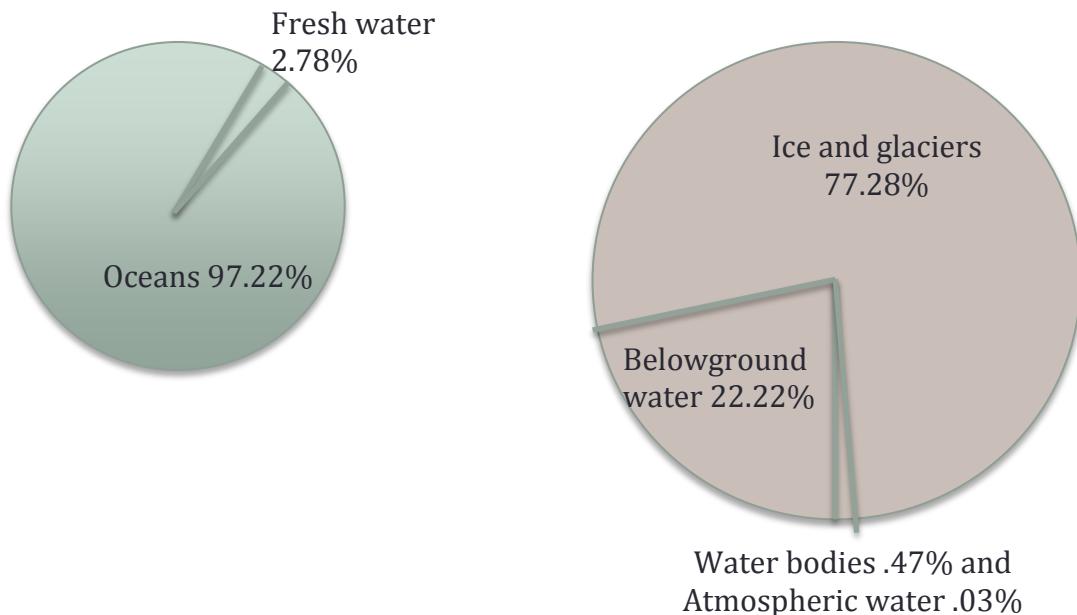


Ch. 9 Review

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2A

- Most water on Earth resides in the oceans. Of the relatively small proportion that is fresh water, nearly three-fourths is tied up as ice and glaciers, leaving a small amount remaining in groundwater, streams, rivers, lakes, and wetlands. All of these sources of fresh water can be used by humans. Atmospheric water is an additional source of water, but its availability may vary seasonally as well as from year to year. Human activities can contribute to the negative effects of drought and flooding.
- Humans have created a variety of ways to store and divert water, including levees, dikes, dams, and aqueducts. Each of these water distribution technologies has important benefits, but can also have negative environmental impacts. Humans have also developed technologies for the desalination of salt water.
- Water is used in agriculture, industry, and households. Agricultural uses of water include several different methods of irrigation as well as the developing field of hydroponic agriculture. Industrial uses of water include the generation of electricity, the refining of metals and paper, and the cooling of machinery. In households, water is used primarily in bathrooms and for washing clothes. Per capita water use varies tremendously by country. Developed countries tend to use more water than developing countries where many people have access to only a few liters of water per day.
- The future of water availability depends on water ownership, water conservation, economic development, and global change. Water ownership is a highly complex issue that involves the market value of water and our need to ensure that adequate supplies are available. Water conservation efforts include improvements in agricultural irrigation techniques, the increased use of recycled water in industrial processes, more efficient household appliances, planting less water-demanding landscapes, and simple water collection devices that collects rainwater and allow recovery and reuse of gray water.



- Aquifers- a permeable later of rock and sediment that contains ground water.
- Water table- the uppermost level at which the water in a given area fully saturates rock or soil.
- Groundwater recharge- a process by which water percolates through the soil and works its way into an aquifer.
- Spring- a natural source of water formed when water from an aquifer percolates up to the surface.
- Artesian well- a well created by drilling a hole into a confined aquifer.
- Cone of depression- an area from which the groundwater has been rapidly withdrawn.
- Oligotrophic lake- a lake with a low level of productivity as a result of low amounts of nutrients in the water.
- Mesotrophic lake- a lake with a moderate level of productivity.
- Eutrophic lake- a lake with a high level of productivity.
- Dikes- a structure built to prevent ocean waters from flooding adjacent land.
- Levees- an enlarged bank built up on each side of a river to prevent flooding.
- Aqueducts- a canal or ditch used to carry water from one location to another.
- Desalination- the process of removing salt from salt water.

Things we need to change as humans

- As humans we need to use better agricultural techniques to use less water.

- Use the least amount of water possible at our home activities.

What percentage of Earth's water is fresh water?

- a. 3 b. 10 c. 50 d. 90 e. 97

Which of the following is not a water conservation technique?

- a. Flood irrigation b. Reduced-flow showerheads
 c. Recycling of industrial water d. Dual-flush toilets
 e. Front-loading washing machines

Which of the following statements about the industrial use of water is not correct?

- a. it is used to refine metals
 b. it is used to create steam.
 c. it is important in generating electricity.
 d. it plays a role in making paper products.
 e. its use is becoming less efficient.

What are two ways that humans can reduce the amount of freshwater that they use?