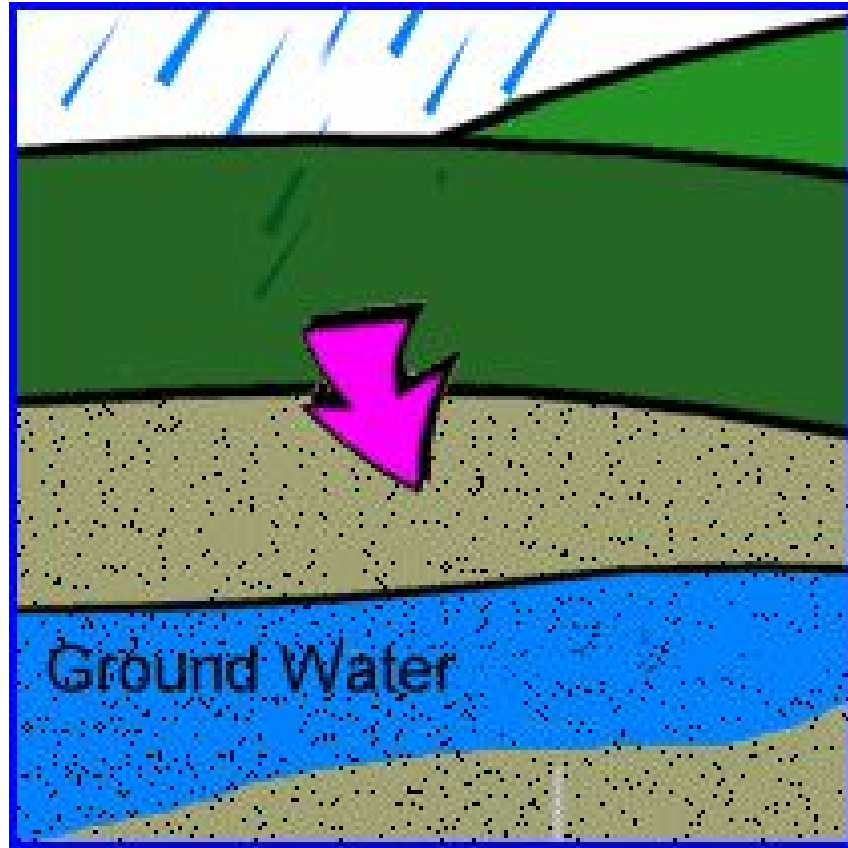


# Groundwater

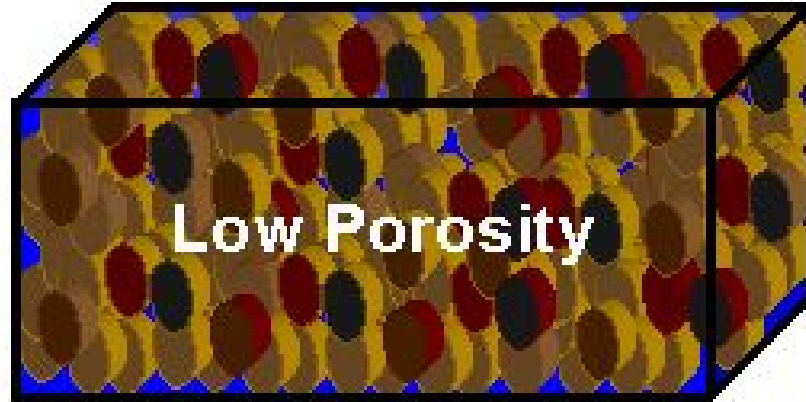
# Vocabulary

groundwater



# Vocabulary

porosity



# Vocabulary

permeability



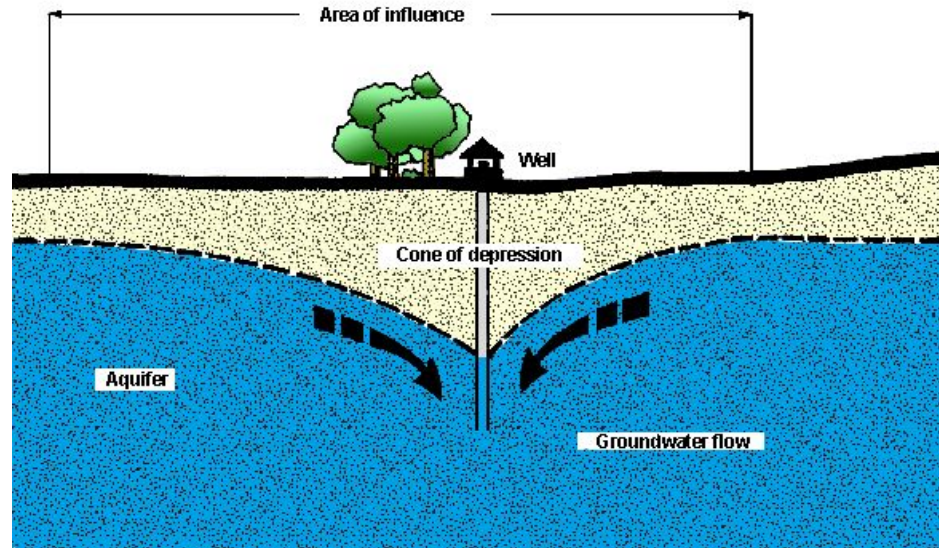
# Vocabulary

saturation



# Vocabulary

wells



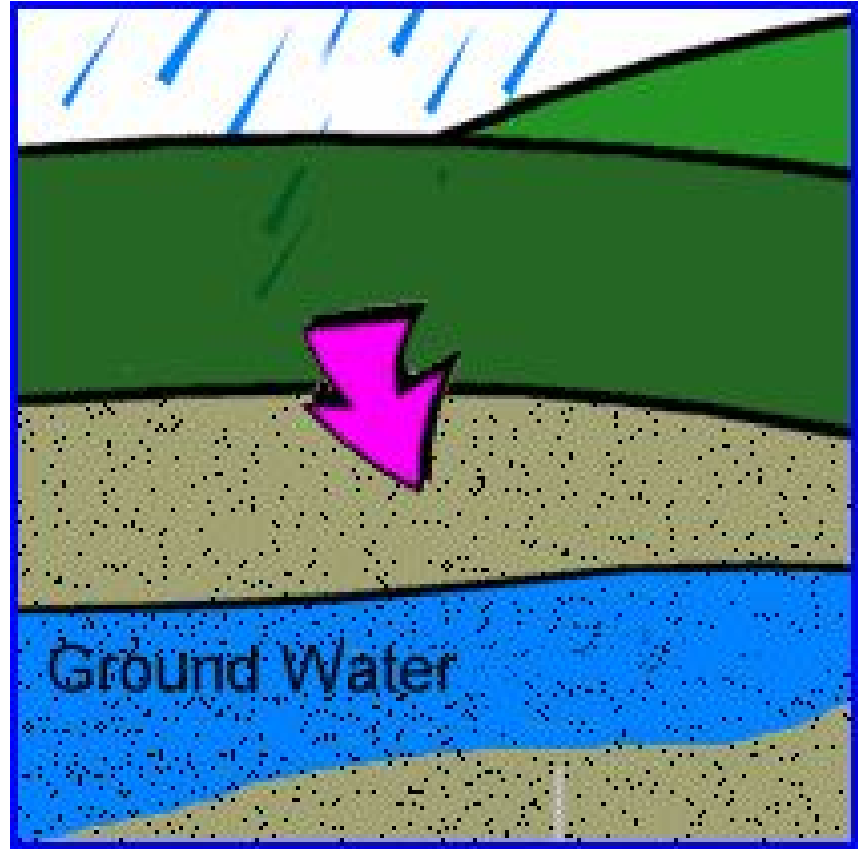
# Vocabulary

sinkholes



# Groundwater

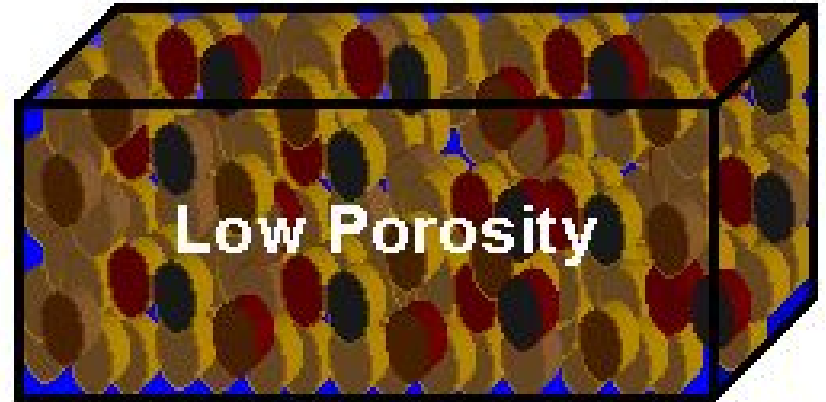
- **Groundwater** is water stored below Earth's surface
- When water soaks through the ground it becomes groundwater
  - **Infiltration**





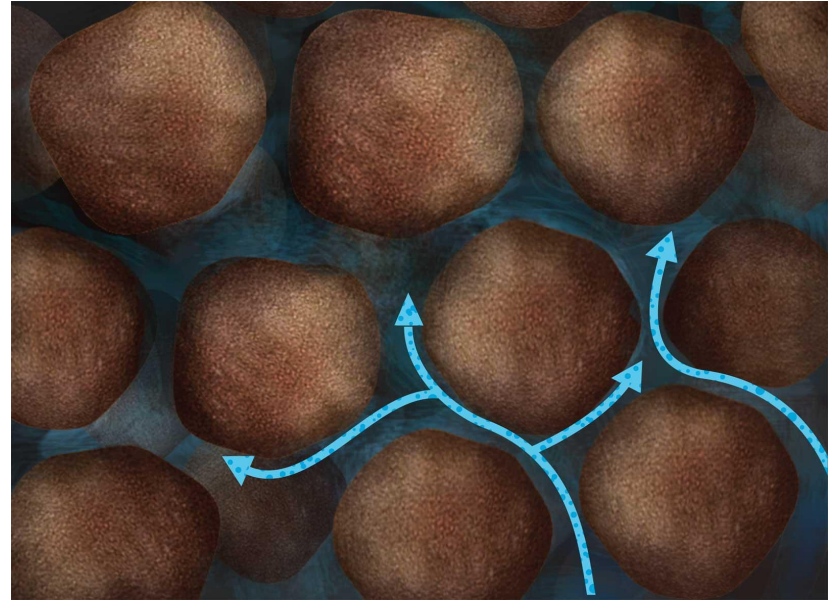
# Porosity

- **Porosity** is the amount of space in between soil particles
  - **High Porosity** = Lots of space between the soil
  - **Low Porosity** = Little space between the soil



# Permeability

- **Permeability** is the material's ability to allow fluids to pass
  - **High Permeability** = Water can travel through soil easily
  - **Low Permeability** = Water can't travel through soil easily



# Saturation

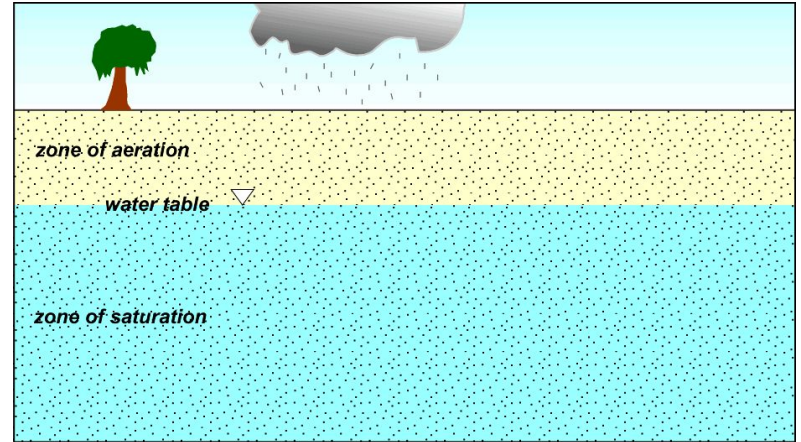
- If the ground is **saturated** water is less likely to infiltrate
  - If the ground will not absorb any more water the water will become **runoff** → **Flooding may occur**



Galloway Wash floods Spur Cross Road, 10.30 AM, Oct 10, 2003. (There is no bridge.) TMcG

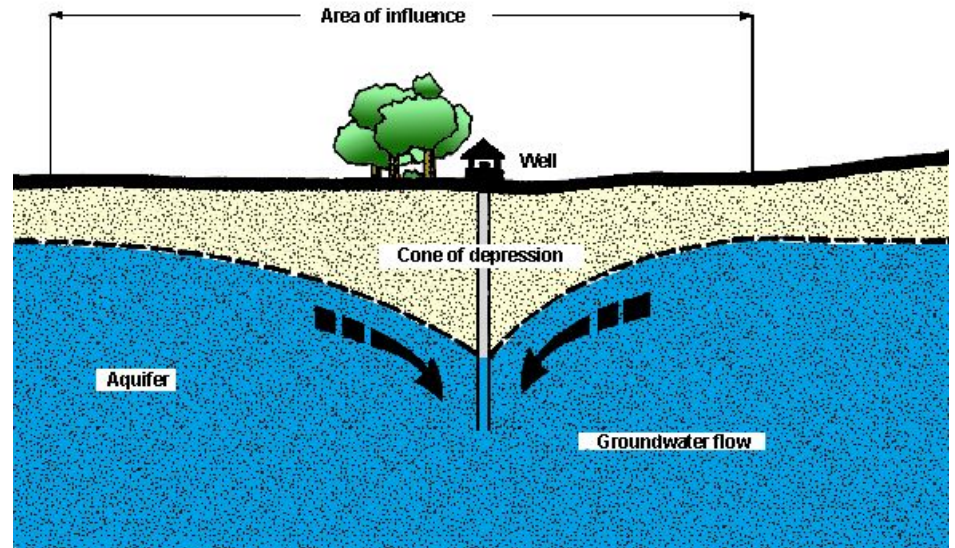
# Groundwater

- **Zone of Saturation**-Area where groundwater fills up all pores in the soil
  - The zone of Aeration is above the Zone of saturation
  - The water table is the boundary between these 2 zones



# Wells

- A well is a hole drilled into the zone of saturation
  - An aquifer is the area where groundwater can be extracted
  - Can cause the water table to drop





# Groundwater Depletion

- Ground subsidence (sinking) can occur if water is used faster than it is replenished
  - Sink Holes



# Groundwater Depletion

- San Joaquin Valley, California
  - Land subsided due to excessive groundwater withdrawal in the 1920's.
  - Sank 8 meters by 1970

