Nuclear Hydrology Laboratory at NIH

Capabilities :

- Dating of groundwater
- Identification of recharge zones to groundwater
- Dating of recent sediments
- Estimation of sedimentation in water bodies
- Soil erosion from watersheds
- Estimation of recharge to groundwater
- Estimation of discharge in mountainous rivers
- Estimation of aquifer parameters
- Surface water and groundwater interaction
- Stream hydrograph separation

Major Facilities Available:

- → Multi-channel Gamma Ray Spectrometer
  - High Purity Germanium Detector
  - Na (I) Detector
- → Multi-channel Alpha Spectrometer
- → Ultra low level Liquid Scintillation Counter
- → Normal level Liquid Scintillation Counter
- → Geolog Ratemeter/Scaler
- → Echo sounder - Water Depth Indictor
- → Selective Ion Electrode - Meter

Accessories:

- → Benzene Synthesizer
- → CO_2 -Absorbtion line
- → Tritium Enrichment System
- → Field sampling and analysis kits
- → Sediment Lead separation set-up
- → Dry ice maker / breaker units
- → Soil water distillation set-up
- → Sediment corer
- → Peristaltic pumps

Major Facilities to be added shortly:

- → Isotope Ratio Mass Spectrometer for ^{2}H, ^{13}C, ^{15}N, ^{18}O, & ^{34}S
- → GC Trace - Purge and Trap System for CFC
- → Mini Liquid Nitrogen Plant