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# 30 Fun Facts about Groundwater

- 1. What's groundwater?** It's the water found in the cracks and crevices in the sand and rock below the earth's surface in formations called aquifers.
- It's raining, it's pouring – about **25% of all rainfall** in the U.S. becomes groundwater.<sup>1</sup>
- 2.78 *million trillion* gallons of the world's freshwater is groundwater. That's about **30%**!<sup>1</sup>
- It's a thirsty nation! **The U.S. uses about 349 billion gallons** of water every day, and over one-fourth of that is groundwater.<sup>1</sup>
- It's not all coming from upstream – **about 30% of U.S. streamflow is from groundwater**, though that amount may be higher or lower in some areas.<sup>1</sup>
- Imagine all the water discharged into the Gulf of Mexico by the Mississippi River in the past 200 years – that's about **33,000 trillion gallons**, which is about the same amount as the groundwater reserves in the U.S.<sup>1</sup>
- California uses the most groundwater at **10.7 billion gallons a day**, which is one-third more than the second ranked state, Texas at **8.02 billion gallons a day**.<sup>1</sup>
- The U.S. uses *79.6 billion gallons per day* of fresh groundwater for public supply, irrigation, livestock, manufacturing, mining, thermoelectric power, and other purposes.<sup>1</sup>
- Pump, pump, pump**...more than 15.9 million water wells for all purposes serve the U.S.<sup>1</sup>
- Take a sip! About **half of Americans use groundwater for drinking water**, from both private and public drinking sources.<sup>1</sup>
- Groundwater is helping to **feed the world**. Irrigation is the biggest user of groundwater in the U.S., with about 53 billion gallons used daily.<sup>1</sup>
- In fact, 90% of the groundwater from the Ogallala Aquifer is used for agricultural irrigation, which constitutes **one-third of U.S. irrigated agriculture**.<sup>1</sup>
- If spread across the entire U.S., the groundwater in the Ogallala Aquifer would cover all 50 states with **1.5 feet of water**. Talk about your giant wading pool!<sup>1</sup>
- It would take about **6,000 years to naturally refill the Ogallala Aquifer** if it was ever completely depleted.<sup>1</sup>
- Texas has the most irrigation wells in the U.S. with about **77,400** total.<sup>1</sup>
- The **Ogallala Aquifer** underlies about 175,000 square miles from Texas to South Dakota.<sup>2</sup>

17. Groundwater and surface water are connected. When you feel a cold spot in a lake, it's most likely a **groundwater spring** you're swimming over. Brrrrrr!<sup>3</sup>
18. Groundwater road trip! The distance that groundwater flows per year varies from **a few feet to hundreds of miles**, depending on the aquifer's makeup and flow system of groundwater.<sup>4</sup>
19. Different materials have **different capabilities to store groundwater** and have water move through them.<sup>3</sup>
20. **Over the hill?** Groundwater's age (or time since recharge) in shallow, local systems can vary from less than a day to a few hundred years. In deep, regional systems with long flow paths (tens of miles), the age of groundwater may reach thousands or tens of thousands of years.<sup>3</sup>
21. 1, 2, 3...the U.S. is the **third largest irrigator in the world**, after China and India.<sup>4</sup>
22. An **unconfined aquifer** is made of permeable rock and is recharged with water from the land's surface.<sup>5</sup>
23. A **confined aquifer** is found between two layers of less permeable rock and is filled with water.<sup>5</sup>
24. The groundwater down under...the largest known aquifer is the **Great Artesian Basin in Australia**, which covers about 660,000 square miles.<sup>5</sup>
25. Hidden, but massive – at any given moment, the amount of groundwater is **20 to 30 times greater** than the amount in *all* the lakes, streams, and rivers of the U.S.<sup>6</sup>
26. What makes it taste so good? The most common dissolved minerals in groundwater that give it its unique flavor are **calcium, magnesium, sodium, potassium, chloride, sulfate, and bicarbonate**.<sup>7</sup>
27. The most commonly found pollutants in groundwater are **nitrates, metals, volatile and semi-volatile organic compounds, and pesticides**.<sup>7</sup>
28. Let's keep it clean! **Wellhead protection** is a pollution prevention and management strategy used to protect groundwater used for drinking water.<sup>8</sup>
29. Gulp, gulp, gulp – if you live in a rural area, you most likely **drink groundwater**.
30. That's a LOT of groundwater! Out of all the freshwater in the world, minus the polar ice caps, about **95% is groundwater**.

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<sup>1</sup> <http://www.ngwa.org/fundamentals/use/pages/groundwater-facts.aspx>

<sup>2</sup> <http://pubs.usgs.gov/sir/2014/5218/>

<sup>3</sup> <http://cseo.mtu.edu/community/groundwater/GWmyths.htm>

<sup>4</sup> [http://pubs.usgs.gov/circ/circ1186/html/gen\\_facts.html](http://pubs.usgs.gov/circ/circ1186/html/gen_facts.html)

<sup>5</sup> [http://education.nationalgeographic.com/education/encyclopedia/aquifer/?ar\\_a=1](http://education.nationalgeographic.com/education/encyclopedia/aquifer/?ar_a=1)

<sup>6</sup> <http://www.ngwa.org/fundamentals/use/pages/groundwater-facts.aspx>

<sup>7</sup> <http://www.encyclopedia.com/topic/Groundwater.aspx>

<sup>8</sup> <http://water.epa.gov/infrastructure/drinkingwater/sourcewater/protection/epastateandtribalprograms.cfm#wellhead>