

Q=vol            w=width

V=velocity      d=depth

Hydrography – graph above flow/ gauging station

4-2

River flow – saltation, plucking & quarring

    Kolking – Whirlpool, rounded basalt

    Lahars or volcanic water or debris also

    Abrasion and Pot holes

    Knick point – stream bed over waterfall

Slope inverse function of discharge

    Larger channels need less slope to flow

Temporary vs. ultimate base level

Floods – annual vs. 25, 50, 75 & 100 years vs. 125 yrs.

    River sediment flow

Competence - Ability to transport sediment

Froude # is the degree of turbulence

Depends on velocity and depth

Capacity – sediment max of theoretical transmitted

Thalweg – line connecting max h<sub>2</sub>o depth of a channel

    Anastomosing or anabranching channel

Straight channel if dredged is unstable

Meanders & O X B O W S

    Neck cut off, point bar (inside)

Broad plains and aggrading

Grade – 10 variables in hydrolic geometry

    ID= discharge, load & ultimate base level supply vs. transport limited