

## SCIENCE OF WATER

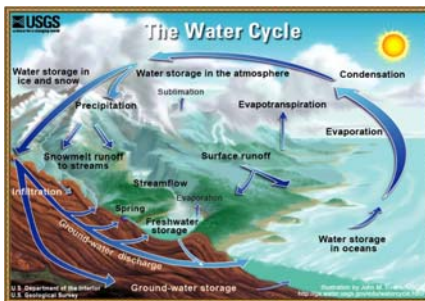
Freshwater is a *finite* resource. Of all the water on Earth:

97% -Oceans

2.2% -Locked in Glaciers and Icecaps, which leaves

0.8% - Rivers, Lakes and Groundwater for everyday use

### The Water Cycle:

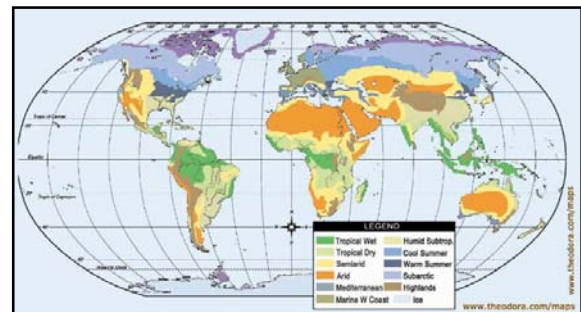


John M. Evans, USGS, Colorado District

The water cycle, or the hydrologic cycle, is the process of water moving through the earth. Water evaporates and transpires from the earth's surfaces into the atmosphere as water vapor to form clouds and then precipitates back to the earth in the form of rain or snow in an endless cycle.

### Global Distribution of Freshwater:

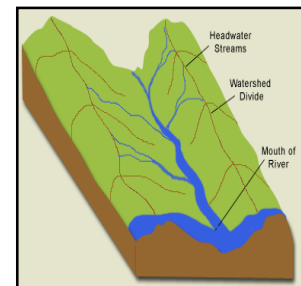
Differences in global temperature and precipitation patterns create diverse climate zones across the earth's surface, which in turn results in a varied distribution of freshwater. Climate zones include: Tropical, Subtropical, Arid, Semiarid, Mediterranean, Temperate, Oceanic, Continental, Alpine, Subarctic, Polar, and Antarctic.



Maps courtesy of [www.theodora.com/maps](http://www.theodora.com/maps); used with permission

### Watersheds and Catchment Basins:

Watersheds, or catchment basins, are areas of land defined by the flow patterns of rainwater or melting snow and ice. In general terms, a watershed is a geographic area where all water, sediments, and dissolved materials drain to a common outlet, a stream, river system, reservoir, underground aquifer, or other body of water. A watershed can also be thought of as an area that "catches" water and routes it to a common basin, channel, or network of channels.



[www.thewatershed.org](http://www.thewatershed.org)

Learn More: The water you drink today was once used by the dinosaurs, in ancient Rome and throughout history since all because of the fundamentals of the water cycle. Next time you drink a cup of water, think of all the places that it may have traveled before it reached your cup!