 Finite Element Modeling of the SLO-Edna Valley Aquifer

1. Goal/Objectives: To develop a finite element model of the aquifer taking into account subsurface hydrostratigraphy and the water budget (including recharge from precipitation events and stream-aquifer interactions)
2. Background: As part of the SGMA legislation, robust groundwater models regional groundwater basins across the state of California. Most models developed by consultants are based on finite difference methods using MODFLOW. MODFLOW has several limitations that can be overcome by use of finite element methods. The code of choice for this work is COMSOL Multiphysics. Ancillary to this is monitoring of aquifer groundwater levels and streaming potentials.
3. Where: San Luis Obispo
4. Deliverables: Groundwater model and report. Potential thesis.
5. Financial support: : None at present. Work in progress.