

Scotts Valley Water District Role and Responsibilities in Water Management



Santa Margarita Groundwater Agency

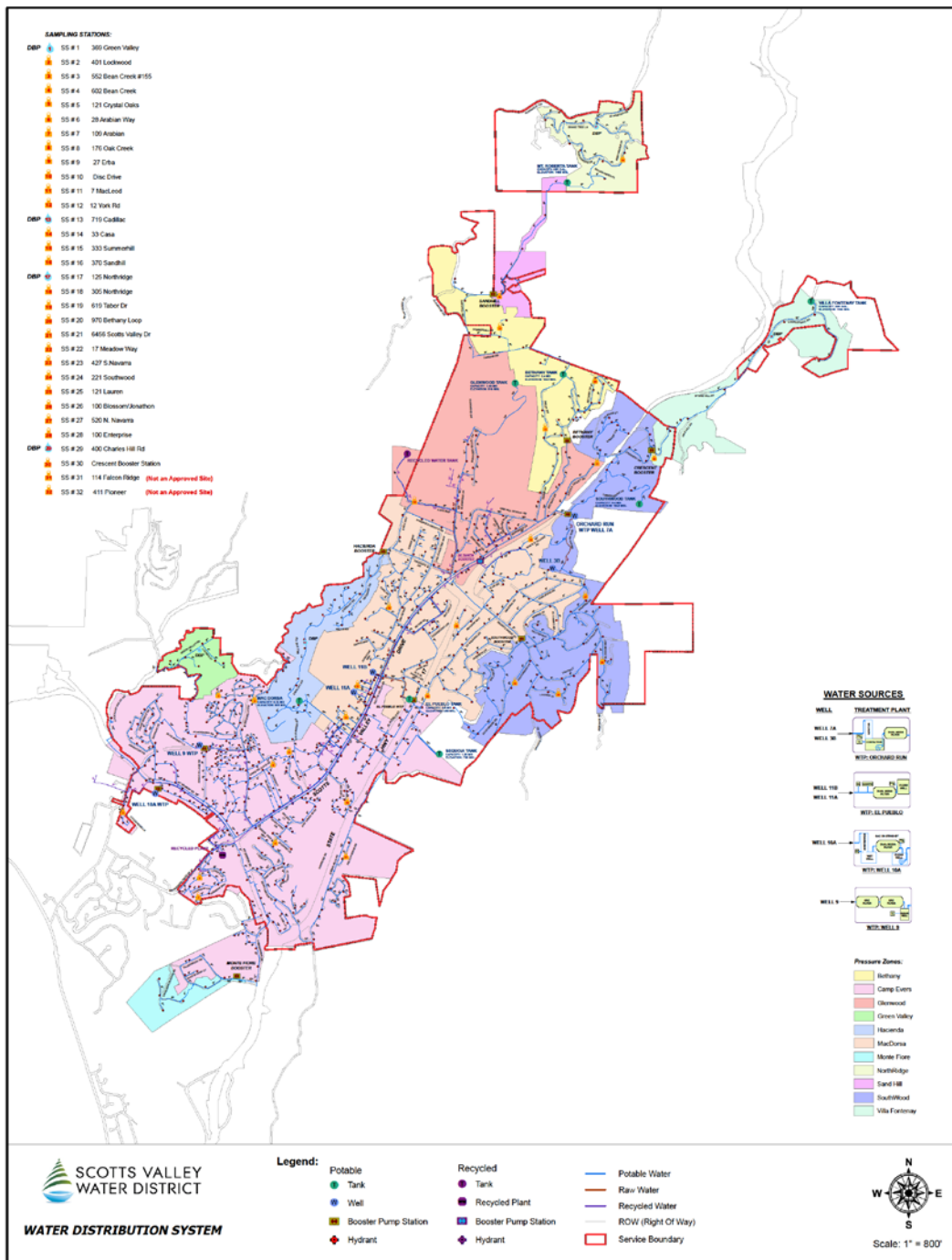
Board Meeting

August 23rd 2018



District Overview

- Formed from several smaller water systems in 1961 under the California County Water District Act
- Water source is local: 90% groundwater, 10% recycled water
- Serving 10,700 people through a distribution system comprised of 62 miles of water main, with 4,200 service connections
- 18 Employees, 9 of which are dual-certified operators



District Infrastructure

- 11 Pressure Zones
- 6 Production Wells
- 4 Treatment Plants
- 10 Pump Stations
- 8 Storage Tanks (4 MG of Storage Capacity)
- Skypark Intertie with SLVWD

California Water Code County Water Districts

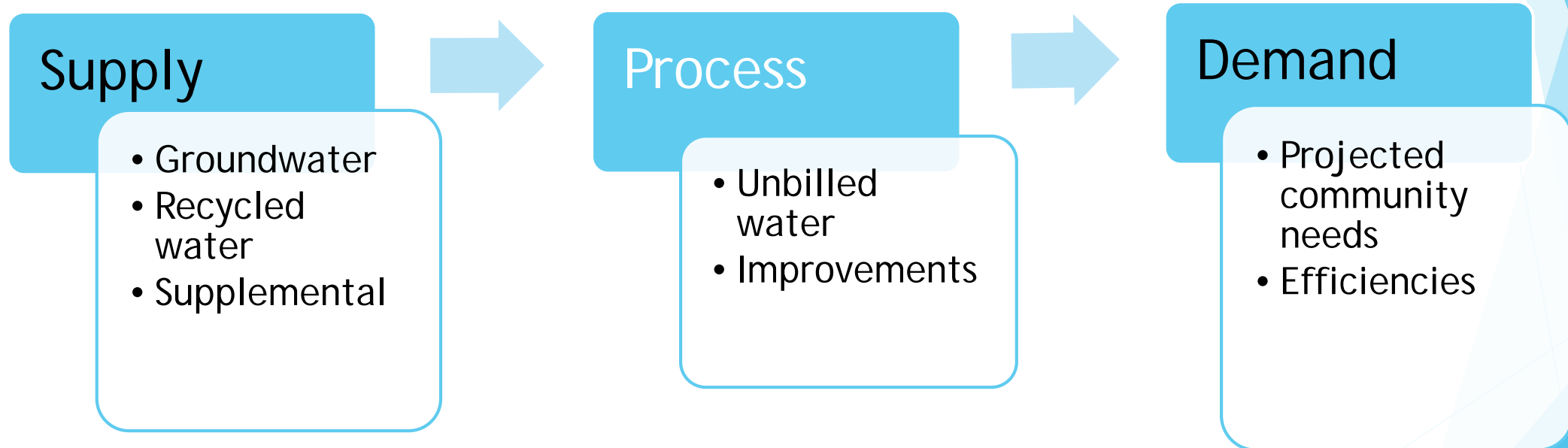
Districts shall:

- Provide water to meet the needs of a community (present and future beneficial uses)
- Have discretion to issue moratorium in a declared water shortage emergency

Districts shall NOT:

- Have the authority to determine the need of a community
- Issue moratoria as a pretext to a no-growth policy

Water Balance



Groundwater Supply

- Hidden inventory: hard to measure and quantify
- Unreliable supply chain: weather dependent
- First computerized groundwater model in Santa Margarita Basin 1997, last update 2016
- Model only as good as the data

Water Demand

Population and demand: correlation but no causation

Scotts Valley Water District	1975		1995		2015
Population	4,500		8,797		10,774
Change		+95%		+22%	
Demand (acre feet per year)	500		1,533		1,133
Change		+207%		-26%	

Shared Resource

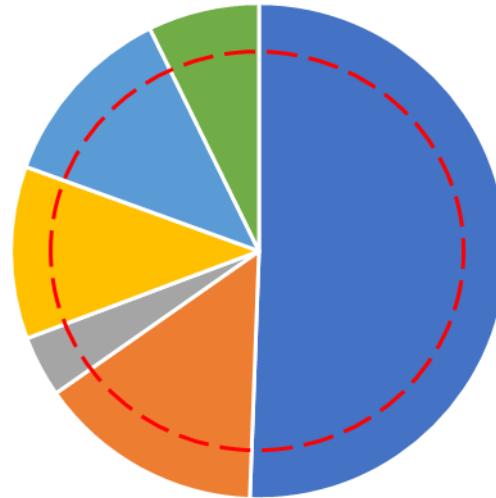
Scotts Valley subarea of Santa Margarita Groundwater Basin

1975

Available
47%

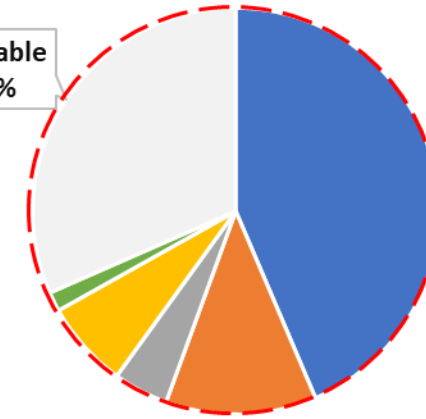


1995



2015

Available
32%



Annual Pumping by Various Entities

1975: 1388 AFY (452 MGY)

1995: 3030 AFY (987 MGY)

2015: 1779 AFY (580 MGY)



Annual Safe Yield
(Average Year)

Average Annual Water Use



SVWD 370 MGY

EFFICIENT HOME 45,000 GY (0.01%)

100 HOMES 4.5 MGY (1.2%)



HOTEL 1.5 MGY - 3 MGY (0.4% - 0.8%)



MGY - Million Gallons per Year
GY - Gallons per Year

Long Term Planning Efforts

- 1994 - Groundwater Management Plan (annual reports since then)
- 1995 - Santa Margarita Groundwater Basin Advisory Committee: SVWD, SLVWD, MHA, LCWD, City of Scotts Valley, County of Santa Cruz
- 2015 - [Updated UWMP](#)
- 2016 - [Updated GW Model Technical Study](#)
- 2017 - [Recent GW Annual Report](#)
- 2017 - Santa Margarita Groundwater Agency: SVWD, SLVWD, MHA, City of Scotts Valley, City of Santa Cruz, County of Santa Cruz, Private Well Owners

Scotts Valley Groundwater Management Area Overview

Georgina King, P.G., C.Hg.

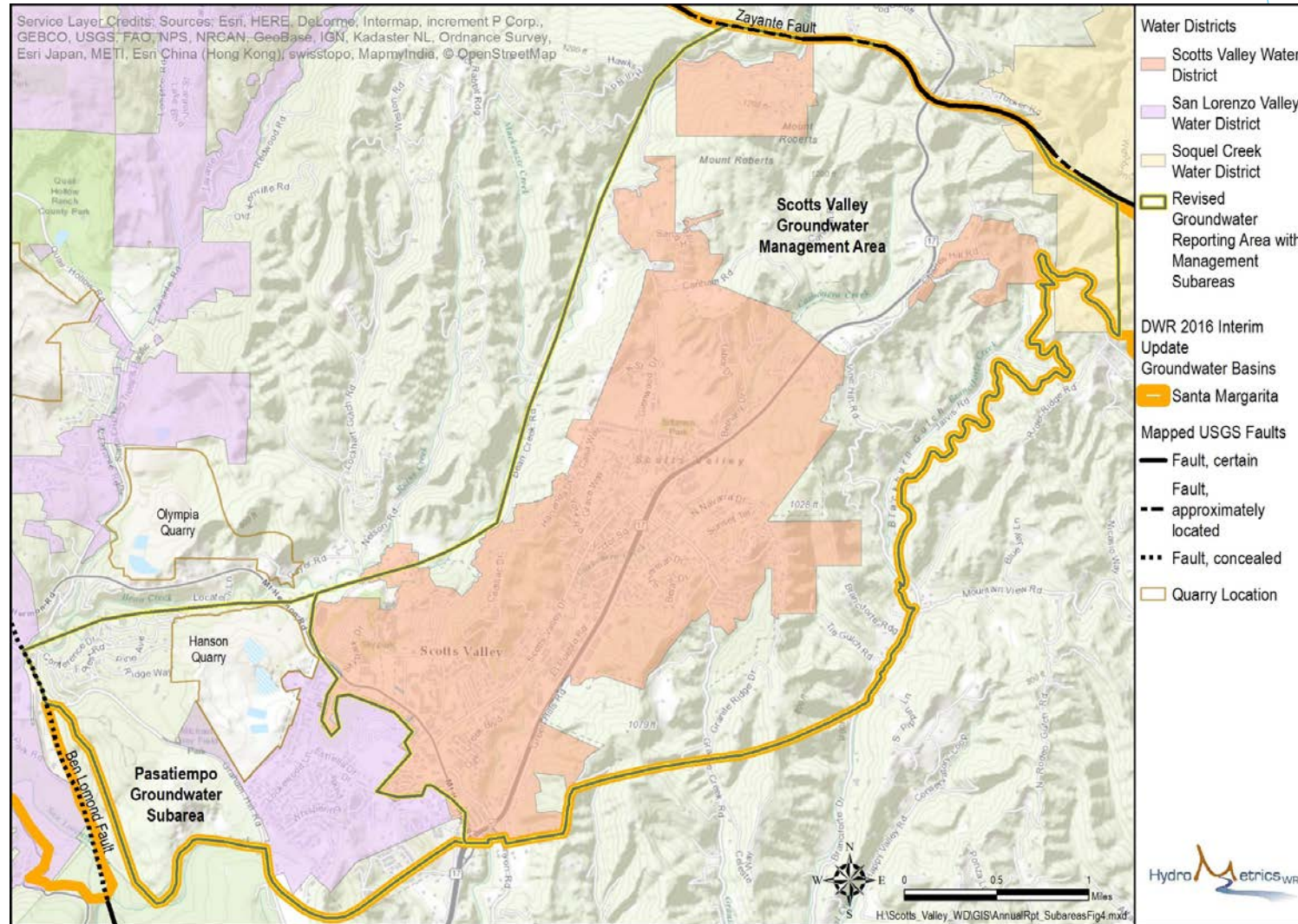


Provide Understanding of

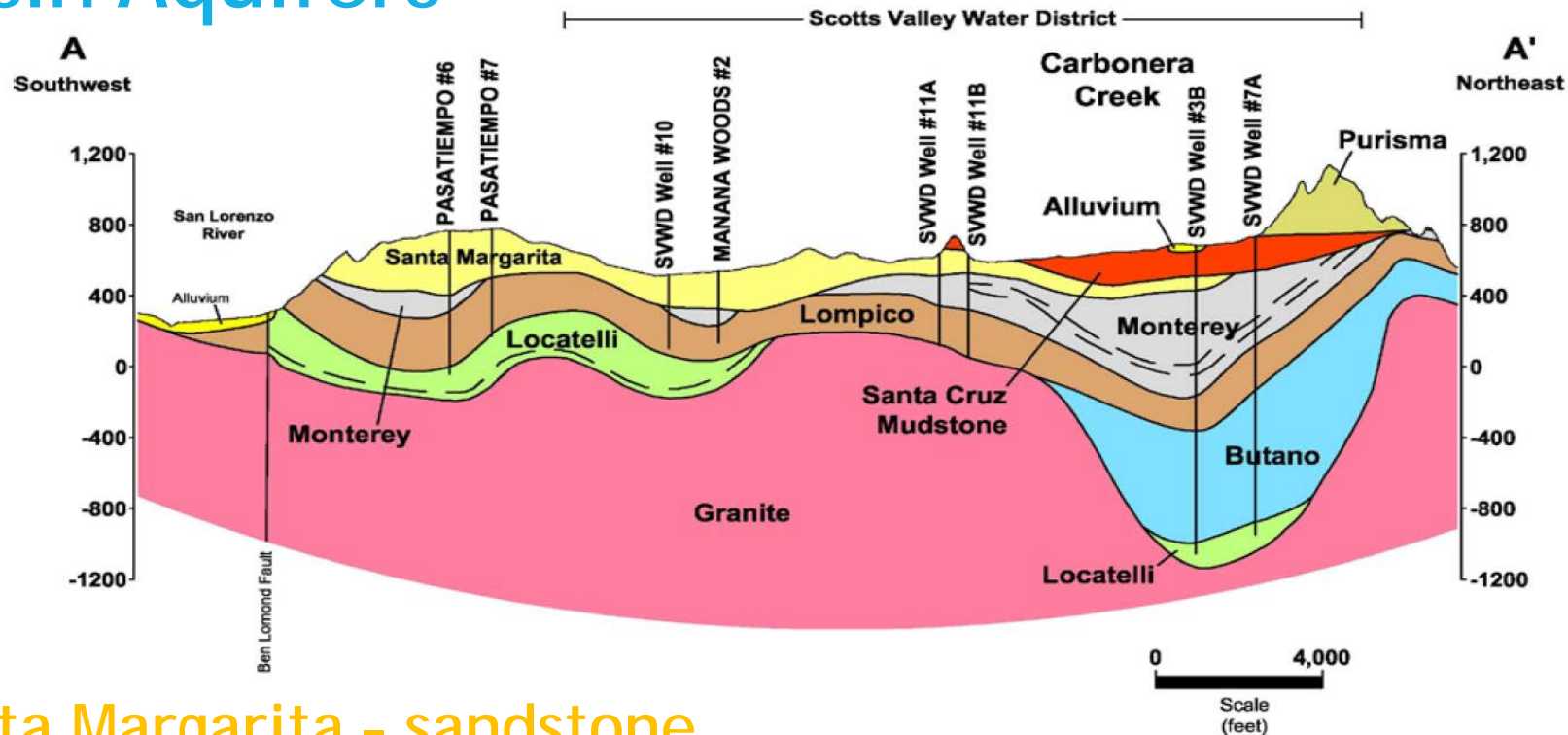
- Basin aquifers and how they are connected to each other
- Where and how much groundwater is being pumped in the basin
- Relationship between rainfall, groundwater recharge and groundwater in storage

Scotts Valley Groundwater Management Area

- Mid-1990s:
Groundwater
use in the
basin not
sustainable
- AB3030
Groundwater
management
plan and
groundwater
model

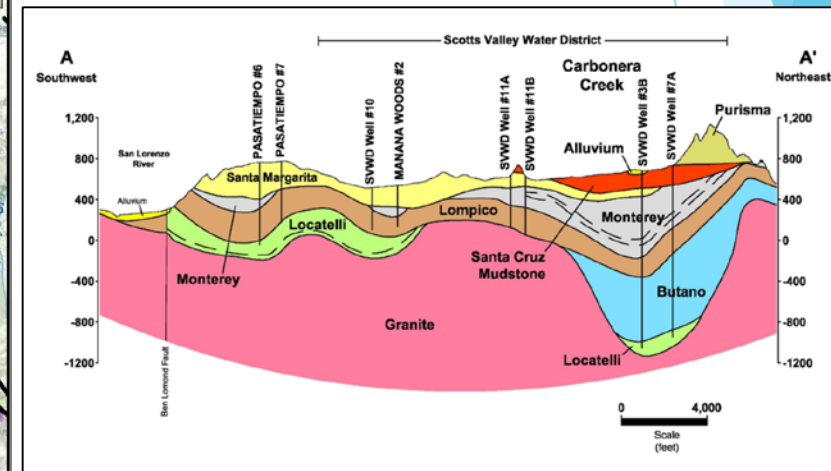
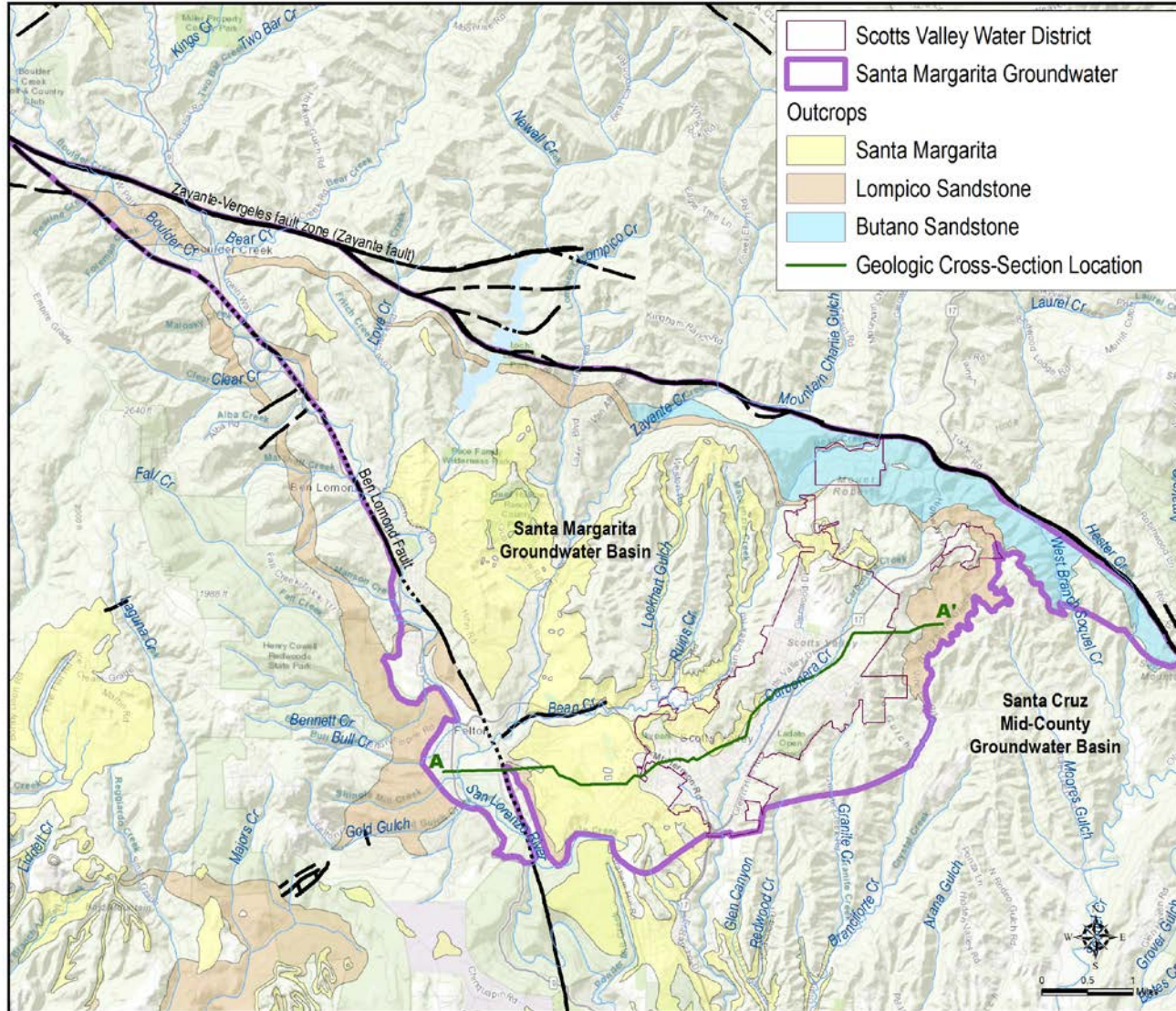


Santa Margarita Basin Aquifers

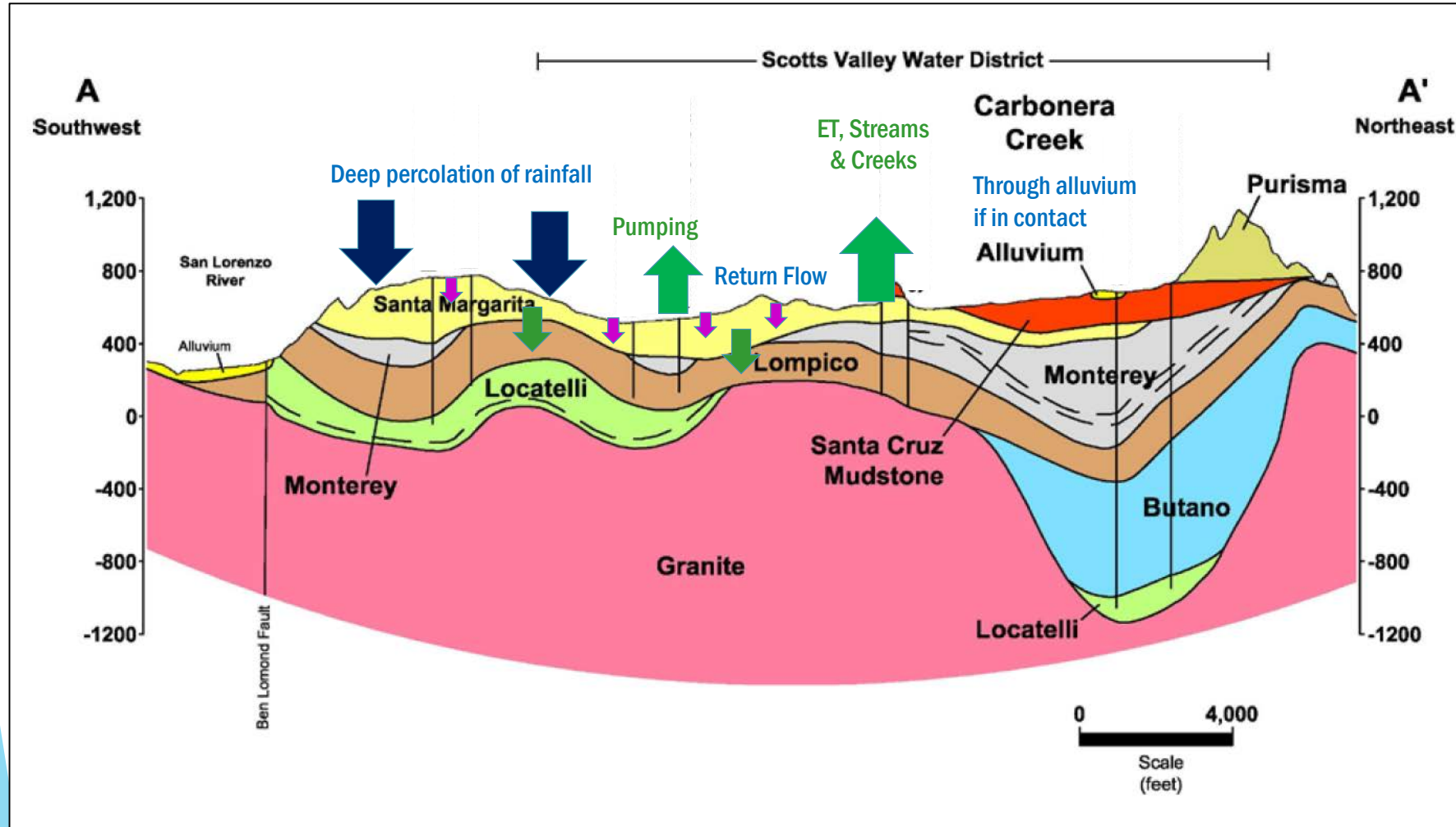


Santa Margarita - sandstone
Monterey - shale, some sand
Lompico - sandstone
Butano - sandstone, shale
Locatelli - shale

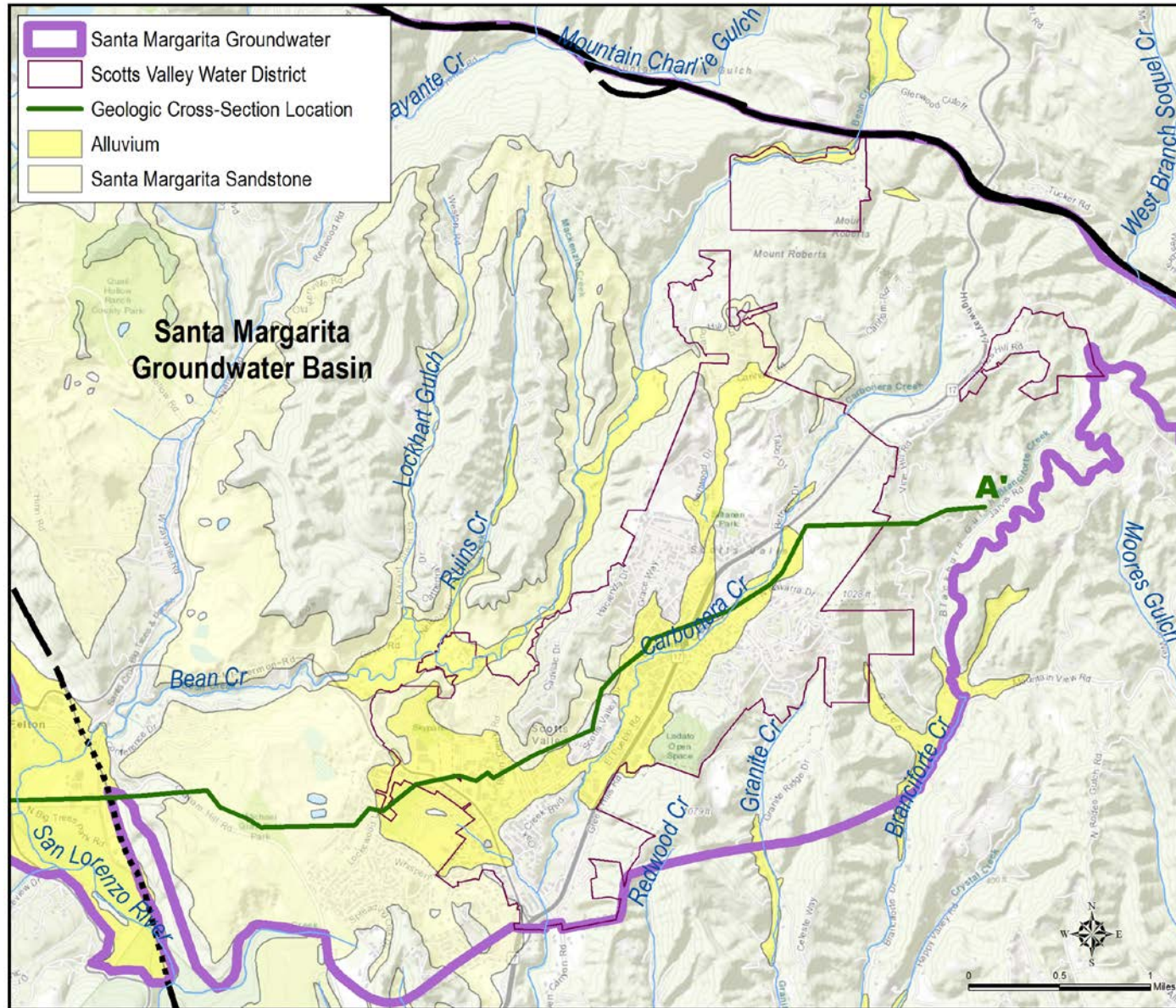
Aquifer Outcrops



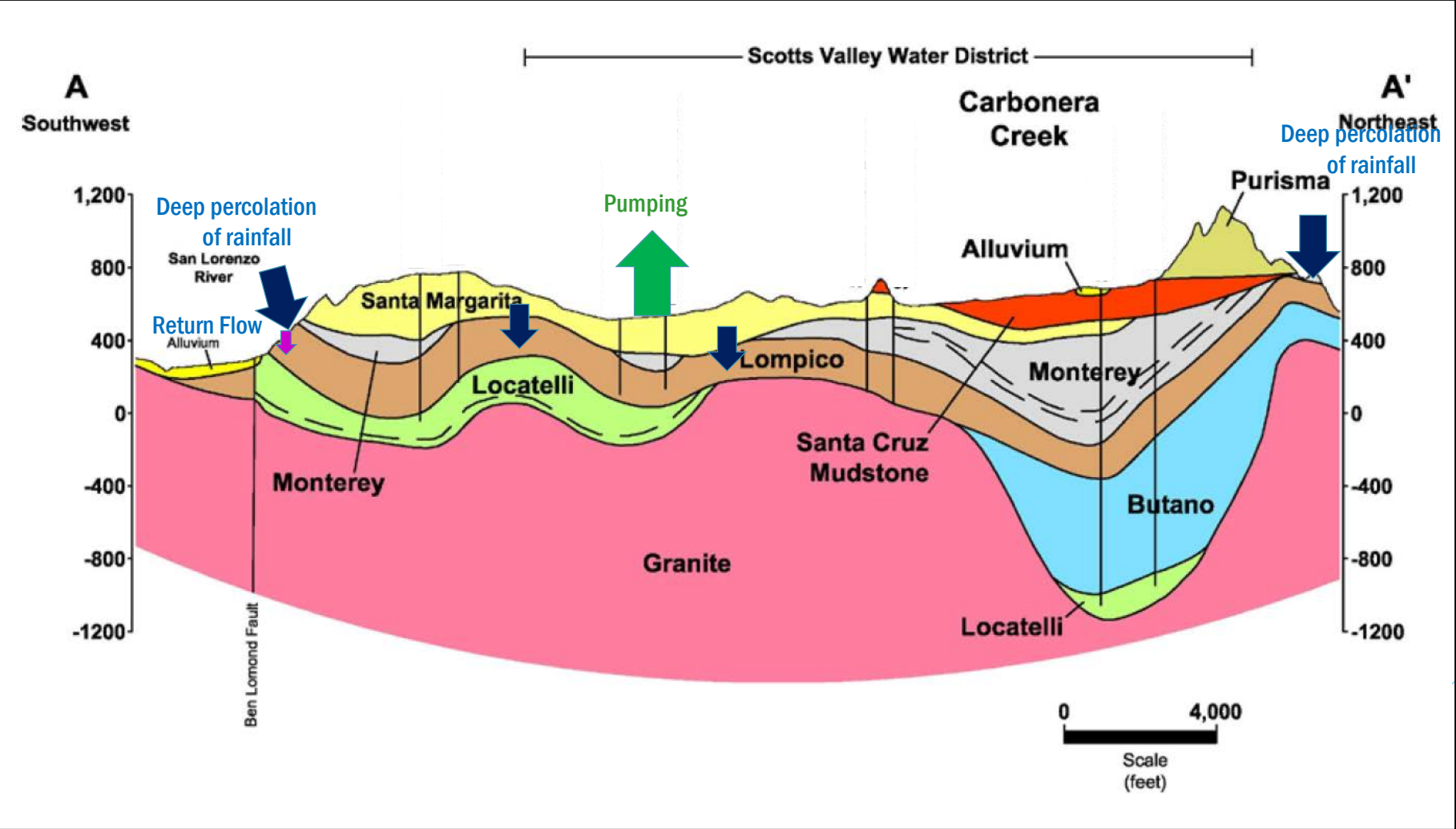
Recharge and Discharge: Santa Margarita Aquifer



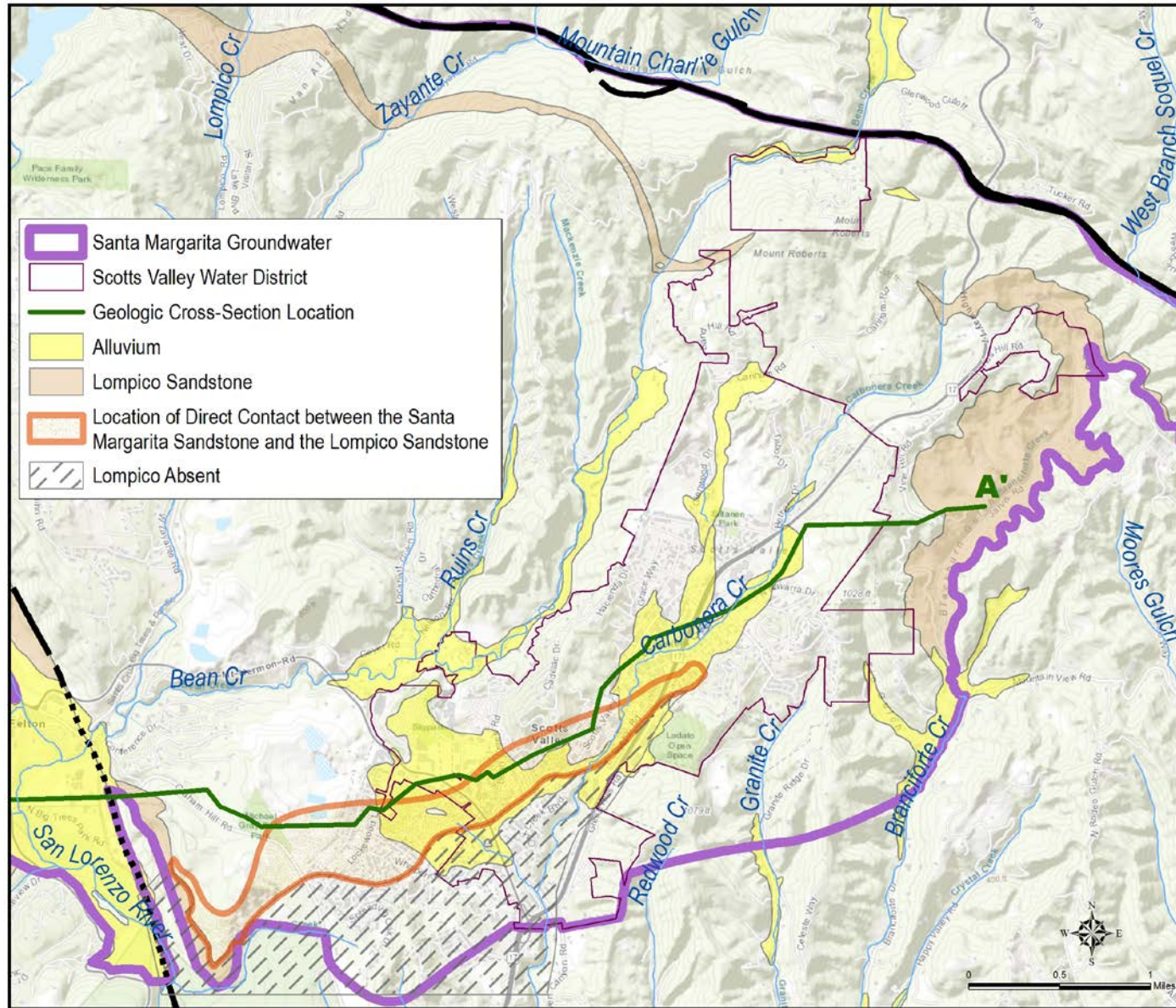
Recharge Areas: Santa Margarita Aquifer



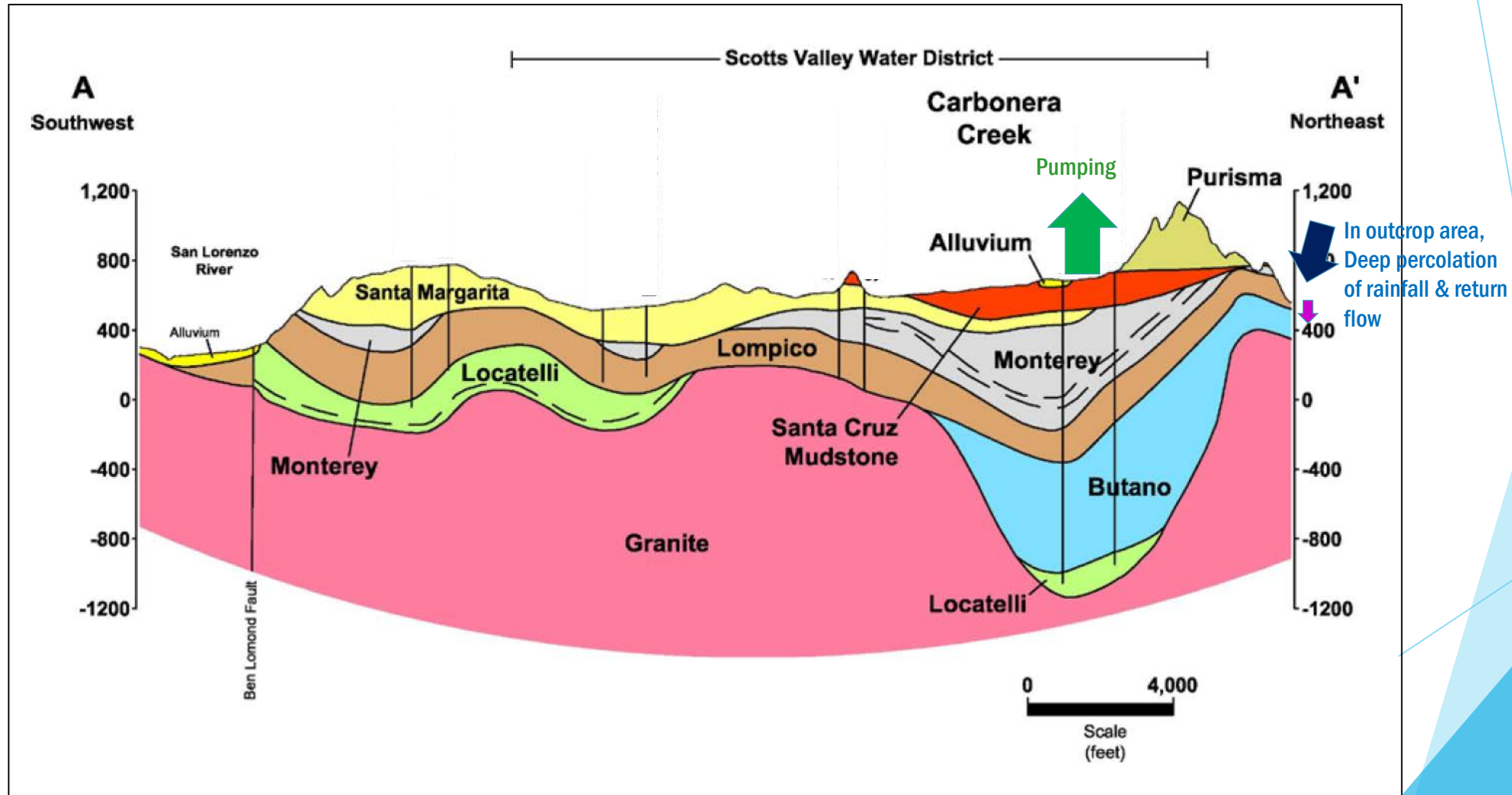
Recharge and Discharge: Lompico Aquifer



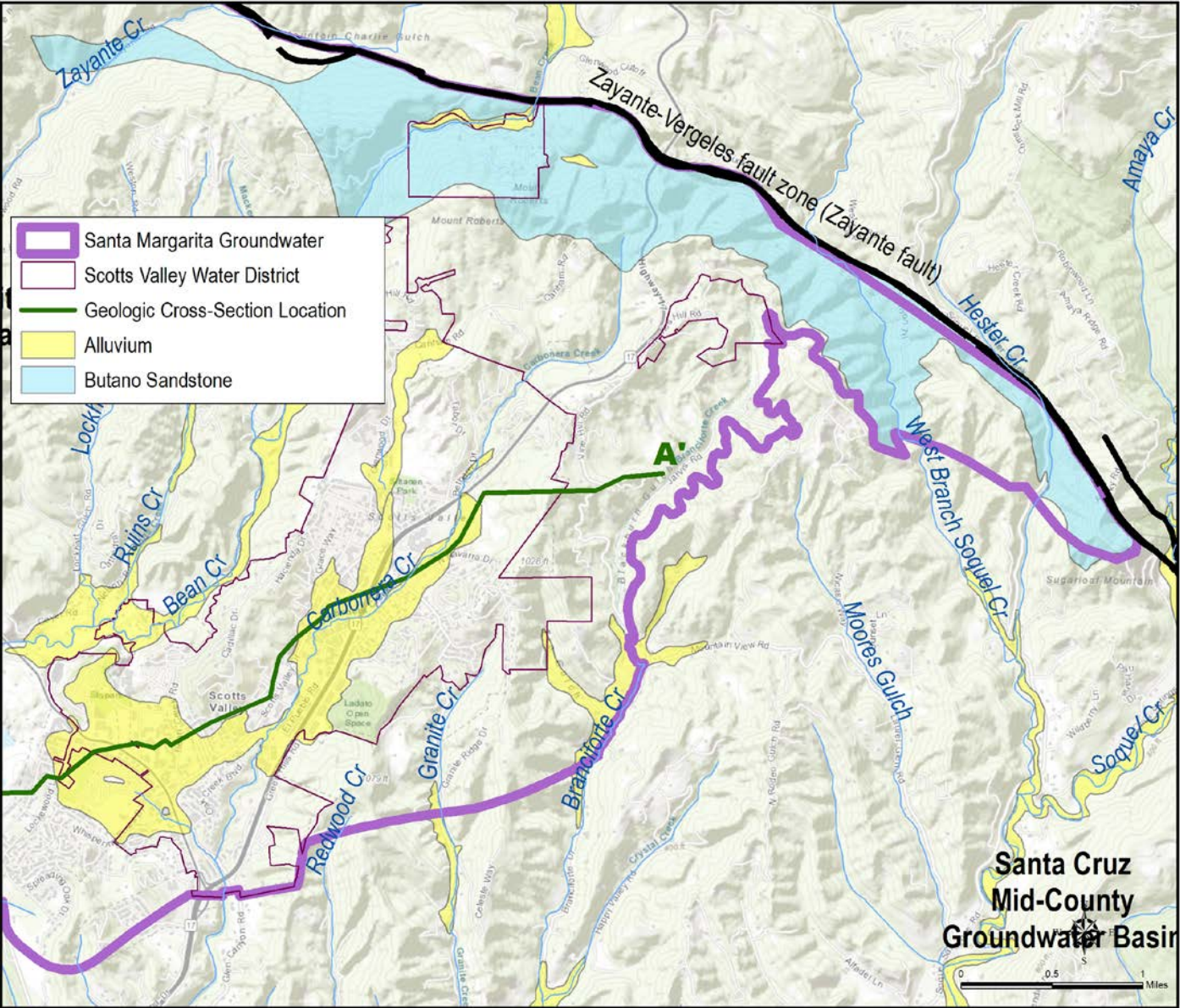
Recharge Areas: Lompico Aquifer



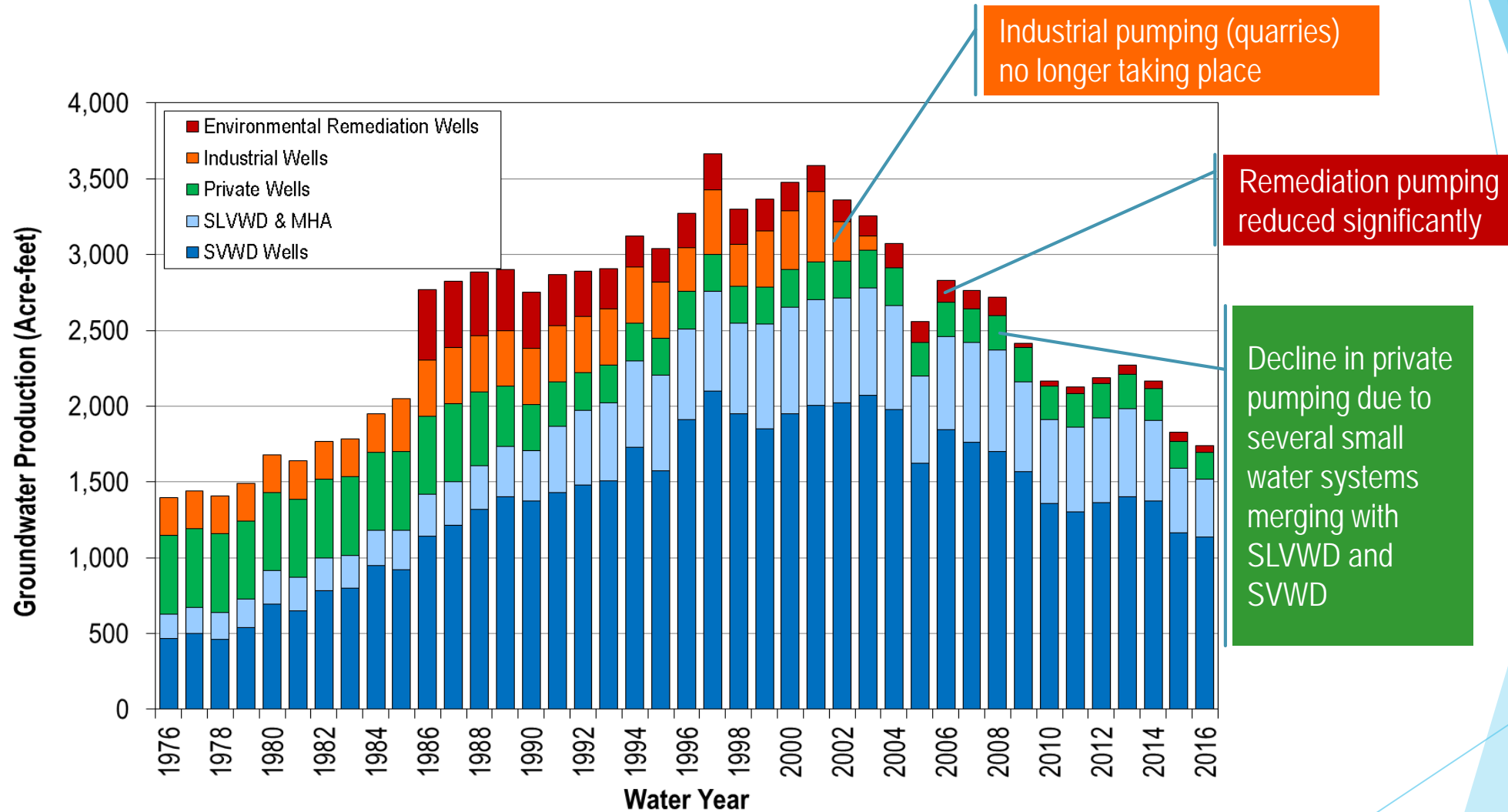
Recharge and Discharge: Butano Aquifer



Recharge Areas: Butano Aquifer

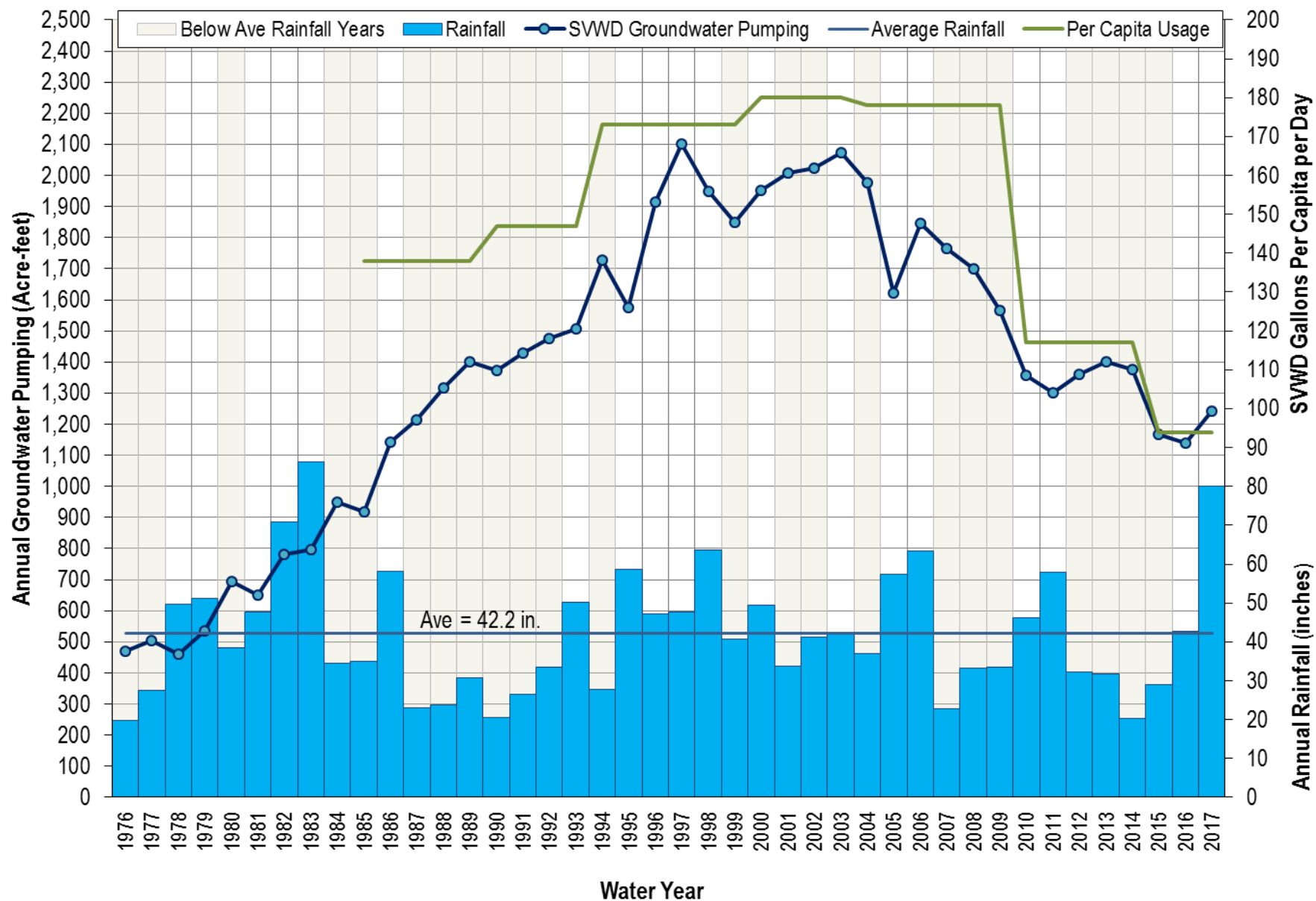


Historical Groundwater Production

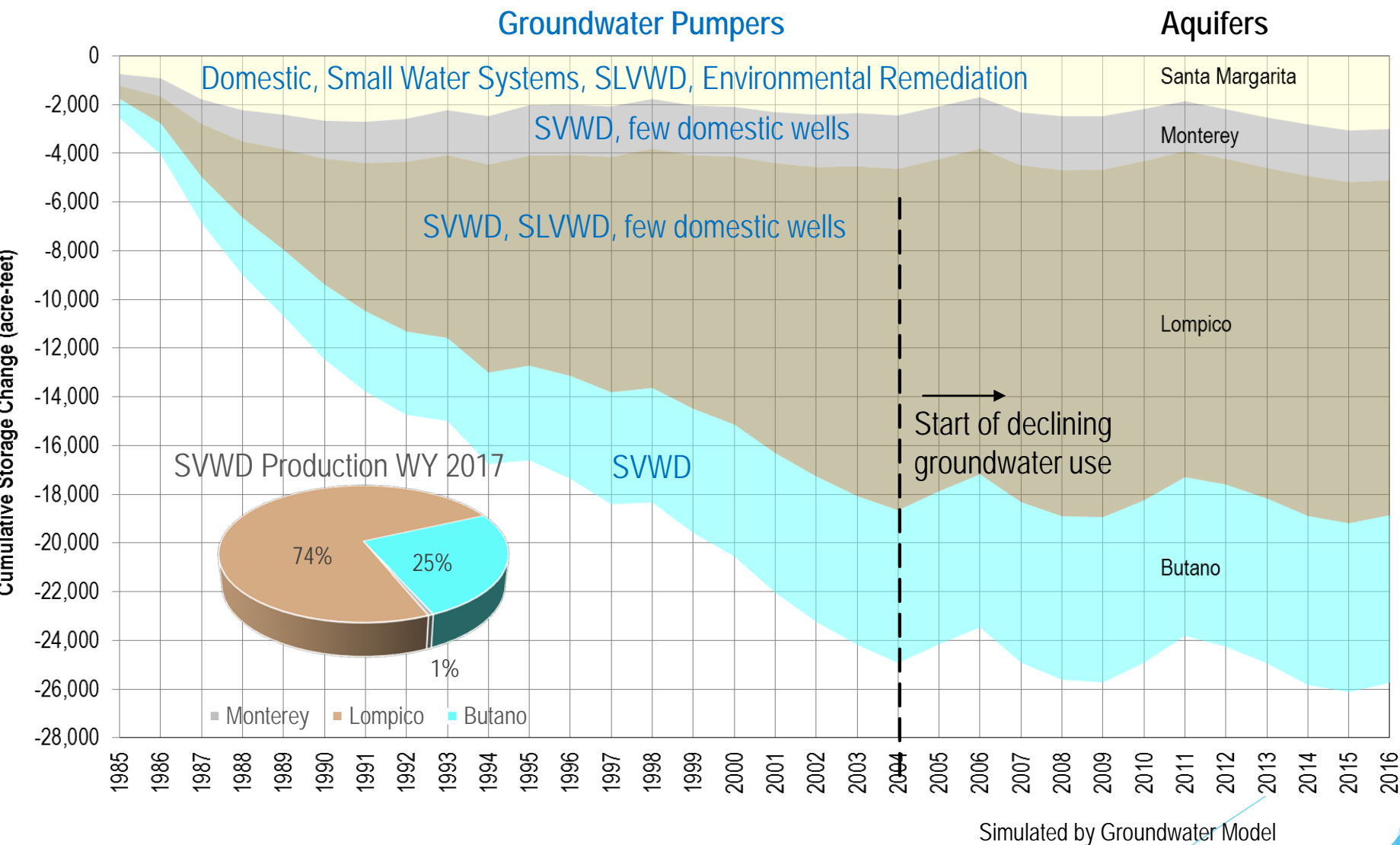


Private wells: includes individual wells, small water systems, golf course and other community water systems

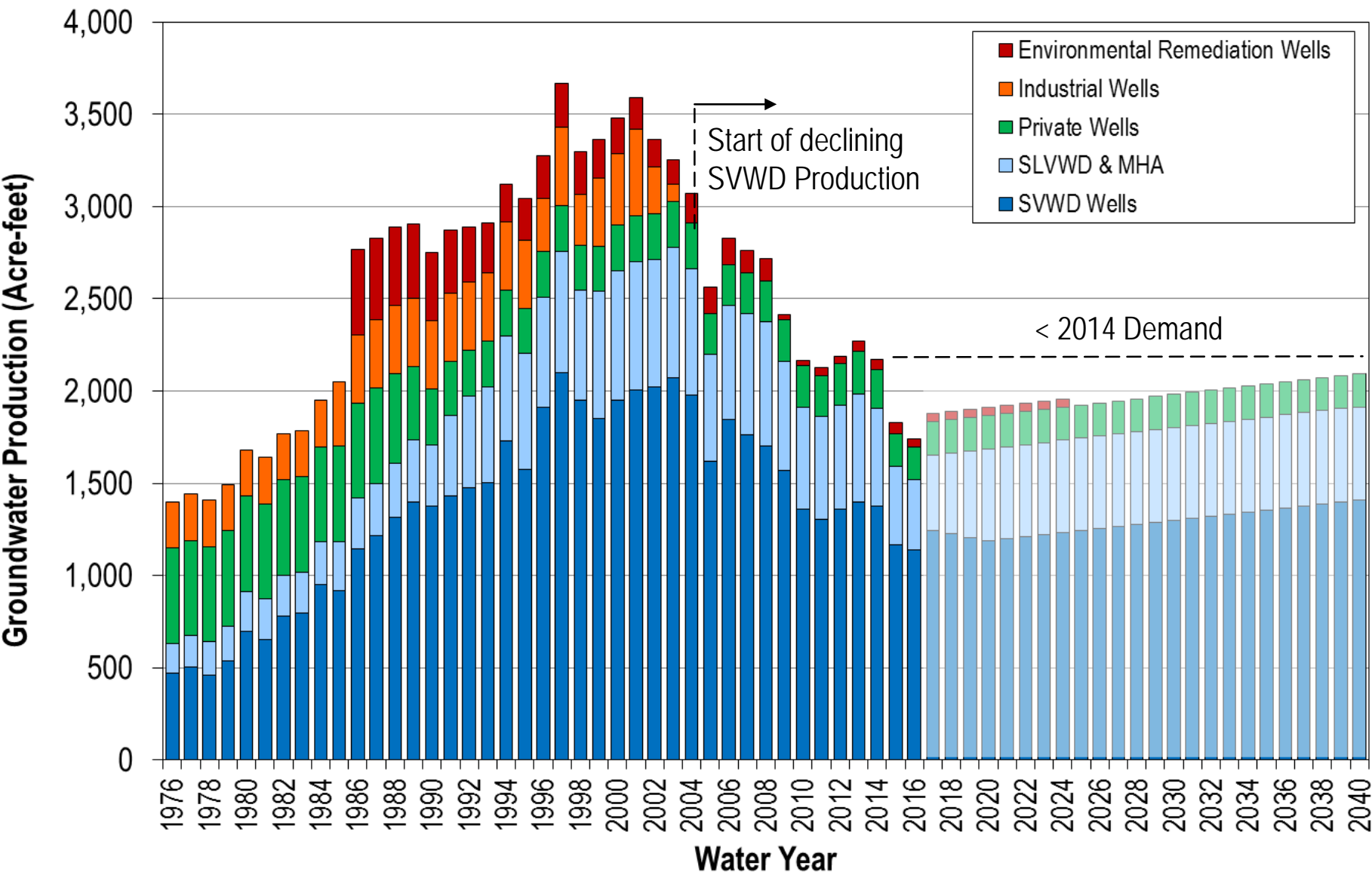
Rainfall and Demand Relationship



Change in Groundwater in Storage



Projected Groundwater Production



Thank you

- Piret Harmon, General Manager
Scotts Valley Water District
pharmon@svwd.org
- Georgina King, P.G., C.Hg.
Montgomery & Associates
gking@elmontgomery.com

