

Water is Unique

Depending on temperature and pressure water can exist as a solid, a liquid, or gas. Water is essential for life. On average living organisms, including people, are more than 60% water.



Our Responsibility

Unfortunately, there is a limited amount of water on earth that has been here since the planet formed a few billion years ago. There is no new water. Scientists estimate that there are about 326 million cubic miles of water on earth (one cubic mile is more than 1 trillion gallons), which would cover the United States to a depth of 90 miles. Approximately 70% of earth's surface is covered with water.

Water Cycle

Did you know Westcave collects rain water?

How much rain water could you collect from your roof?

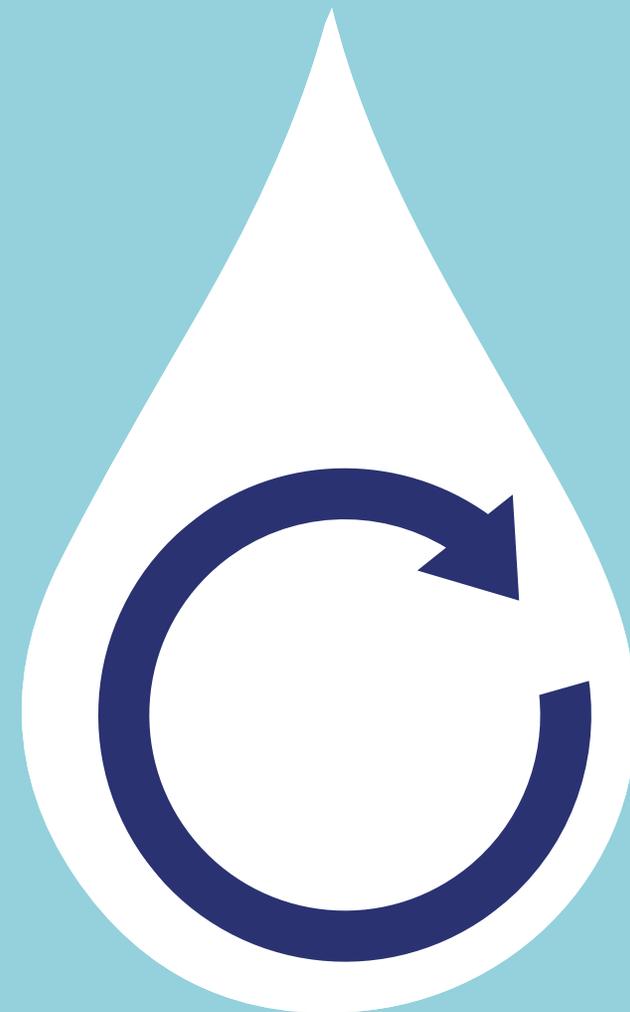
1. Measure the length of your roof by the width in feet. Multiply together to get the area.
2. Every square foot of roof collects about 0.6 gallons of water per inch of rain. Multiply your roof area by 0.6.
3. Due to inefficiency with a 25% loss multiply the result by 0.75.
4. You now have the amount of rain you could collect with one inch of rainfall.

$$L \times W \times 0.6 \times 0.75 = \underline{\hspace{2cm}} \text{ gallons/inch of rain}$$

L = Length of roof
in feet

W = Width of roof
in feet

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Water Cycle

Water is constantly circulating through a complex system known as the water (or hydrologic) cycle. Influenced by solar radiation, gravity, and the earth's rotation, water evaporates from the surface, transpires from plants, and is released back into the atmosphere as water vapor. From there, it condenses and returns to earth in the form of precipitation (rain, hail, sleet, snow). The water then follows the pull of gravity to sustain plants, recharge aquifers, and replenish streams and reservoirs on its journey back to the sea.

Where is Our Water?

