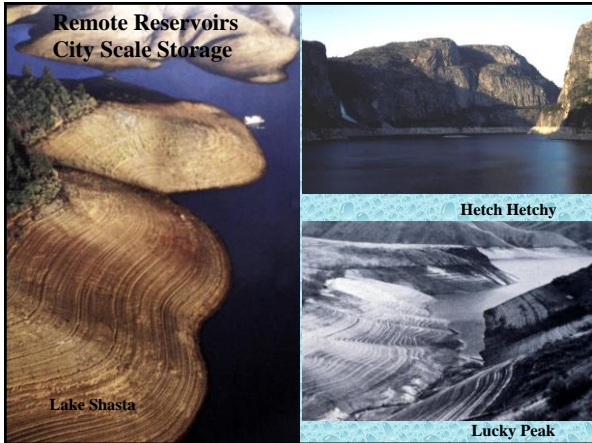
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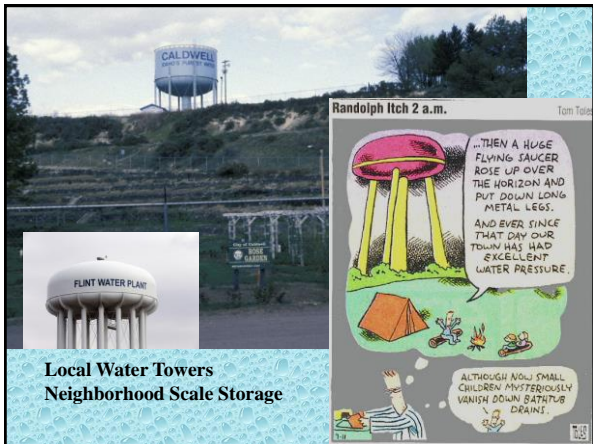
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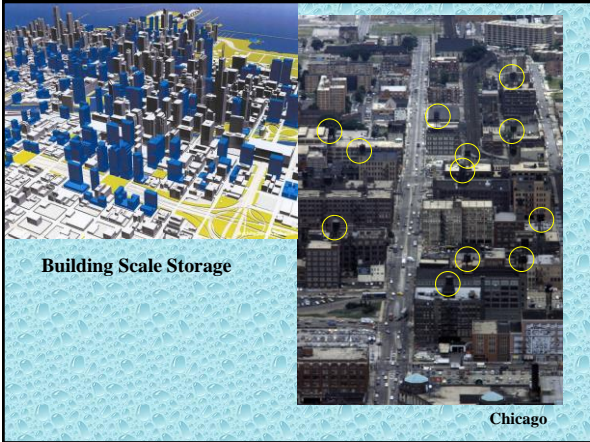
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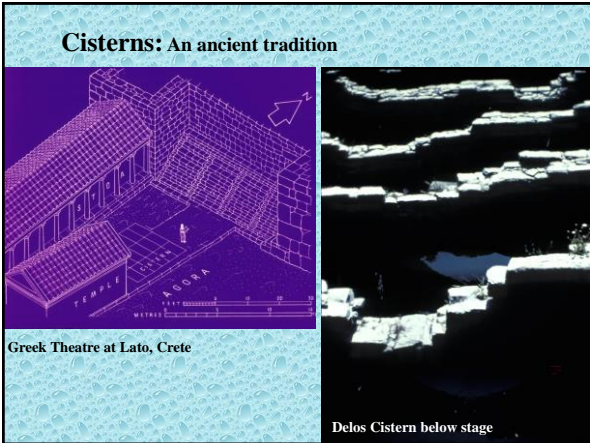
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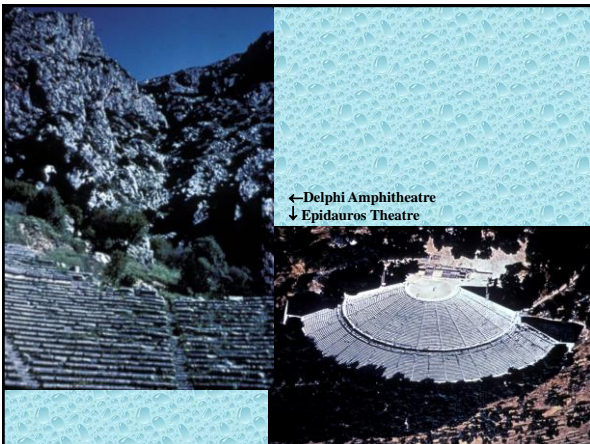
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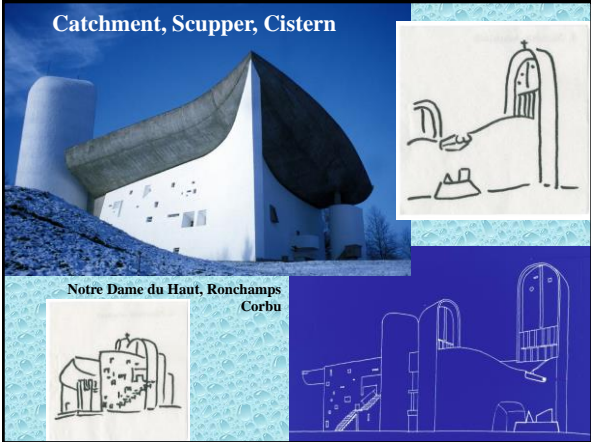
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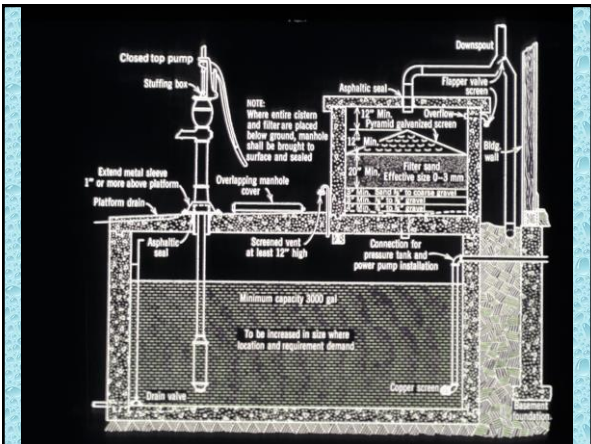
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**Rainwater Harvesting in the United States**

Dr. Dennis Lye, a microbiologist with U.S. Environmental Protection Agency Cincinnati, a professor at Northern Kentucky University, and currently president of the International Association of Rainwater Harvesting, is shown in the image.

**Center for Maximum Potential (MAXPOT) Building Systems**  
Pliny Fisk

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**Wash roof... Then collect water**

Unprocessed roof water

water from first flush diverter output

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**...also available commercially...**

**WELCOME RAIN**  
Jay R. Smith Mfg. Co. offers a wide range of PVC inline downspout filters, vortex line filters, storage tank components, floating filters and rainwater harvesting packages. The company sells rainwater harvesting filters and components for roofing areas of any size in cooperation with WQV AC and Rainwater Management Solutions (RAMS). The company provides rainwater harvesting products that can contribute to the achievement of LEED credits in water use reduction, water-efficient landscaping and stormwater design, as well as the possibility for an innovation in design credit. Visit [jrsmith.com](http://jrsmith.com) or [Circle 88](tel:800-888-8888)

**Top of the Filter**

**RH9510-04 Inline Downspout Filter Collector**

Rainwater enters at the top of the filter. 95% of the clean water is filtered and diverted to the storage tank. Debris is removed to the storm water system.

To Storage Tank

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Seahorse Key Coast Guard Station, FL

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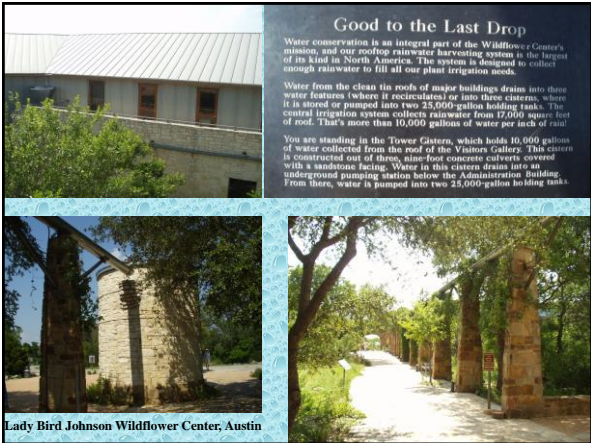
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**Good to the Last Drop**

Water conservation is an integral part of the Wildflower Center's mission, and our rooftop rainwater harvesting system is the largest of its kind in North America. The system is designed to collect enough rainwater to fill all our plant irrigation needs.

Water from the clean tin roofs of major buildings drains into three water features (where it recirculates) or into three cisterns, where it is stored or pumped into two 25,000-gallon holding tanks. The central irrigation system collects rainwater from 17,000 square feet of roof. That's more than 10,000 gallons of water per inch of rain!

You are standing in the Tower Cistern, which holds 10,000 gallons of water collected from the roof of the Visitors Gallery. This cistern is constructed out of three, nine-foot concrete columns covered with a sandstone facing. Water in this cistern drains into an underground pumping station below the Administration building. From there, water is pumped into two 25,000-gallon holding tanks.

Lady Bird Johnson Wildflower Center, Austin

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IslandWood

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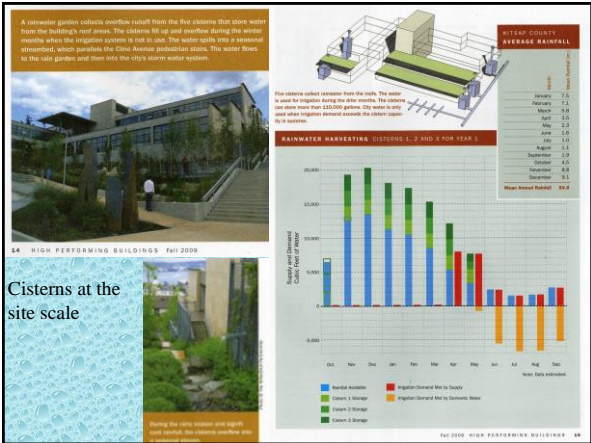
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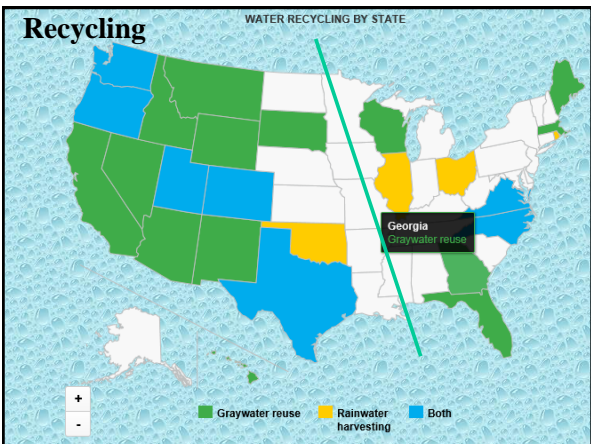
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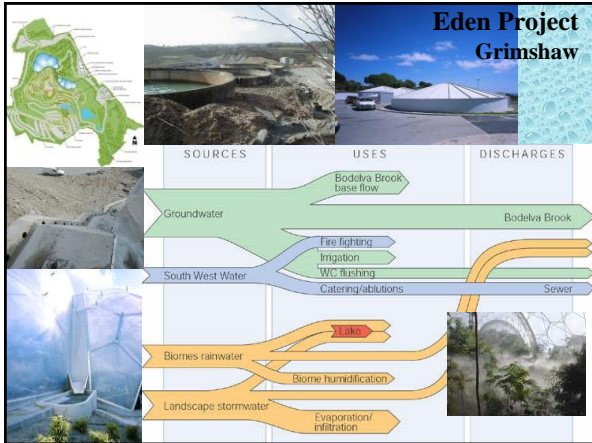
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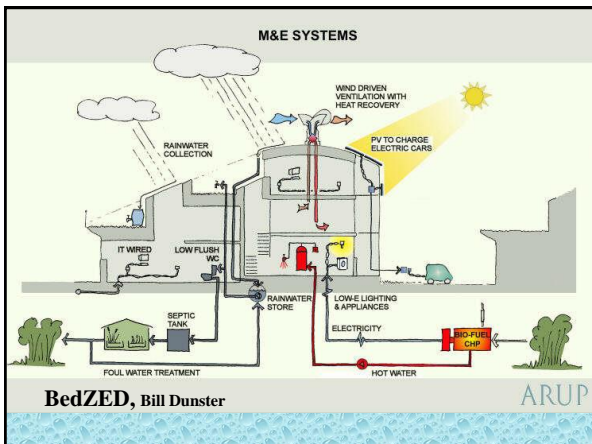
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