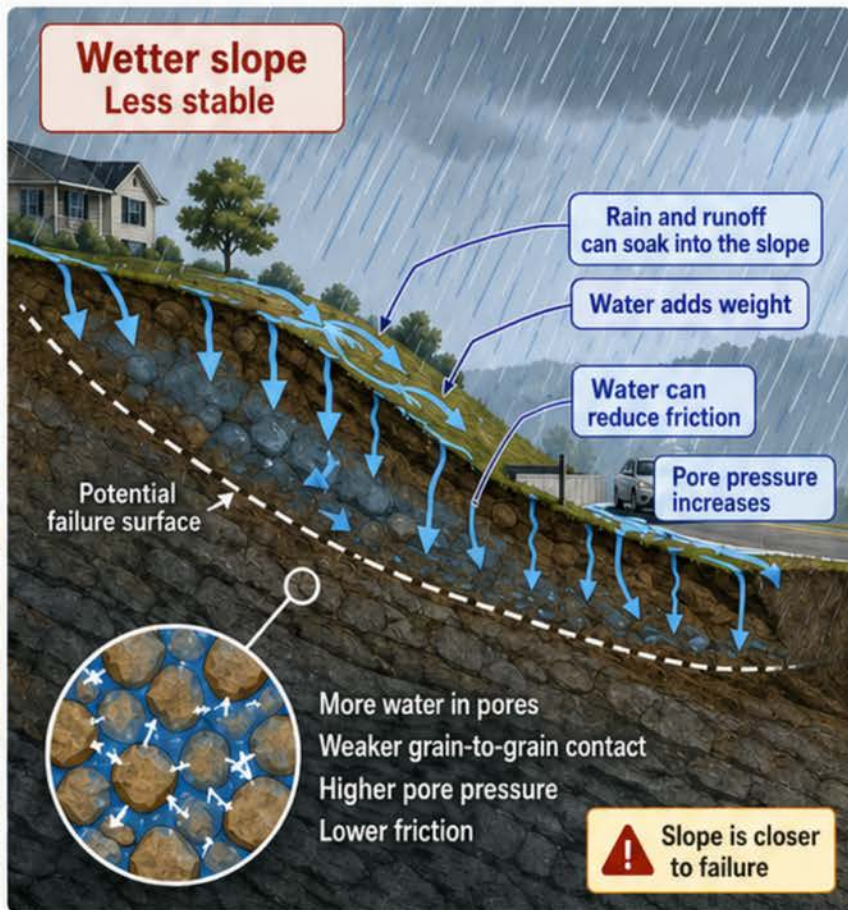


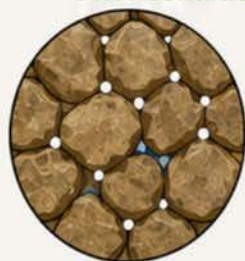
Why Water Is Often the Trigger for Slope Failure

Water can add weight, reduce friction, and increase pressure inside the ground.



How Water Weakens the Internal Support of a Slope

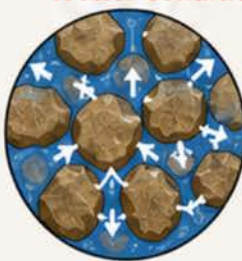
Drier conditions



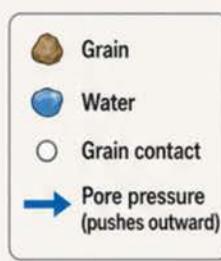
- ✓ Less water between grains
- ✓ Stronger grain-to-grain contact
- ✓ Lower pore pressure
- ✓ Higher friction and shear strength



Wetter conditions

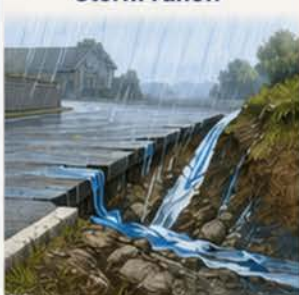


- ✗ Water separates grains
- ✗ Weaker grain-to-grain contact
- ✗ Higher pore pressure (pushes outward)
- ✗ Lower friction and shear strength



Human-related water inputs and drainage problems can increase slope risk

Storm runoff



Runoff can increase risk

Roadside drainage



Concentrated drainage can increase risk

Irrigation



Excess irrigation can weaken slopes

Leaking pipe



Leaking pipes can weaken slopes

Septic system or seepage area



Seepage can weaken slopes



Policy takeaway: Water is often the trigger for slope failure.

Stormwater management, drainage design, irrigation, leaking infrastructure, and septic systems can all affect slope stability.