Consideration and Adoption of Third Annual Report for SCV-GSA

SCV GSA Board Meeting

March 20, 2024

Item No. 3.4

Annual Report Overview

- This is the SCV-GSA's third annual report.
  - Summarizes Water Year 2023 (October 2022-September 2023)
  - Identifies if Undesirable Results were identified
  - Describes progress towards implementing the Groundwater Sustainability Plan
- No Undesirable Results identified in Water Year 2023
- Meets DWRs requirements for annual reports.

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Summary: Comparison with Prior Year

- Significant rainfall and groundwater recharge during WY 2023
- Municipal water demand lower during WY 2023
  - Approx. 52,000 AFY in 2023
  - Ranged between 63,000 and 71,400 AFY during prior 3 water years
- Municipal and agricultural groundwater use also notably lower in WY 2023

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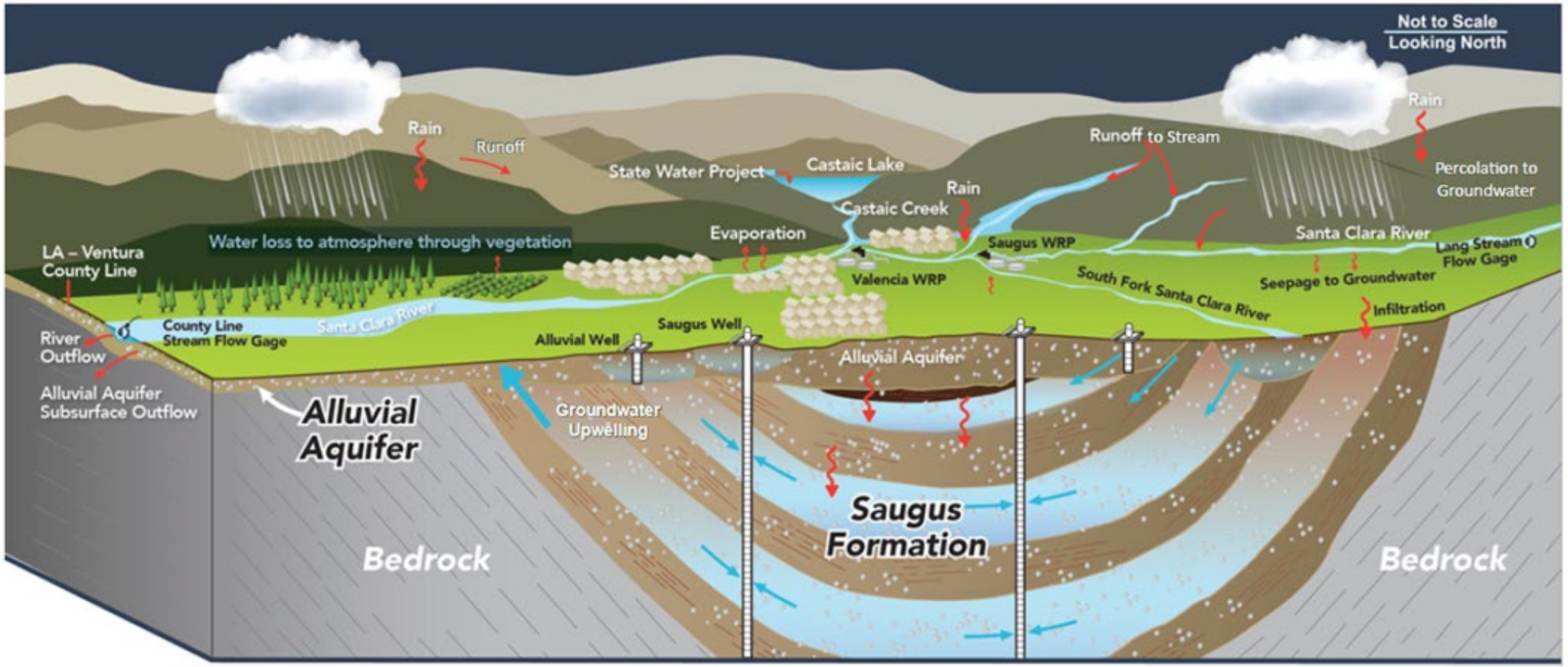
Section 2: Basin Setting

- Two principal aquifers (Alluvial Aquifer and Saugus Formation)



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Section 2: Basin Setting, Monitoring Network

- Precipitation and Climatic Periods (Wet, Dry, Normal)

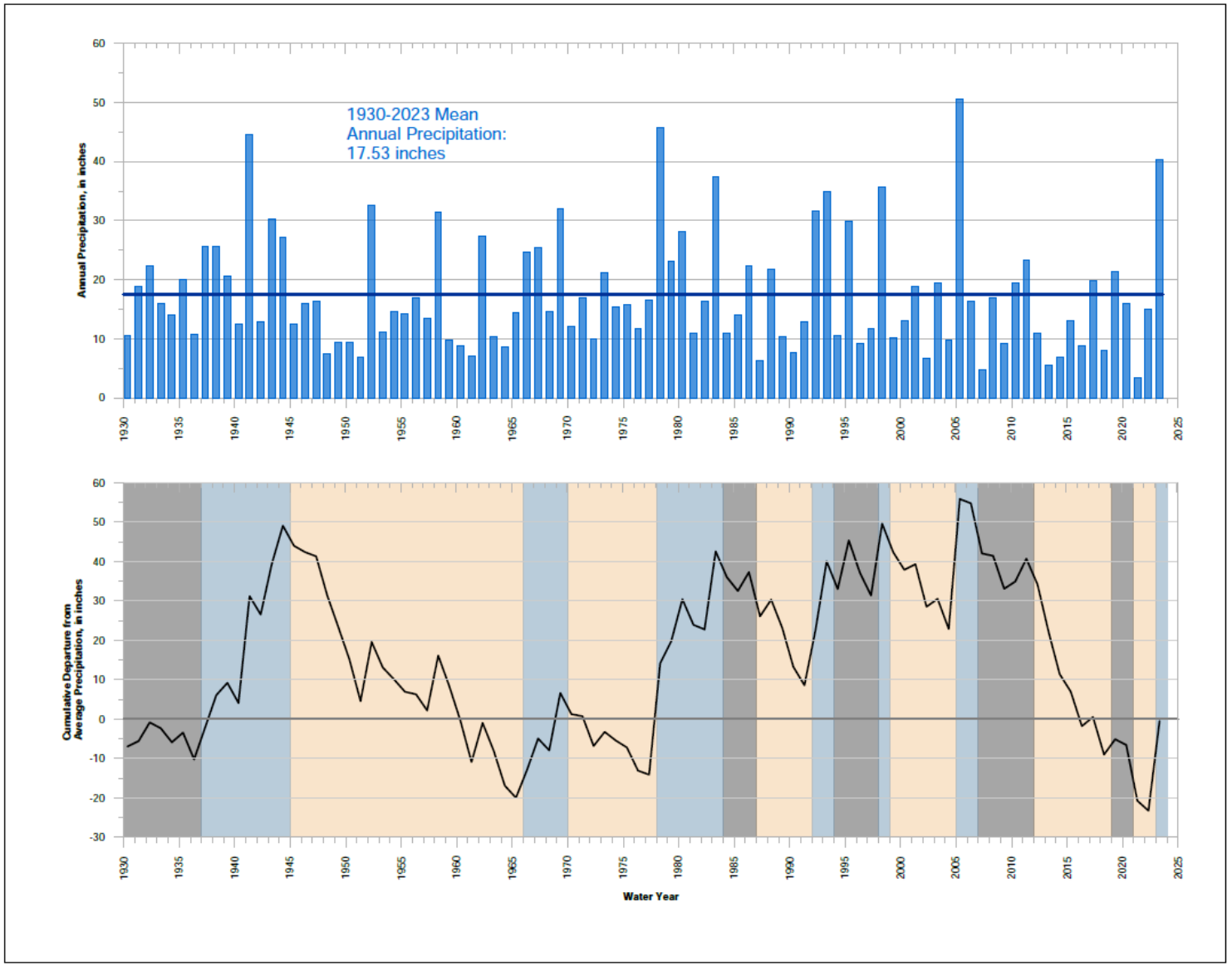

FIGURE 5

Annual Precipitation at the Newhall-Soledad (Newhall Fire Station #73) Rain Gage and Climatic Period Classification for the Santa Clara River Valley East Groundwater Subbasin

2023 Annual Report for the Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan

LEGEND

- Cumulative Departure
- Mean Precipitation

Water Year Type

- Wet
- Normal
- Dry

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Section 2: Basin Setting, Monitoring Network

- Precipitation and Climatic Periods (Using DWR Water Year Types)

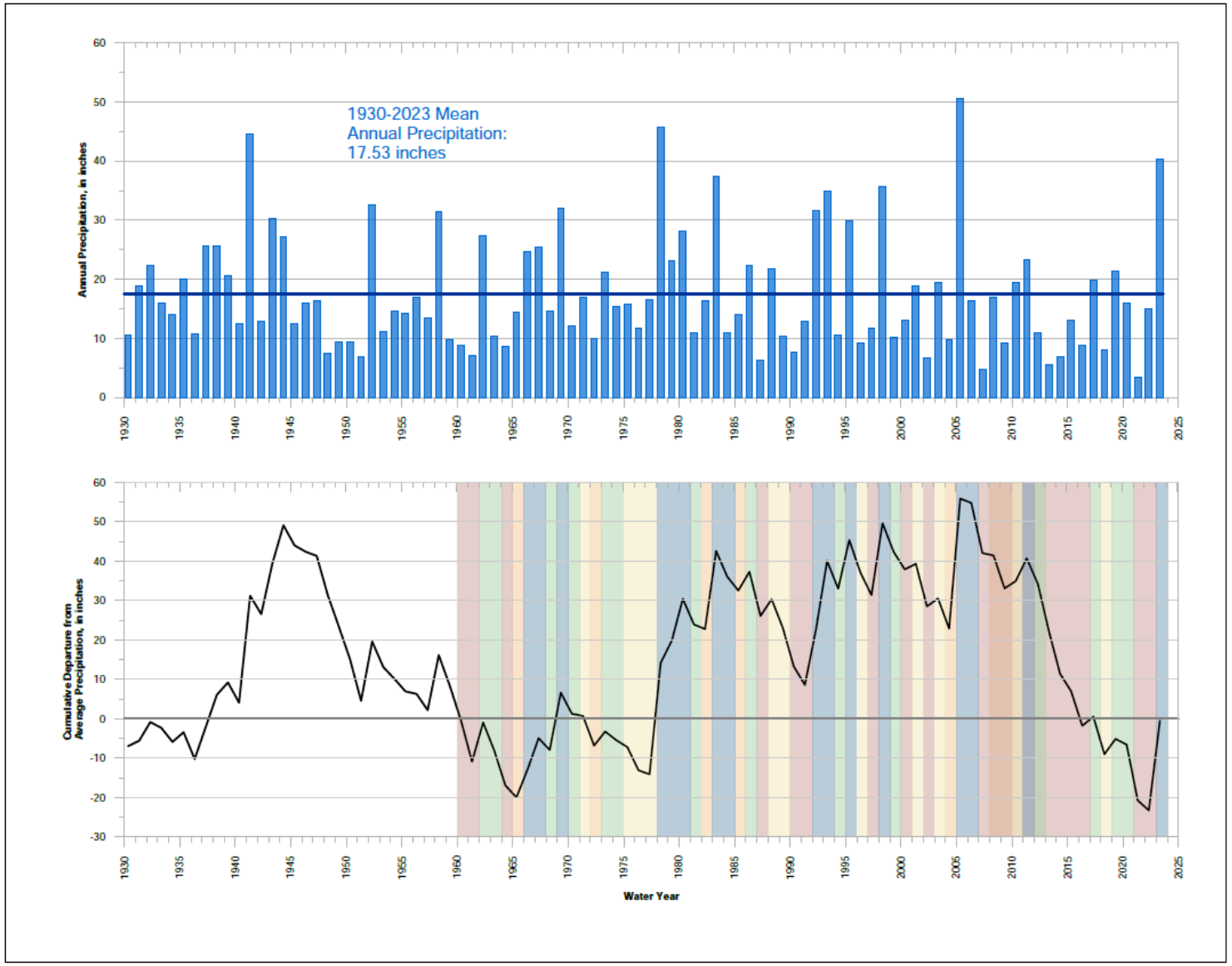

FIGURE 6

Annual Precipitation at the Newhall-Soledad (Newhall Fire Station #73) Rain Gage and Water Year Types for the Santa Clara River Valley East Groundwater Subbasin

2023 Annual Report for the Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan

LEGEND

- Cumulative Departure
- Mean Precipitation

Water Year Type

- Wet
- Above Normal
- Below Normal
- Dry
- Critical

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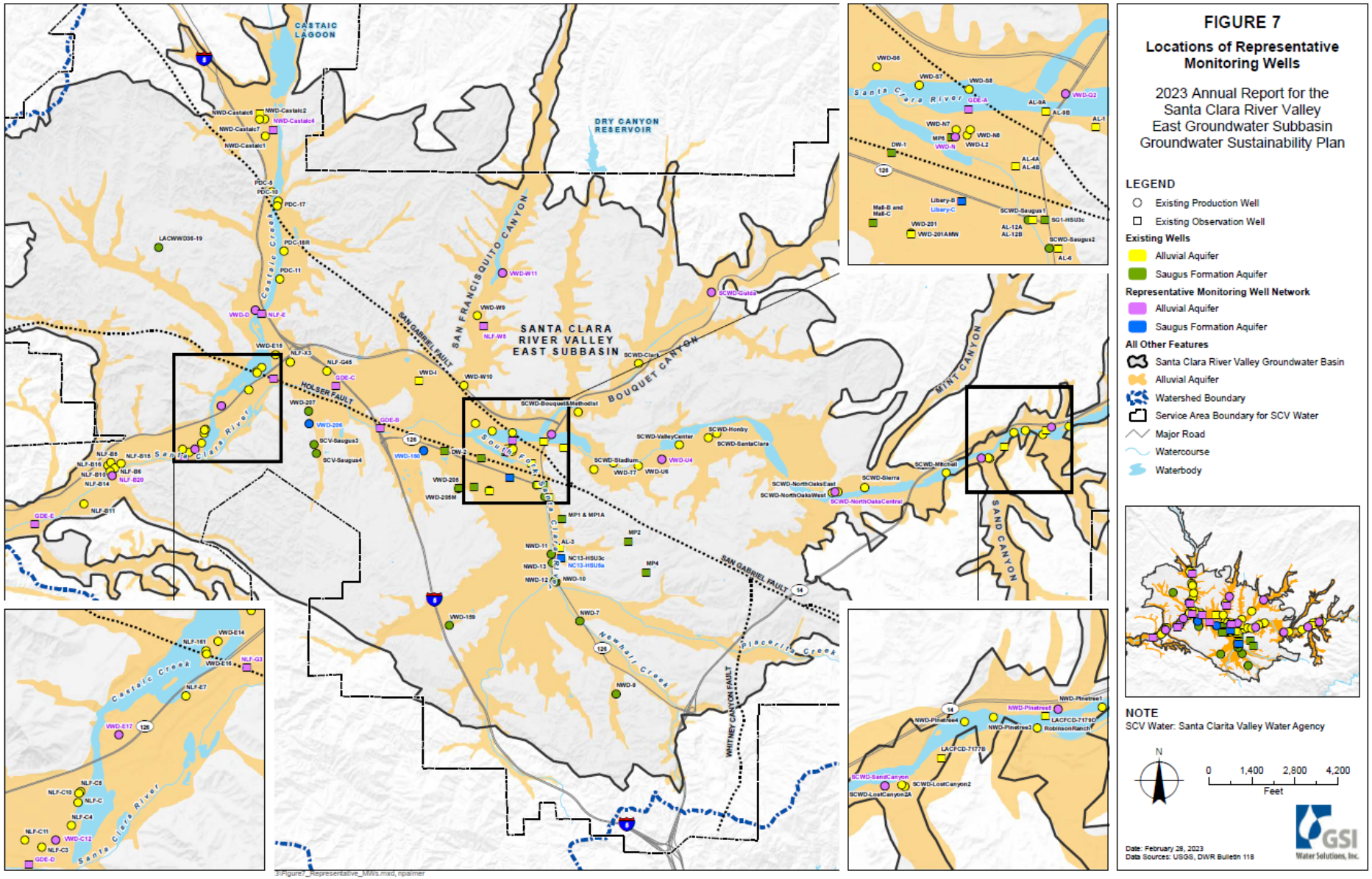
Section 2: Basin Setting, Monitoring Network



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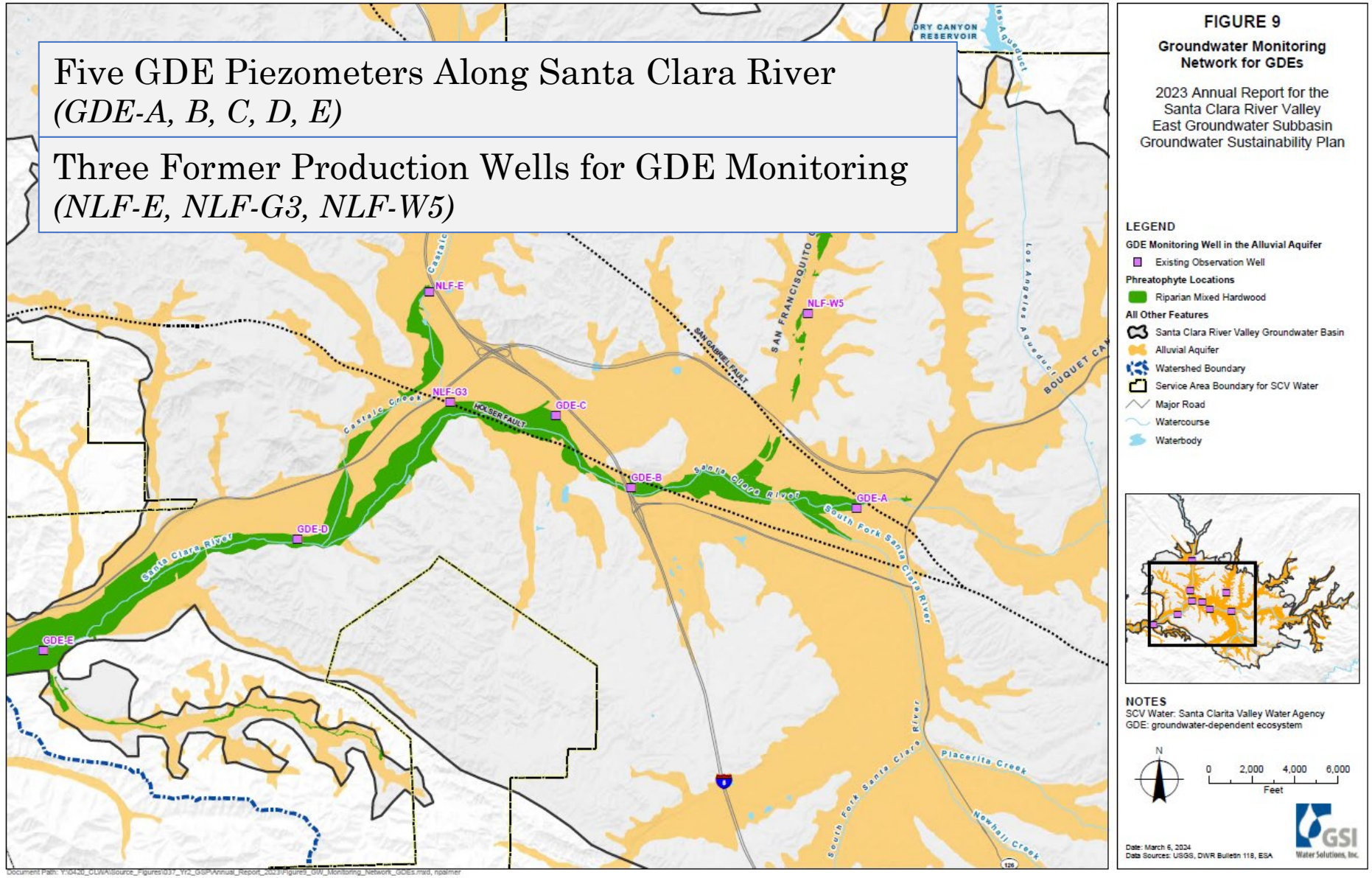
Section 2: Basin Setting, Monitoring Network

- Monitoring Network for Depletion of Interconnected Surface Water

Five GDE Piezometers Along Santa Clara River
(GDE-A, B, C, D, E)

Three Former Production Wells for GDE Monitoring
(NLF-E, NLF-G3, NLF-W5)



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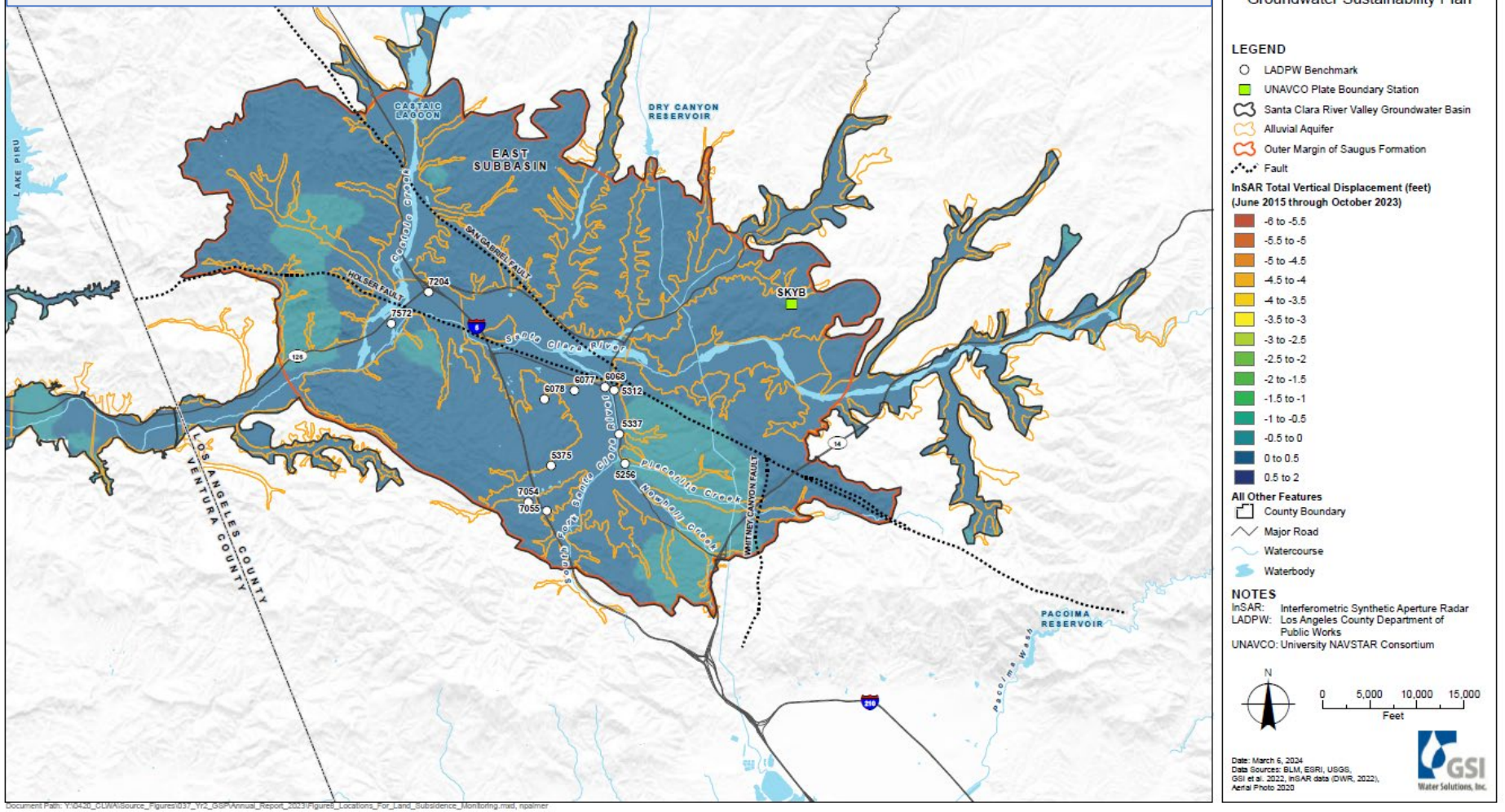
Section 2: Basin Setting, Monitoring Network

- Monitoring Network for Land Subsidence

- Discussing benchmarks with LACDPW
- Evaluated DWR InSAR Data for the most recent time period available on the SGMA web portal (June 2022-June 2023)



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Section 3: Groundwater Elevations

- Contour Map: Alluvial Aquifer for Seasonal-Low Conditions

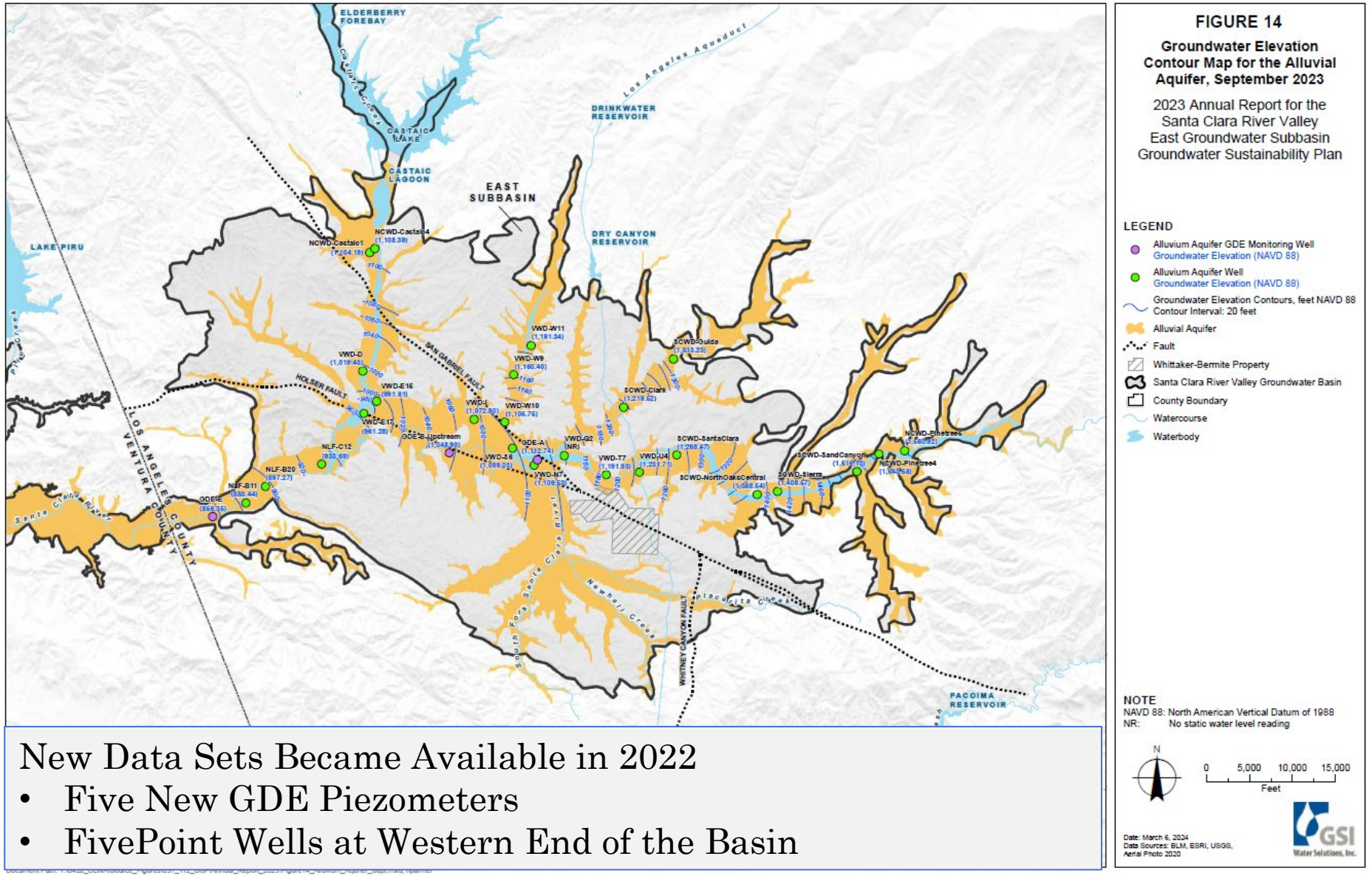

FIGURE 14

Groundwater Elevation Contour Map for the Alluvial Aquifer, September 2023

2023 Annual Report for the Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan

LEGEND

- Alluvium Aquifer GDE Monitoring Well Groundwater Elevation (NAVD 88)
- Alluvium Aquifer Well Groundwater Elevation (NAVD 88)
- Groundwater Elevation Contours, feet NAVD 88 Contour Interval: 20 feet
- Alluvial Aquifer
- Fault
- Whittaker-Bermite Property
- Santa Clara River Valley Groundwater Basin
- County Boundary
- Watercourse
- Waterbody

NOTE

NAVD 88: North American Vertical Datum of 1988
NR: No static water level reading

N

0 5,000 10,000 15,000 Feet

Date: March 6, 2024
Data Sources: BLM, ESRI, USGS, Aerial Photo 2020

GSI Water Solutions, Inc.

New Data Sets Became Available in 2022

- Five New GDE Piezometers
- FivePoint Wells at Western End of the Basin

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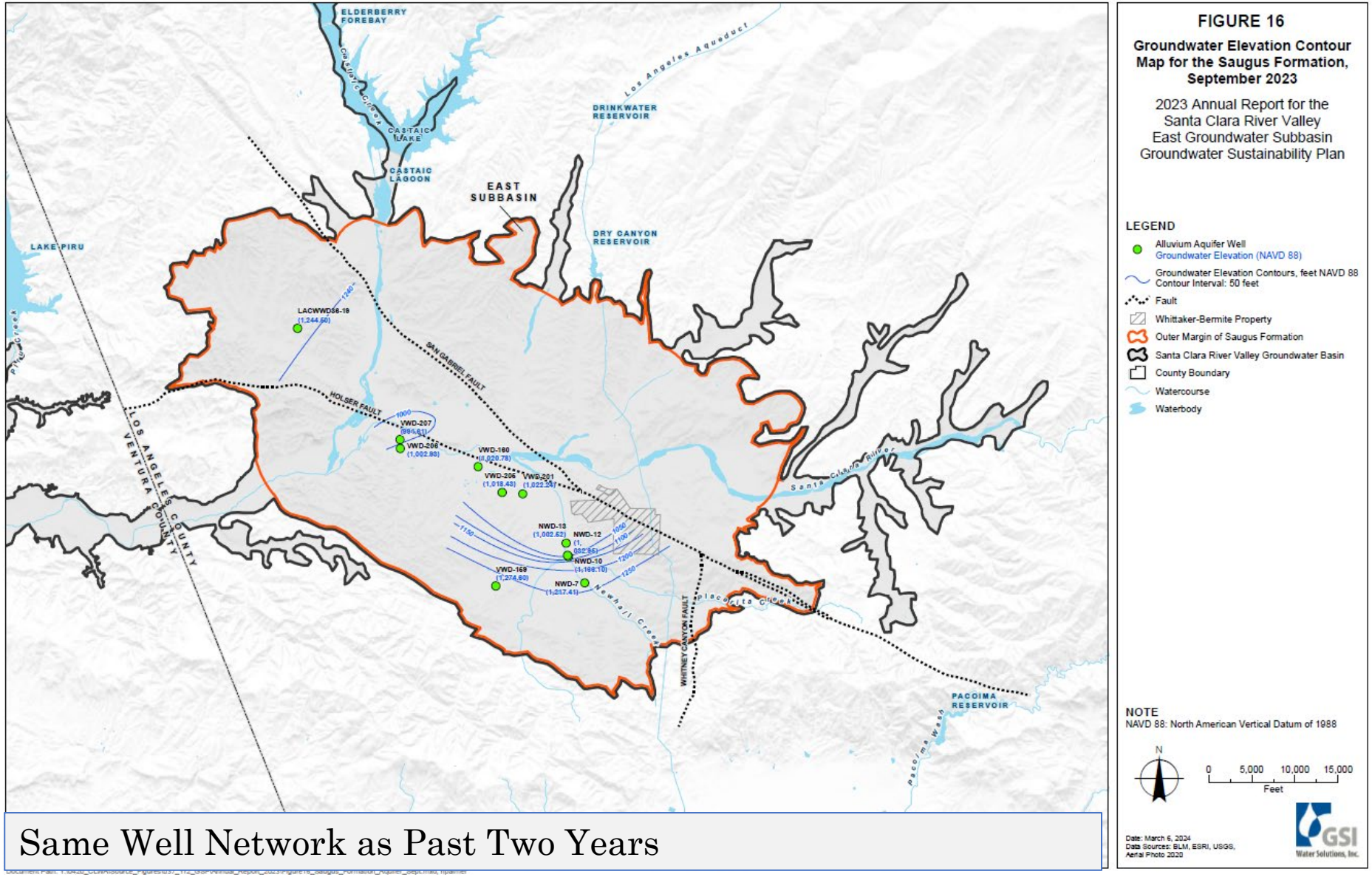
Section 3: Groundwater Elevations

- Contour Map: Saugus Formation for Seasonal-Low Conditions



Same Well Network as Past Two Years

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Section 4: Groundwater Extraction

- Total groundwater use lower in 2023 than in prior three years

Table 8. Total Groundwater Extractions by Water Use Sector

Water Year	Municipal[1]	Rural Domestic	Small PWS[2]	Golf Courses[3]	Agricultural[4]	Whittaker-Bermite	Total
2020	19,041	500	1,338	706	8,013	469	30,067
2021	24,969	500	1,431	834	10,856	483	39,073
2022	23,206	500	2,322	343	11,815	497	38,683
2023	15,277	500	2,831	487	6,102	625	25,822
Method of Measure	Metered	Estimated	Metered	Metered	Metered	Metered	—
Level of Accuracy	High	Low to Medium	High	Medium to High	Medium to High	Medium to High	—

Notes

Extraction volumes are in units of acre-feet.

[1] Municipal supplies are currently provided by Santa Clarita Valley Water Agency and Los Angeles County Waterworks District 36. Municipal water uses include all commercial and industrial water uses in the Santa Clarita Valley.

[2] The small PWS water use sector consists solely of the Pitchess Detention Center.

[3] Golf course groundwater is dedicated to golf courses and is not obtained from potable water supplies.

[4] Agricultural groundwater use is by Five Point Holdings, LLC (FivePoint) and the Walt Disney Company.

— = not applicable

PWS = Public Water Systems

Whittaker-Bermite = Whittaker-Bermite Contaminant Treatment/Extraction System

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Section 5: Surface Water and Imported Supplies

- Two categories of imported supplies
  - State Water Project (SWP) supplies
  - Local imported supplies

Table 9. Use of Imported, Recycled, and Other Surface Water Supplies

Water Year	SWP Imported Water[1]	Local Imported Water[1]	Total Imported Water[1]	Recycled Water	Other Surface Water	Total
2020	37,575	8,514	46,089	496	0	46,585
2021	35,618	10,340	45,958	466	0	46,424
2022	30,226	9,332	39,558	335	0	39,893
2023	27,548	8,947	36,495	284	0	36,779
Method of Measure	Metered	Metered	Metered	Metered	—	—
Level of Accuracy	Medium to High	Medium to High	Medium to High	High	—	—

Note

All use volumes are in units of acre-feet.

— = not applicable

[1] The level of accuracy is high for water years 2020 through 2022 because of the availability of final usage reports from DWR. The level of accuracy for water year 2023 is medium because final usage reports for water year 2023 are not yet available from DWR.

DWR = California Department of Water Resources

GSP = Groundwater Sustainability Plan

SWP = State Water Project

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Section 6:
Total Municipal Water Use

- Imported water use was greater than municipal groundwater pumping
- Municipal water use was lower in 2023 than in prior years

Table 10. Total Water Use for Municipal Water Use Sector

Water Year	Groundwater	Imported Supplies	Recycled Water	Total
2020	19,041	46,089	496	65,626
2021	24,969	45,958	466	71,393
2022	23,206	39,558	335	63,099
2023	15,277	36,495	284	52,056
Method of Measure	Metered and Estimated	Metered	Metered	—
Level of Accuracy	High to Low	High	High	—

Notes

All use volumes are in units of acre-feet.

Municipal supplies are currently provided by Santa Clarita Valley Water Agency and Los Angeles County Water Works District 36. Municipal water uses include all commercial and industrial water uses in the Santa Clarita Valley.

— = not applicable

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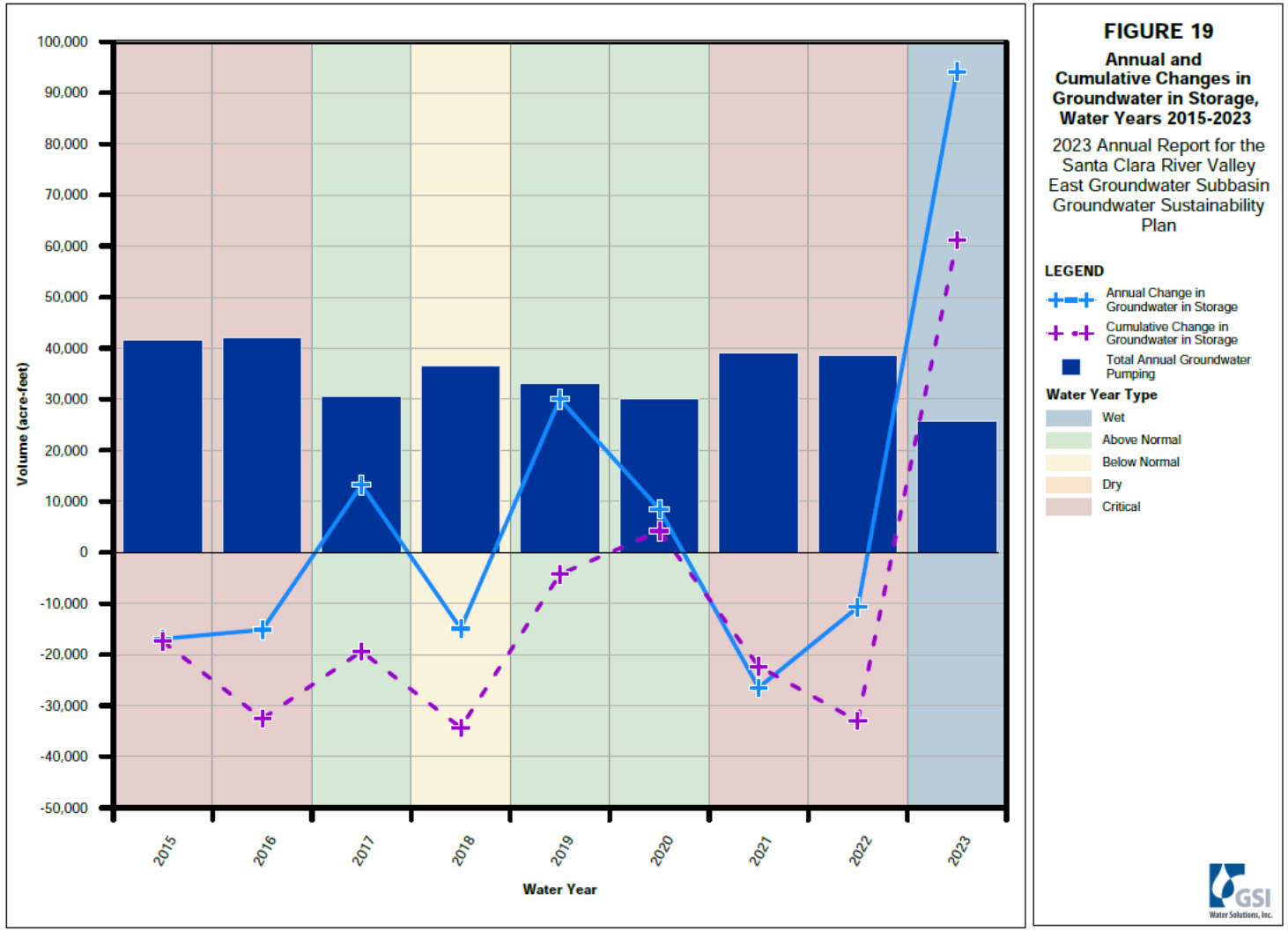
Section 7:
Changes in Groundwater in Storage

- Storage changes reflect variations in both climate and groundwater extractions
  - Climate is the larger contributor, as indicated by cumulative change curve



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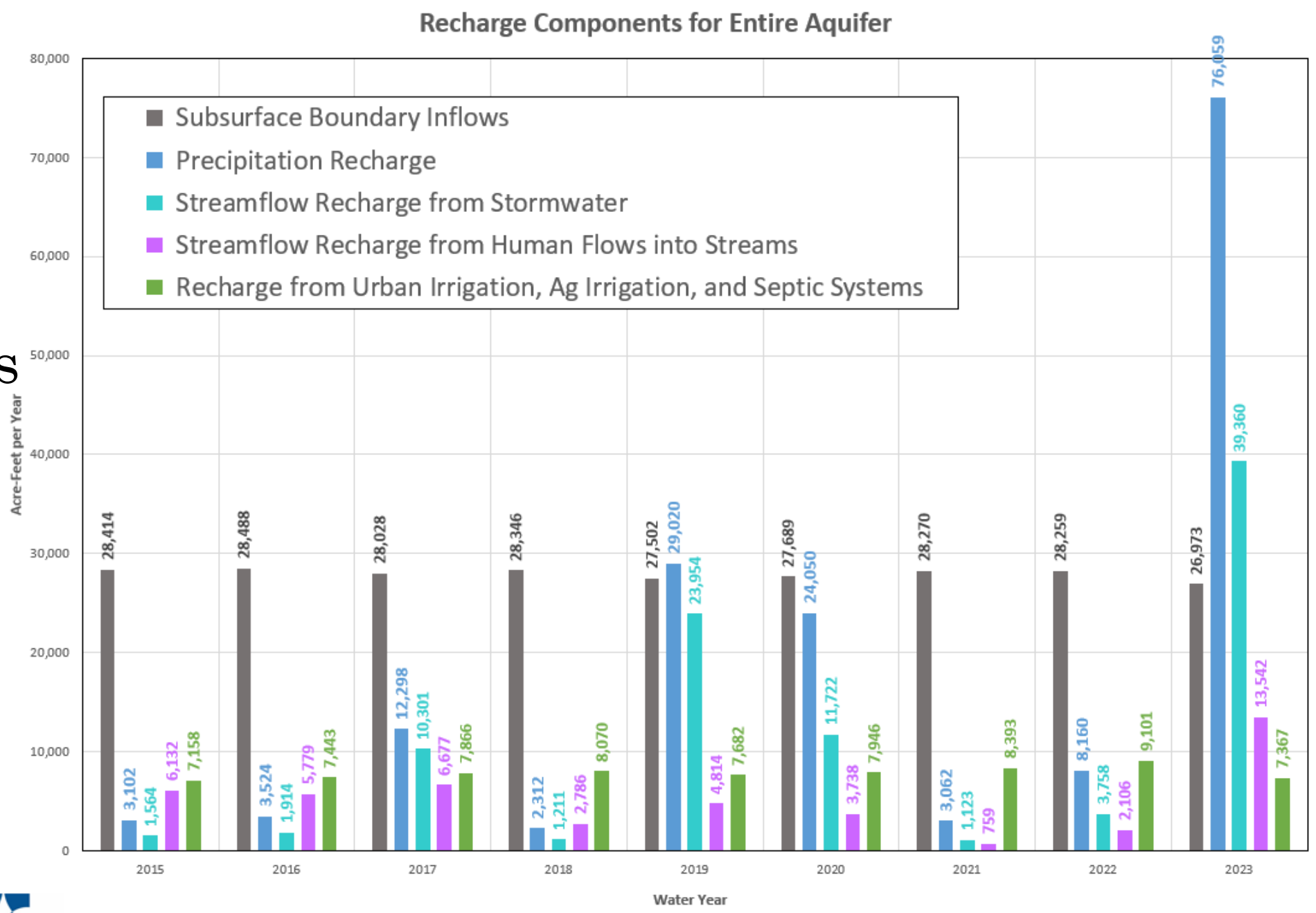
Recharge Components for Entire Groundwater Basin



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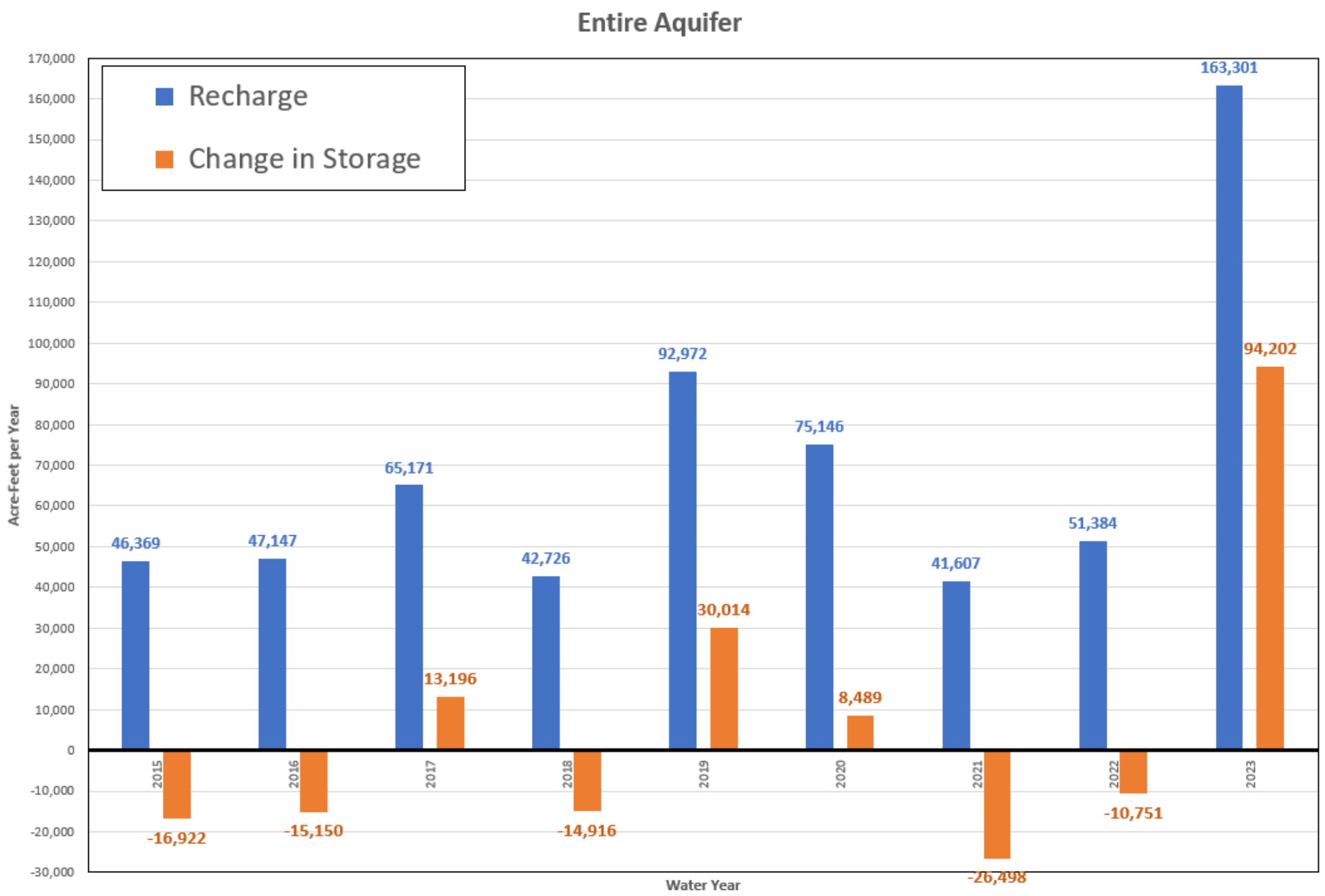
Entire Ground-water Basin



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Section 8:
Progress Toward Basin Sustainability

Summary of Conclusions Regarding Sustainability of Basin Operation (Same as Last Year)

Sustainability Indicator	Above Minimum Thresholds and/or Trigger Levels?
Groundwater Elevations	Yes
Groundwater in Storage	Yes
Land Subsidence	Yes
Depletion of Interconnected Surface Water	Yes*
Degraded Groundwater Quality	Yes

* Below at certain GDE monitoring locations due to survey issues

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Section 8:
Progress Toward Basin Sustainability

Progress Implementing the GSP

- No Undesirable Results Identified
- Ongoing Monitoring
- Latest DWR Grant ~5.3M
- Planning continues for three other programs:
  - Land subsidence monitoring network (consultant selection)
  - Non de minimis wells identification and reporting (greater than 2 AF/year)
  - Water quality monitoring program for domestic wells
- Approach to respond to DWR Approval/Comment letter well underway.

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Recommendation

- That the SCV-GSA Board of Directors adopt the SCV-GSA Annual Report for Water Year 2023

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