

Attachment 1

Cuyama Basin Groundwater Sustainability Agency

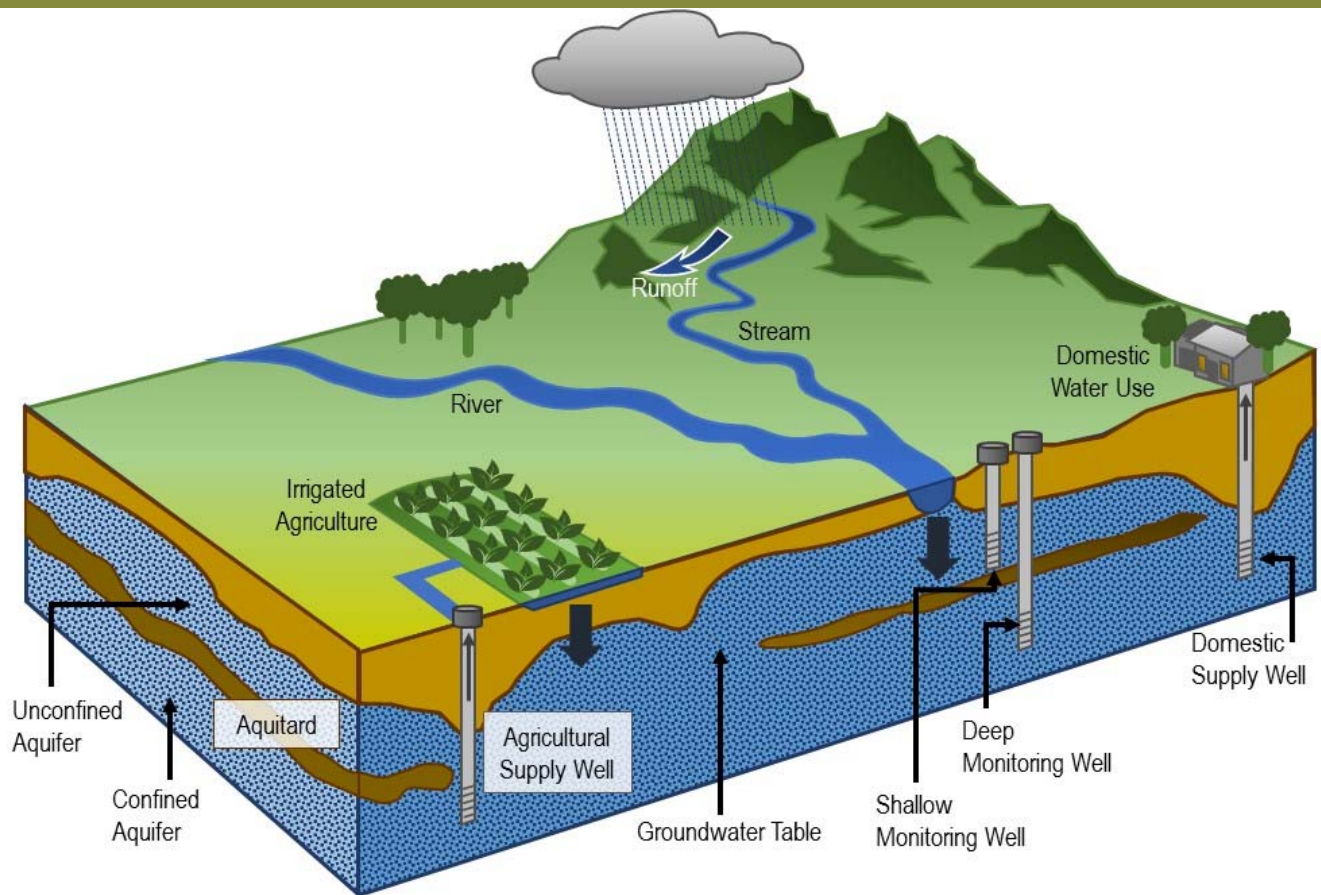
SGMA Educational Item: Calculating a Water Budget

July 26, 2018



What is a Water Budget?

- A Water Budget provides an accounting for:
 - Inflows
 - Outflows
 - Change in Storage
- $\text{Inflow} - \text{Outflow} = \text{Change in Storage}$



Water Budget Components

- Groundwater
 - Recharge from Irrigation and Precipitation
 - Subsurface Inflow and Outflow
 - Stream-Groundwater Interaction
 - Change in Groundwater Storage
- Surface Water
 - River Inflow and Outflow
 - Evaporation
 - Change in Reservoir Storage
- Land Surface
 - Water Demands
 - Agricultural Use
 - Municipal/Domestic Use
 - Wetlands / Habitat Use
 - Water Supplies
 - Precipitation
 - Groundwater Pumping
 - Surface Water Diversions

Water Budget Scenarios

- Historical Years
 - SGMA requires water budgets for 10 recent years
 - E.g. 2007 to 2016
- Current Conditions
 - Recent historical year (e.g. 2016)
 - Long-term historical hydrology (e.g. 1960-2017)
- Projected Conditions
 - Future Year (e.g. 2040)
 - Long-term historical hydrology (e.g. 1960-2017)
 - May adjust for climate change effects