


The Missing Ingredient is...


Water

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Energy & Water

- The industry's immense focus on energy
- Poll: How many could live 48 hours without energy?
- Poll: How many could live 48 hours without water?
- Embodied energy of potable vs. reuse
- How can we make informed decisions if we don't measure? (Data is our friend)



Energy Footprint of Water

- California: "The water sector is the largest user of energy in the state, accounting for 19% of all electricity consumed in the state and 30% of nonpower plant-related natural gas use."¹
- "U.S. public drinking water systems use roughly 39.2 billion kWh per year"² or 3.92 trillion LED (A19) bulbs³ or 2x annual electrical consumption of San Diego County in 2016⁴
- Between 1996 & 2013, electrical use for supply & wastewater treatment increased by 39% & 74%, respectively²

Sources:

1 *California's Water-Energy Relationship* Water-related energy included that amount of energy directly consumed by water agencies in the collection, extraction, conveyance, treatment, and distribution of water to end users, and the treatment and disposal of wastewater. It also included the amount of energy used to consume water, e.g., to heat water for a shower or to pump it through a cooling tower.

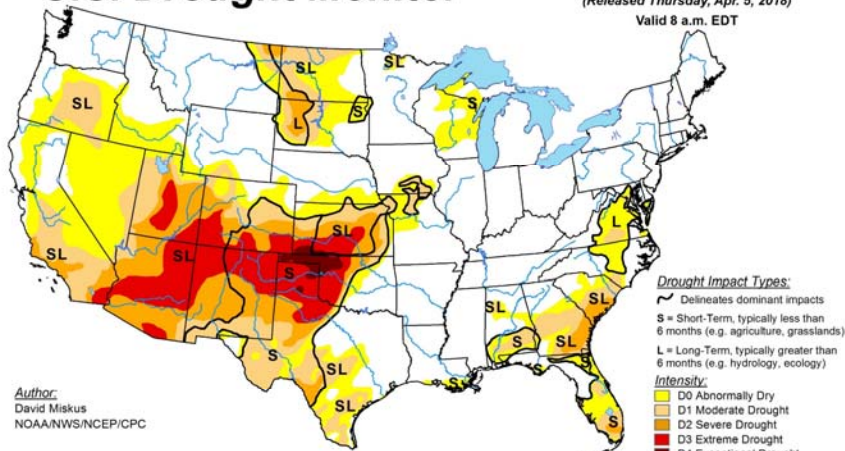
2 *Electricity Use and Management in the Municipal Water Supply and Wastewater Industries*, November 2013

3 Office of EERE, <https://www.energy.gov/eere/articles/how-much-power-1-qlgawatt>, October 2016

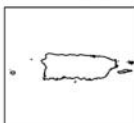
4 California Energy Commission, <http://ecdms.energy.ca.gov/electbycounty.aspx>

U.S. Drought Monitor

April 3, 2018
(Released Thursday, Apr. 5, 2018)
Valid 8 a.m. EDT



Author:
David Miskus
NOAA/NWS/NCEP/CPC



<http://droughtmonitor.unl.edu/>

31 of 50 states have at least a D0-level intensity drought

THE PRICE OF WATER: 2015
Combined water, sewer and stormwater prices for households in 30 major U.S. cities.



Water prices pay for treating, pumping, and delivering water, while sewer prices cover the cost of cleansing the water that goes down the drain.

Sewer prices are often higher than water prices because more energy and chemicals are required for treatment. Following the Clean Water Act, the federal government gave grants for new treatment plants during the 1970s and 1980s. Over the past three decades, however, new spending has been cut for local sewer infrastructure.

Stormwater fees are not included in every city's monthly bill. Some cities use general tax revenues to pay for projects to reduce polluted runoff from streets and parking lots. However, these projects must then compete for funds with other departments like police and schools.

Prices current as of April 1, 2015.
Monthly bill calculated for a family of four using 100 gallons per person per day.
Source: Circle of Blue research, based on utility water rates.



Dollar amounts shown are monthly

They include water, sewer & stormwater fees



Water Ratings



Water ratings are on-site analyses of properties that subsequently forecast future water usage.

Ratings do not mandate anything. They simply assess the design & materials of the property.

They can be more comprehensive than a water audit.

What Are the Benefits of using a Water Rating?

- Long term conservation of a precious, essential resource
- Earning tax credits
 - WERS cited in the rules for compliance of NM Sustainable Building Tax Credit
- Support of codes, regulations, and enforcement
 - Went into effect in the City of Santa Fe 3 weeks ago
 - All new single-family detached units must submit a preliminary WERS of 70 (or less) with their building permit application, and a verified 70 (or less) to obtain a certificate of occupancy
- Green Building Programs
 - GreenStar: Transitioning to be the water criteria
- Potential financial incentives
 - Reduced storm water impact fees
 - Reduced tap fees
 - Shortened permit review time



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Questions?

Contact Us for More Info

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Thank you!



Introduction to Water Ratings

What Is A Water Rating?
What Are The Benefits?



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