

# Earth Log: Ten trillion gallons of rain – just a drop in the drought bucket

By Mark Grossi

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Early this year, the low water along the shoreline of Millerton Lake revealed islands and peninsulas.

JOHN WALKER — Fresno Bee Staff Photo [Buy Photo](#)

Somebody called this morning asking me if it was true that 10 trillion gallons of water had fallen on California in the last several days, as reported by several news outlets.

Yes, it's true a Florida meteorologist ran the numbers, figuring 1 inch of rain per square mile is worth 17,378,742 gallons. So doing the math using the 3 to 5 inches of rain over more than 163,000 square miles in California, you get in the neighborhood of 10 trillion gallons.

If that estimate is even close, it helps you wrap your brain around the idea that three years of drought have really sapped California. Ten trillion gallons barely make a dent in the drought.

Picture the number: You line up 12 zeroes behind the number 10 to describe up to 5 inches of rain. Think of all the zeroes you'd need for several dozen inches of rain. That's the deficit we're talking about.

What does 10 trillion gallons look like? It's a little more than 30 million acre-feet of water, if I'm doing the math right. Pine Flat Reservoir holds 1 million acre-feet. So, it's a little more than Pine Flat times 30.

Meteorologists are saying the 10 trillion gallons is believable, but it could only be an estimate. There's no way to know exactly how much precipitation fell in all those square miles.

In an email, meteorologist Paul Iniguez of the National Weather Service in Hanford says: "Good estimation, reasonable methodology, but imperfect due to how underlying data are collected and interpolated."

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