

# Overland Flow

- Once rainfall exceeds infiltration, water begins to flow.
  - Clay is hard to pick up due to cohesion.
  - Sand is hard to pick up due to size.
- Most of the sediment in sheet flow comes from rain detachment.
- ***THIS IS WHY COVERING THE SOIL IS SO EFFECTIVE!***

# ***Rills Starting...***





# ***Flow Along Waterway***



# ***Formation of Rills***

- Water begins to collect near the top of the slope.
- Rills generally deepen downslope.
  - Flow itself results in erosion.
  - Headcutting moves upslope.
- Sediment comes into the rill from overland flow.



# ***Rills With Sandy Deposits***



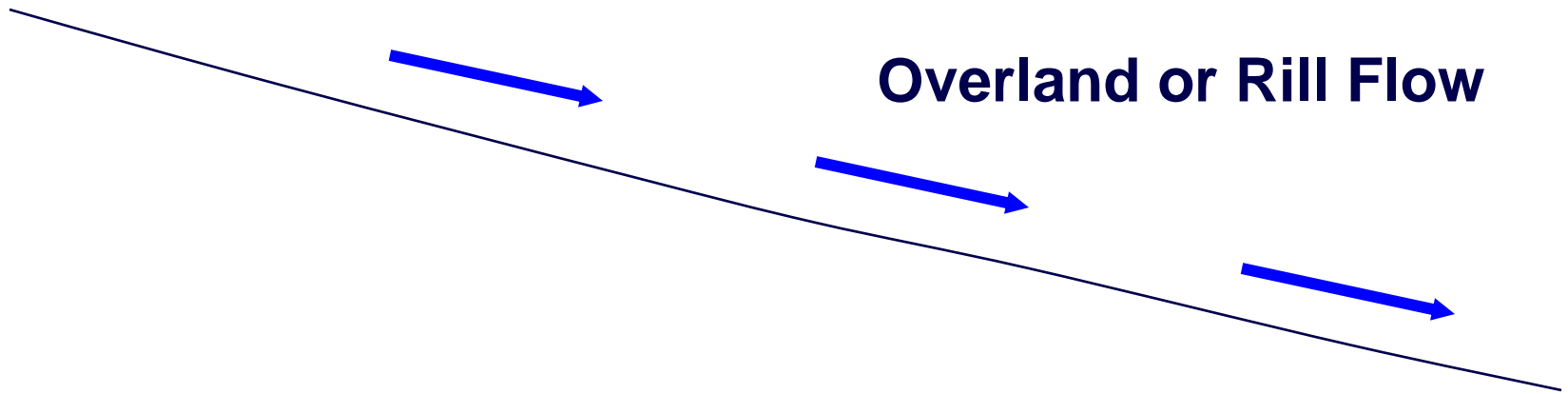




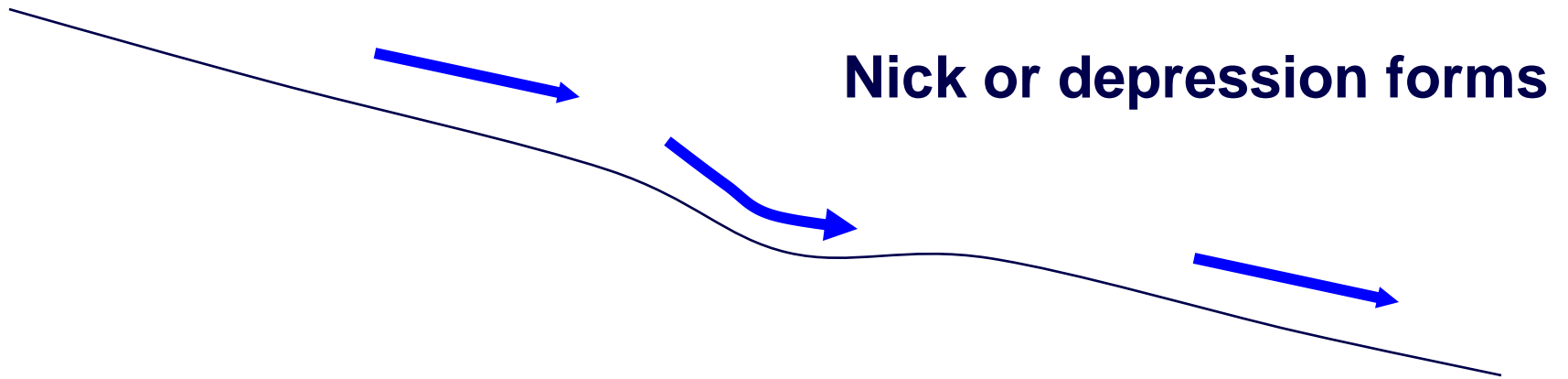
## ***Overland vs. Rills***

- Studies have shown that both erosion processes are important.
- Relative importance depends on soil, slope, and storm intensity.
- Rills can carry large materials.

# ***Gully Formation***

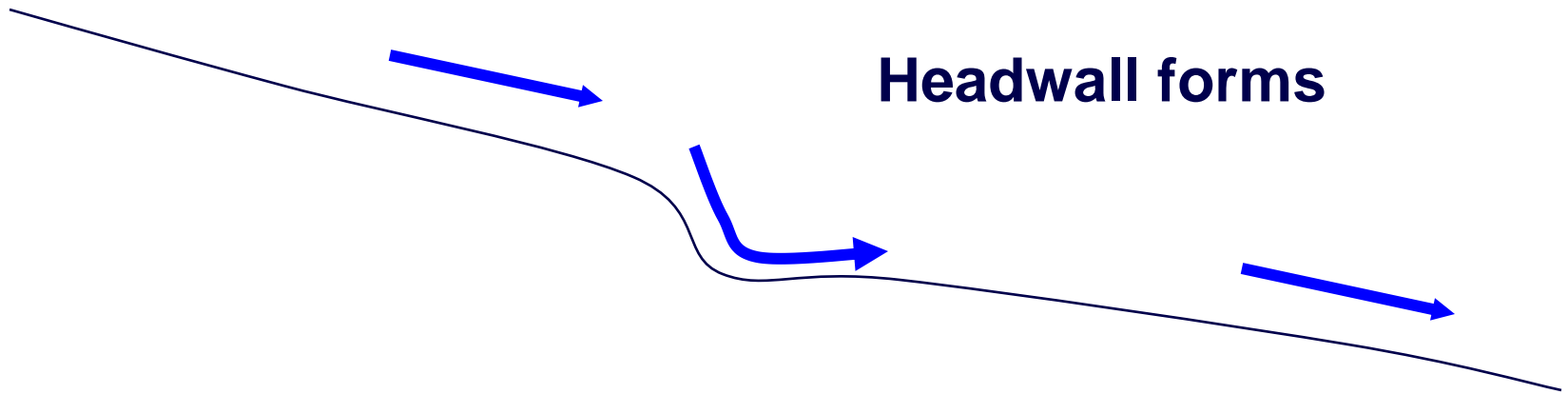


# ***Gully Formation***

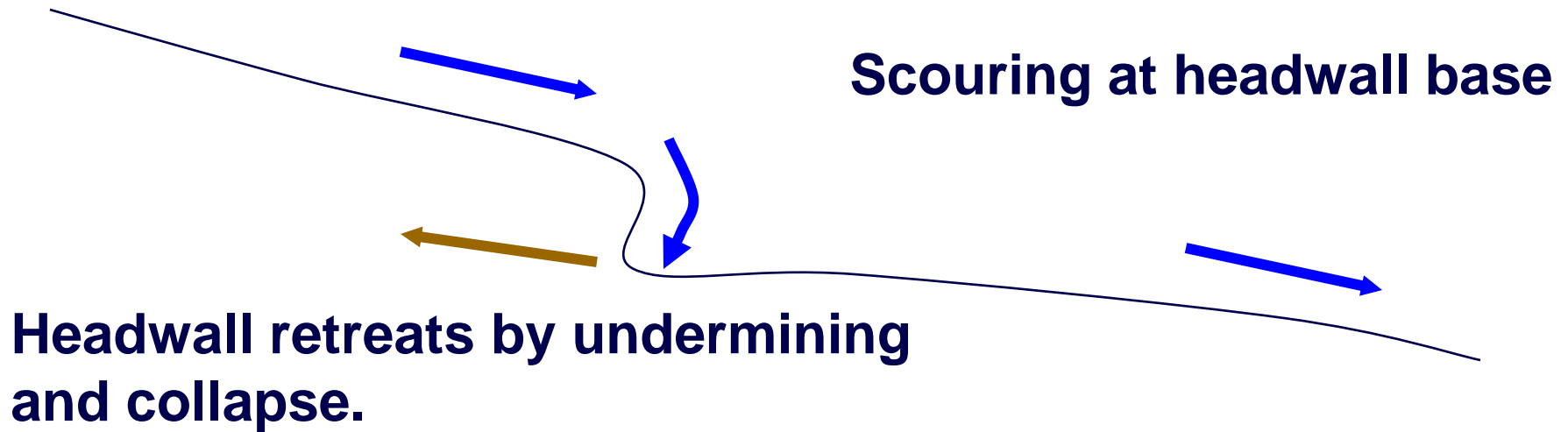




# ***Gully Formation***

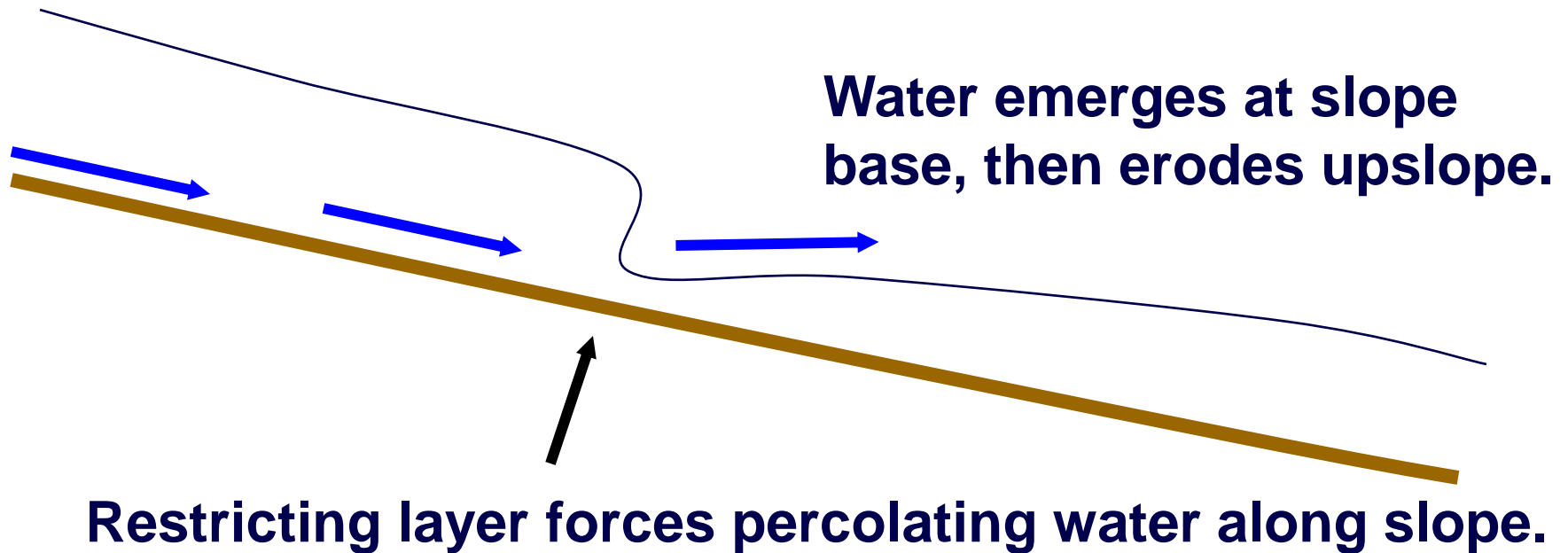


# ***Gully Formation***





# ***Gully Formation: Piping***



# ***Gully After One Storm***





# ***Headwall retreat continues...***





# ***Note Headwall Scouring...Nothing to Stop It!***





# ***Gullies Form Even in Flat, Sandy Soil***

