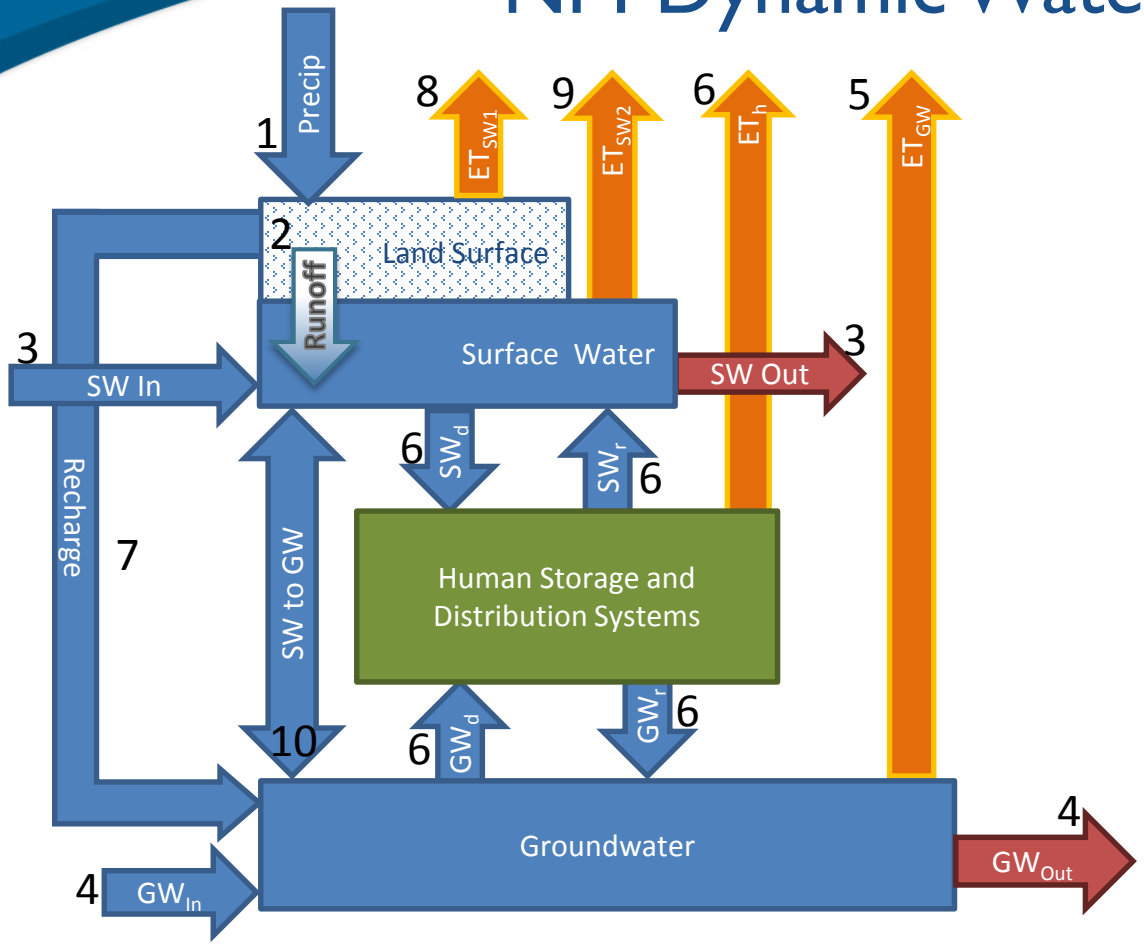
NM Dynamic Water Budget Terms



1. **Precipitation**- Monthly PRSIM data aggregated for given spatial scale
2. **Runoff**- Closure term when there is a deficit in the SW system, SW deficit is partitioned into runoff and baseflow using USGS 1-km gridded base flow index (BFI) map averaged for a given spatial scale
3. **Sw_{in}/Sw_{out}**- USGS gaged based measurements
4. **Gw_{in}/Gw_{out}**- Presently unknown terms. Set to zero to allow for calculation of GW storage change
5. **ET_{GW}**- Calculation based from USGS NLCD and Hargreaves reference ET estimate for riparian vegetation
6. **Human use**- Modeled/ data based human/diversions/consumption/ estimated gaged & ungaged return flows

7. **Recharge**- Model assumes long term steady state GW system on all non-human terms:
   Recharge= 10 yr moving AVG(baseflow + ET_{gw} + GW_{out} – GW_{in})
8. **Landsurface ET**- Closure term to balance Land Surface. Landsurface ET = Precip – Recharge - Runoff
9. **ET_{SW}**- Physically based estimate of open water evaporation from rivers + estimated ungaged SW return flows
10. **SW to GW**- Closure term to balance Surface Water System. Baseflow is one component of this term.

Phase II (2015-2016) Objectives & Progress:

- [x] Addition of Water Planning Region spatial scale (Oct 2015)
- [x] Addition of County spatial scale (Dec 2015)
- [ ] Quantification and display of uncertainty (Feb 2016)
- [ ] Water energy nexus information (Mar 2016)
- [ ] Graphic User Interface enhancements (April 2016)
- [ ] Future base case scenario analysis (April 2016)
- [ ] Outreach (Ongoing)

Water Planning Regions (colored areas):