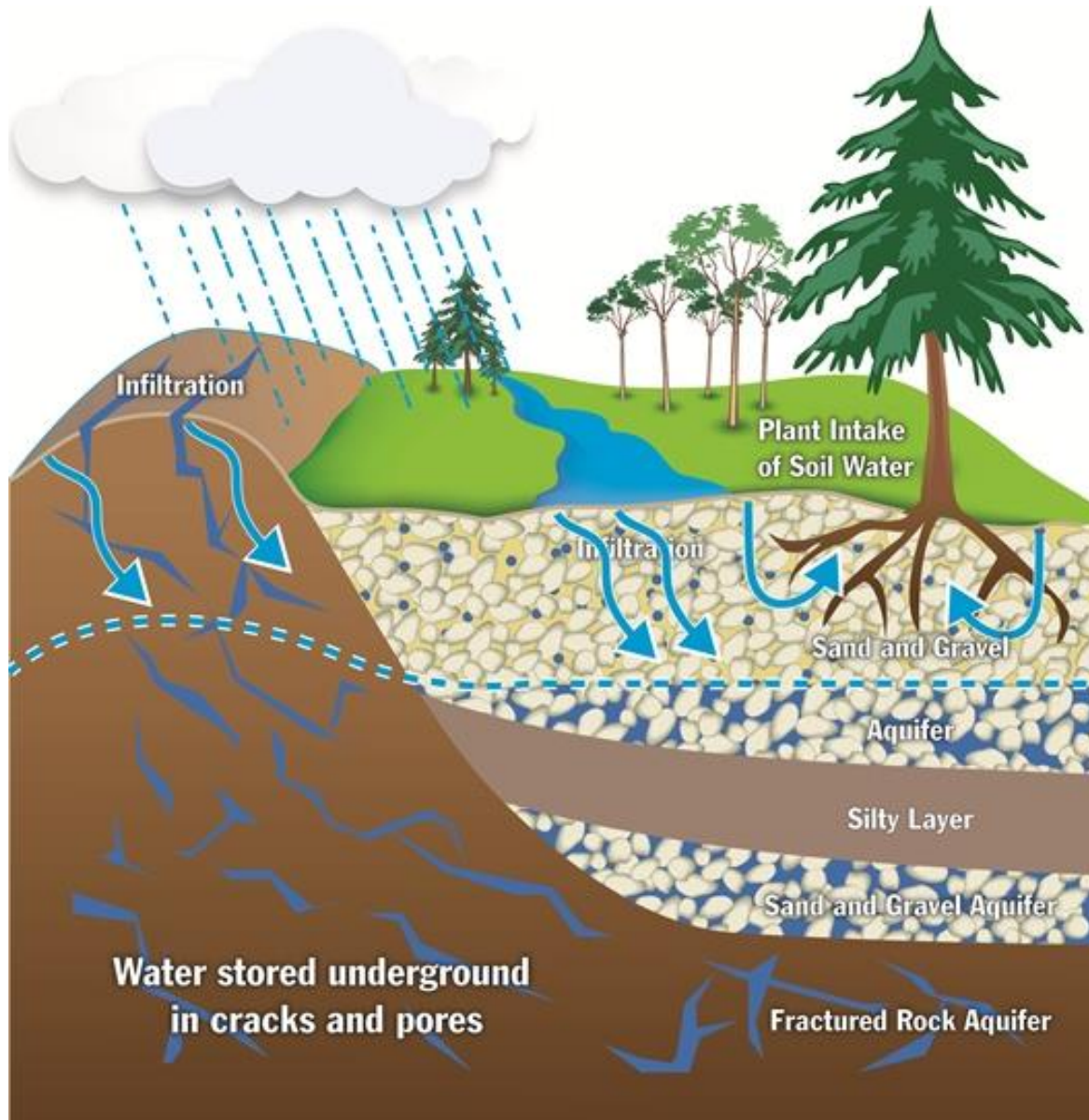


Groundwater



About **1/3** of **all freshwater on the planet** is found underground.

Part air part water
unsaturated zone

--- **Water table**

Saturated zone: water fills all pores and cracks

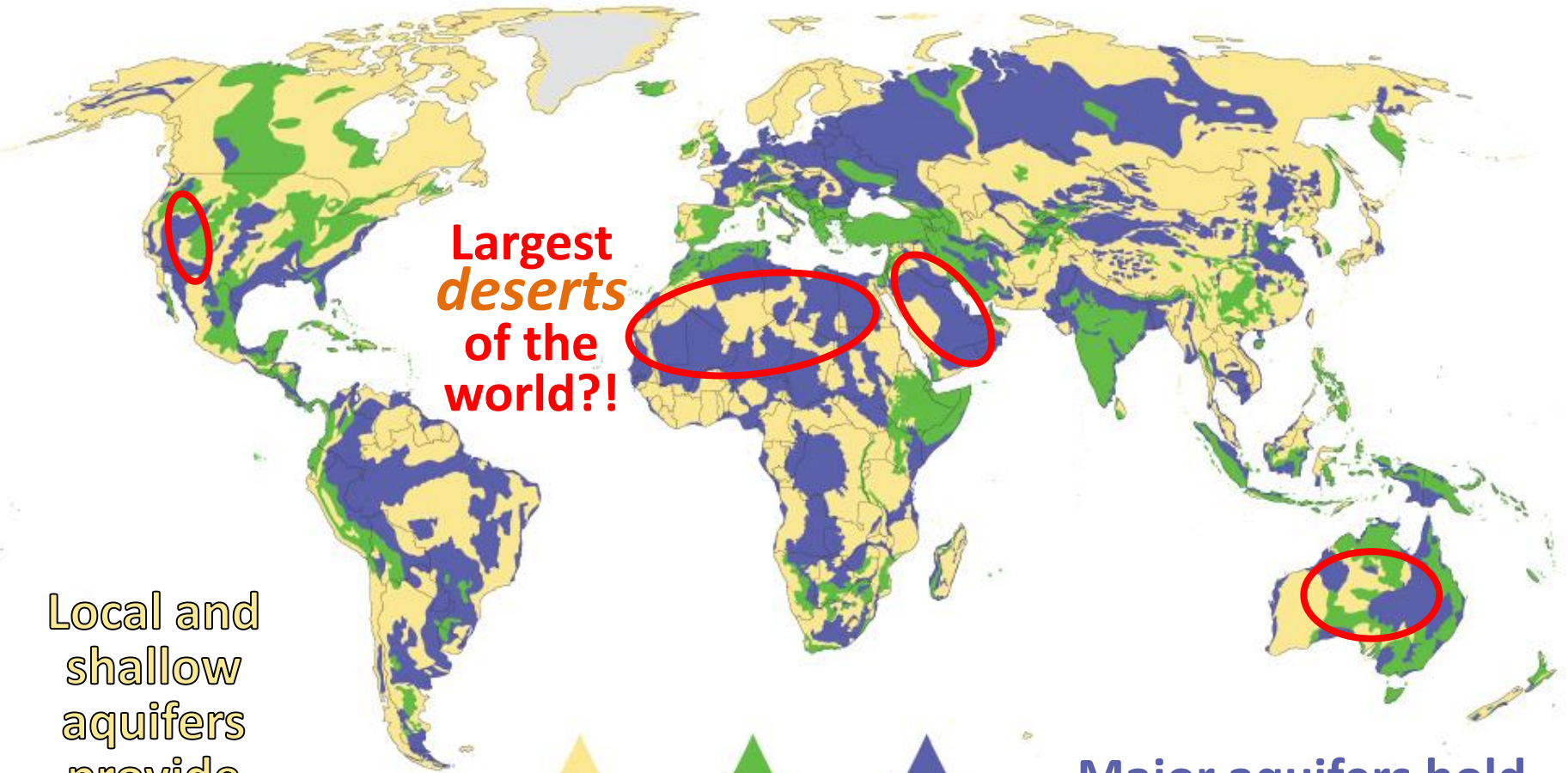
Wetlands

Wetland is an area where the **water table is at, near or above the land surface long enough** during the year to support adapted plant growth.



- Swamp: a wetland dominated by trees
- Bog: a wetland dominated by peat moss
- Marsh: a wetland dominated by grasses

Global Groundwater Resources



Largest
deserts
of the
world?!

Local and shallow aquifers provide limited quantities of water.



LOCAL AND SHALLOW AQUIFERS



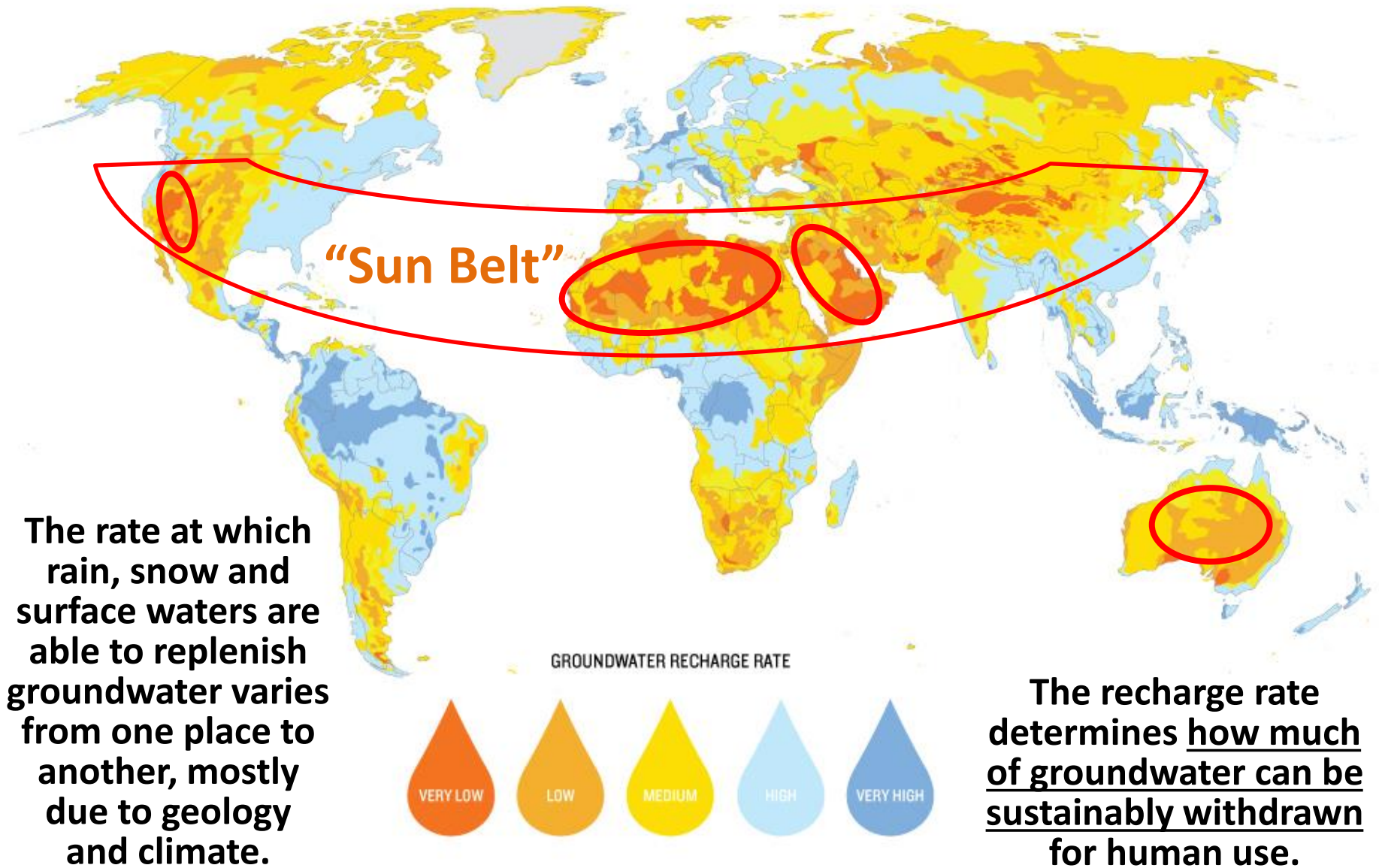
COMPLEX HYDROGEOLOGICAL STRUCTURE



MAJOR GROUNDWATER BASIN

Major aquifers hold abundant, relatively easily extracted groundwater.

Groundwater Recharge

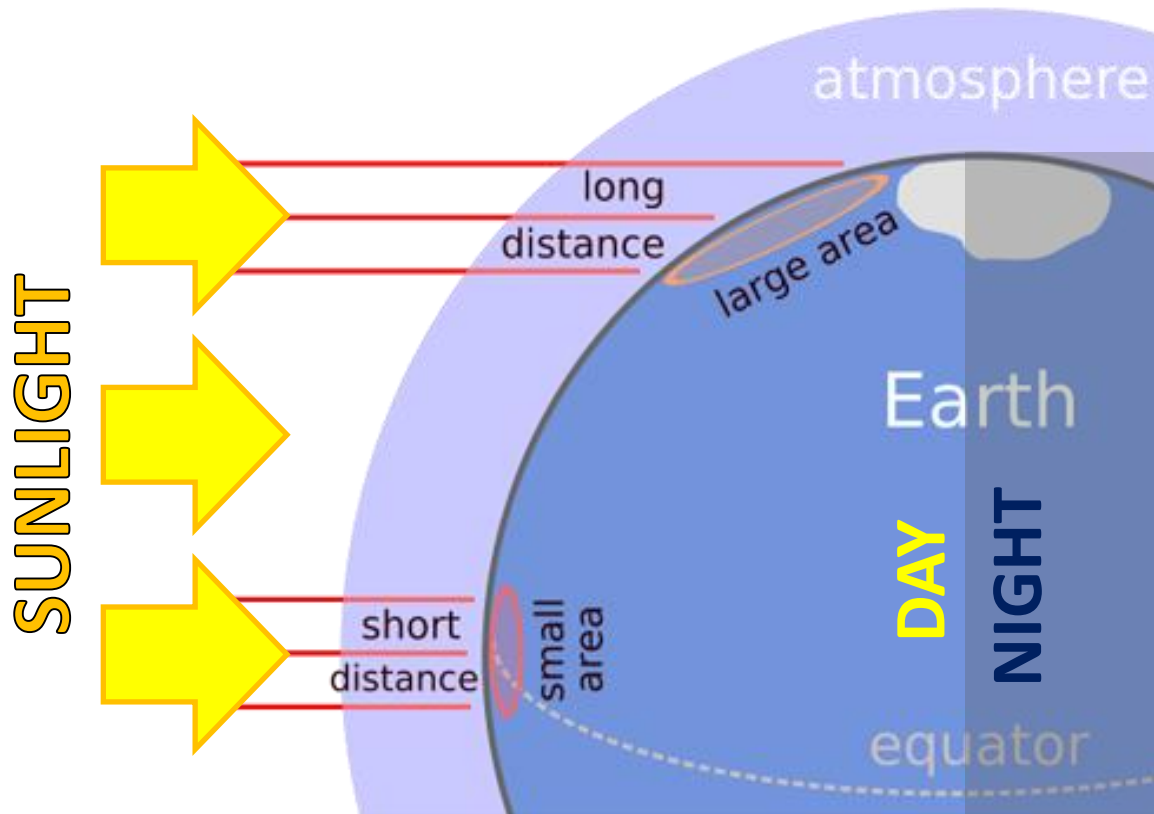


The rate at which rain, snow and surface waters are able to replenish groundwater varies from one place to another, mostly due to geology and climate.

The recharge rate determines how much of groundwater can be sustainably withdrawn for human use.

Angle of Sunlight

Due to the Earth's curvature, the **amount of sunlight (energy)** reaching any given point on the surface **varies greatly with latitude**.



- Regions near the **Equator** receive most direct, that is concentrated Sun rays.
- At **high latitudes**, the same amount of the incoming Sun energy is spread over much greater area of surface.

Sun Belt deserts combine relatively low average precipitation with high moisture removal due to very effective evaporation.