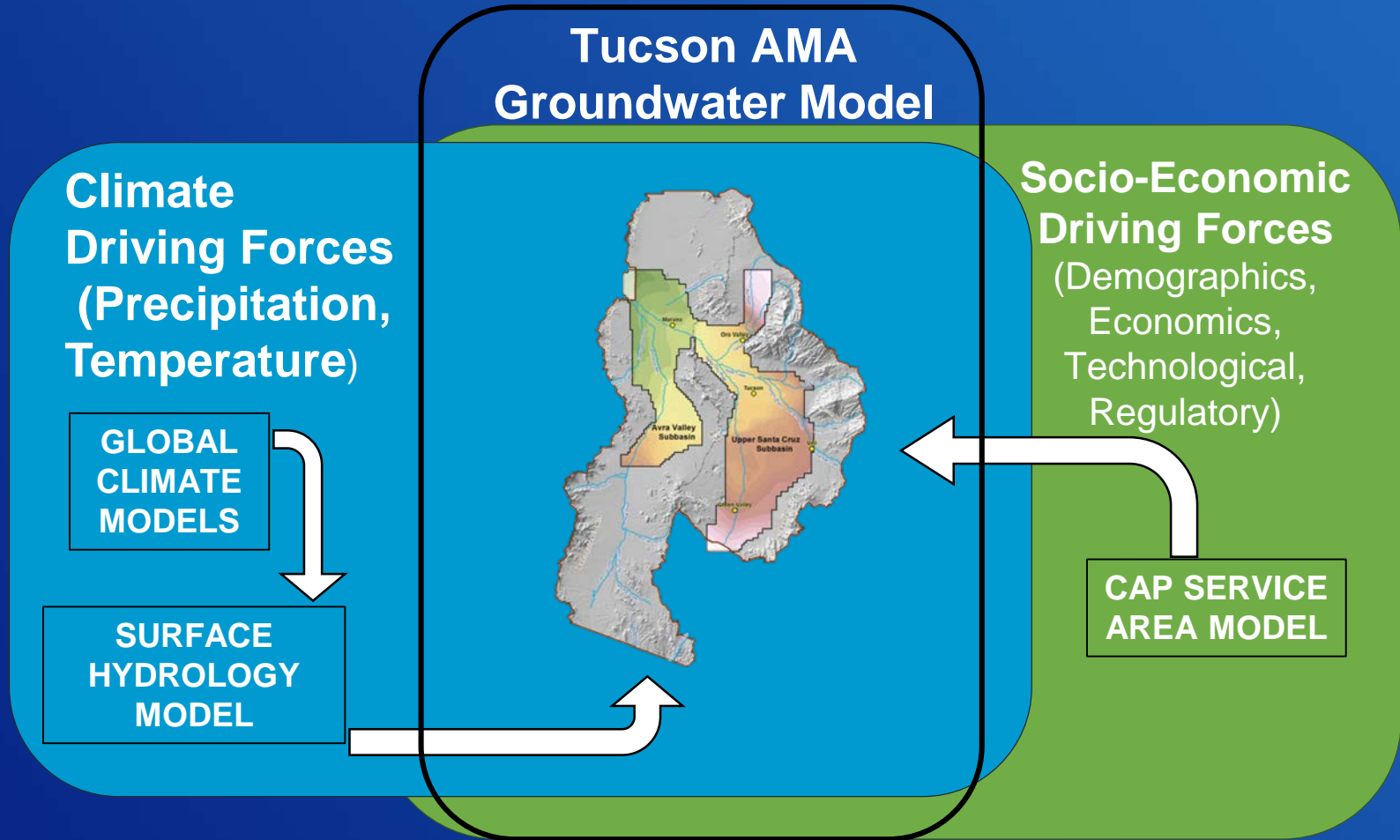


Technical Service Center Update

January 19, 2018

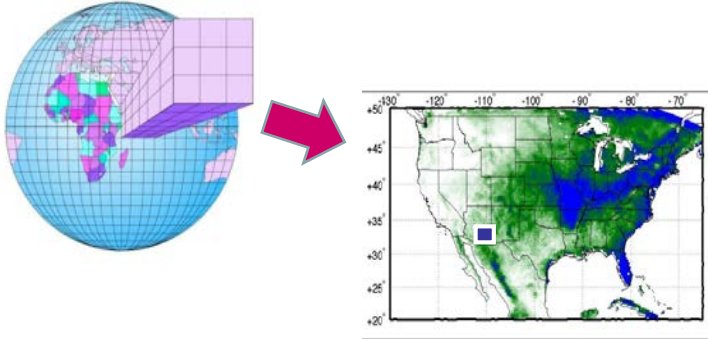
Lindsay Bearup (lbearup@usbr.gov)

Simplified Modeling Overview



RECLAMATION

1. Downscaled Climate Projections

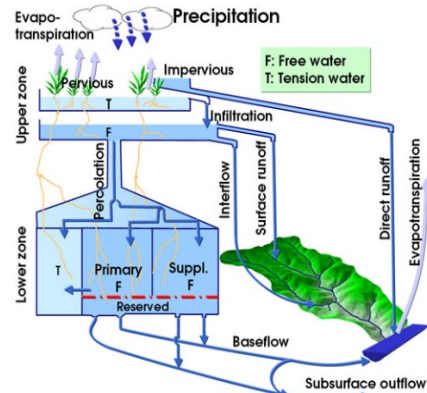


Group input on
climate metrics

Calculation of Potential
Evapotranspiration

Primary TSC Tasks

2. Surface water Modeling



Streamflow,
Mountain Front
Recharge, ET

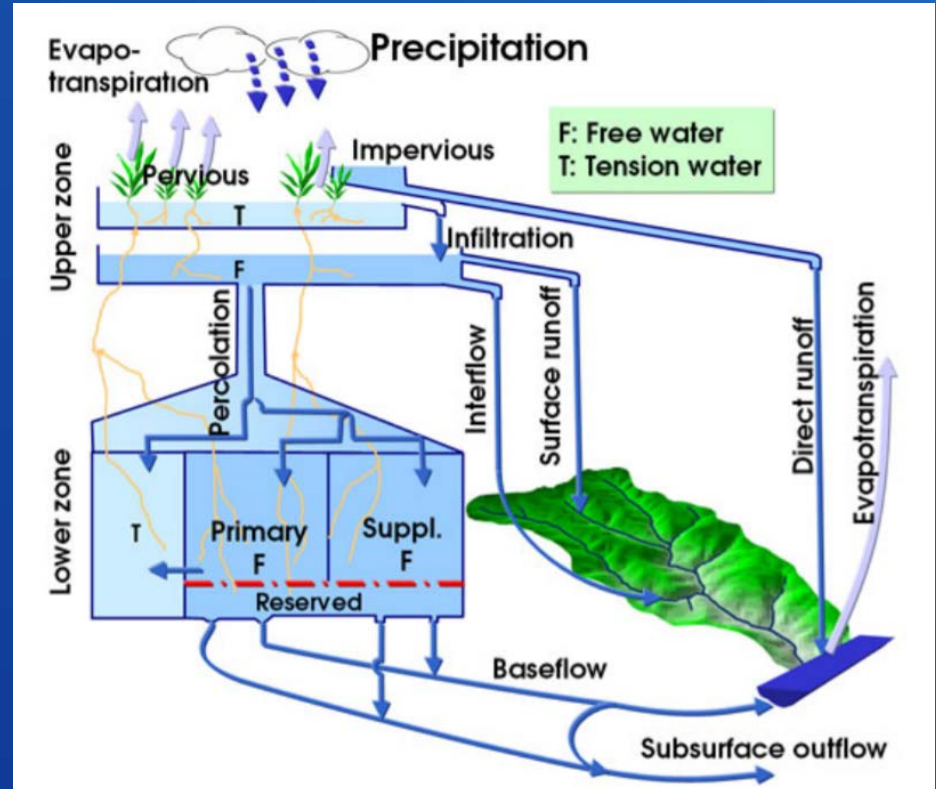
3. Groundwater Modeling



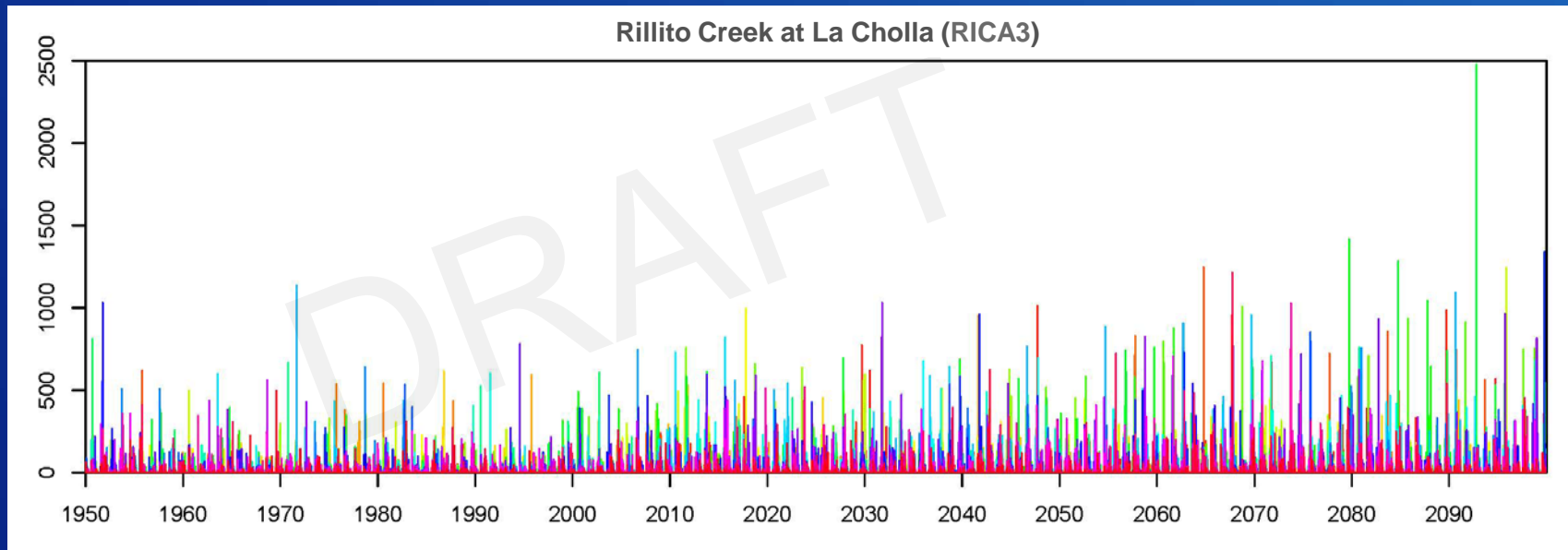
RECLAMATION

2. Surface Water Modeling – SAC-SMA Sacramento Soil Moisture Accounting model

- Simulates basin runoff and soil moisture
- Used operationally by the Colorado Basin River Forecast Center
- Spatially Lumped: based on mean basin inputs (Precipitation, Temperature, Potential ET) and outputs (runoff, baseflow, Actual ET)
- Continuous: has memory of previous soil moisture in system



2. Surface Water Modeling – SAC-SMA Preliminary Results



RECLAMATION

3. Groundwater Model - TAMA

- Extended to run through 2015
 - Included updated pumping rates
- Integrated model with USGS MODFLOW Python module (Flopy)
- Evaluated calculation of riparian vegetation ET in the Tanque Verde area

