



# Santa Margarita Groundwater Management

February 22, 2017

Santa Margarita Groundwater Basin Advisory Committee

Scotts Valley Water District

San Lorenzo Valley Water District

County of Santa Cruz

City of Scotts Valley

Mount Hermon Association

# MEETING PURPOSE

- ▶ Convene groundwater basin users in a series of discussions.
- ▶ Share information about groundwater hydrology, groundwater rights, water use efficiency, basin sustainability and management approaches.
- ▶ Develop common understanding of issues.
- ▶ Include groundwater pumpers in Sustainable Groundwater Management Process:
  - Understand Basin Boundary
  - Groundwater Sustainability Agency Formation
  - Groundwater Sustainability Plan development
- ▶ Many future opportunities for public input and potential opportunities for votes as prescribed by law (Water Code, Prop 218)

# Agenda

- Describe the Basin
- Basin Users and Stakeholders
- Overdraft and Management History
- Basin Hydrology: geology, water movement, and water use
- Sustainable Groundwater Management Act (SGMA)
- Groundwater Sustainability Plan
- Role of Non-Municipal Pumpers
- Next Steps
- Discussion
- Information will all be posted on website: [SMGWA.org](http://SMGWA.org)

# Santa Margarita Ground Water Basin



# Basin Users and Stakeholders

- Scotts Valley Water District
- San Lorenzo Valley Water District
- Mount Hermon Association
- Small Water Systems (13)
- Commercial, Industrial, Institutional and Agricultural Users (~30)
- Individual Well Users (~1100)
- Streamflow: Fish and the City of Santa Cruz

# BASIN HYDROLOGY

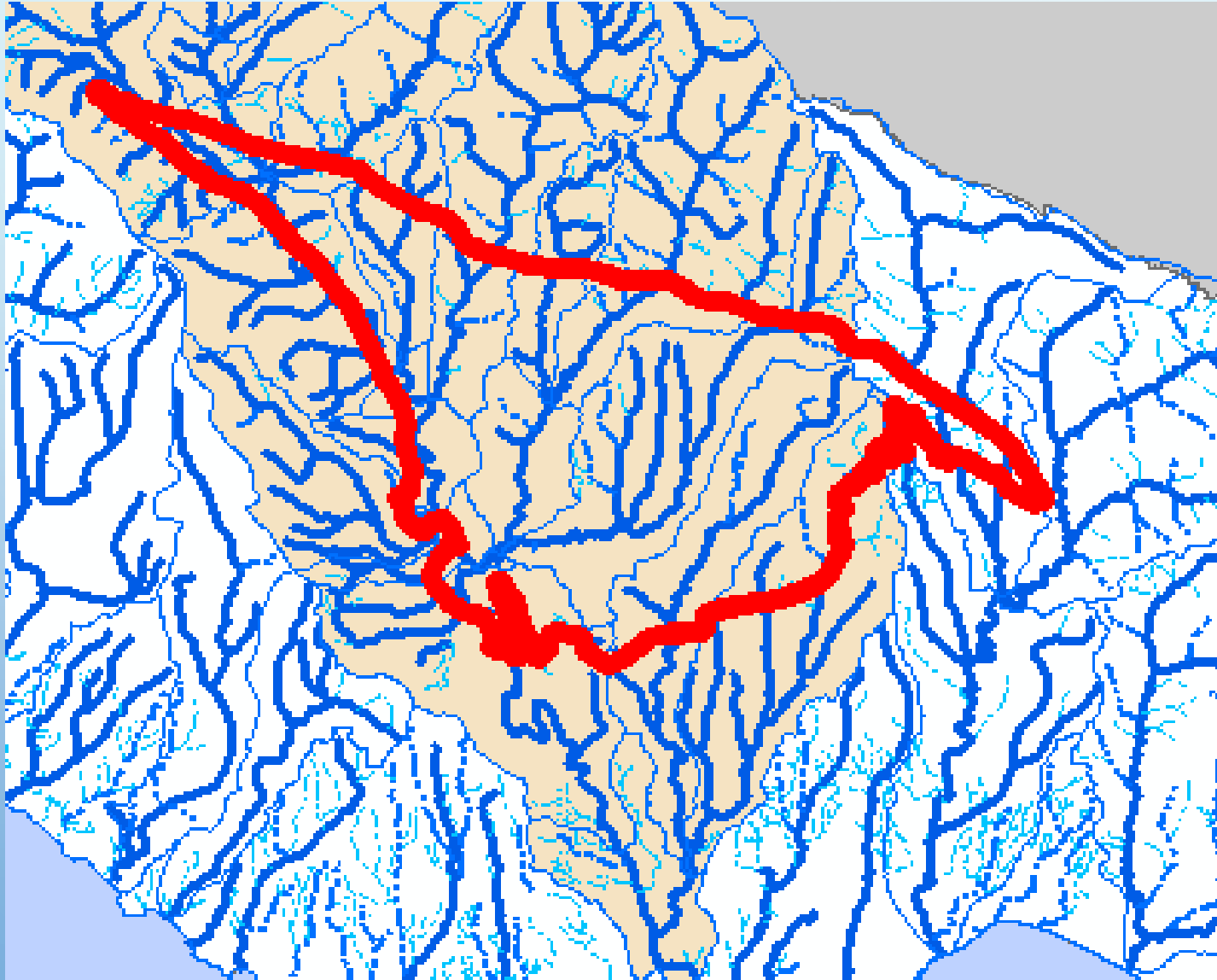
- Geology
- Hydrology
- Streamflow contribution
- Overdraft, drop in levels, reduction in streamflow
- Basin boundaries
- Basin water use
- Information is based on estimates and from groundwater model
- Information will be further defined during plan development



# SANTA CRUZ COUNTY GROUNDWATER BASINS

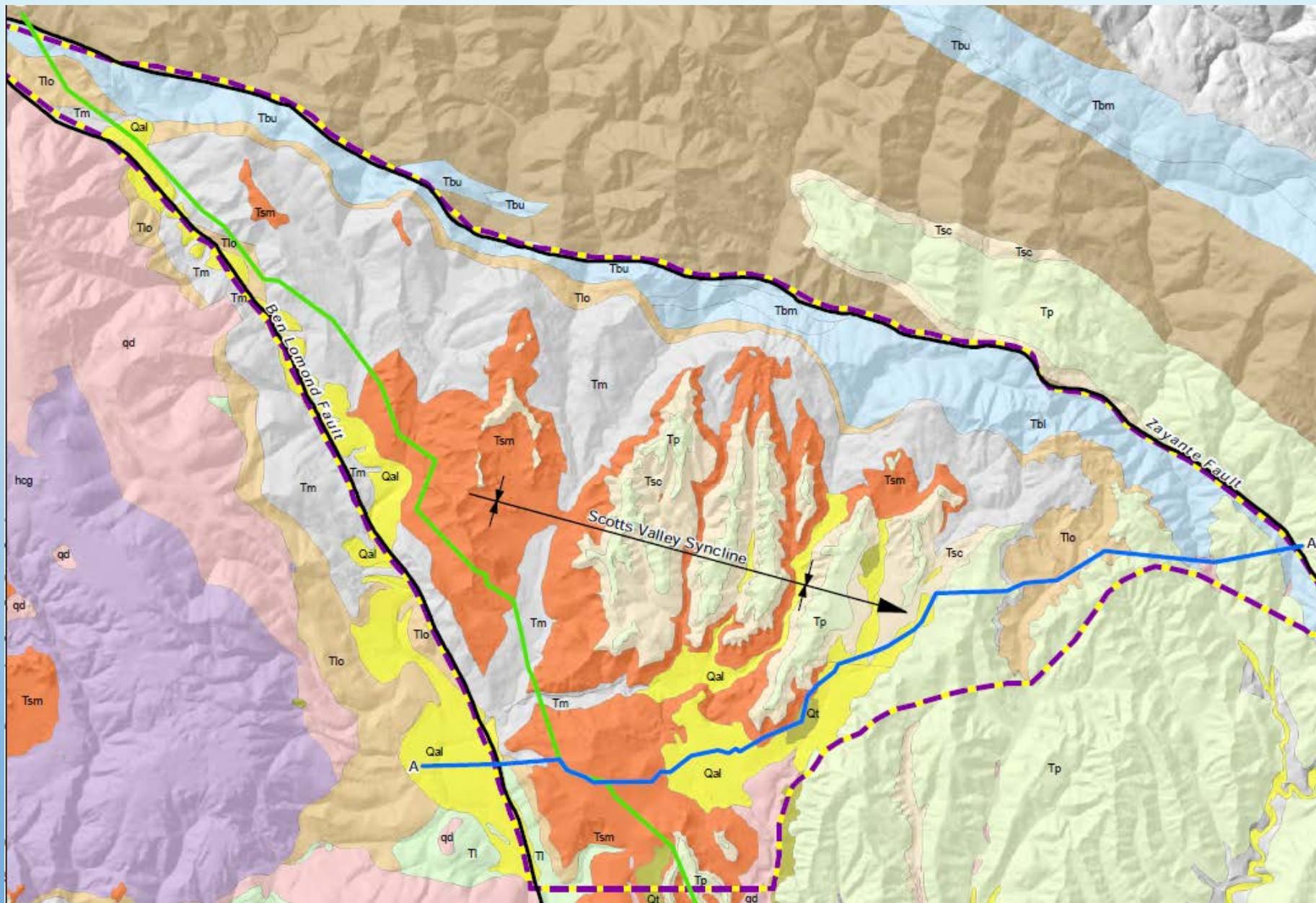


# SANTA MARGARITA BASIN IN SAN LORENZO WATERSHED

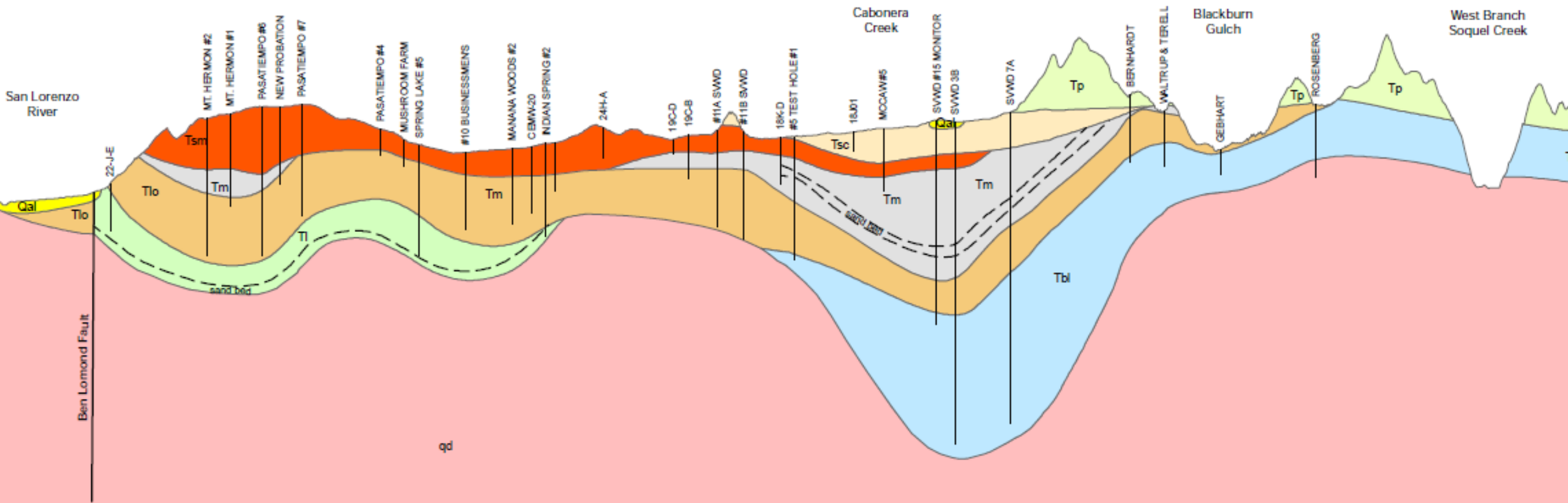




# GEOLOGY

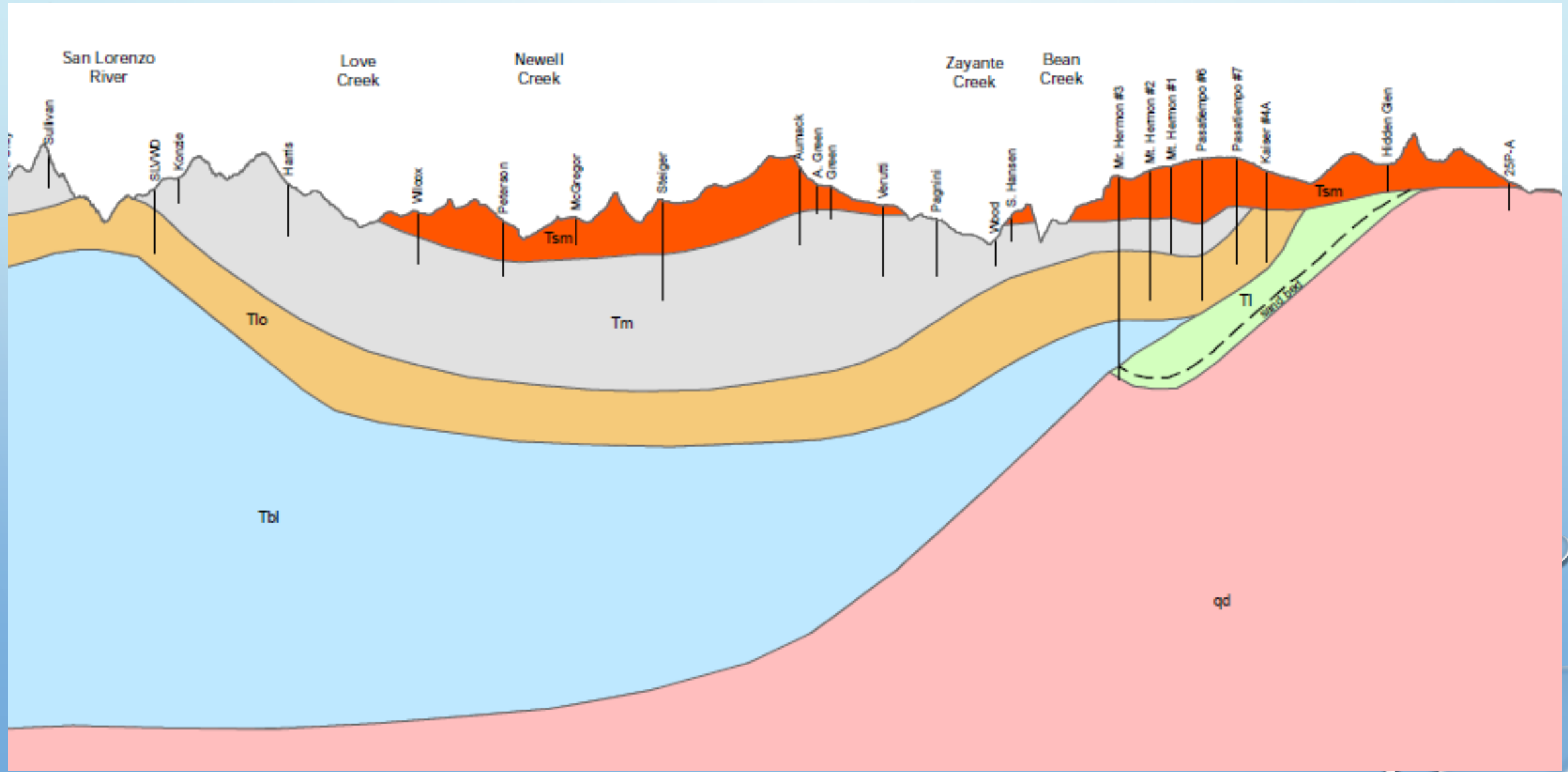


# GEOLOGY WEST TO EAST



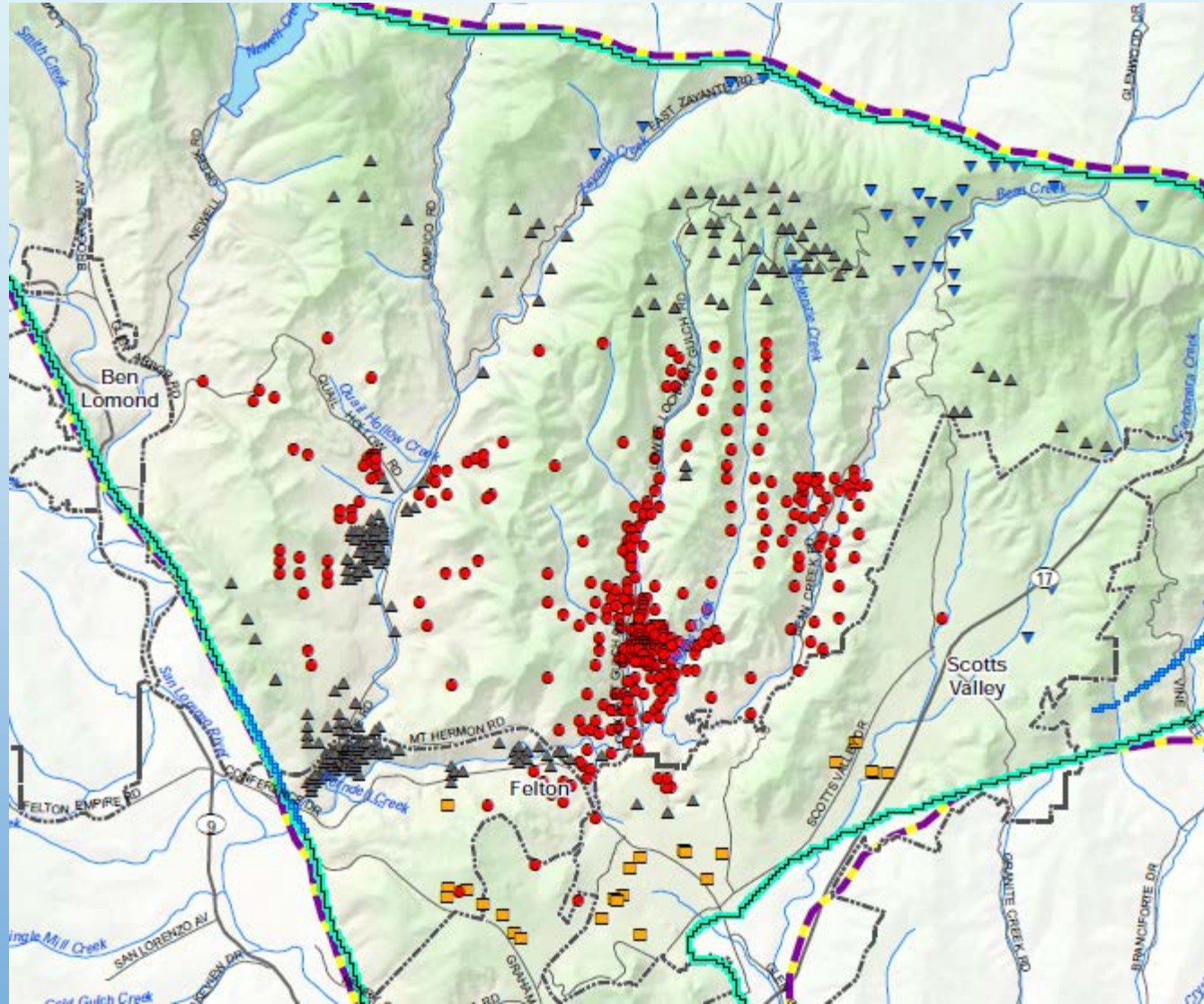
# GEOLOGY

## NORTHWEST TO SOUTHEAST



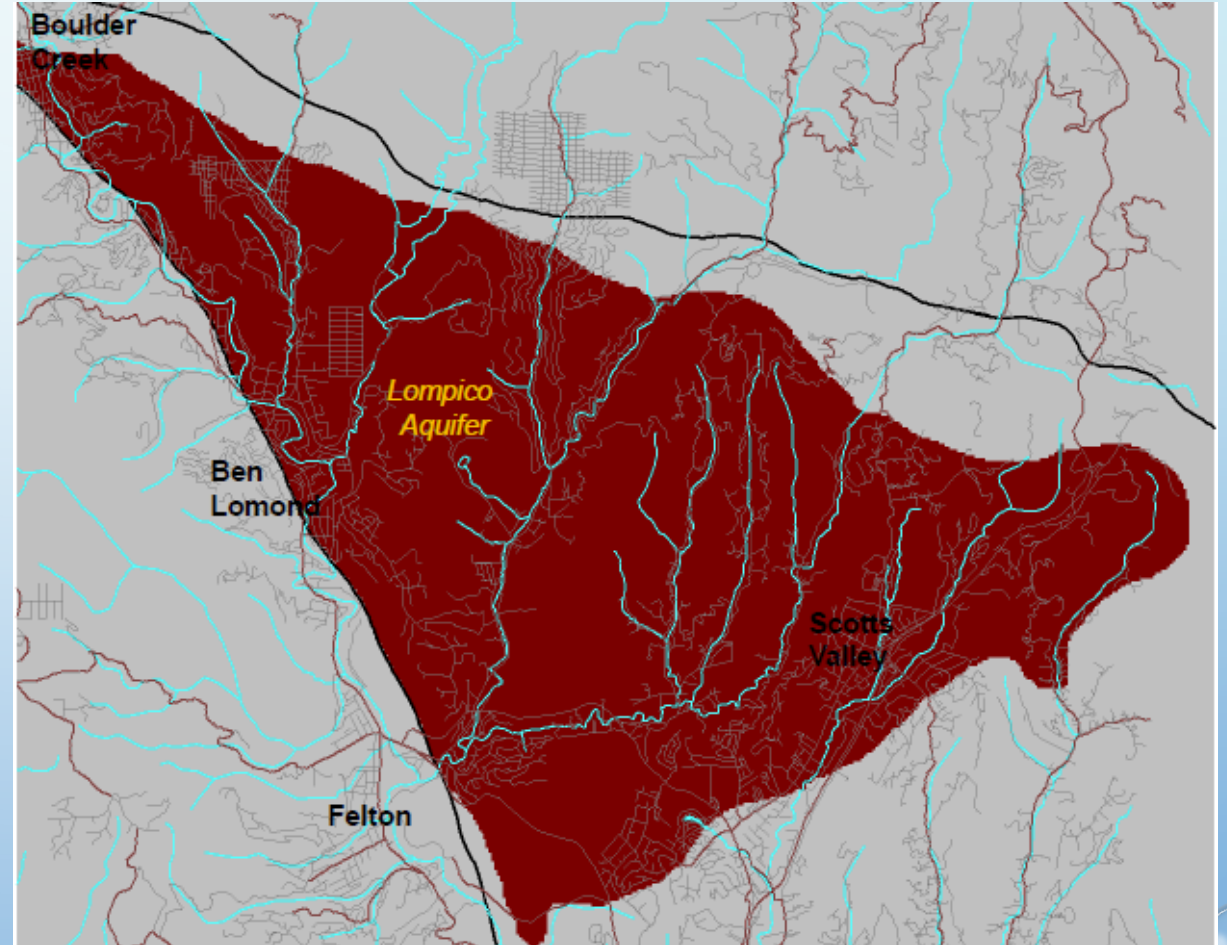
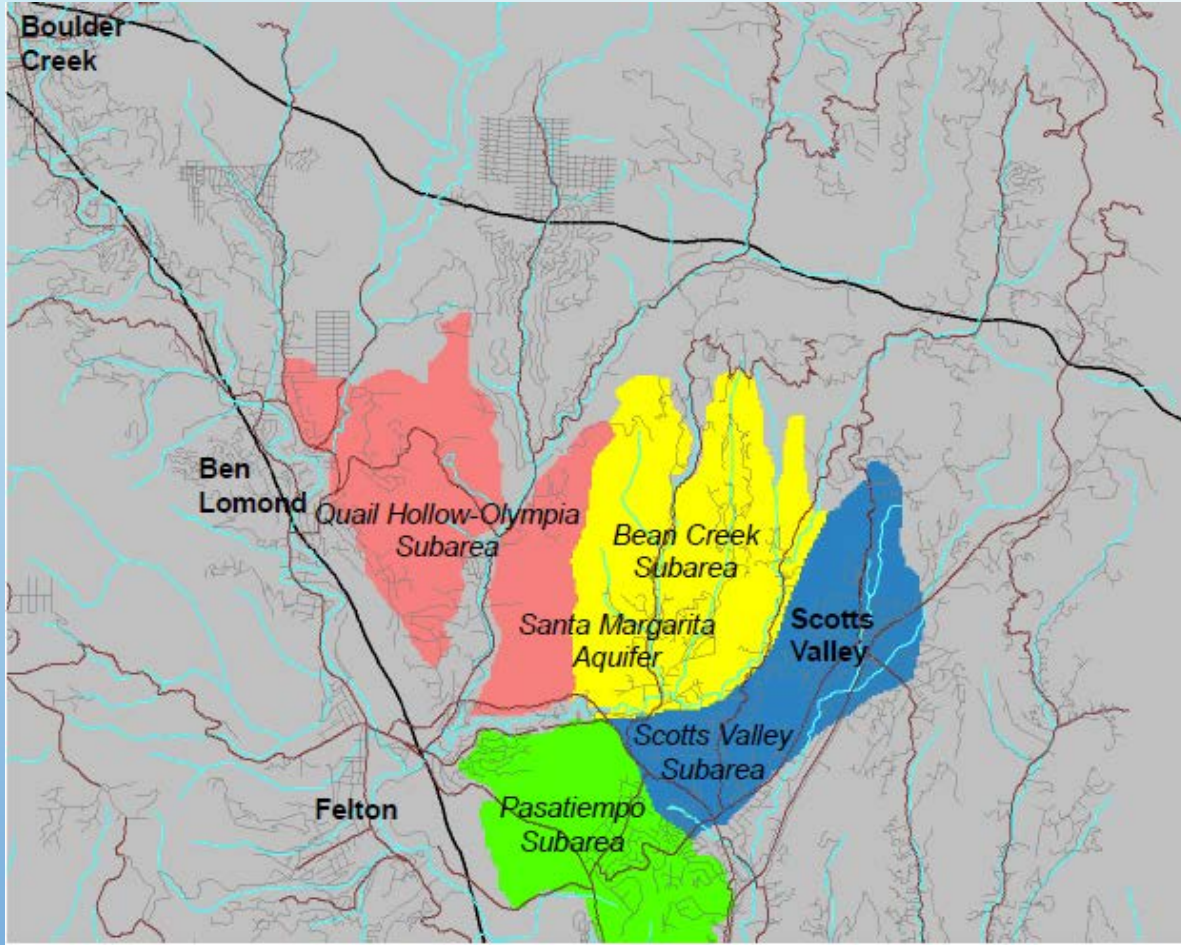


# WELLS IN DIFFERENT AQUIFERS: SANTA MARGARITA, MONTEREY, LOMPICO, BUTANO

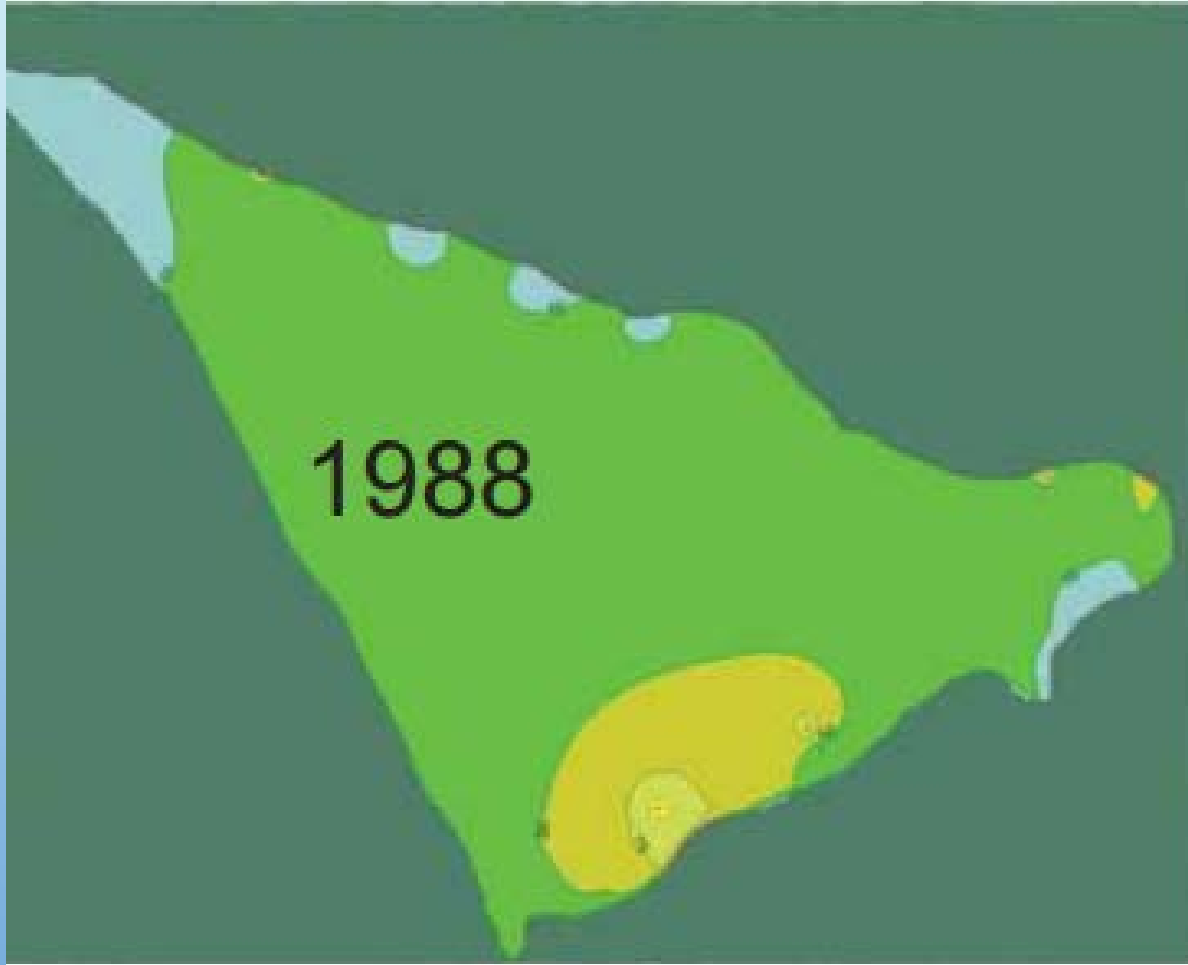




# STACKED AQUIFERS SANTA MARGARITA, LOMPICO

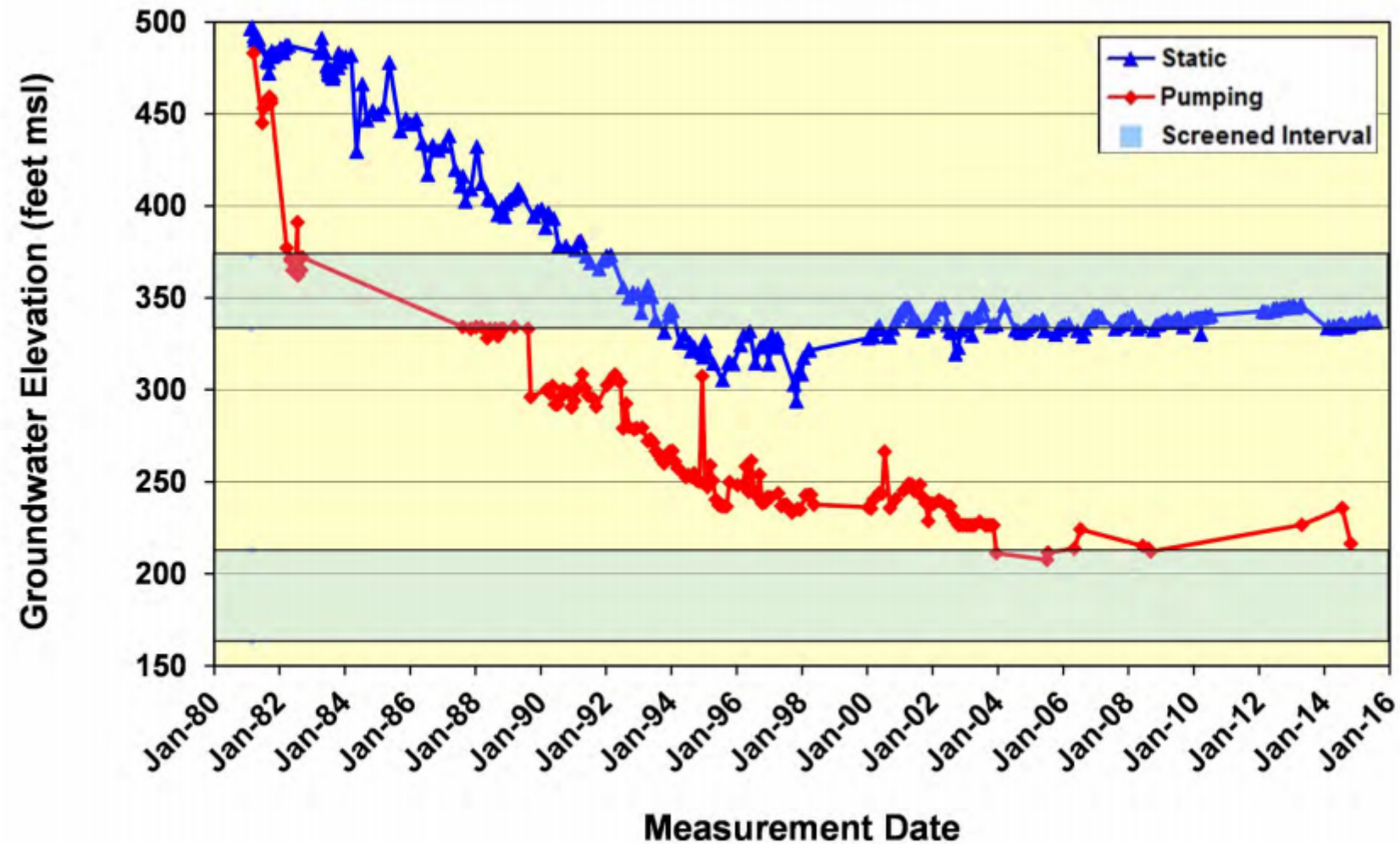


# BASIN OVERDRAFT, LOMPICO





## SVWD Well #9 - Comparison of Water Levels and Screened Interval



February 2016

Kennedy/Jenks Consultants

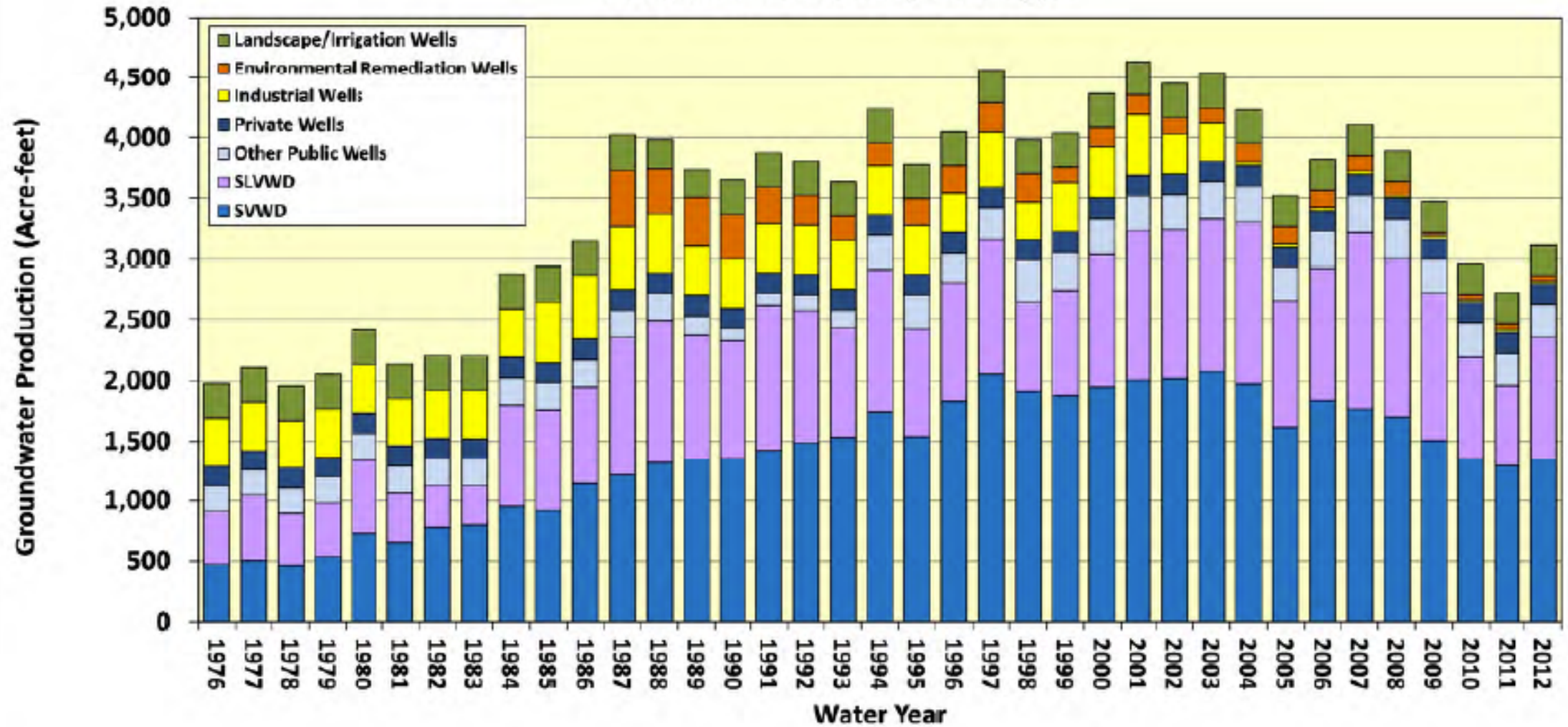
TODD  
GROUNDWATER

Figure 9  
SVWD Well #9 Groundwater  
Elevations

# WATER USE

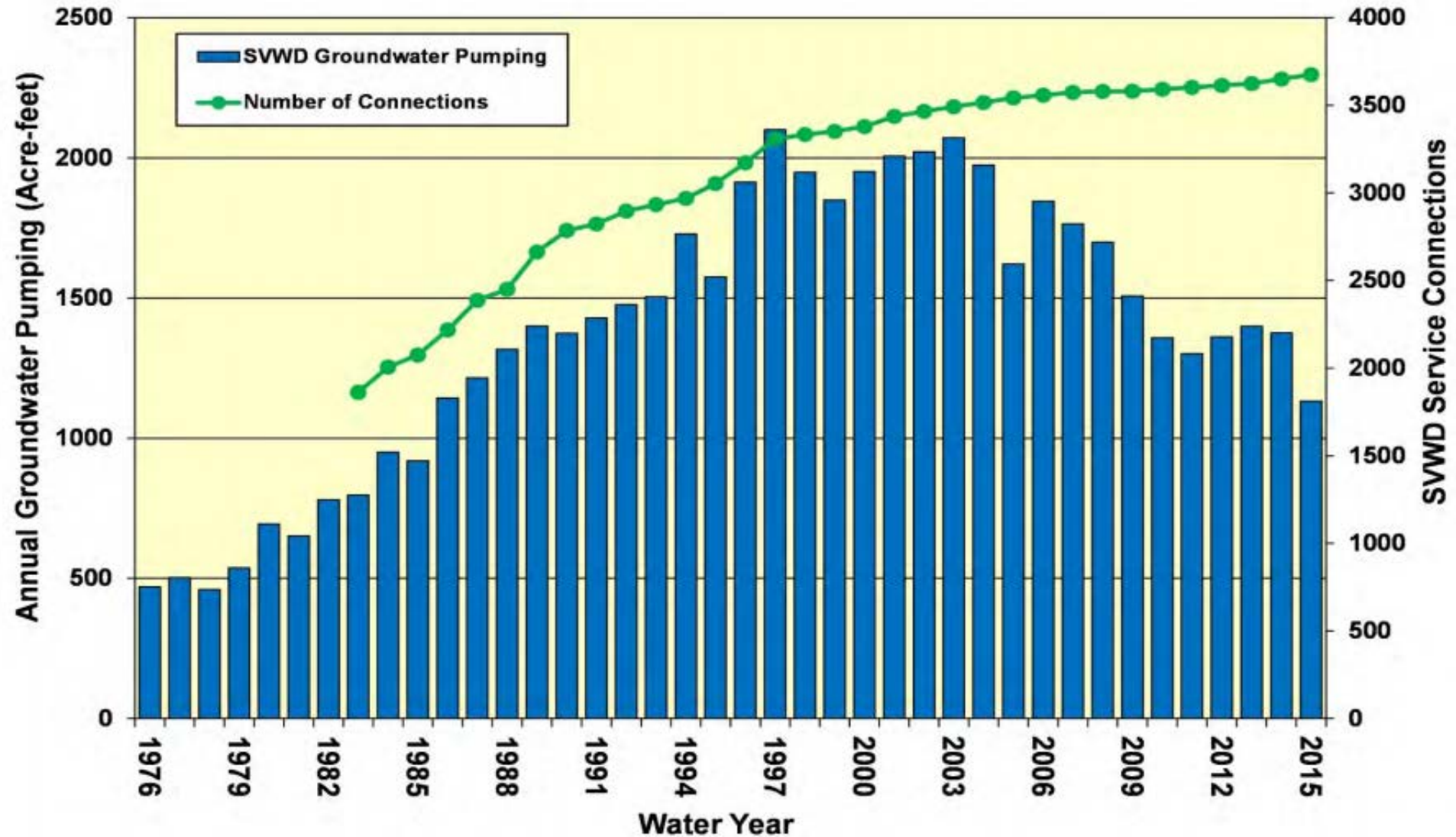
	Connections	2014 Use Acre-feet	
Scotts Valley Water District	3,735	1,218	42%
San Lorenzo Valley Water District	4,616	1,173	40%
Mount Hermon Association	497	138	5%
Small Water Systems (13)	420	~80	3%
Commercial, Industrial, Institutional, and Ag. Users	30	~100	3%
Individual Well Users	1,100	~220	8%
Base Streamflow: Fish and the City of Santa Cruz		~6,000	
City of Santa Cruz	2,800	~2,500	

## Santa Margarita Groundwater Basin Annual Production by User Type





## SVWD Service Connections vs. Groundwater Pumping





# CONTRIBUTION TO STREAMFLOW

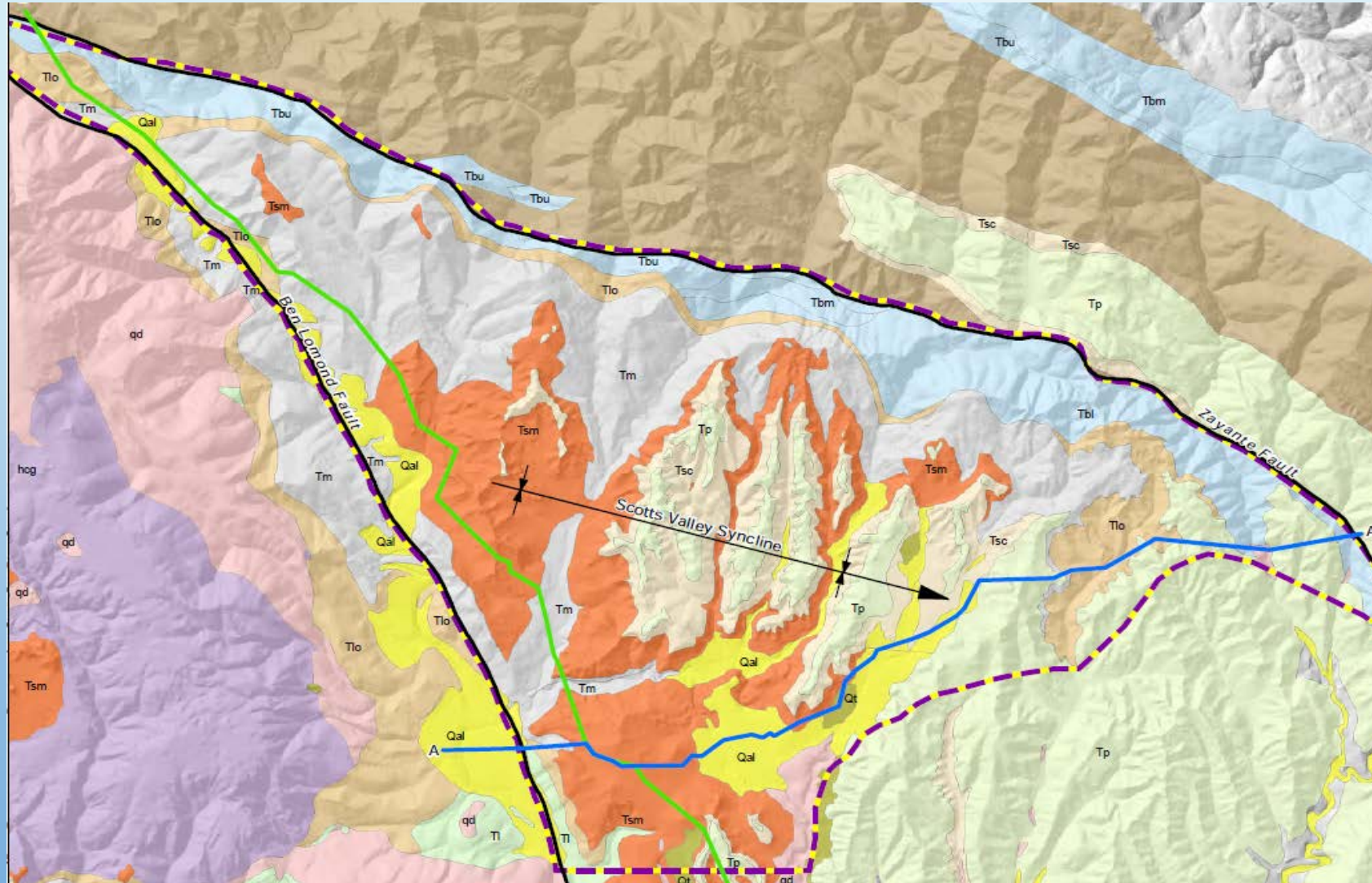


# SANTA MARGARITA BASIN CONTRIBUTION TO STREAMFLOW

- Love Creek, Newell Creek
- Lompico Creek, Zayante Creek, Bean Creek
- Carbonera Creek, Branciforte Creek
- San Lorenzo River – 40-50% of Dry Season Flow
- Groundwater Declines of up to 250 ft. have reduced flow by 0.2-0.5 cfs.  
10-20% in Lower Bean Creek
- There has been a cumulative estimated loss of storage of 28,000 af.  
(9 years of pumping)
- Basin has stabilized at lower than historical levels



# BASIN BOUNDARY DESIGNINATION

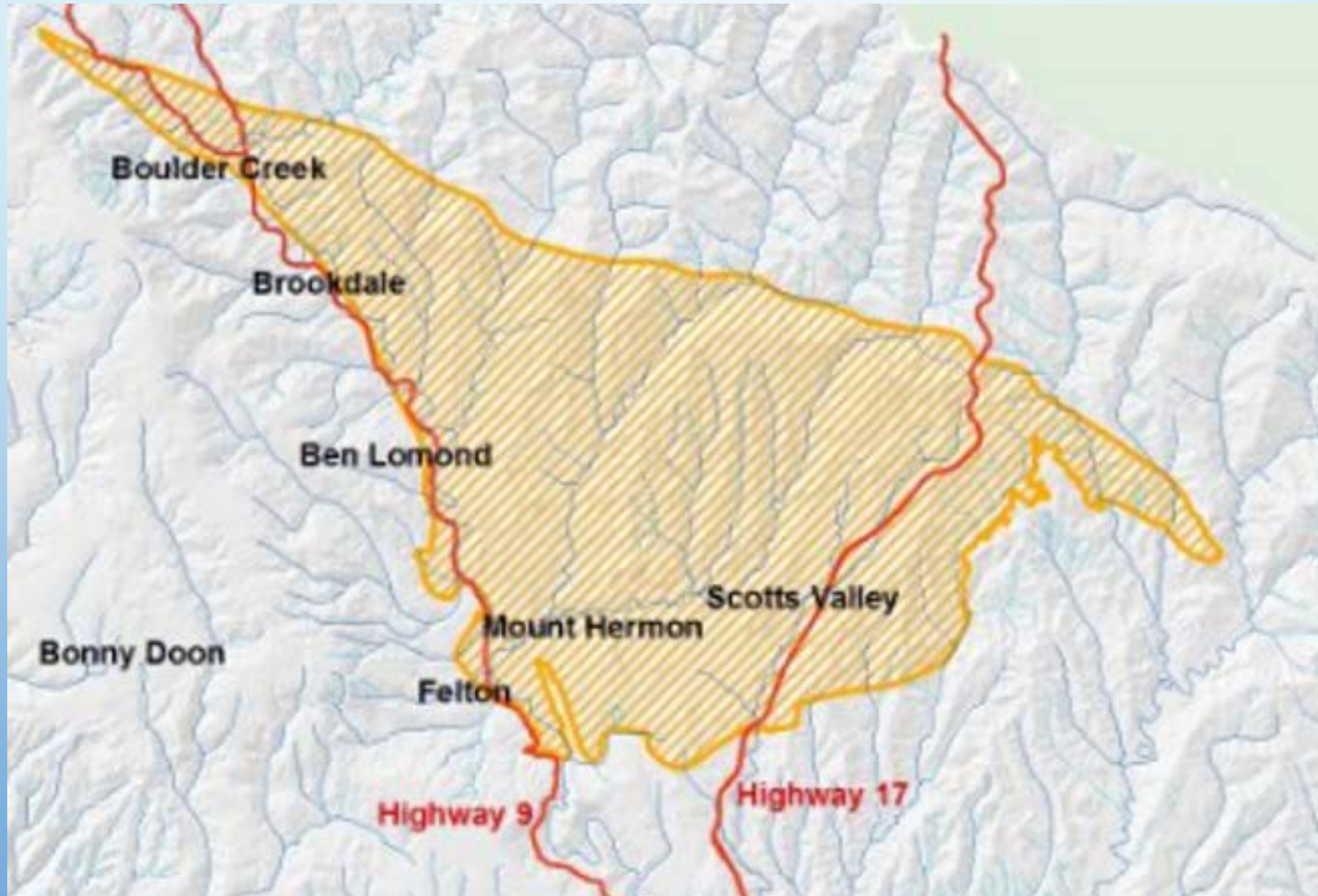




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# FINAL BASIN BOUNDARY



# NEXT STEPS

- Adoption of joint powers agreement to form SMGA by SVWD, SLVWD, County
- Designation of Agency Board members, including private well owners
- Designation of SMGA as Groundwater Sustainability Agency
- State completes Basin Prioritization
- SMGA begins process of developing Sustainability Plan
- Ongoing involvement with community and stakeholders
- Check the website: [SMGWA.org](http://SMGWA.org); Signup for email.

# QUESTIONS AND DISCUSSION



