

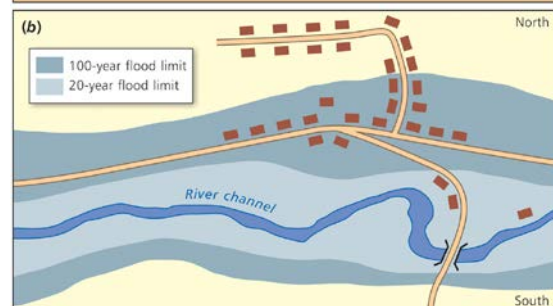
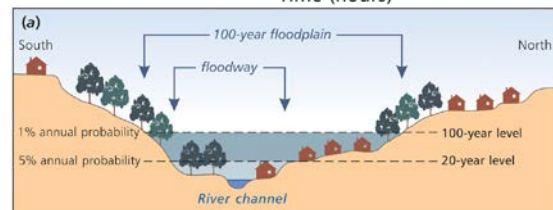
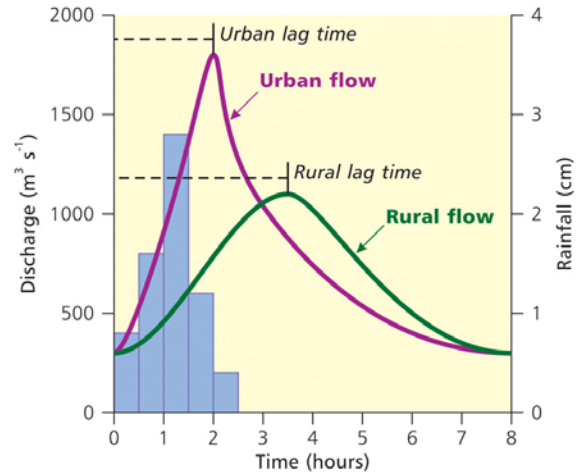
# 國立臺北大學自然資源與環境管理研究所

## 103 學年度第一學期『環境工程科學概論』

### 課程講義(八)：水文學概要

#### Introduction to Hydrology

- FUNDAMENTALS OF HYDROLOGY
  - Hydrologic Cycle
  - Watershed or River Basin
  - Hydrograph: IDF
- HYDROLOGIC PHENOMENA
  - Precipitation: 雨(Rain)、雪(Snow)、霜(Frost)、露(Dew)、雹(Hail)、霰(Sleet)、濛(Drizzle)、冰雨(Glaze)等
  - Evaporation and Evapotranspiration
  - Infiltration => Groundwater
  - Streamflow => Open Channel
- HYDROLOGICAL HAZARDS: FLOOD AND DEBRIS FLOW
  - Return Period and Frequency Year
  - Flood Plain and Hazard Zone
  - Flood Control/Mitigation Measures
    - 蓄洪(蓄水庫/池)、滯洪(滯洪池、游水池)、疏洪(水道疏浚)、分洪(分水道或疏洪道)、束洪(河堤)、抗洪(水閘、插板、墊高)及避洪(疏散)。
  - References (科學發展月刊)
    - ⇒ [水文循環與洪水; 豪雨造成的土石流](#)
    - ⇒ [台灣豪雨洪水的古往今來](#)
    - ⇒ [災害潛勢資料; 面對水患新思維](#)
    - ⇒ [百年滄桑話水利—從何處來向何處去](#)
  - [國家災害防救科技中心-災害潛勢地圖](#)
    - ⇒ [坡地災害潛勢地圖、淹水潛勢地圖](#)
  - [農委會水土保持局—土石流防災資訊網](#)
- STOCHASTIC HYDROLOGY
  - Extremes, Exceedance of Violation
    - ⇒ Statistics of Extremes
    - ⇒ Order Statistics
  - Extreme Event Analysis, Flood Routing, and Weibull Plotting Position



Jemez River System Flood Frequency

