

# Environmental Science 112

## FALL SEMESTER 2018

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### Chapter 12

#### Freshwater Systems

- Majority (97.5%) of Earth's Water is in the oceans and is too salty to drink or use for irrigation
  - Only 2.5% is considered **fresh water**, water that is relatively pure and free from salts
    - 79% trapped in ice caps and glaciers
    - 20% trapped in groundwater
    - 1% is surface water, fresh water that is easily available to us
- Figure 12.3
- Surface water is located atop Earth's surface, such as in a river or lake
- Groundwater is water beneath the surface that resides within pores in soil or rock
  - Any water that does not evaporate, flow into waterways, or get taken up by organisms will infiltrate into groundwater
  - Groundwater can remain underground for thousands of years at a time

#### Groundwater plays key roles in the hydrologic cycle

- Groundwater is contained within aquifers...
- ...
- Areas where water can infiltrate through the surface and reach the aquifer = recharge zone
- Confined aquifers are trapped between impermeable clay, while unconfined aquifers are not

#### Surface Water converges in river and stream ecosystems

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# Environmental Science Chapter 12 Review

**Robert R. Redfield**



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