Stream Flow Estimation

- Reasons for doing include that gauges don't exist on every stream, it is important for water quality modeling, permitting discharge sites, has biological importance, recreation, flood forecasting, influenced by human factors, more USGS gauges are now off-line.
- Drainage area weighting is the main technique described in this lecture. More advanced ones later.
- USGS gauges can be used as a reference site.
- Only 1.5 to .5 or at most .3 of the gauged values can be applied elsewhere in the watershed.
- It is important to map or show the drainage area ratio extent limits.
- Some of the hydrological limitations of this approach are the lack of interception, evapotranspiration, baseflow from groundwater, and the distribution of a rainfall event.
- It is also limited to natural systems, no dams or impoundments.

Student Notes:

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