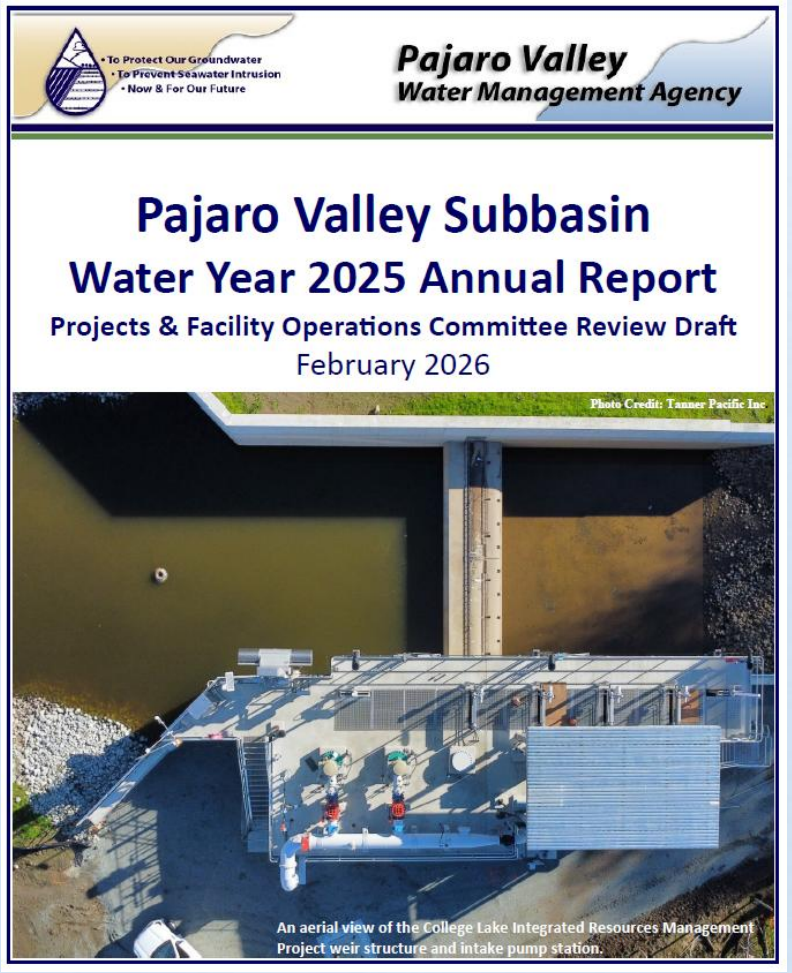
SGMA Annual Report Summary of Water Year 2025



Pajaro Valley Water Management Agency Board of Directors Meeting

March 18, 2026

Presented by:
Casey Meusel
Senior Hydrologist

Pajaro Valley Water Management Agency

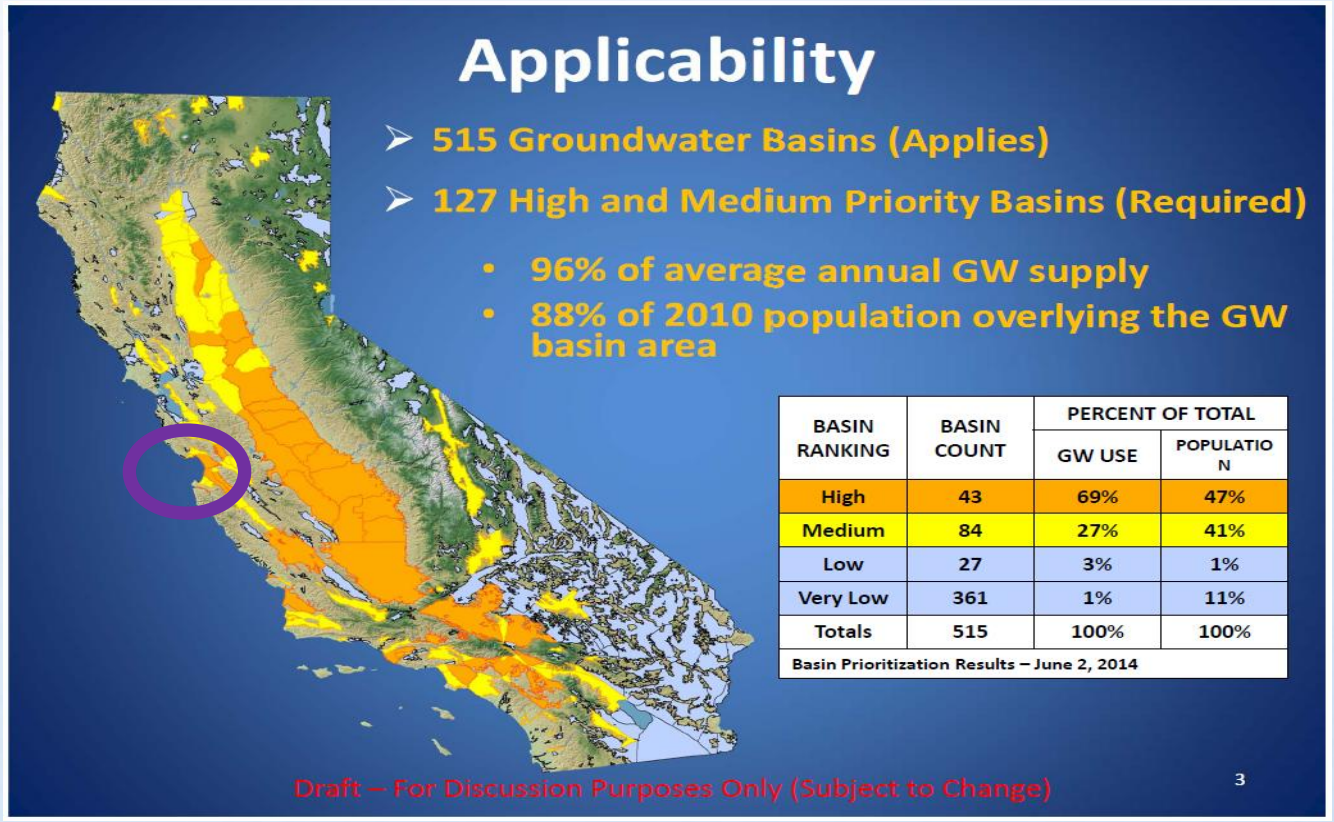
MONTGOMERY & ASSOCIATES
Water Resource Consultants

Presentation Overview

- SGMA & PV Water
- WY2025 Annual Report
    - Progress in Implementing Plan
    - Water Use Data
    - Basin Conditions
    - Sustainability Status

Sustainable Groundwater Management Act

- The Sustainable Groundwater Management Act (SGMA, 2014) requires that high priority, critically overdrafted groundwater basins such as the Pajaro Valley Basin achieve sustainable groundwater resources by 2040.
  - *If not, the State Water Resources Control Board has the authority to impose pumping restrictions to achieve sustainability*.
  - Six Sustainability Indicators



BASIN RANKING	BASIN COUNT	PERCENT OF TOTAL	
		GW USE	POPULATION
High	43	69%	47%
Medium	84	27%	41%
Low	27	3%	1%
Very Low	361	1%	11%
Totals	515	100%	100%

Basin Prioritization Results – June 2, 2014

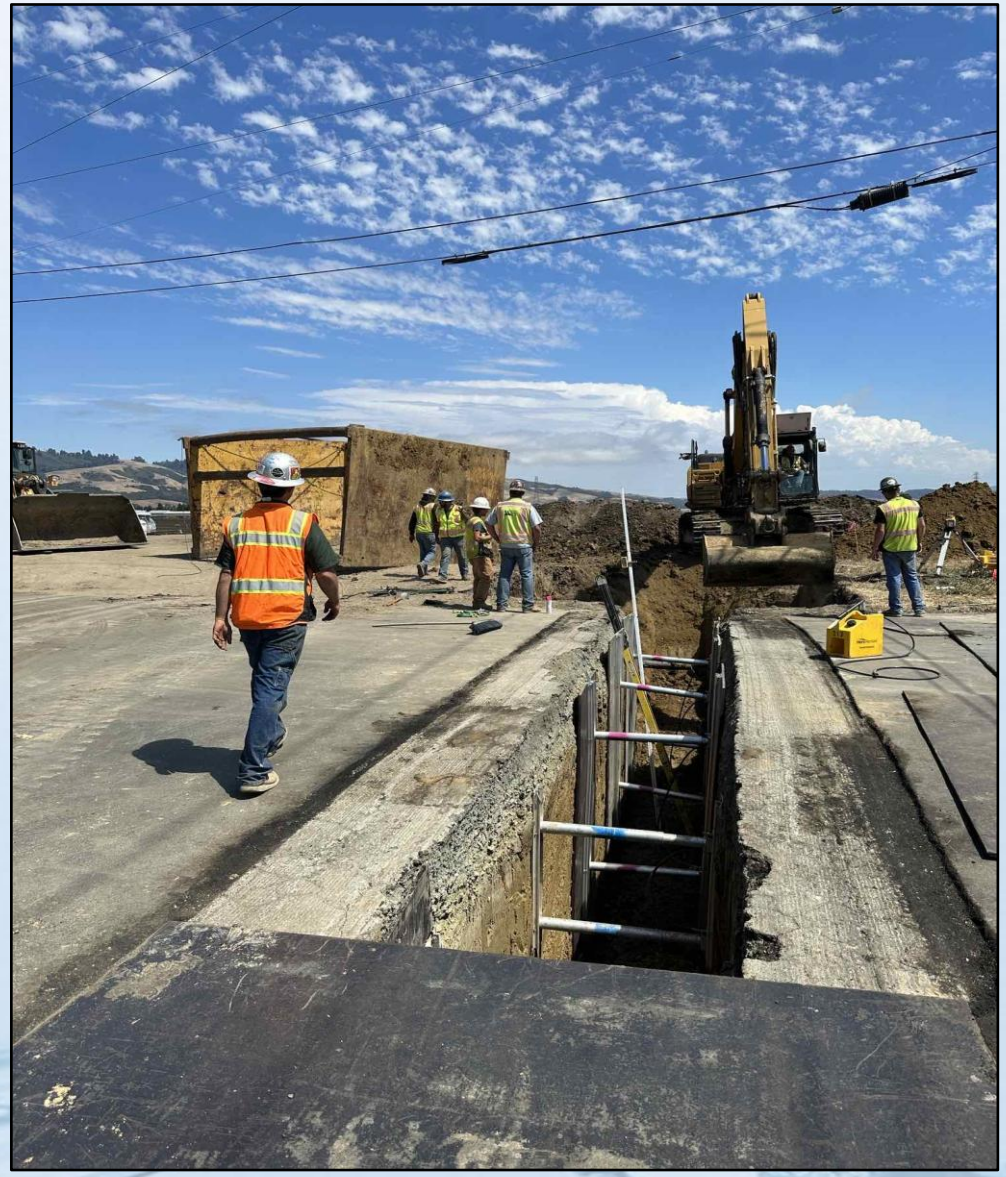
PV Water, SGMA and the PV GSP Alternative

PV Water submitted GSP Alternative in 2016; Basin Management Plan: Groundwater Sustainability Update 2022 (GSU22) in 2021, and received DWR Approval of the GSU22 in June 2024

WY2025 Annual Report Summary

Progress in Implementing the Plan

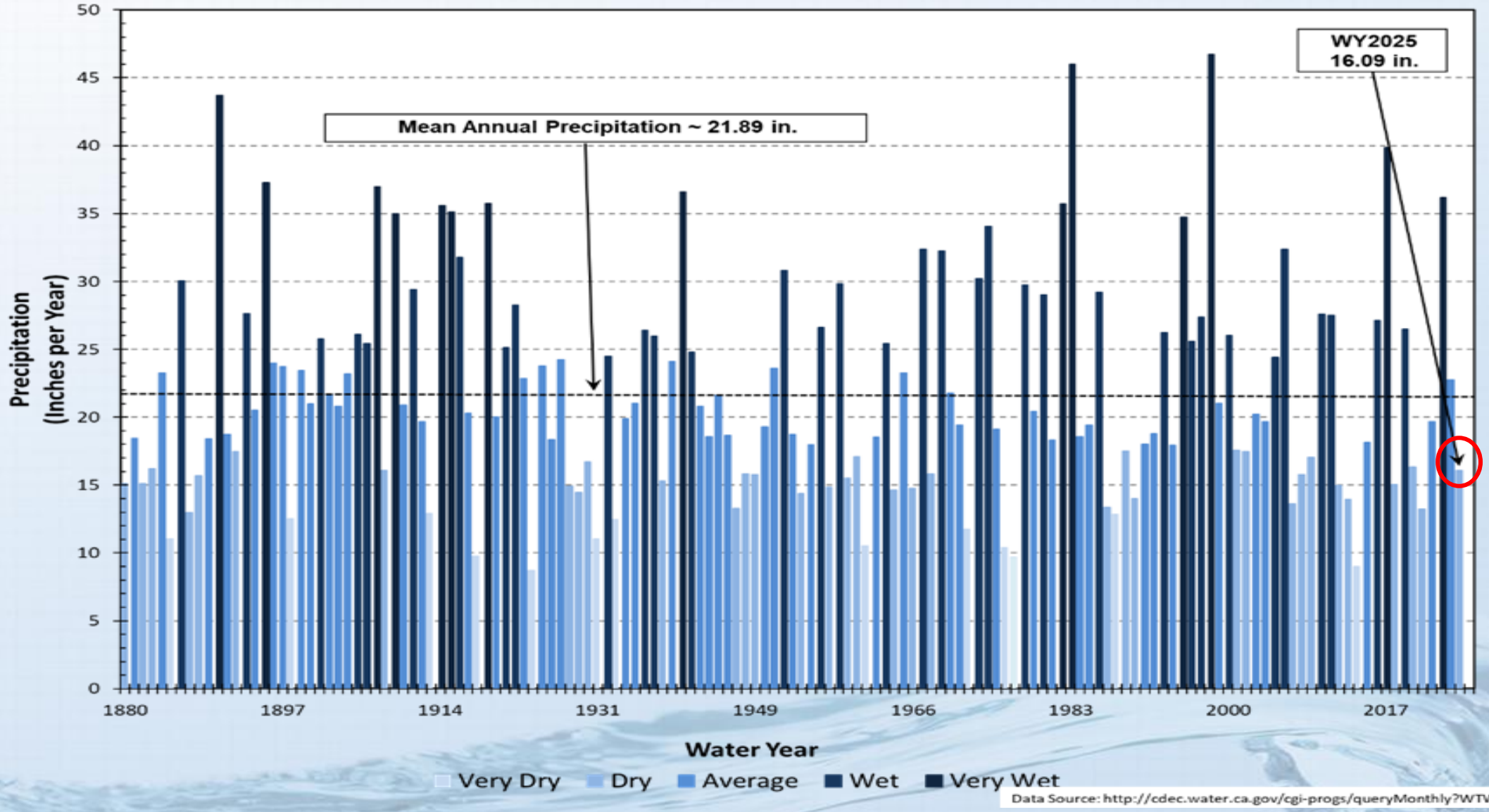
- **College Lake Integrated Resources Management Project**
  - Completed Installation of the College Lake Pipeline
  - Constructed Supplemental Well 4
  - Electrification and Operability of Major Components
  - Facility Commissioning and Testing
  - WY2024 AMP Annual Report
  - PV Water Staff Operations Trainings
  - Installed PIT-tag System and Streamflow IQ-System
- **Watsonville Slough System Managed Aquifer Recharge and Recovery Project**
  - Completed and Approved EIR Addendum
  - Water-Right Permit Application Water Availability Analysis Updated to Incorporate WY1996-WY2022 in Modeling
  - Reached Agreement with 6 of 11 Property Owners
  - Submitted Permit Applications and Continuing to Engage Regulatory Agencies

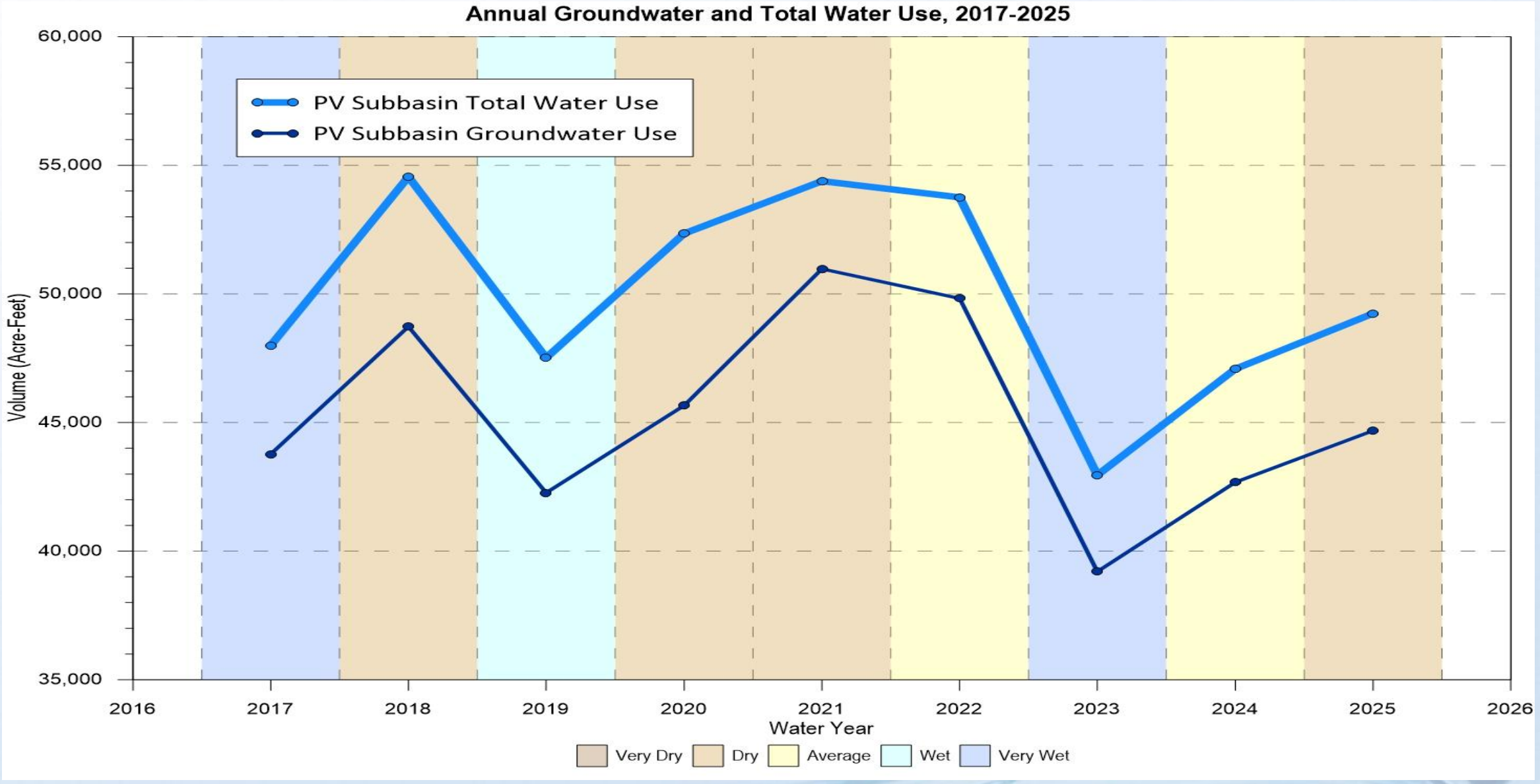


Progress in Implementing the Plan

- **Recharge Net Metering**
  - Preliminary Estimate of Total Infiltration ~186 AF in WY2025 from 3-Systems
  - ~1,800 AF Infiltrated Since Program Inception
- **Conservation Program**
  - Continued Engagement of Water Users in All Aspects of Program
  - 38-Ranches Enrolled in Irrigation Efficiency Program
  - Rolling 5-Year Average (2021-2025) vs. Baseline (2006-2010) Total Ag. Water Use ~6,355 AF Less
- **Multibenefit Land Repurposing Program (MLRP)**
  - 4 Project Implementation Applications Approved
  - Project Funding for Approved Projects ~$4.96 million
  - Initiated Multibenefit Land Repurposing Plan Development
- **Pajaro River Watershed Resilience Program (PRWRP)**
  - Hosted 8 of 9 Advisory Group Meetings
  - Hosted 5 of 5 Pajaro River Watershed Network Workshops
  - Conducted Climate Modeling and Qualitative + Quantitative Analyses

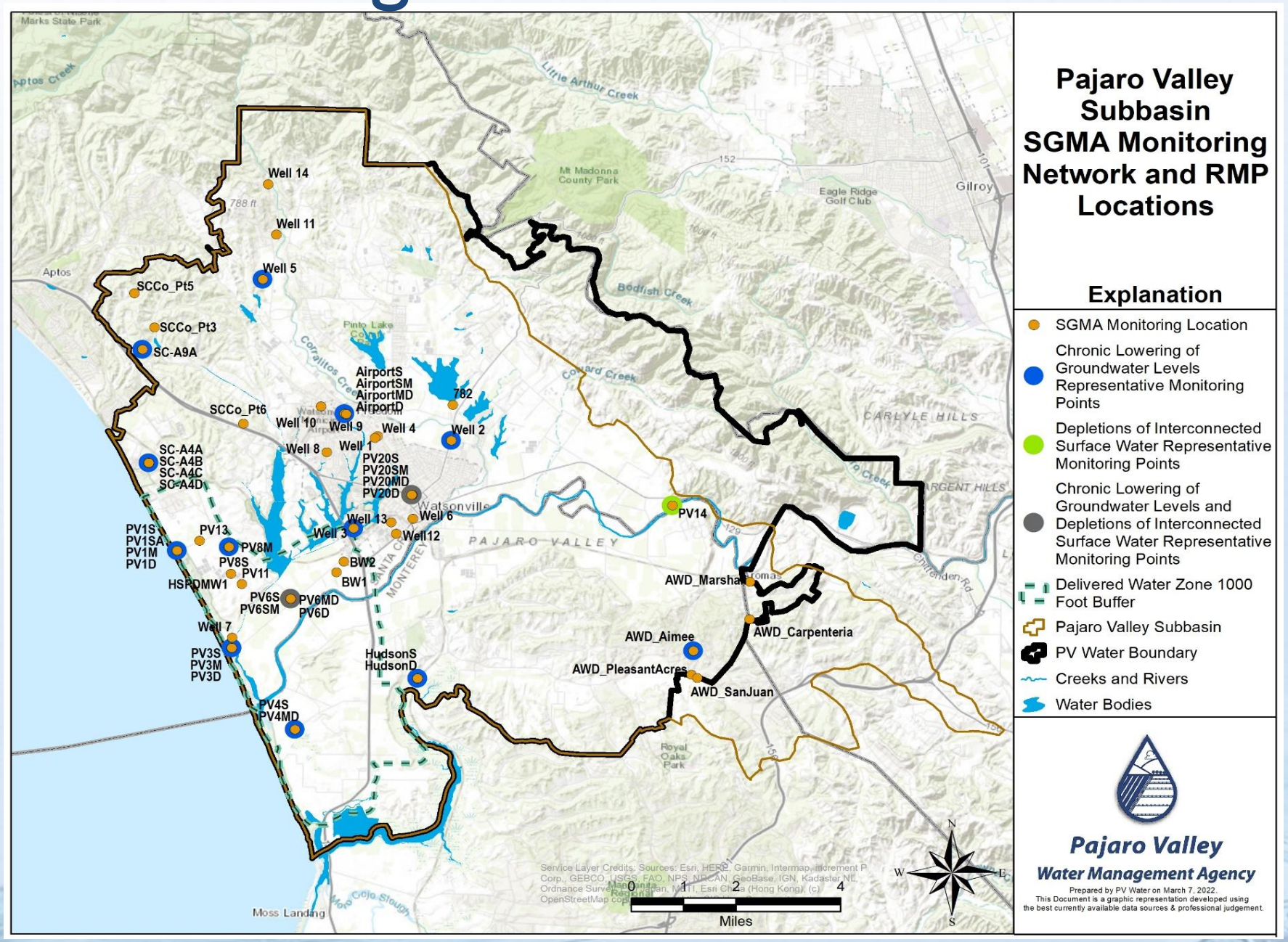
Basin Conditions

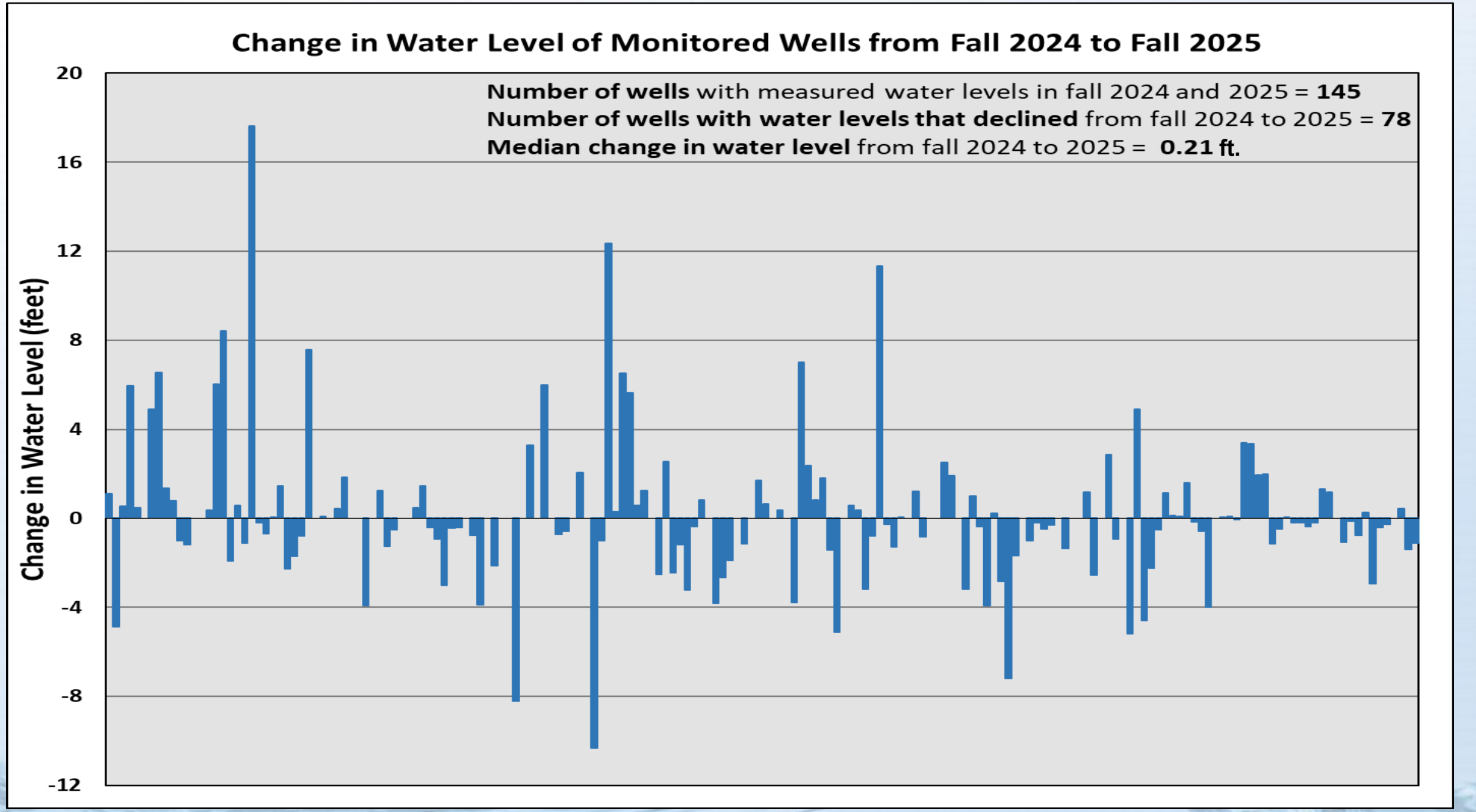


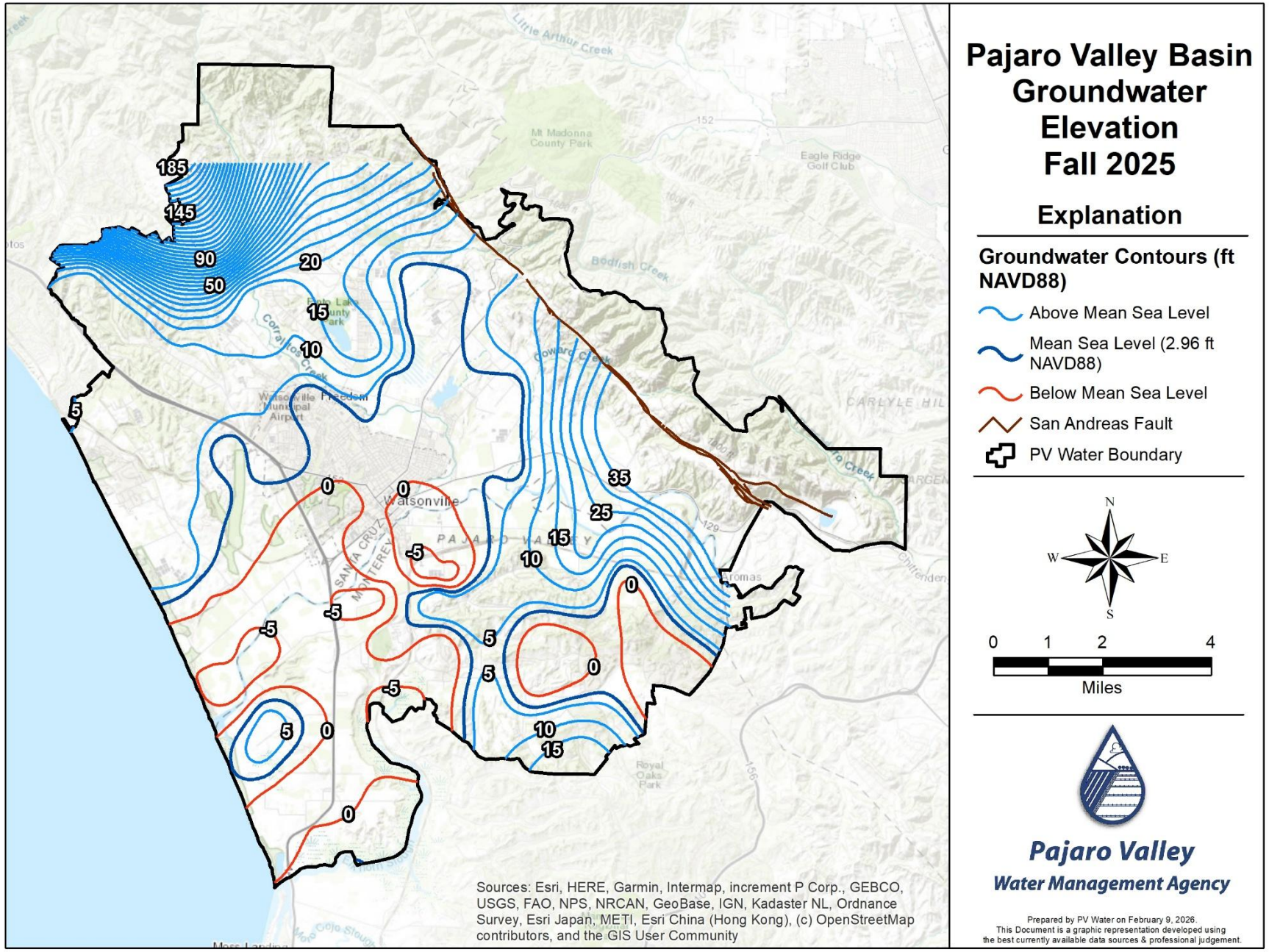


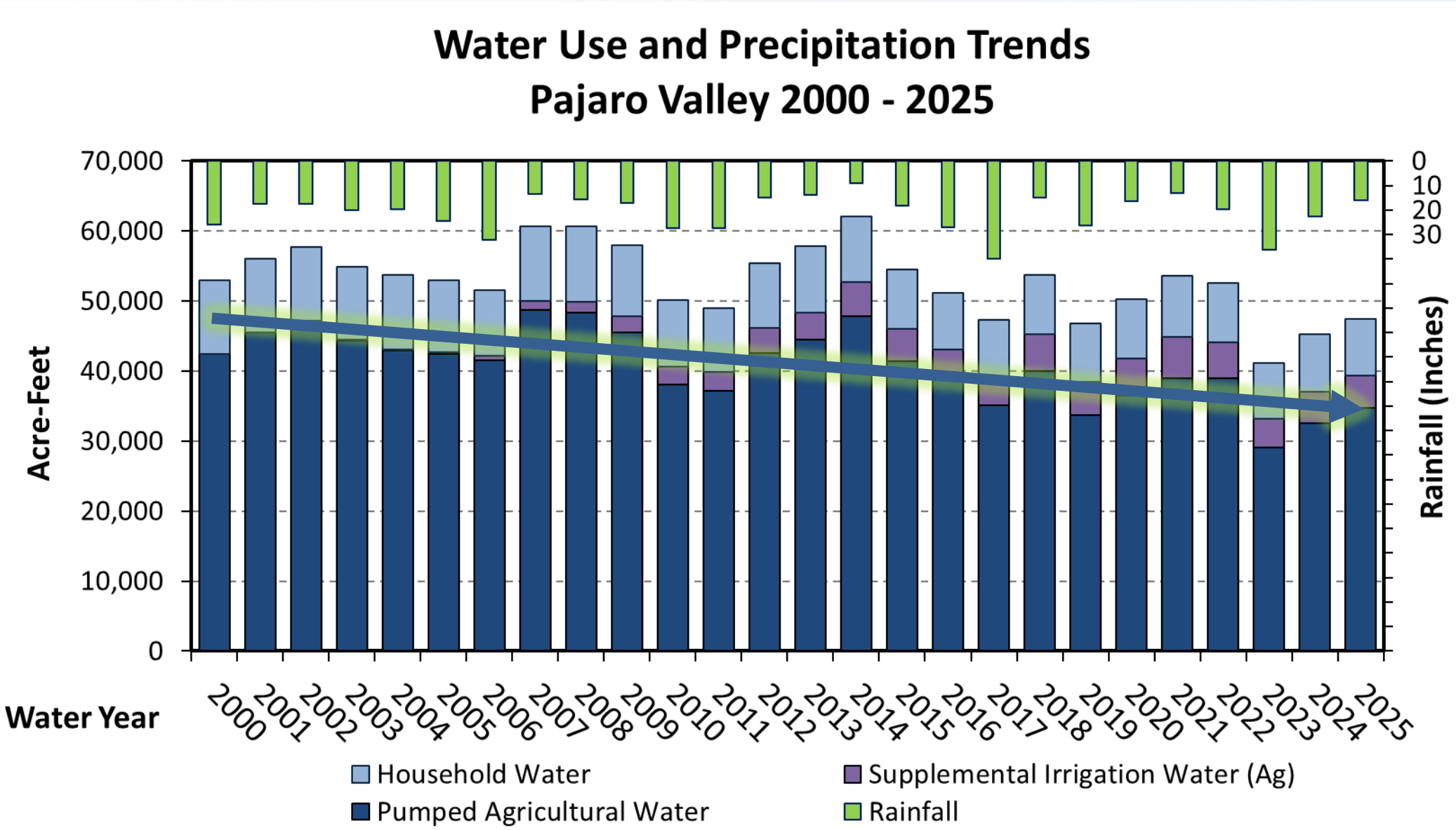
Total Water Use = ~49,241 AF ~91% Groundwater ~79% Agricultural

Basin Monitoring

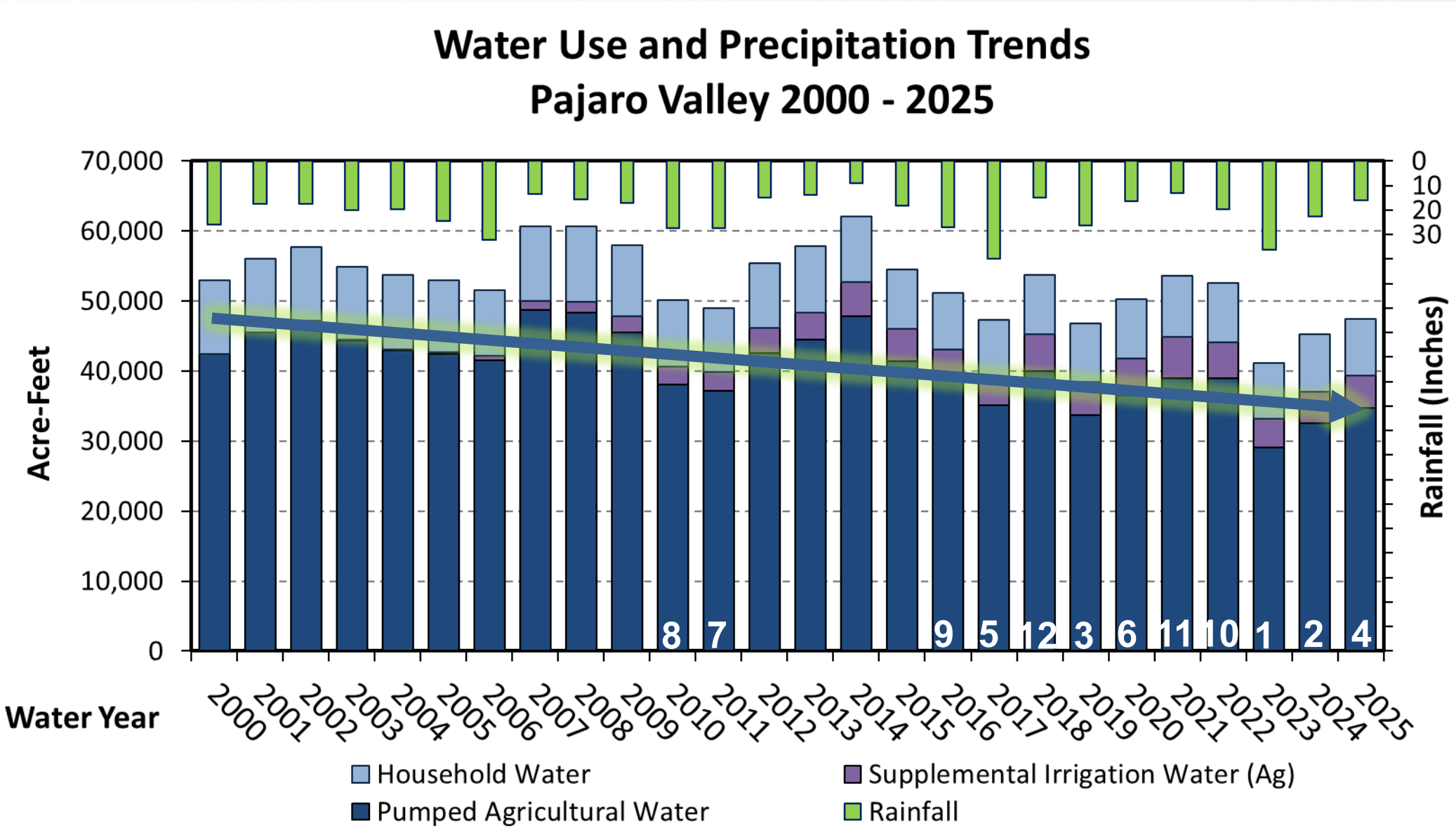



Change in Water Level of Monitored Wells from Fall 2024 to Fall 2025
Number of wells with measured water levels in fall 2024 and 2025 = 145
Number of wells with water levels that declined from fall 2024 to 2025 = 78
Median change in water level from fall 2024 to 2025 = 0.21 ft.
Change in Water Level (feet)
20
16
12
8
4
0
-4
-8
-12


Pajaro Valley Basin Groundwater Elevation Fall 2025
Explanation
Groundwater Contours (ft NAVD88)
Above Mean Sea Level
Mean Sea Level (2.96 ft NAVD88)
Below Mean Sea Level
San Andreas Fault
PV Water Boundary
N
W
E
S
0 1 2 4
Miles
185
145
90
50
20
15
10
5
0
-5
35
25
15
10
Watsonville
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Pajaro Valley
Water Management Agency
Prepared by PV Water on February 9, 2026.
This Document is a graphic representation developed using the best currently available data sources & professional judgement.

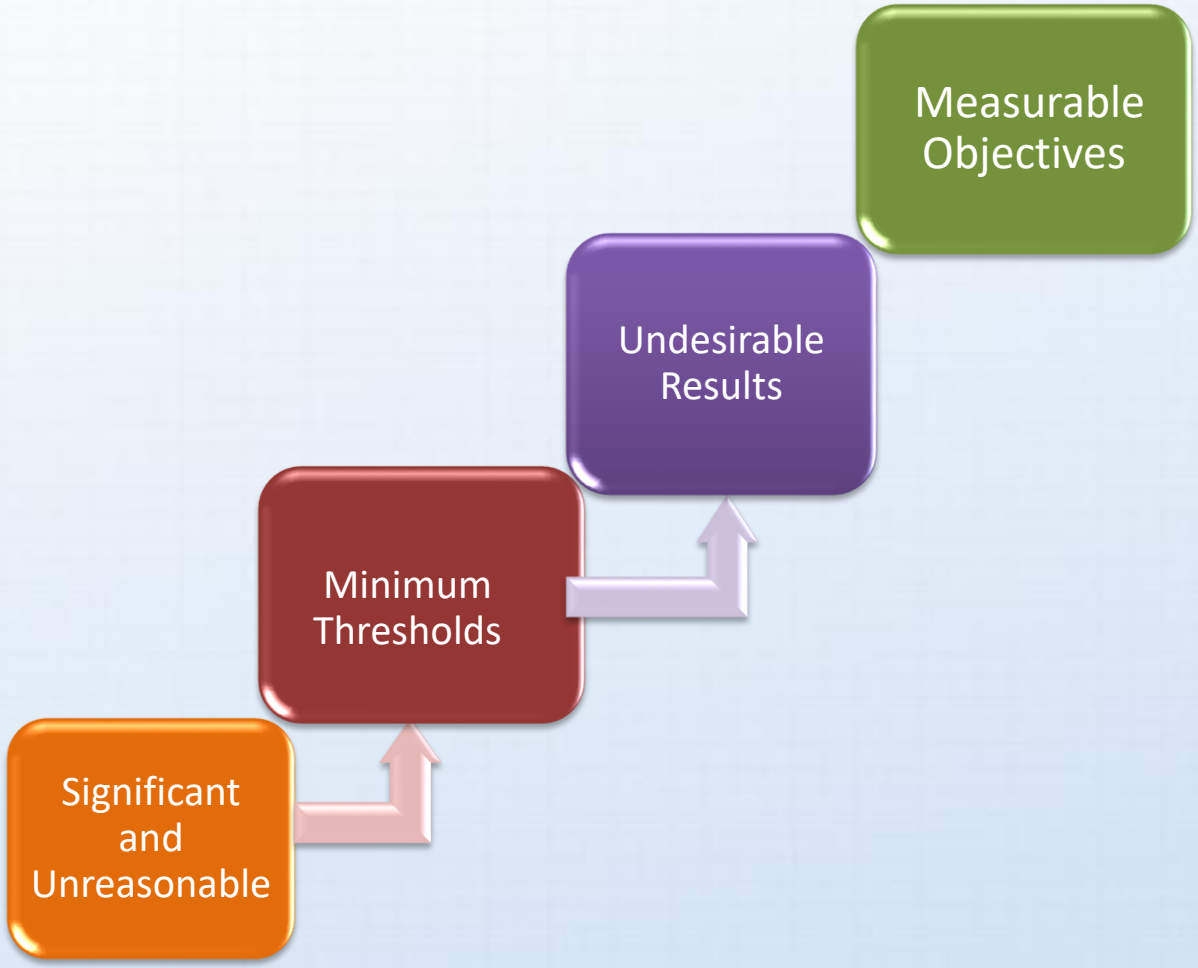


Since WY2000, WY2025 is 4th Lowest Total Groundwater Extractions after WY2023, -2024, -2019



Last 10-Years (2016-2025) are 10/12 Lowest Annual Ag. Groundwater Use Totals

Sustainability Status – Important Terminology



Sustainable Management Criteria (SMC)

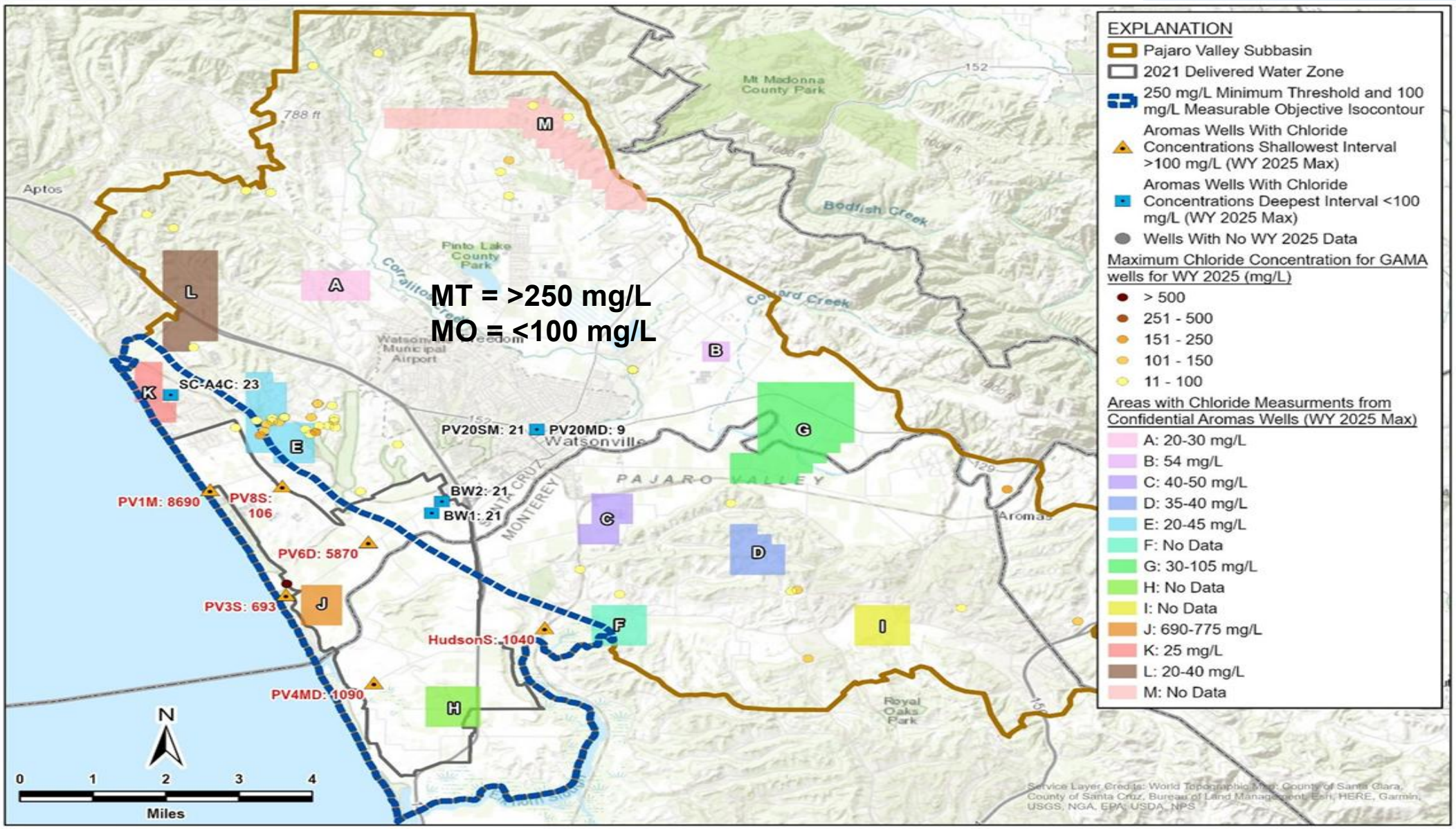
- Sustainability achieved by avoiding undesirable results
- **Undesirable results (UR)** are combination of **minimum threshold (MT)** exceedances that represent **significant and unreasonable conditions**
- Undesirable results after 2040 may result in State intervention in Basin management
- **Measurable objectives (MO)** are management goals to provide operational flexibility to prevent undesirable results and include **interim milestones (IM)**

Sustainability Status

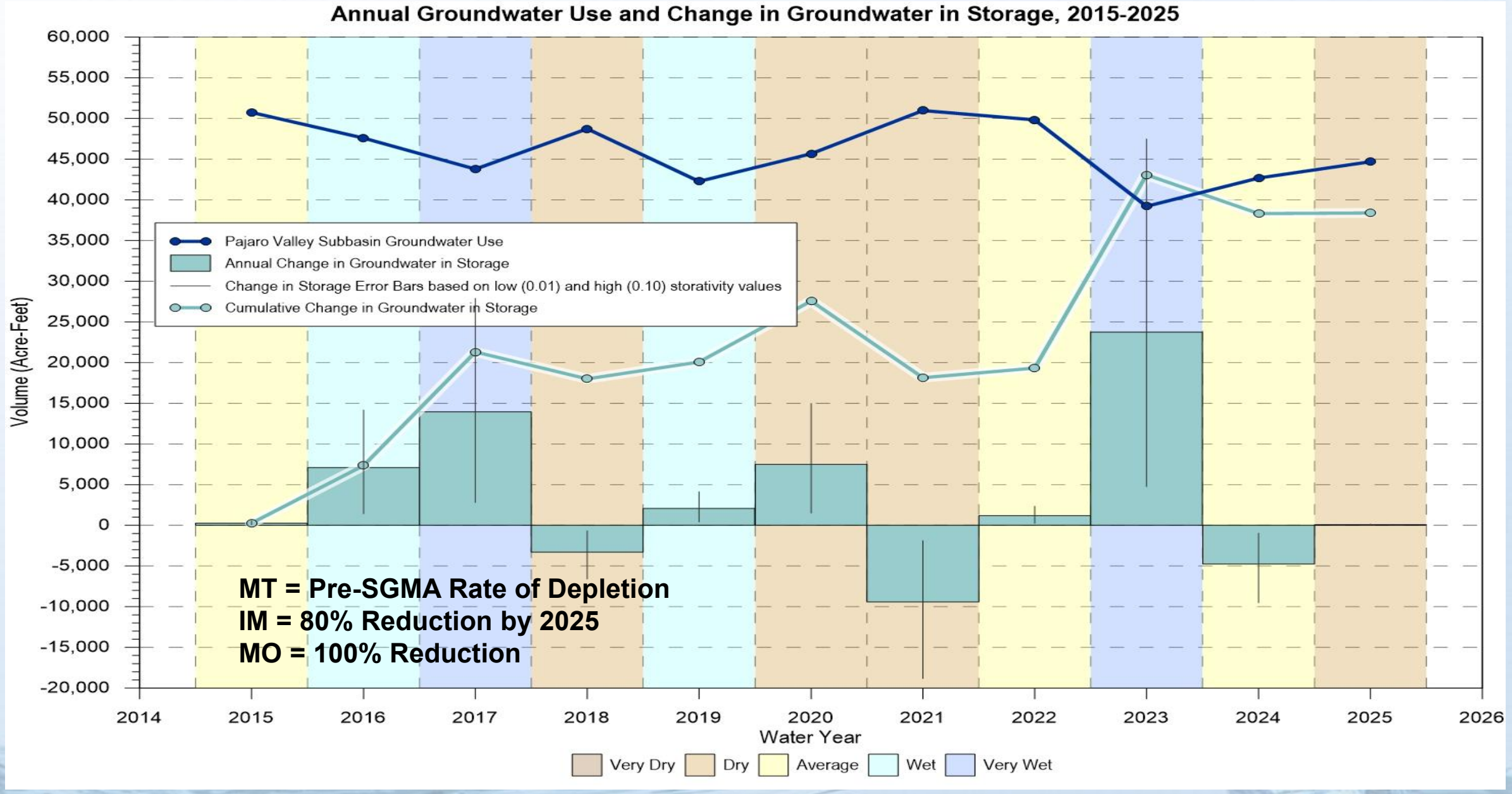
	WY2025 Sustainability Evaluation	Minimum Threshold	Undesirable Results	2025 Interim Milestone	Measurable Objective
	Seawater Intrusion	✓	✓	N/A	☒
	Groundwater in Storage	✓	✓	✓	✓
	Groundwater Levels	✓	✓	✓ 16 of 18	✓ 9 of 18
	Interconnected Surface Water	N/A	N/A	✓ 5 of 5	☒
	Water Quality	☒ Coastal Zone Nitrate	☒ Coastal Zone Nitrate	N/A	☒

Seawater Intrusion

Sustainable Management Criteria for Seawater Intrusion and Aromas Well Locations with Water Year 2025 Maximum Chloride Concentrations



Groundwater In Storage



Lowering of Groundwater Levels

Groundwater Levels Measurable Objectives and Average Seasonal Highs Over Time

Well Name	Inside/Outside 1,000 Feet of DWZ	Pre-Water Year 2000 Average Seasonal High	Water Year 2000-2009 Average Seasonal High	Water Year 2010-2016 Average Seasonal High	Water Year 2017-2020 Average Seasonal High	Water Year 2010-2020 Average Seasonal High	Water Year 2021-2023 Average Seasonal High	Water Year 2024 Seasonal High	Water Year 2025 Seasonal High	2025 Interim Milestone	Measurable Objective
		Groundwater Elevation in feet NAVD88									
PV1M	Inside	6.3	6.8	6.6	7.1	6.9	7.2	**8.6**	7.3	7.9	8.6
PV3D	Inside	2	4.9	3.7	7.5	5.6	5.7	**8.7**	7.6	7.5	8.7
PV3S	Inside	3.8	5.2	4.9	7.1	6.0	7.1	**9.1**	**8.5**	6.8	7.3
PV4MD	Inside	3.9	5	7	8.2	7.6	7.9	9.9	9.0	8.3	10.2
PV6MD	Inside	1.2	3.9	2	6.7	4.4	7.3	**12.4**	**8.8**	6.8	8.7
PV6SM	Inside	0.9	3.5	1.5	6.5	4.0	5.8	**9.5**	**9.3**	6	8
PV8S	Inside	8.9	7.9	7	9	8.0	8.7	10.4	10.3	10.2	11.1
Well 3	Inside	No Data	No Data	-8.4	0.3	-4.1	1.4	**3.4**	**5.4**	-1.4	1.1
AWD_Aimee	Outside	-5.7	No Data	19.7	22.1	20.9	22.5	**26.6**	25.9	20.5	26.1
HudsonD	Outside	1.7	0.6	-1.1	4.1	1.5	3.4	**7.8**	6.4	4.1	7.2
HudsonS	Outside	1.6	1.5	2.4	5.6	4.0	5.5	7.7	7.8	6.8	10.2
PV20MD	Outside	No Data	No Data	3.5	6.7	5.1	5.9	**10.3**	**9.9**	6.3	9.2
PV20SM	Outside	No Data	No Data	2.3	6.9	4.6	5.7	**10.9**	**9.7**	6.4	8.8
SC_A4C	Outside	No Data	No Data	6.9	7.5	7.2	7.7	8.7	8.4	9	10.2
SC_A9A	Outside	No Data	No Data	13.1	11.5	12.3	12.3	13.1	13.4	13	14.9
Well 2	Outside	No Data	No Data	4.7	13.1	8.9	10.1	**20.4**	**19.4**	12.2	12.4
Well 5	Outside	77.6	107.3	91.1	96.5	93.8	89.6	91.8	**93.8**	90.2	93.1
Well 9	Outside	7.2	8	6.8	3.1	5.0	-0.4	**9.9**	**7.9**	5.4	7.8

Average seasonal highs above measurable objective are indicated in bold

Lowering of Groundwater Levels

Summary of Groundwater Levels Minimum Thresholds and Minimum Groundwater Levels over Time

Well Name	Inside/ Outside 1,000 Feet of DWZ	Minimum Threshold	Pre-Water Year 2000 Minimum	Water Year 2000-2009 Minimum	Water Year 2010-2016 Minimum	Water Year 2017-2020 Minimum	Water Year 2021-2023 Minimum	Water Year 2024 Minimum	Water Year 2025 Minimum
		Groundwater Elevation in feet NAVD88							
PV1M	Inside	2.2	No Data	1.8	4.7	5.1	5.7	6.5	6.4
PV3D	Inside	-16.1	-20.9	-16.3	-11.3	-8.8	-12.9	-5.1	-5.8
PV3S	Inside	-5.8	-6.5	-7.9	-1.3	1.1	0.9	2.5	3.3
PV4MD	Inside	0.2	-2.1	-0.4	3.3	4.5	4.7	6.3	6.1
PV6MD	Inside	-18.4	-19.3	-20.2	-13.8	-9	-10.6	-4.3	-3.9
PV6SM	Inside	-19.4	-27.1	-21.1	-13.3	-8.4	-9.8	-3.3	-2.2
PV8S	Inside	1.7	3	0.9	3.1	4.2	4.8	7.6	7.5
Well 3	Inside	-18.9	No Data	No Data	-18.9	-14.2	-19.6	-10.6	-2.6
AWD_Aimee	Outside	0.7	-13	No Data	-0.4	4.6	3.0	10.6	9.2
HudsonD	Outside	-19.8	-19	-20	-19.1	-15.6	-14.4	-8.8	-8.6
HudsonS	Outside	-3.9	-5.8	-3.9	-2.1	-0.7	0.0	4.1	4.2
PV20MD	Outside	-12	No Data	No Data	-13	-10.9	-12.0	-4.0	-2.6
PV20SM	Outside	-7.1	No Data	No Data	-8	-6.2	-6.3	-1.0	0.6
SC-A4C	Outside	6	No Data	No Data	6	6.6	6.8	8.1	5.8
SC-A9A	Outside	10.3	No Data	No Data	10.2	10.4	11.6	12.5	12.6
Well 2	Outside	-6.1	No Data	No Data	-7.5	1.6	-0.1	6.4	7.4
Well 5	Outside	61.8	20.1	55.8	74.4	79.8	83.4	66.8	86.8
Well 9	Outside	-9.5	-19.1	-3.2	-12.4	-5.6	-12.8	0.9	0.9

Elevations below Minimum Threshold are underlined

Interconnected Surface Waters

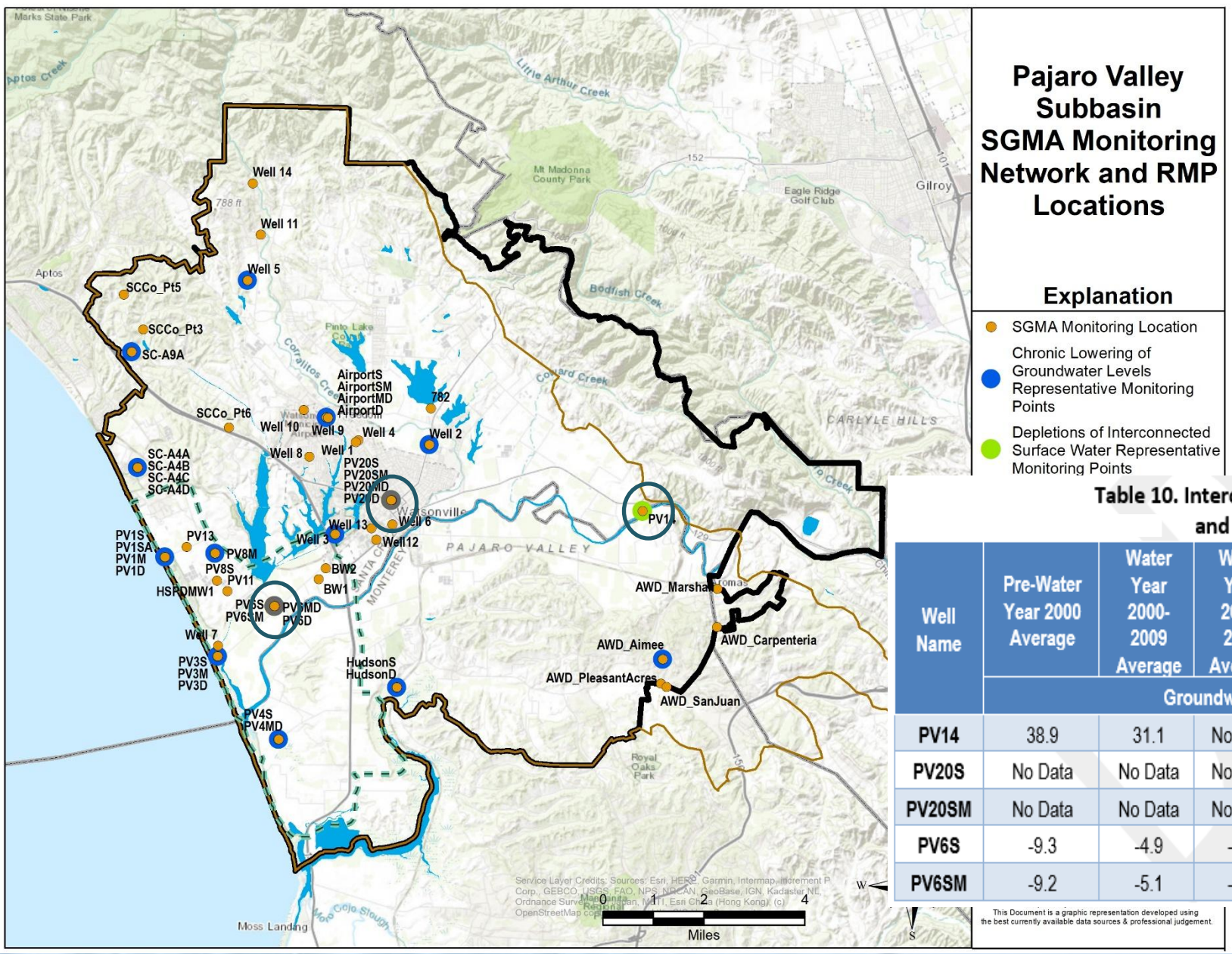
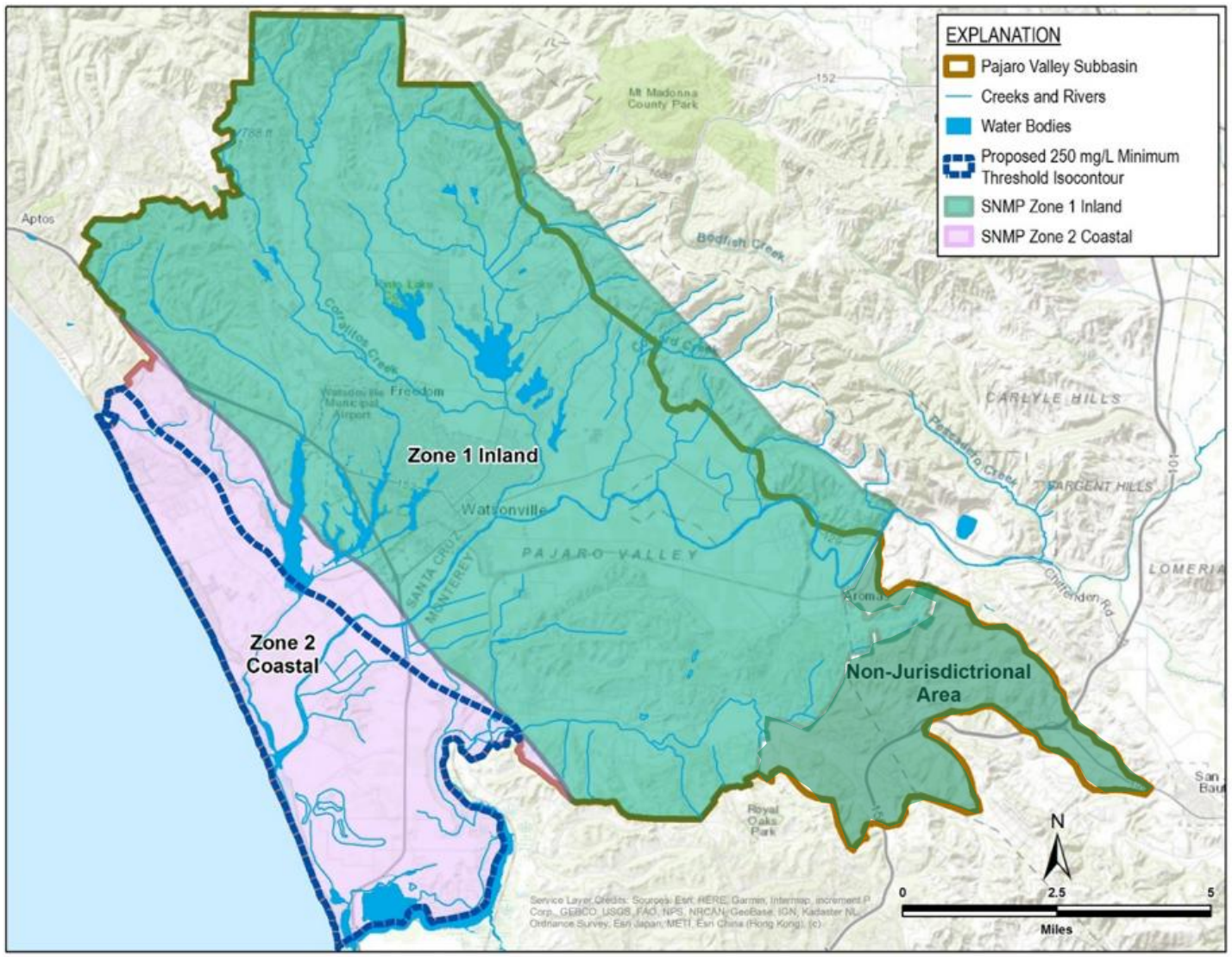


Table 10. Interconnected Surface Water Measurable Objectives and Annual Average Elevations over Time

Well Name	Pre-Water Year 2000 Average	Water Year 2000-2009 Average	Water Year 2010-2015 Average	Water Year 2016-2020 Average	Water Year 2021-2023 Average	Water Year 2024 Average	Water Year 2025 Average	2025 Interim Milestone	Measurable Objective
	Groundwater Elevation in feet NAVD88								
PV14	38.9	31.1	No Data	42.9	40.0	44.5	41.1	40.2	47
PV20S	No Data	No Data	No Data	0.9	4.4	5.0	4.9	4	15
PV20SM	No Data	No Data	No Data	1	4.3	5.0	4.8	4.1	15
PV6S	-9.3	-4.9	-3.8	0.4	3.2	3.1	1.9	1.3	6.5
PV6SM	-9.2	-5.1	-3.8	0.3	3.2	3.1	3.1	1.3	6.5

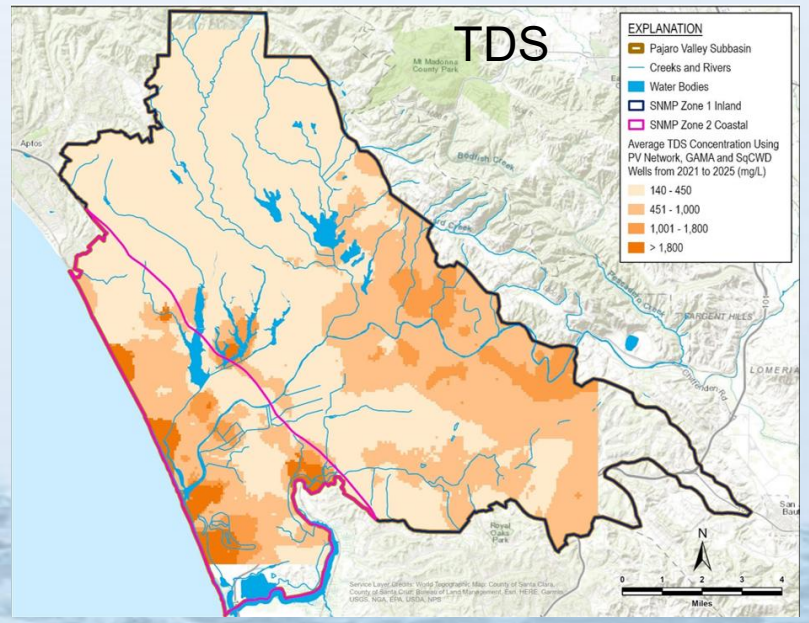
Water Quality Degradation

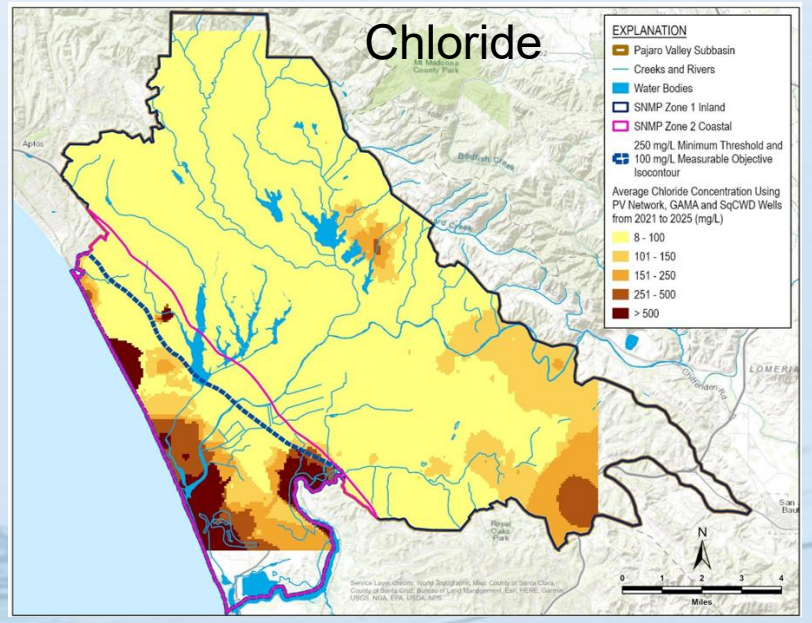
SNMP Assimilative Capacity Zones and Seawater Intrusion Minimum Threshold Isocontour

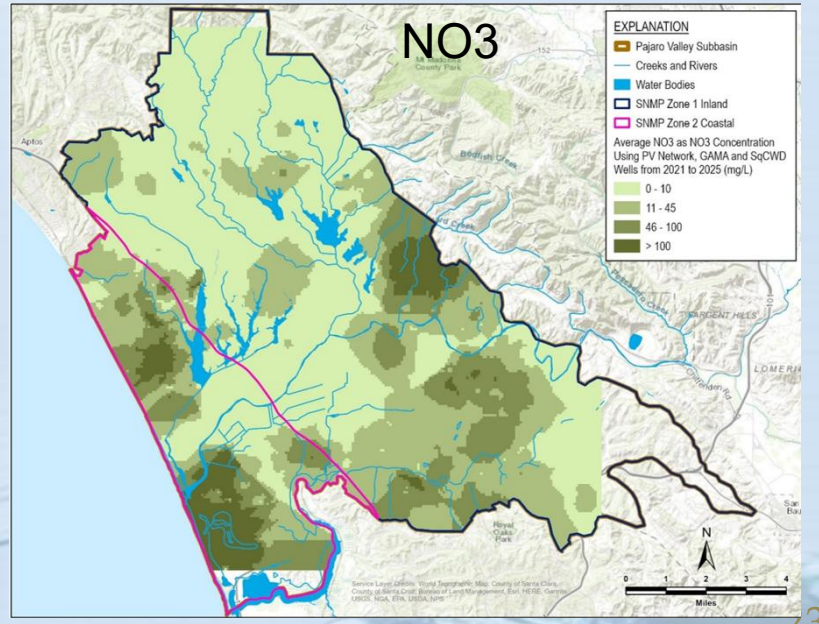


Water Quality

Constituent	Minimum Threshold (mg/L)	Zone	2002-2011 (SNMP)[3]	2016-2020 (GSU22)[3]	2019-2023[3]	2021-2025[3]
TDS	1,000	SNMP Zone 1 Plus[1]	466	475	484	483
		SNMP Zone 2[2]	730	816	924	827
Chloride	150	SNMP Zone 1 Plus[1]	46	61	60	60
		SNMP Zone 2[2]	198*	273*	424*	307*
Nitrate (NO_3)	45	SNMP Zone 1 Plus[1]	24	24	22	20
		SNMP Zone 2[2]	39	52	62	53

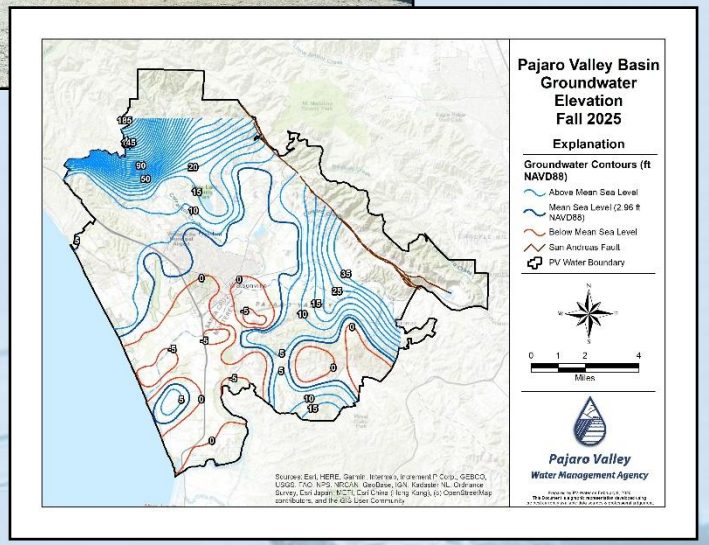




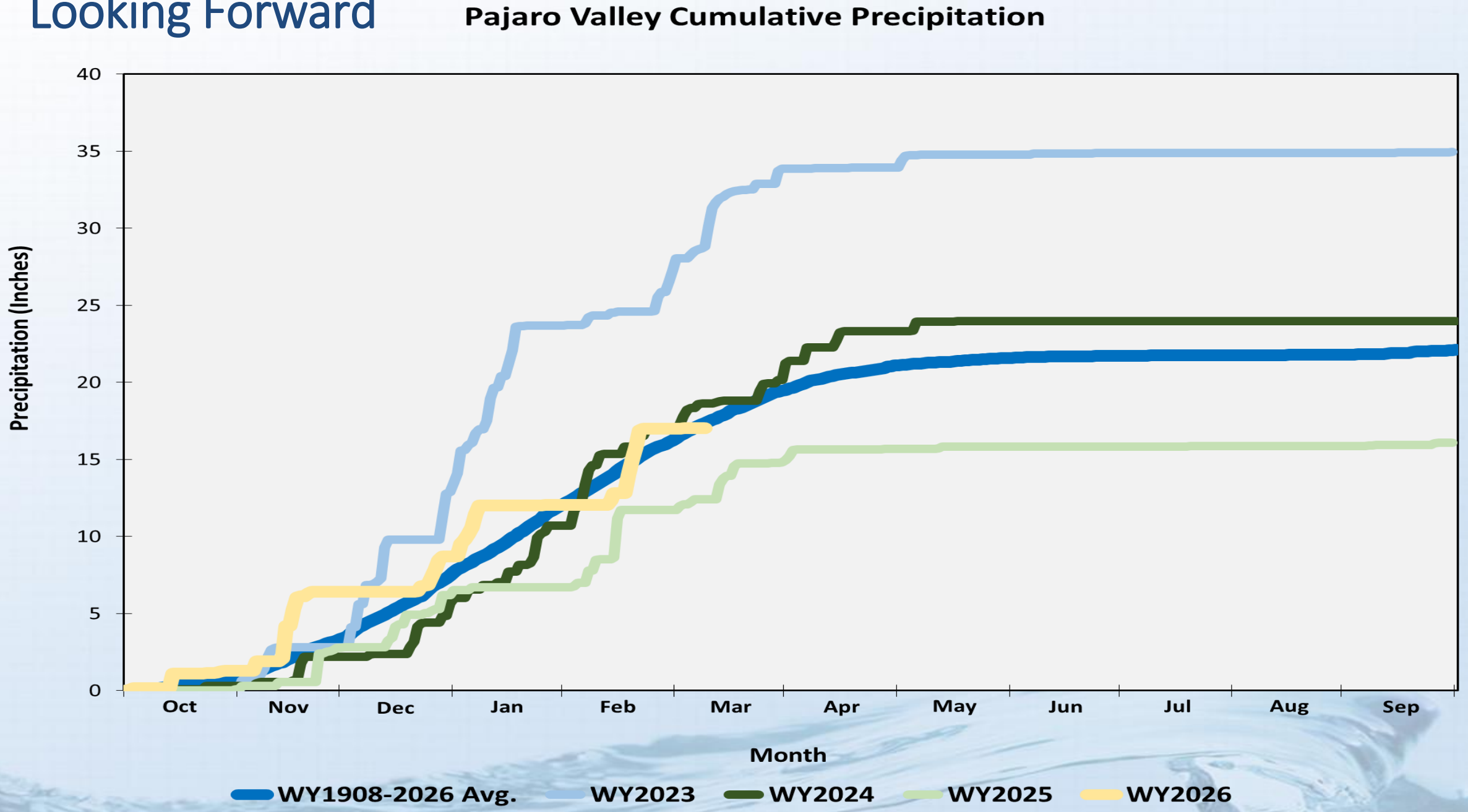


Summary

- Progress
  - Initial Operation of College Lake Project
  - WSS-MARR Permitting
  - MLRP and PRWRP Planning Efforts
- Basin Conditions
  - 16.09 in of Precipitation (Dry)
  - 49,241 AF of Total Water Use
  - Average Basin GW Level Increase of 0.02 ft
  - ~79 AF Increase of GW in Storage
- Sustainability Status
  - Favorable, Except Coastal Zone Nitrate Undesirable Result



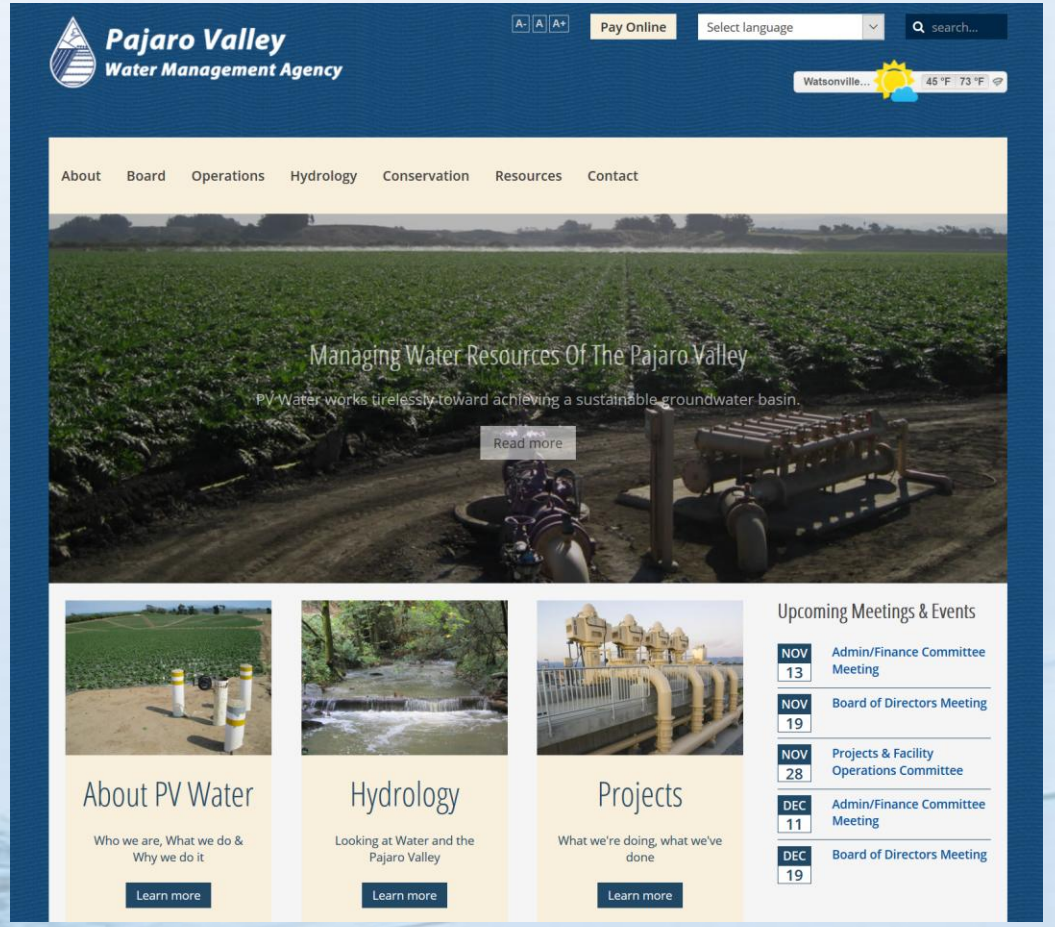
Looking Forward



Data Source: Station WTW operated by City of Watsonville, https://xmacis.rcc-acis.org/

Thank You…

By phone: 831-722-9292

By email: meusel@pvwater.org

Or visit our website: pvwater.org