The Parched West:
Covering Water and Drought

Investigative Reporters and Editors Tipsheet - 2014

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"Whiskey is for drinking; Water is for fighting over" – It's a great quote, but it turns out Mark Twain probably never said this. Sorry. It's a good reminder to throw out any presumptions you had about water.

Start with the basics – Where does the water come from? How is it used? How much does the water cost? Who uses the water? What's in the water? Sure, they sound like simple questions, but the answers often take a lot more digging than you thought.

Water problems exist even when there isn't a drought – A crisis may bring issues to the forefront, but the underlying problems were already baked in. Are there conservation plans in place? Is infrastructure leaking and outdated? Has the groundwater been overpumped?

Water stories are economic stories – It's not just about the environment. Water is a fundamental input in the economy. All industries need water. It takes water to run most power plants. It takes energy to run a water system (a whopping amount in California).

Ask someone to show or draw you a map – Water is often moved long distances in the West. Have someone take you through the system so you understand how it works. Where does the water come from? Where does it go after it's used? Where is the groundwater? Along the way, who controls the taps and who has major diversions?

Find people on the ground - Most of us don't think about water issues, because it magically comes out our taps. Bring water problems to life by putting them in human terms. Find the person who runs the hydropower dam. The fisherman hauling in a catch. The person who drills groundwater wells. We remember personal stories much better than we retain facts or data.

Dig Deeper on Basic Questions – After you find out where a water supply comes from, ask where it *will* come from. How *should* water be used compared to how it *is* used? What does water cost, but what's the *real* cost?

Climate change is a water story – Hang out with climate scientists enough and you'll realize they're obsessed with water. Temperature and water dynamics go hand in hand. Weather patterns shifting, ecosystems changing, ocean acidification, and winter snowpack – all are water-related.

Water stories are often just good stories– Read *Cadillac Desert* by Marc Reisner. Seriously. Just read it.

A Few Warnings…

What is per capita water use? It depends – At the most basic level, it's the amount of water a region uses, divided by population. But make sure you check how it's calculated. Does it include industrial, commercial or agricultural use? Is the population used in the calculations accurate and relevant? Both can alter the results.

"Using water" can mean very different things – Actually, there are two kinds of water use.

- *Non-consumptive use* means the water is returned to the system after it's used. Example: a hydropower dam uses water but the water then continues downriver.
- *Consumptive use* means the water is removed from the immediate water system. Example: crops mostly consume water – it's used by a plant and it evaporates.

Verify the data – Everyone underestimates how much water they use. There are even studies that show this. Make sure you check out records or water bills with the actual data.

Get ready for acronyms –

- *Acre foot (AF)* –the amount of water it takes to cover one acre to a depth of one foot (325,851 gallons). Picture a football field, which is about an acre in size.
- *Cubic feet per second (CFS)* – a rate of water movement, used to describe river flows, dam releases, diversions. One cfs is 450 gallons per minute. Picture basketballs, which occupy about one cubic foot.
- *CCF (centum cubic feet) or HCF (hundred cubic feet)* – a measurement unit usually seen only on water bills. One HCF is 748 gallons. Best to avoid this measurement unless you have to explain water bills.

Useful Resources

National Drought Mitigation Center - http://drought.unl.edu/

U.S. Drought Monitor – Daily drought snapshot: http://droughtmonitor.unl.edu/

California Water Data Exchange Center - http://cdec.water.ca.gov/

Streamflow data all over the U.S. - http://waterwatch.usgs.gov/

National Weather Service River Forecast Centers – http://ht.ly/yhzOo

Climate Prediction Center – http://www.cpc.ncep.noaa.gov/

Society of Civil Engineers Infrastructure Report Card - http://www.infrastructurereportcard.org/

Black & Veatch Co. 2012-13 water/sewer rate survey (50 largest U.S. cities): http://ht.ly/ylYxh

World Water – a biennial report from the Pacific Institute: http://worldwater.org/

Pacific Institute's California Drought website: http://www.californiadrought.org/

"Water in the West" – Background paper on western water issues: http://ht.ly/yoWR6

Assn. of CA Water Agencies Drought status updates – http://bit.ly/1pyY7FO

CA Dept. of Water Resources: Data on per capita water use & more – http://ht.ly/yoYhV