



**Rosedale-Rio Bravo Water Storage District
Groundwater Sustainability Agency –
Stakeholder Advisory Committee Meeting
Tuesday, September 30th, 2025, at 9:00 am**

Location: Rosedale-Rio Bravo WSD Board Room
849 Allen Rd. Bakersfield, CA 93314

To virtually attend the meeting and to be able to view any presentations or additional materials provided at the meeting, please join online using the link and information below:

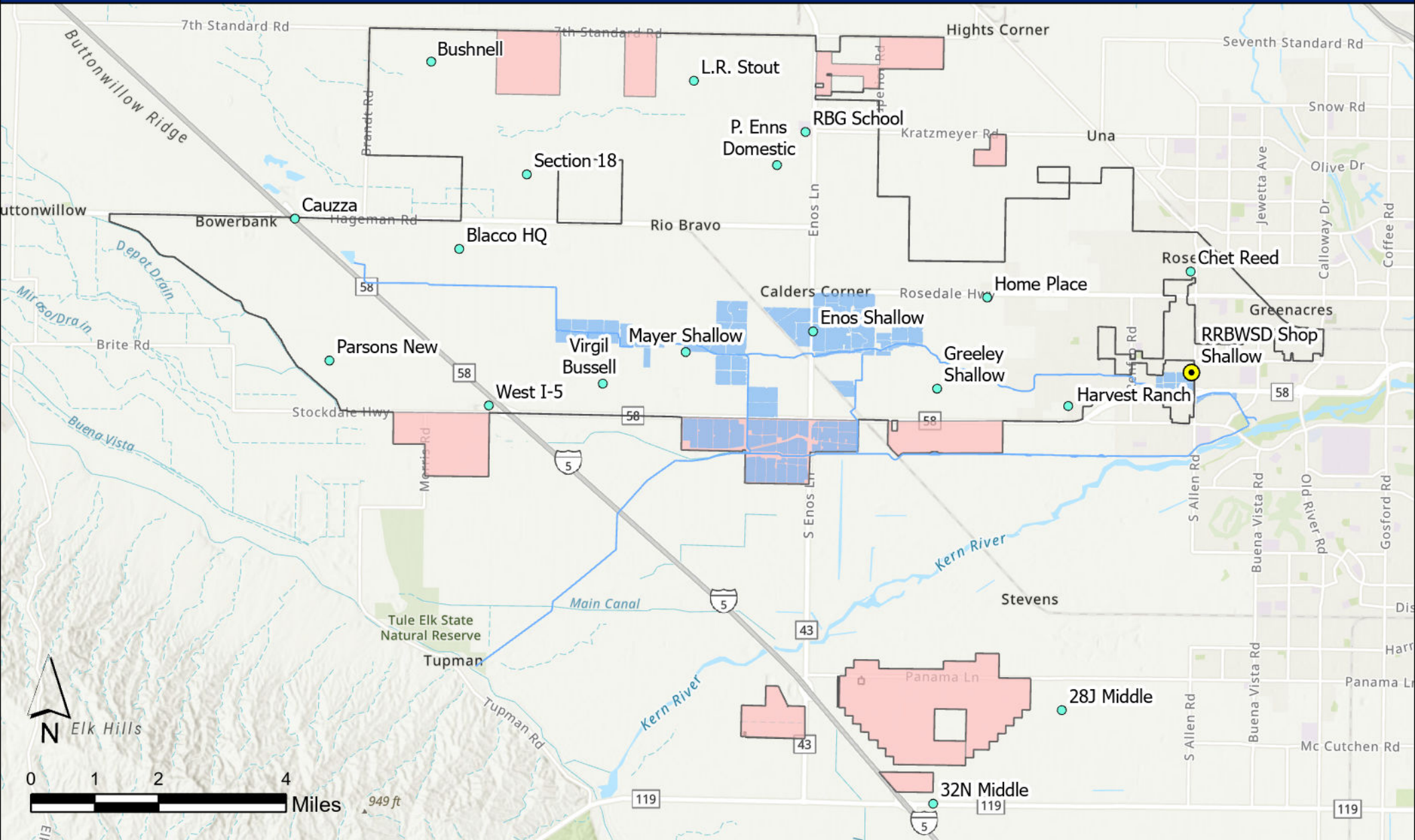
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Telephone Dial-in: (669) 900-6833
Meeting ID: 814 2191 1119
Password: 329439

AGENDA

- 1) Sustainability Management Criteria Status Update
 - a. Levels (MN)
 - b. Quality (RE)
 - c. Subsidence (RE)
- 2) Project Implementation
 - a. RRB-2: RRB Projects (MN)
 - b. RRB-5: Onyx Project (DB)
 - c. RRB-4 and RRB-7: Kern Fan Project (DB)
 - d. South Valley Project
- 3) Management Action Implementation
 - a. RRB-14: Water Charge Demand Reduction (TT)
 - b. RRB-13: White Land Imbalance Reduction (MN/TT)
 - c. KSB-5: Well Mitigation/SHE (DB)
 - d. KSB-7: Well Registry (RE)
 - e. KSB-8: ET Calculation (DB)
 - f. KSB-10: RMW Data Gaps (RE/MN)
- 4) SGMA Planning and Reporting
 - a. 2025 GSP (DB/TT)
 - b. KNDLA (RE)
 - c. The Rosedale Recap (RE)
- 5) Q&A Time

Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

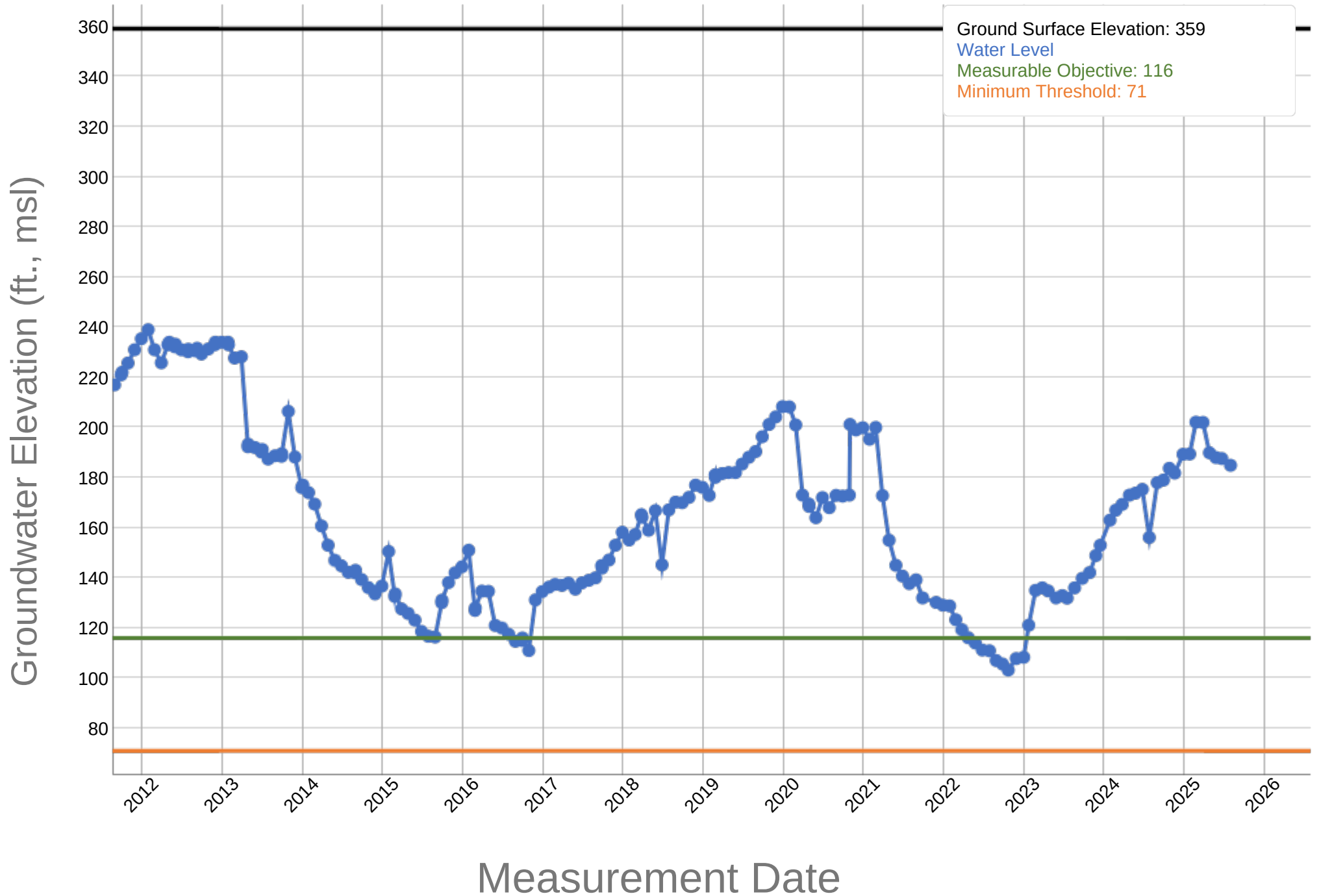


- Water Level
- Representative Monitoring Wells (RMWs)
- Conveyance Facilities
- Recharge Ponds
- RRBWSD GSA White Lands
- RRBWSD GSA Boundary

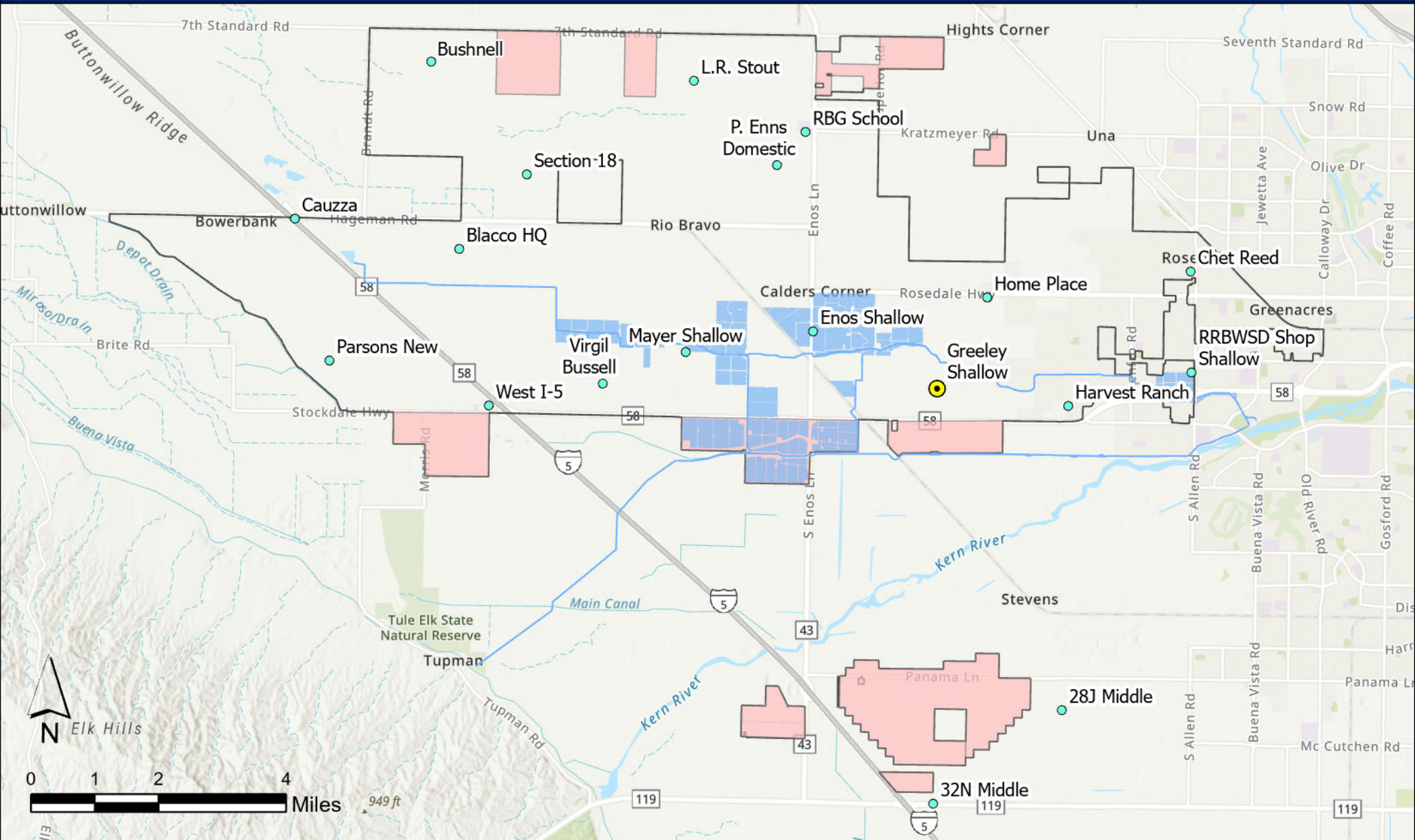
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Rosedale-Rio Bravo Water Storage District - 35H RRBWSD Shop - 353620N1191457W002



Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

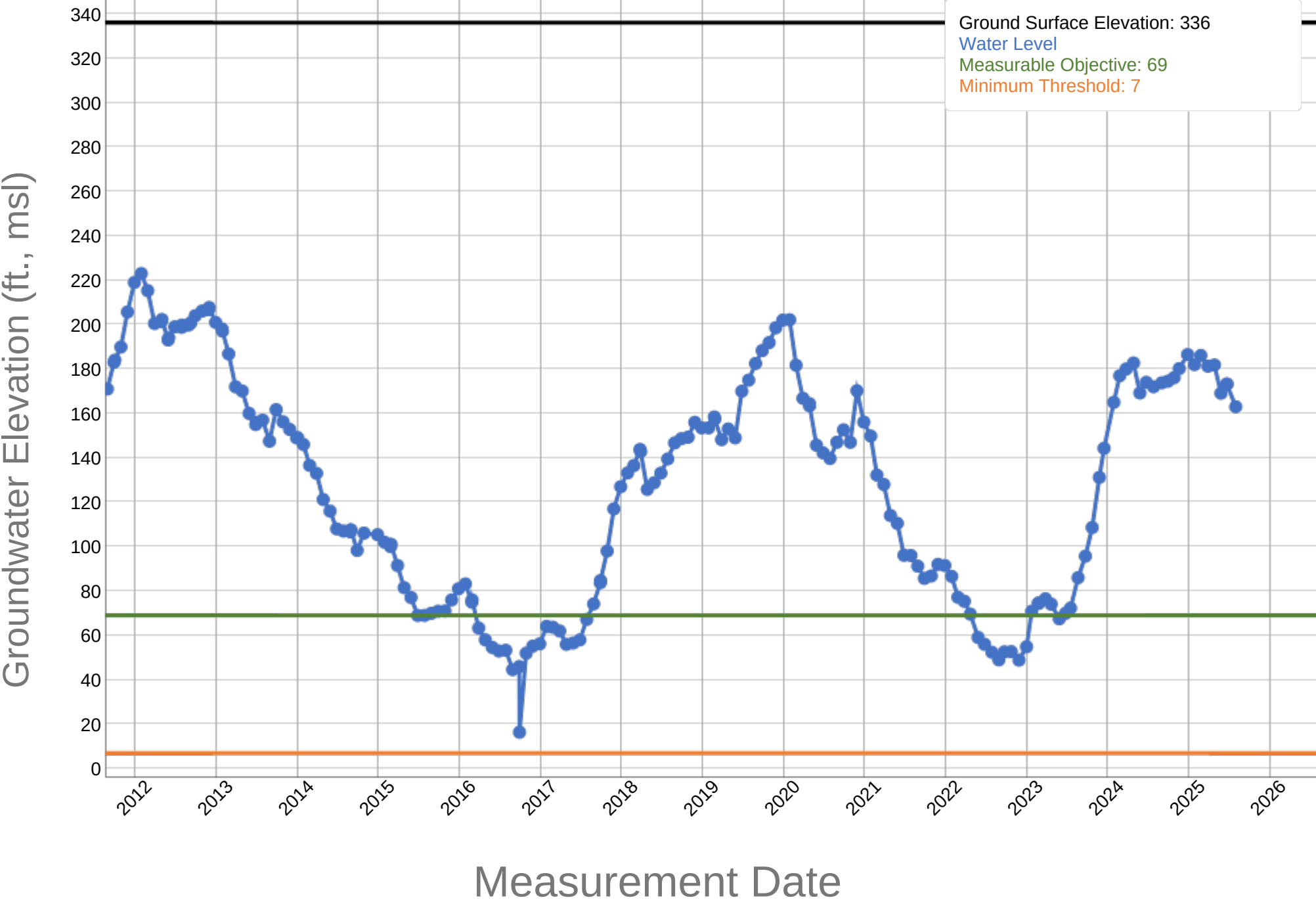


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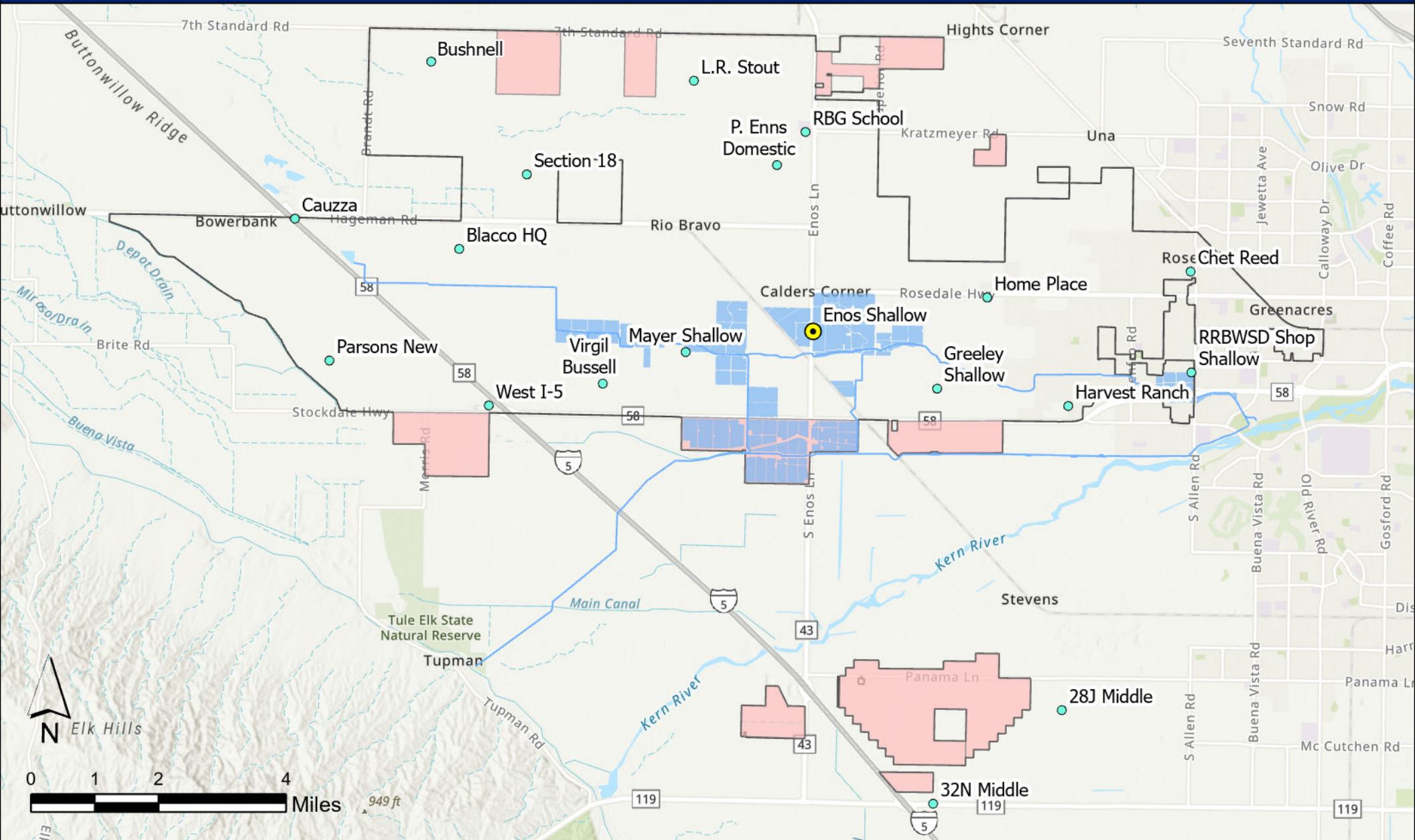
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Rosedale-Rio Bravo Water Storage District - 31H Greeley - 353618N1192169W001



Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

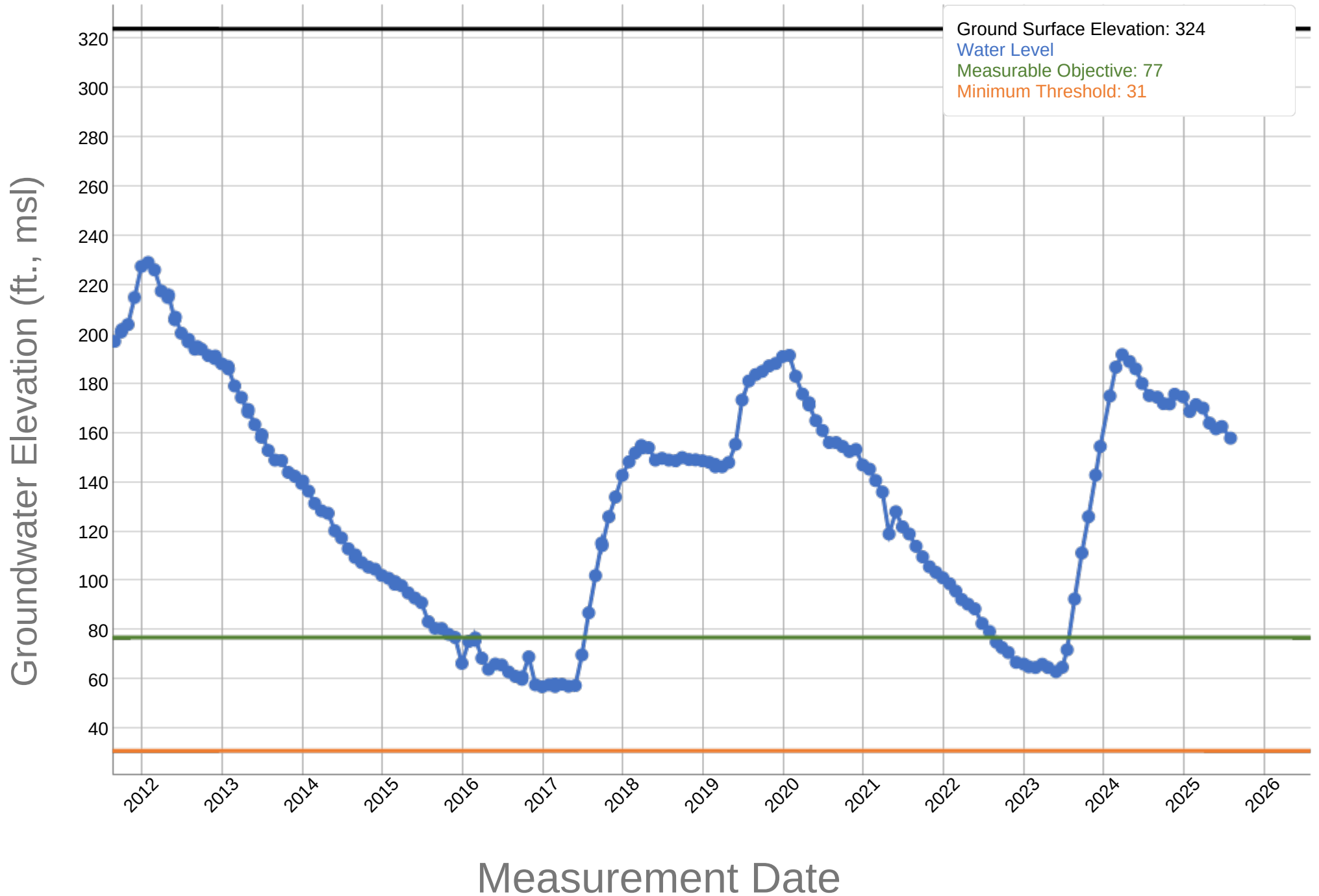


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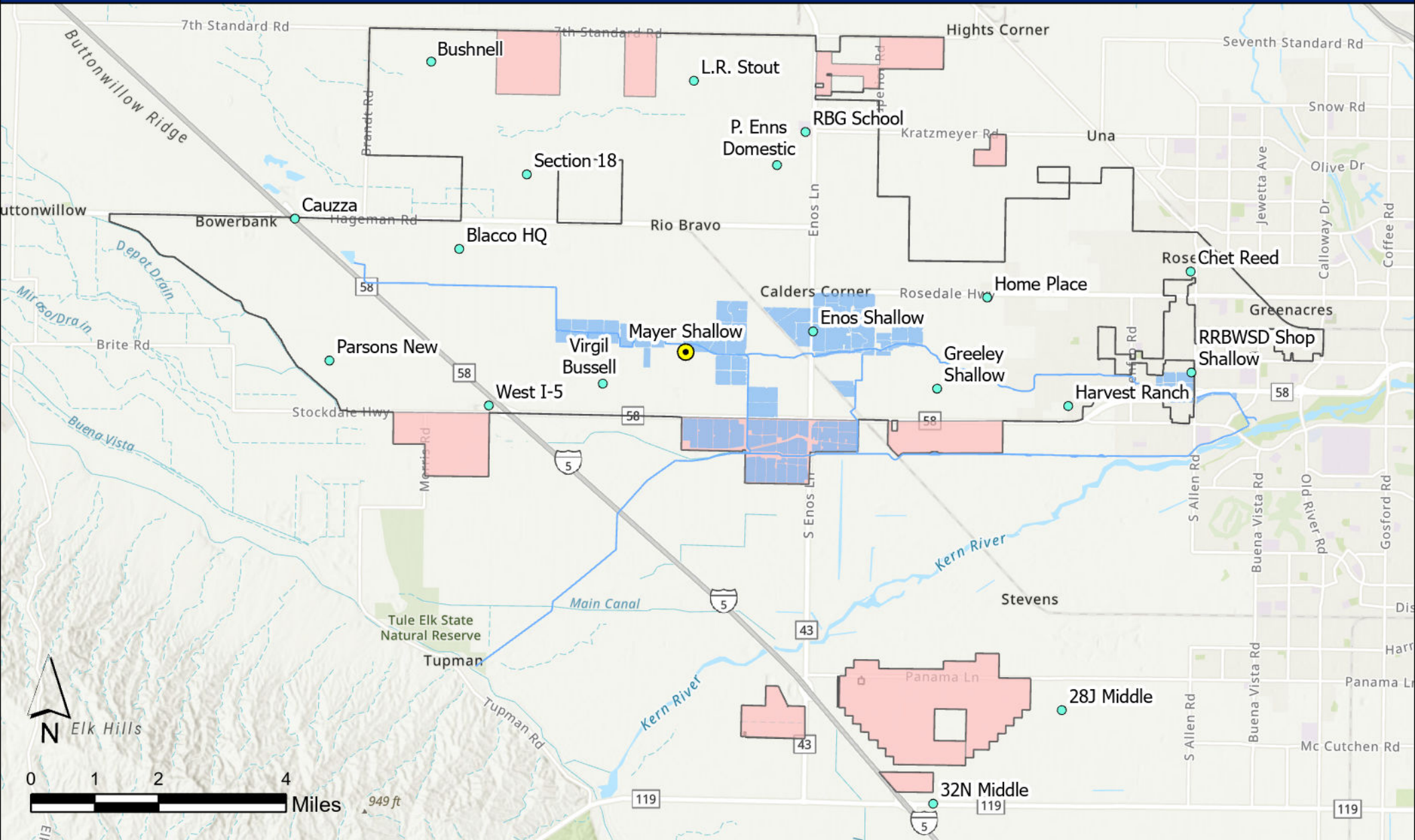
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Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

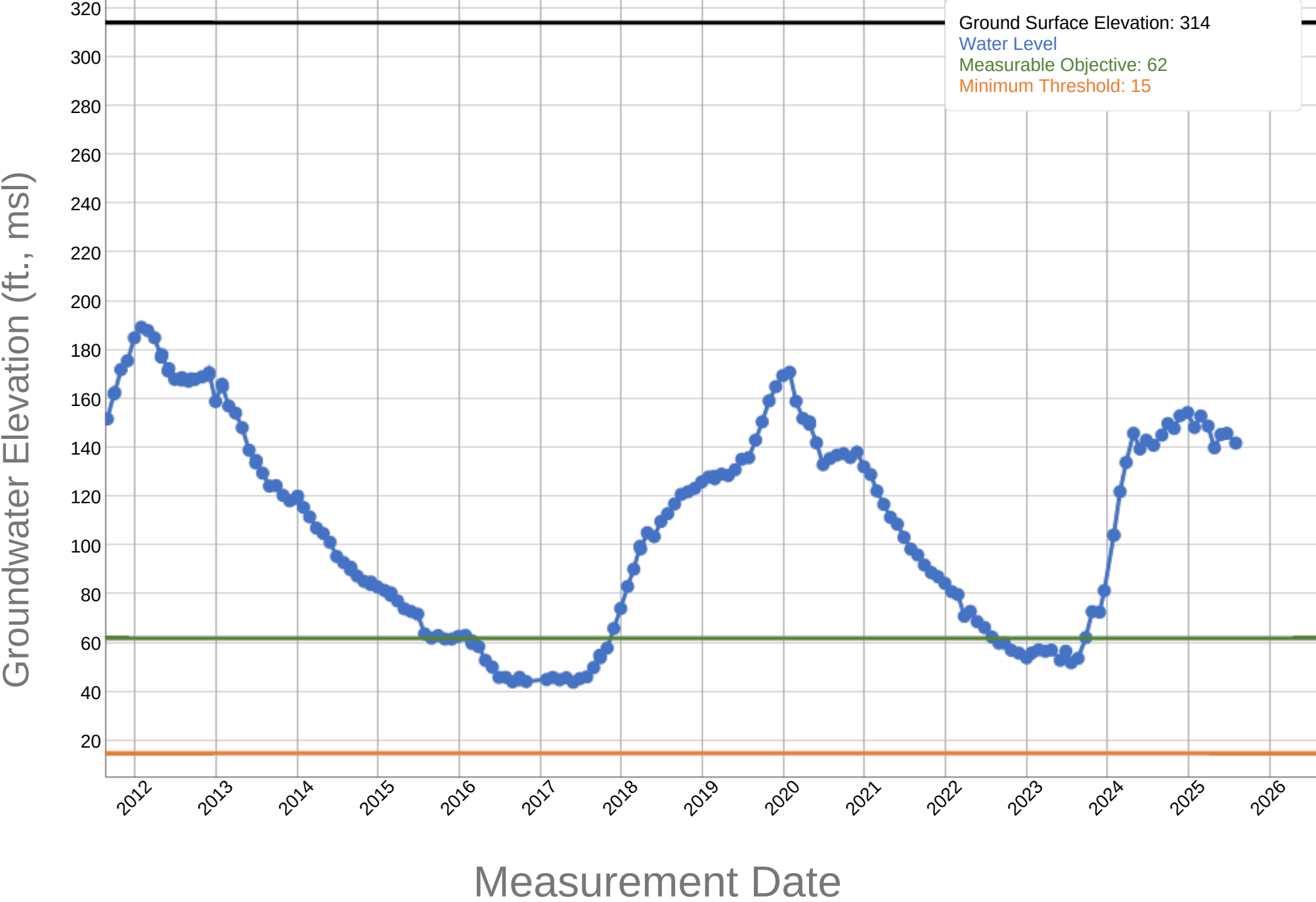


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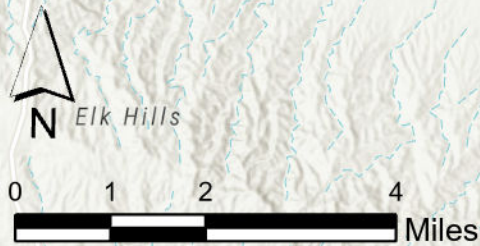
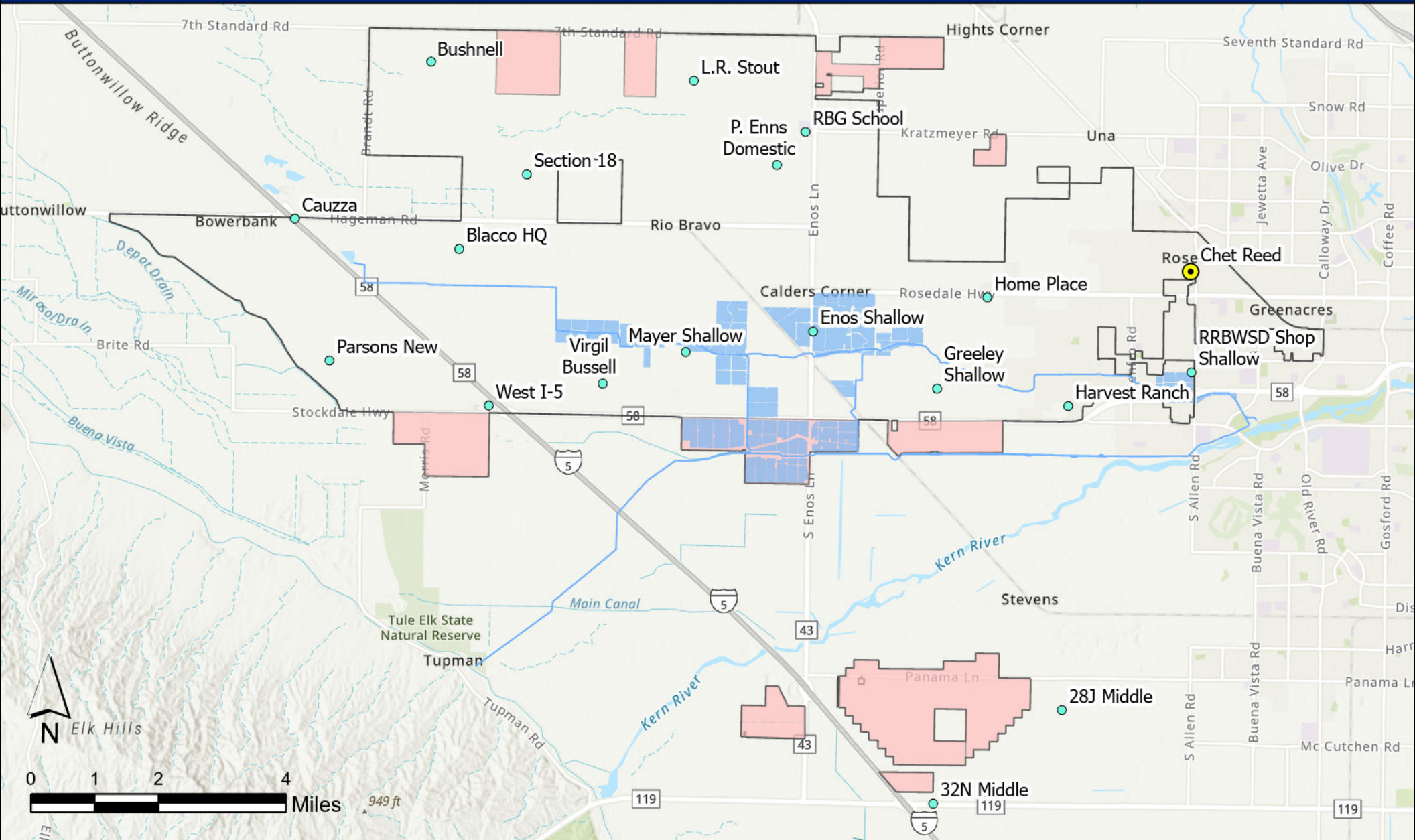
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Rosedale-Rio Bravo Water Storage District - 27N Mayer - 353699N1192856W002



Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

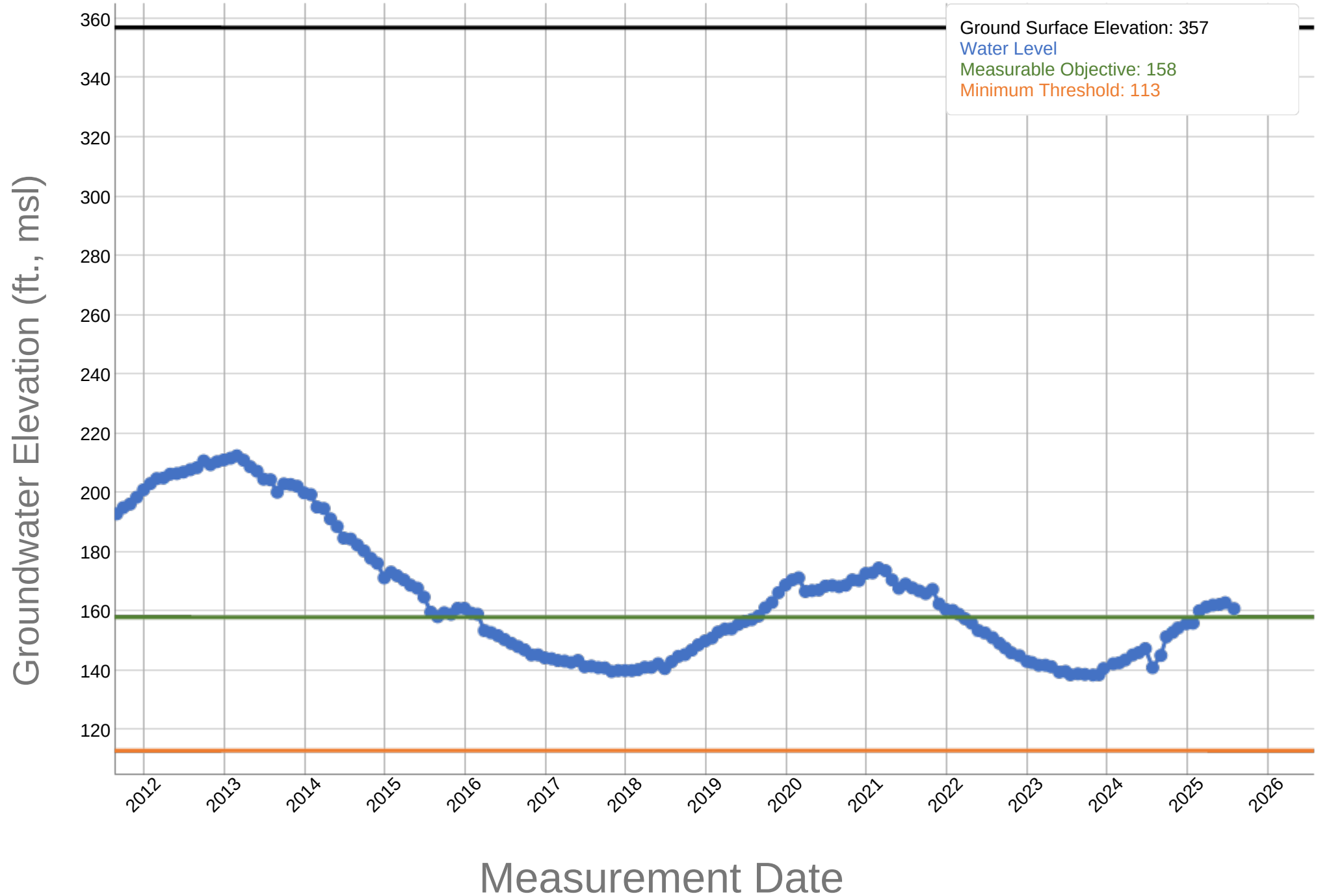


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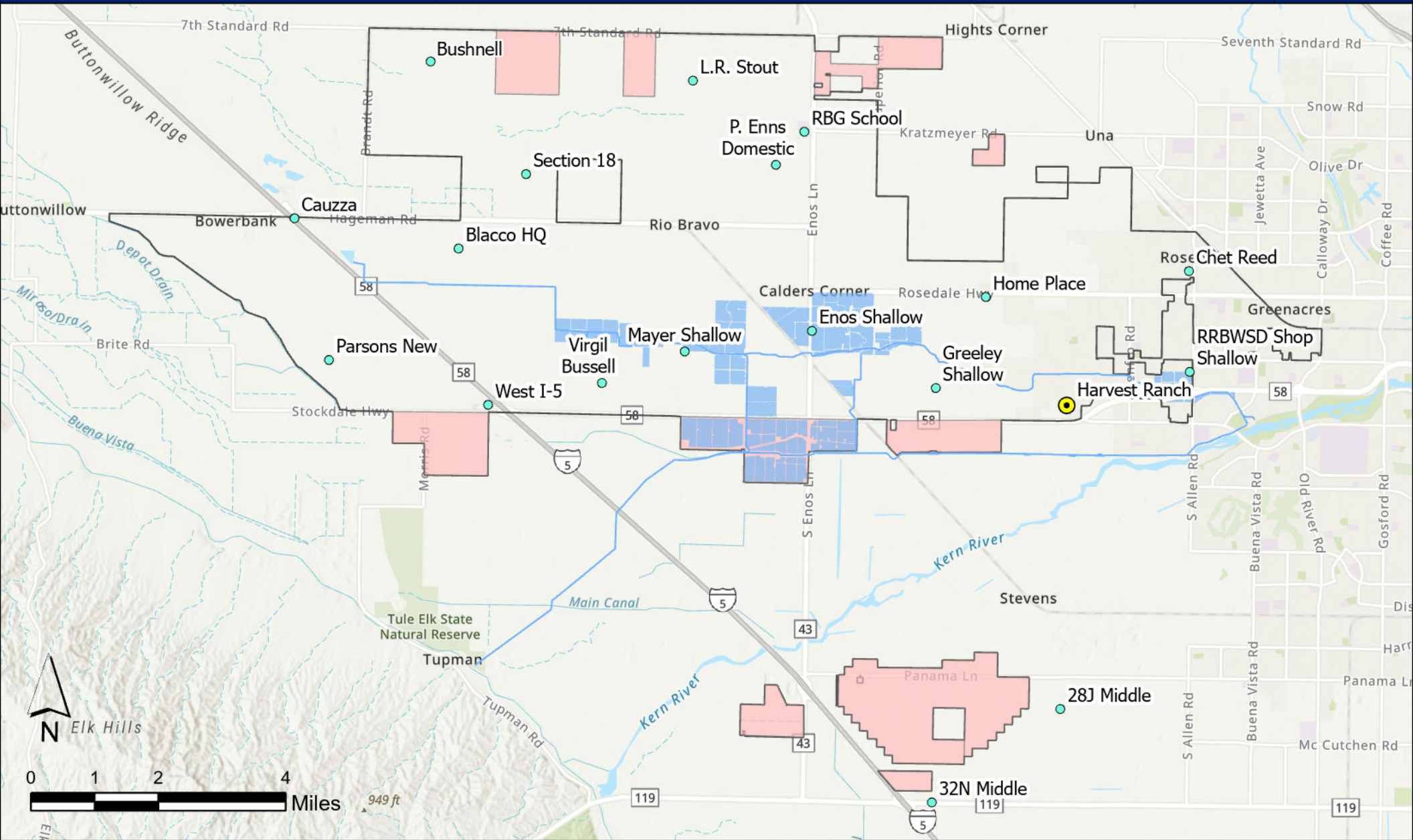
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Rosedale-Rio Bravo Water Storage District - Chet Reed - 353890N1191471W001



Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

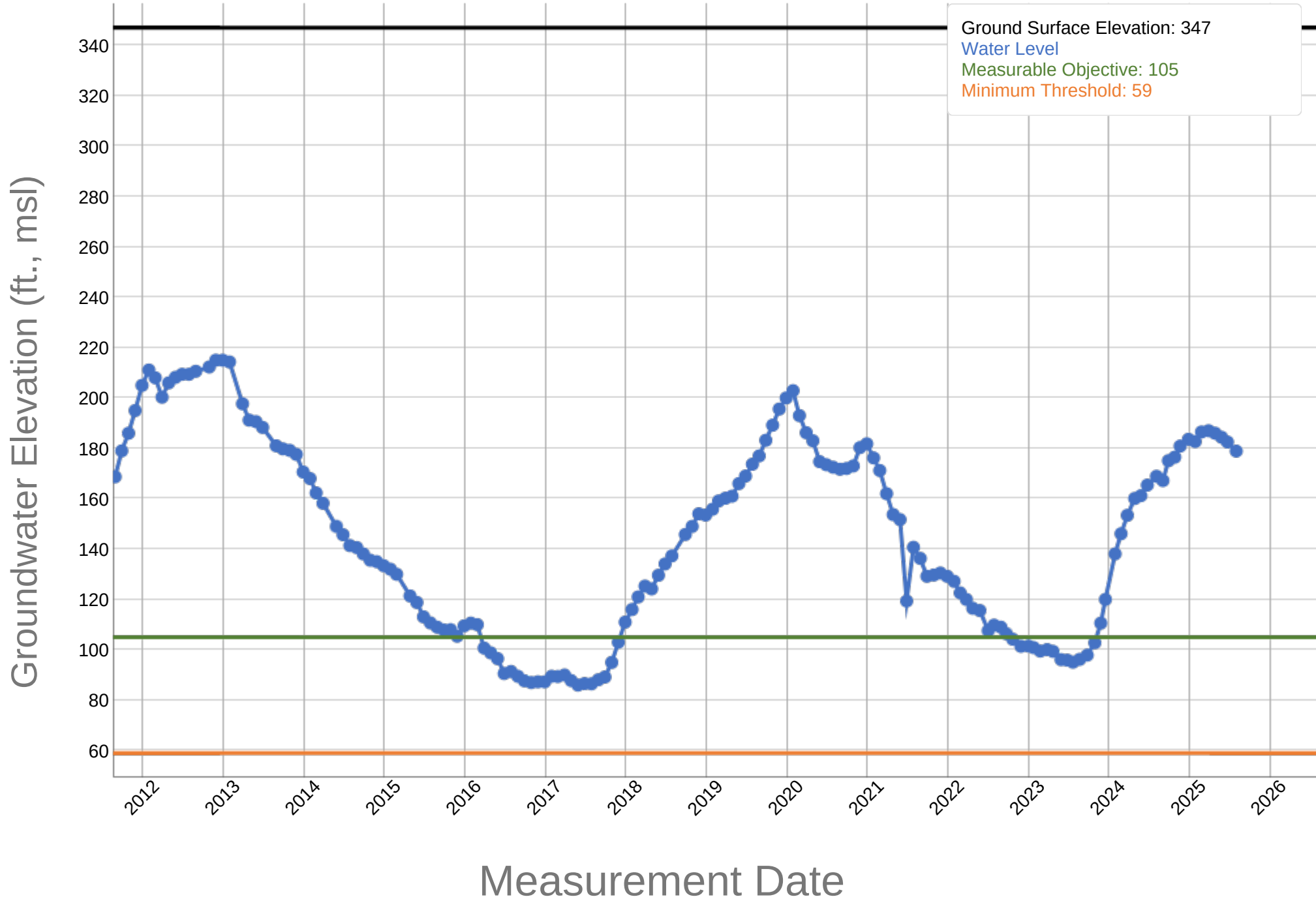


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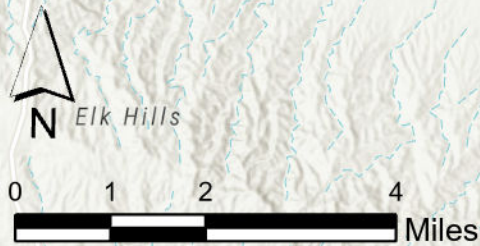
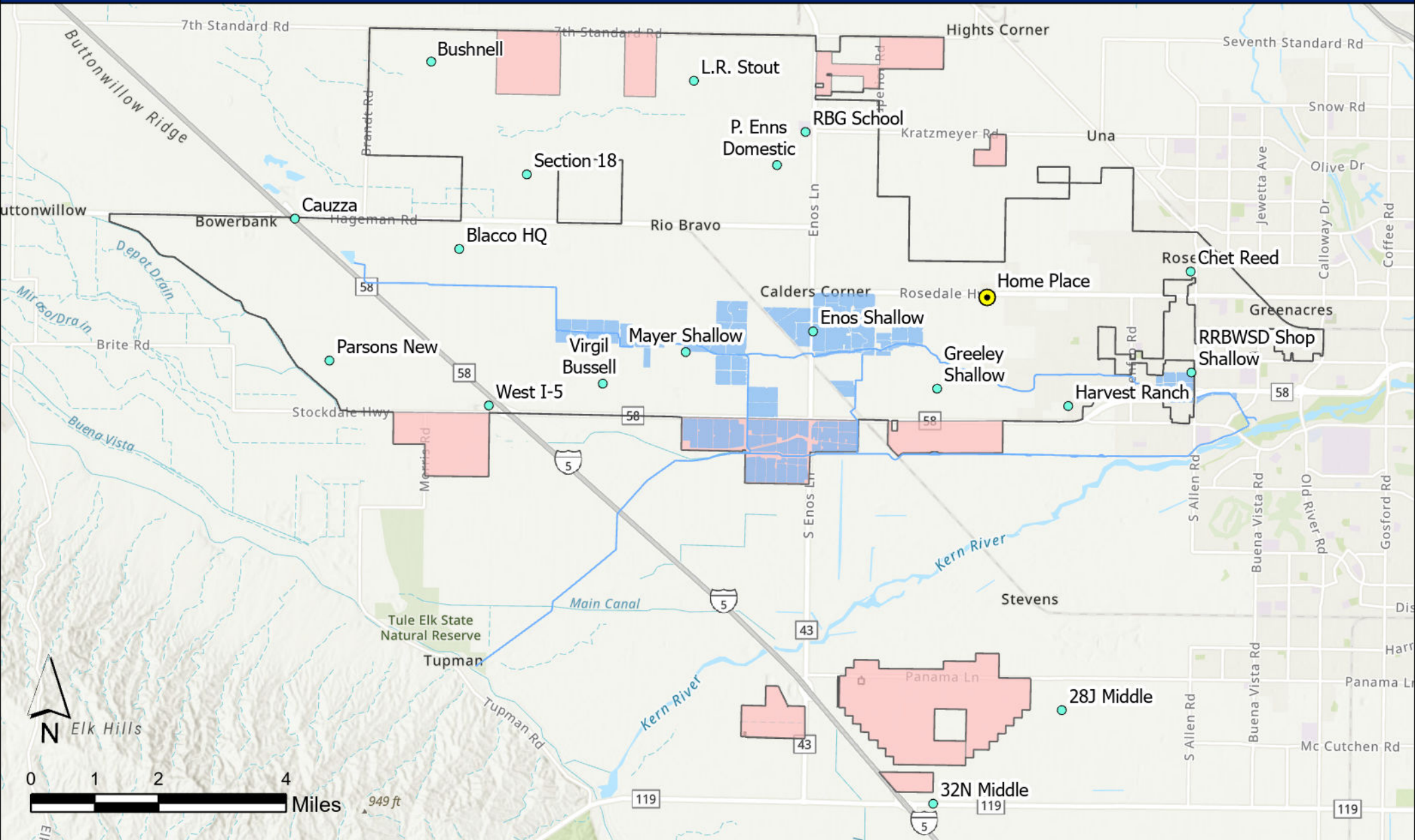
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Rosedale-Rio Bravo Water Storage District - Manon Manor Mutual Water Co - 353634N1191766W001



Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

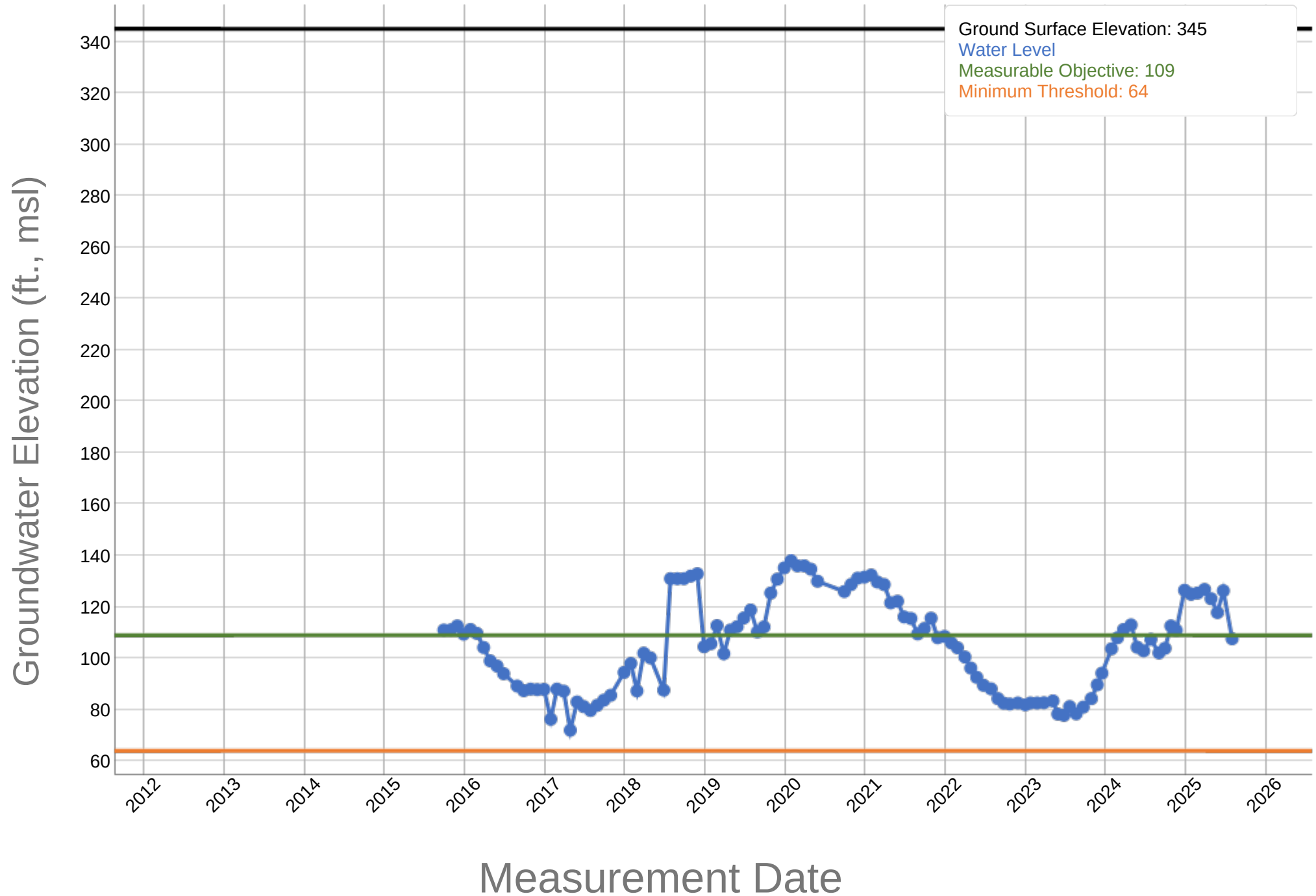


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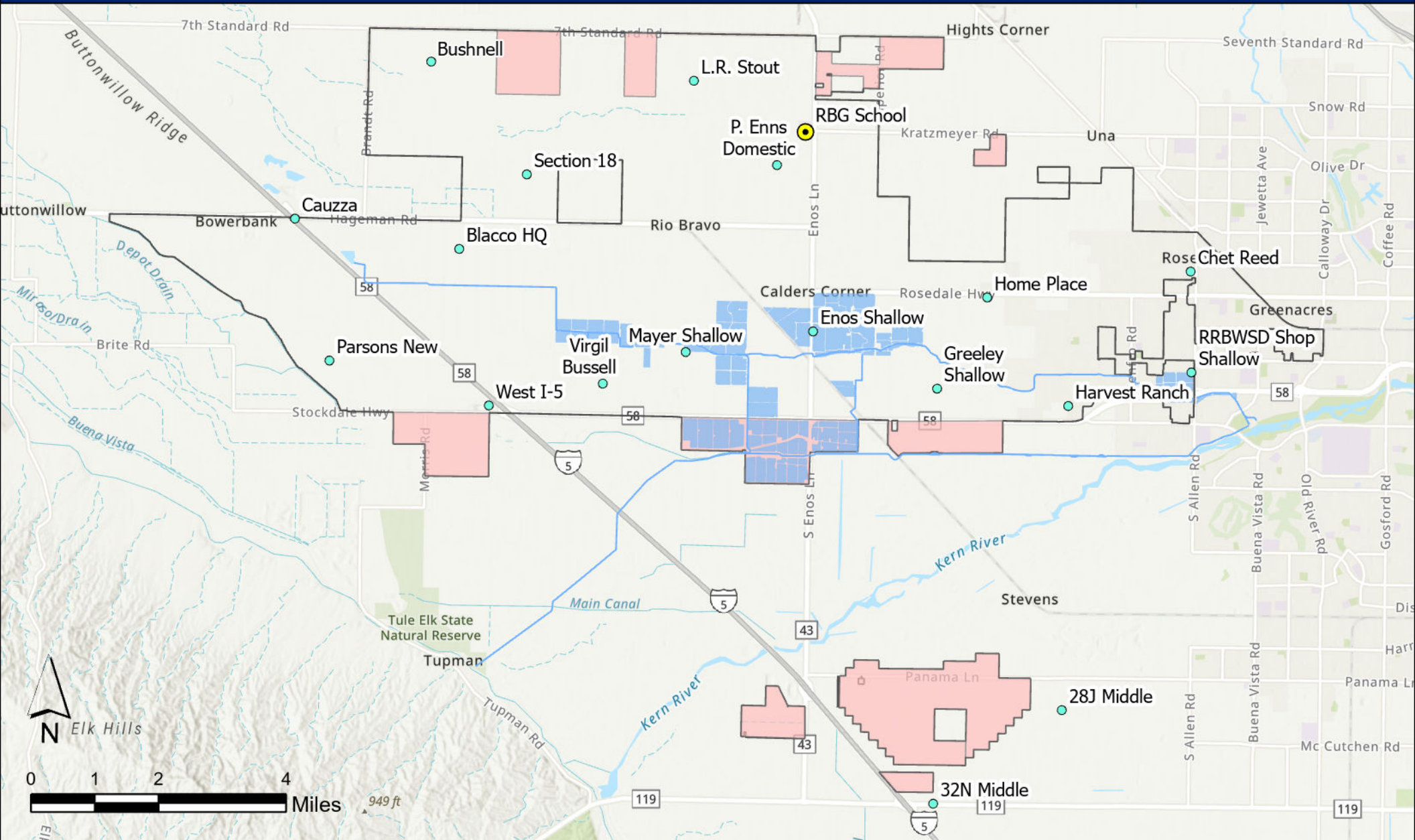
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Rosedale-Rio Bravo Water Storage District - Home Place - 353824N1192035W001



Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

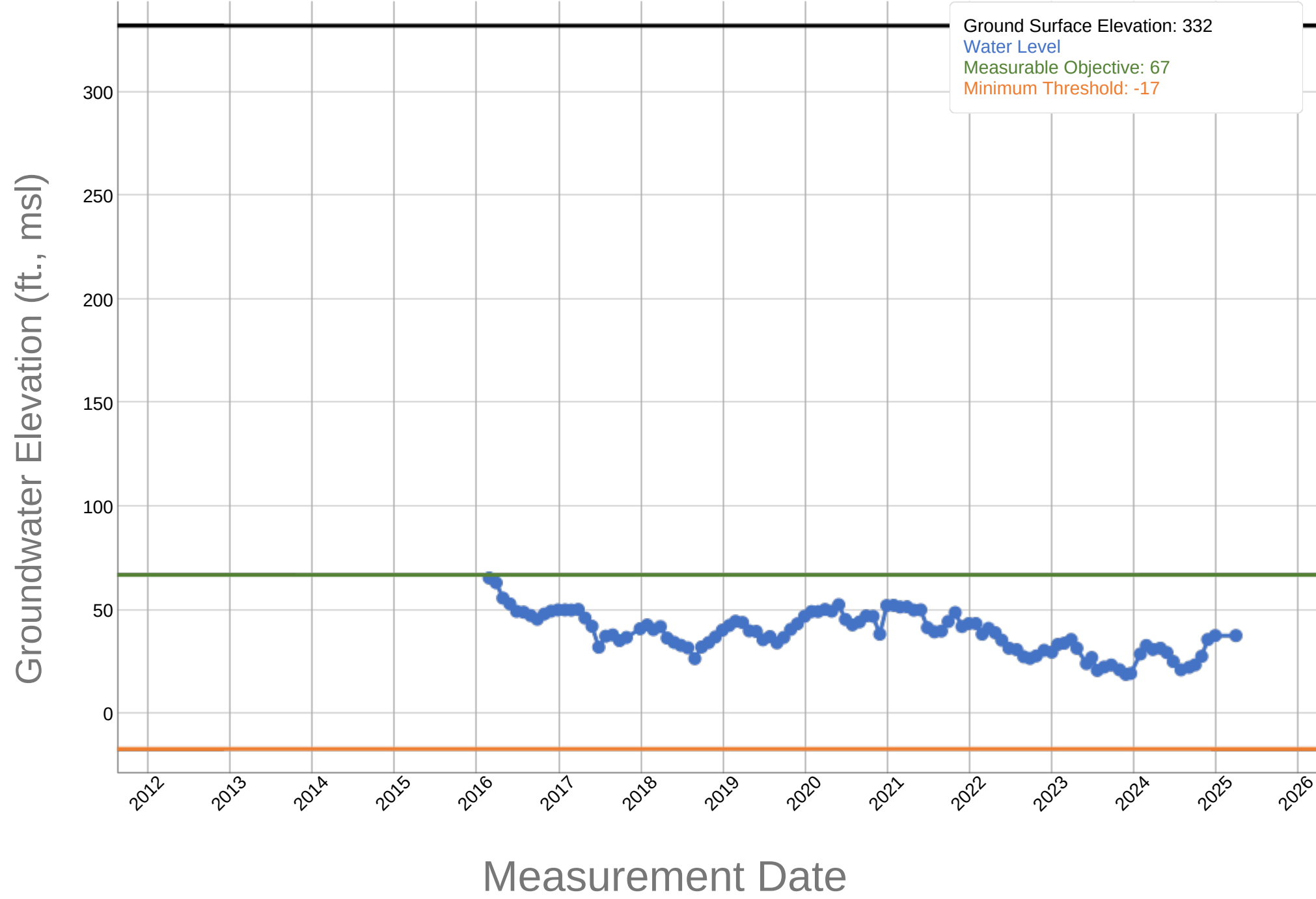


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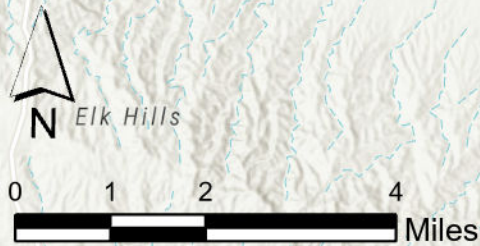
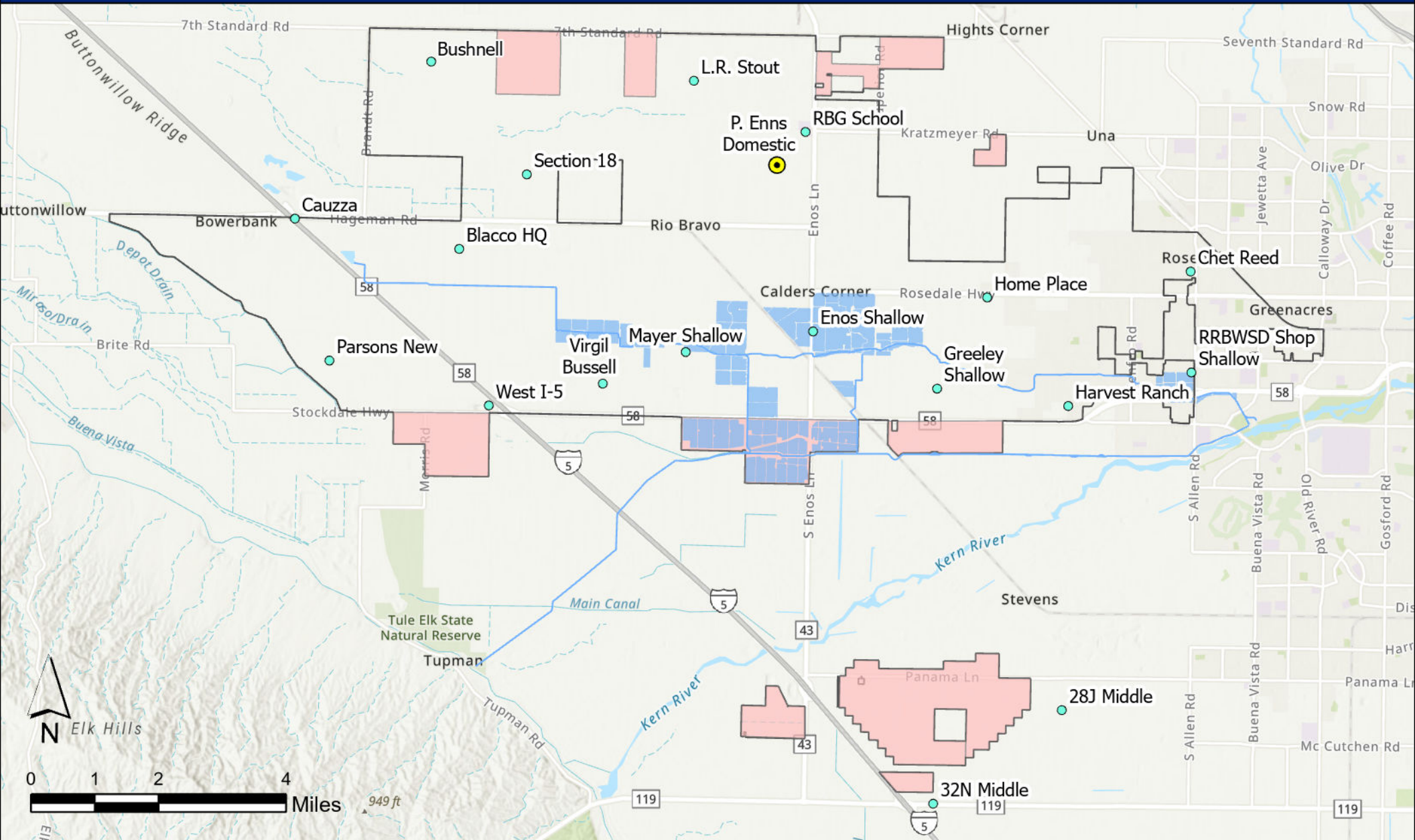
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Rosedale-Rio Bravo Water Storage District GSA - RBG School - 354197N1192544W001



Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

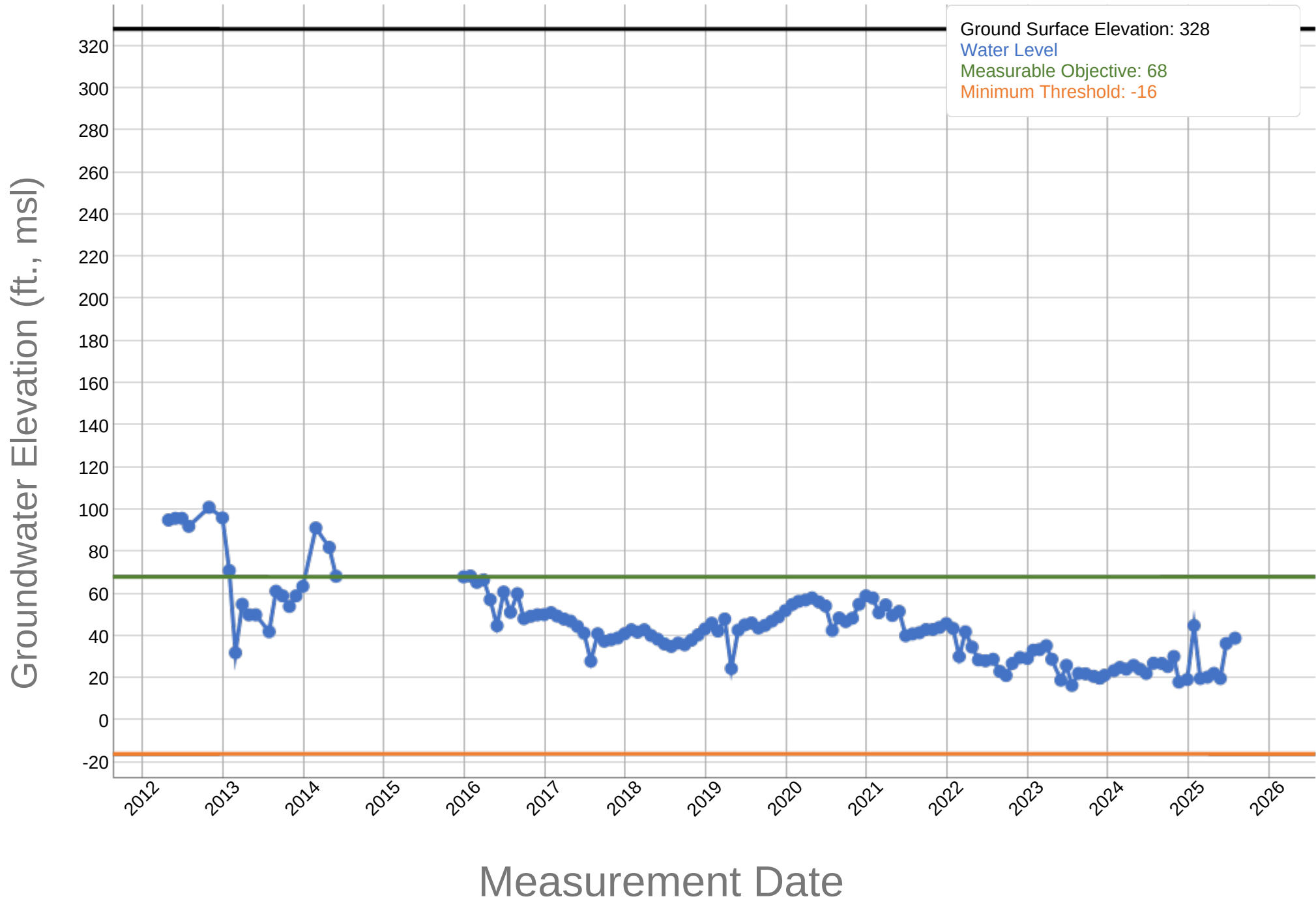


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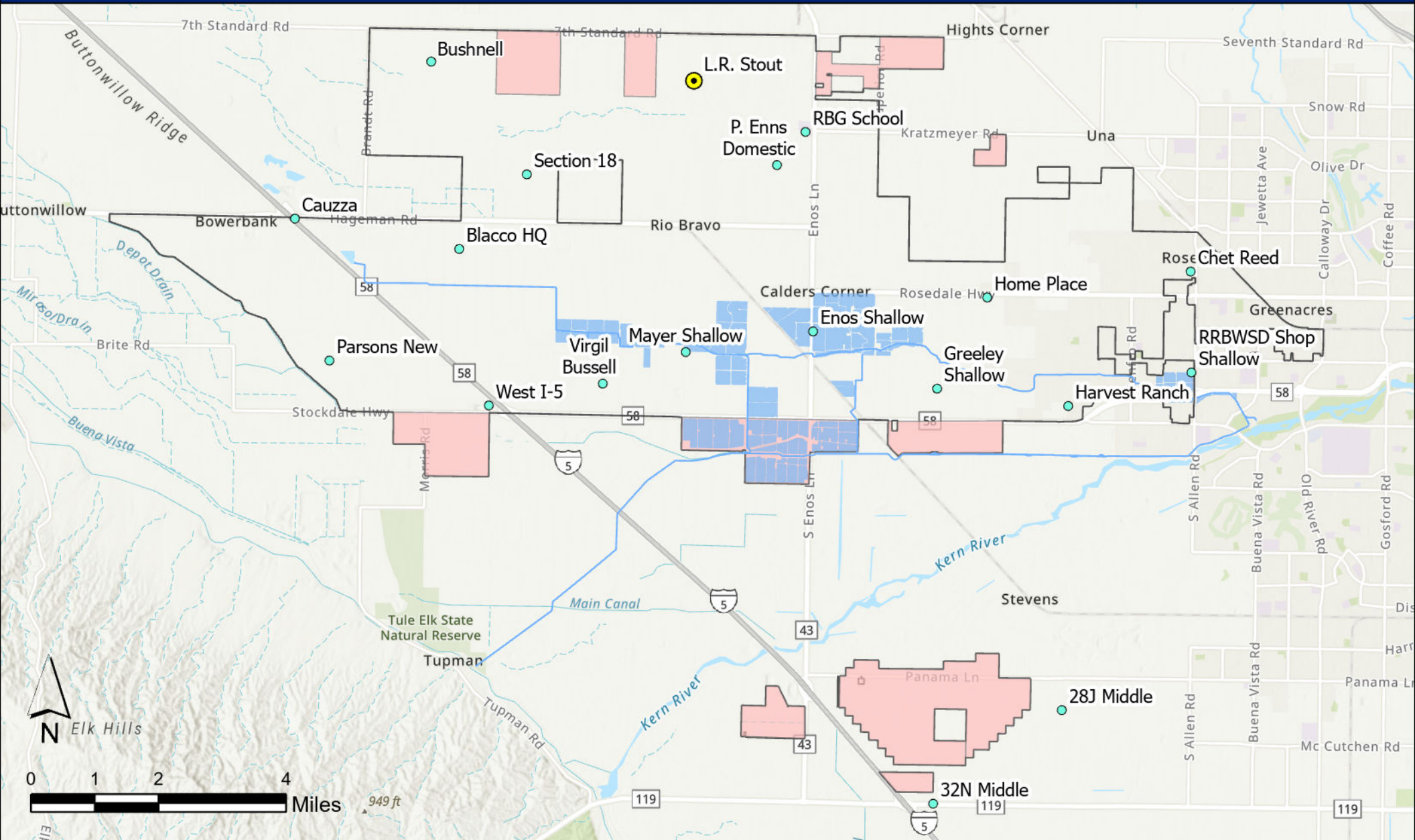
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Rosedale-Rio Bravo Water Storage District - P. Enns Domestic - 354121N1192623W001



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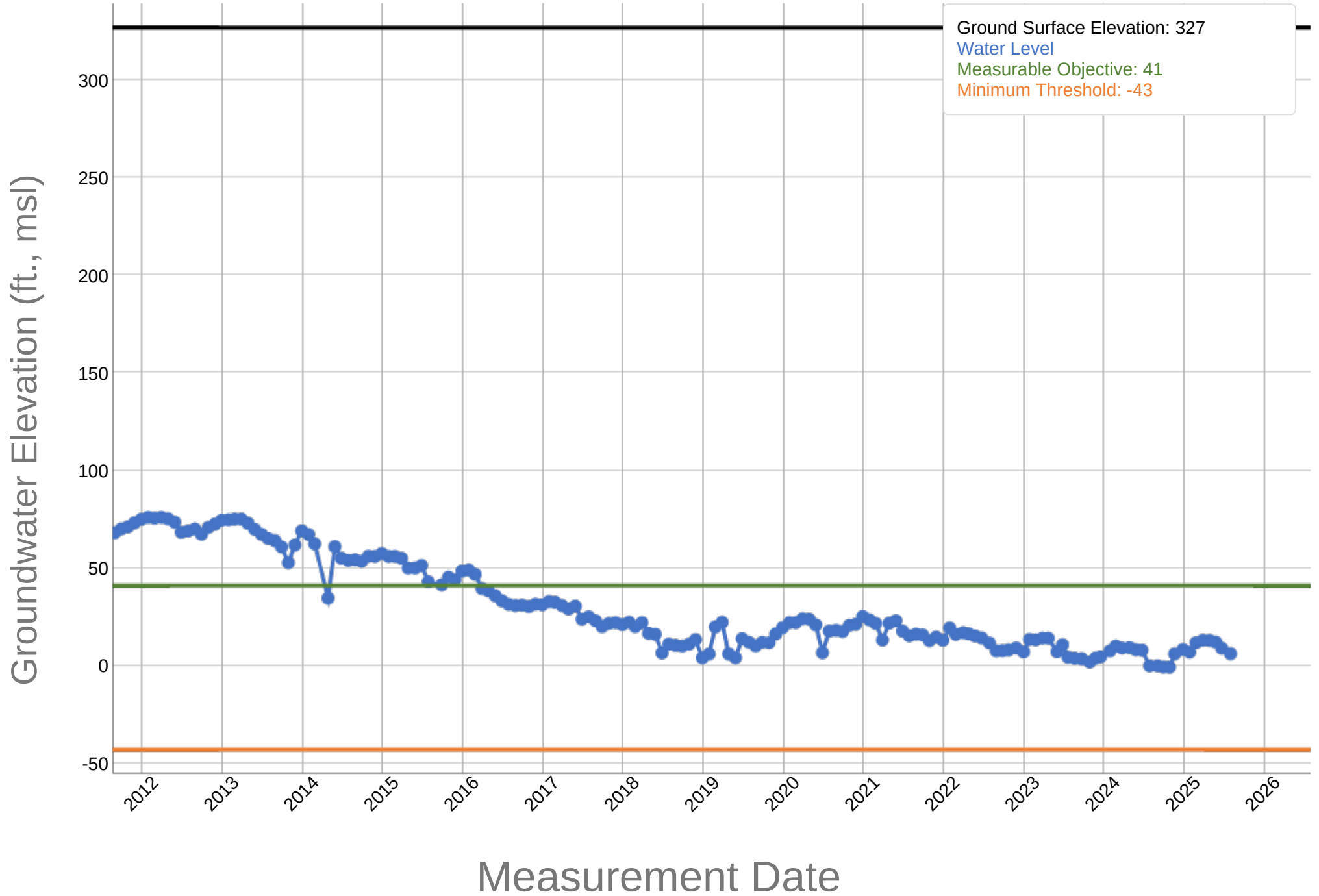


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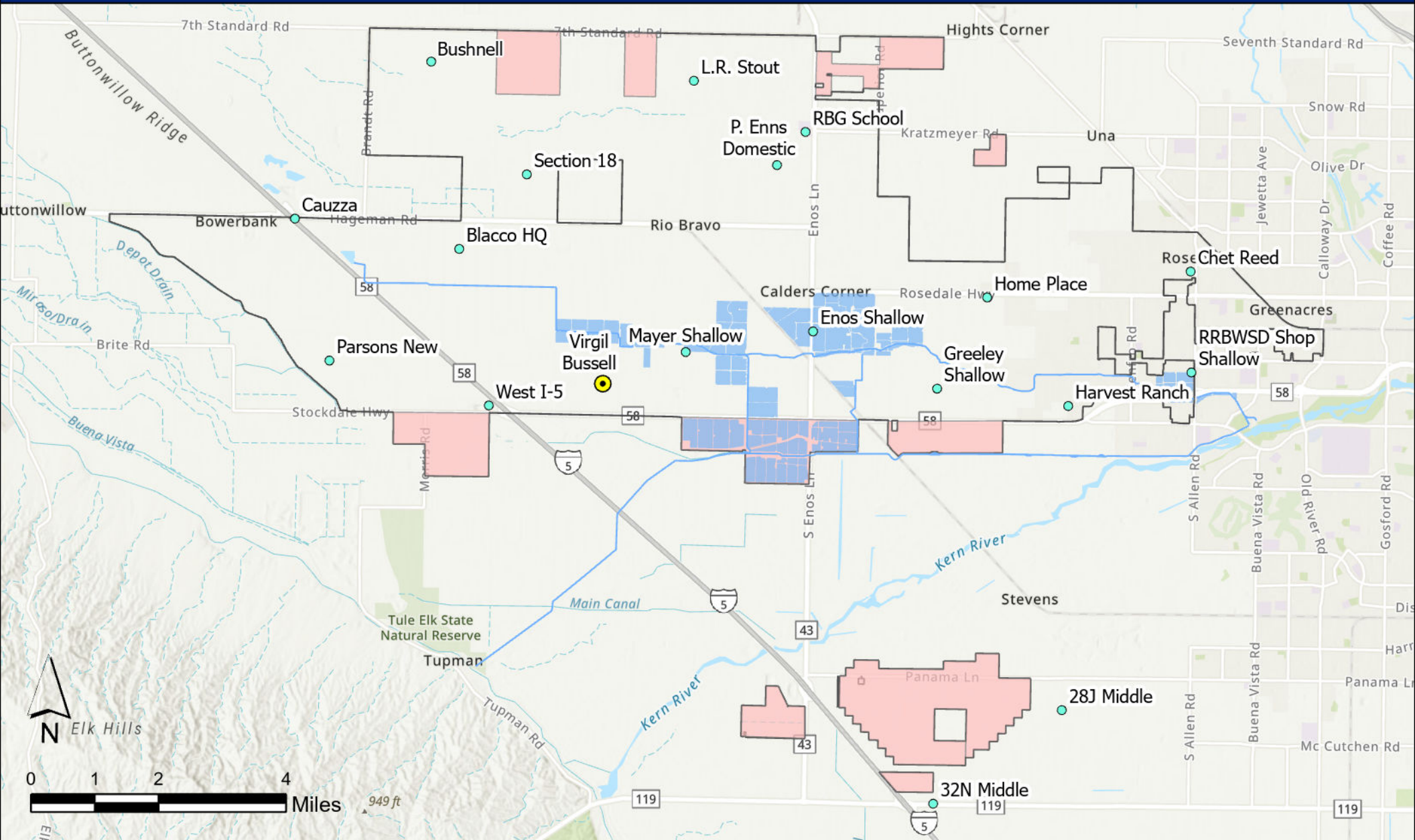
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Rosedale-Rio Bravo Water Storage District - L.R. Stout - 354309N1192859W001



Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

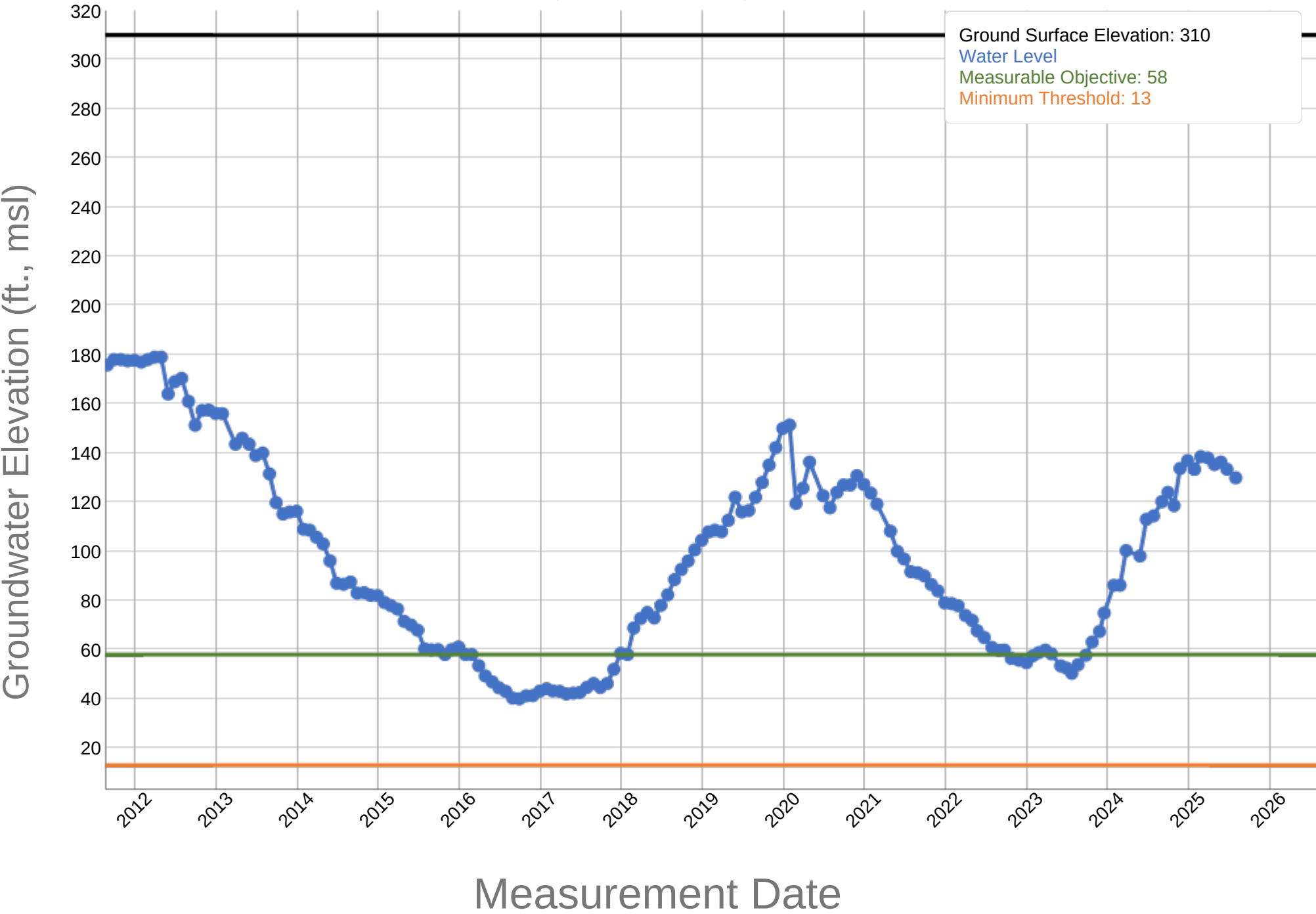


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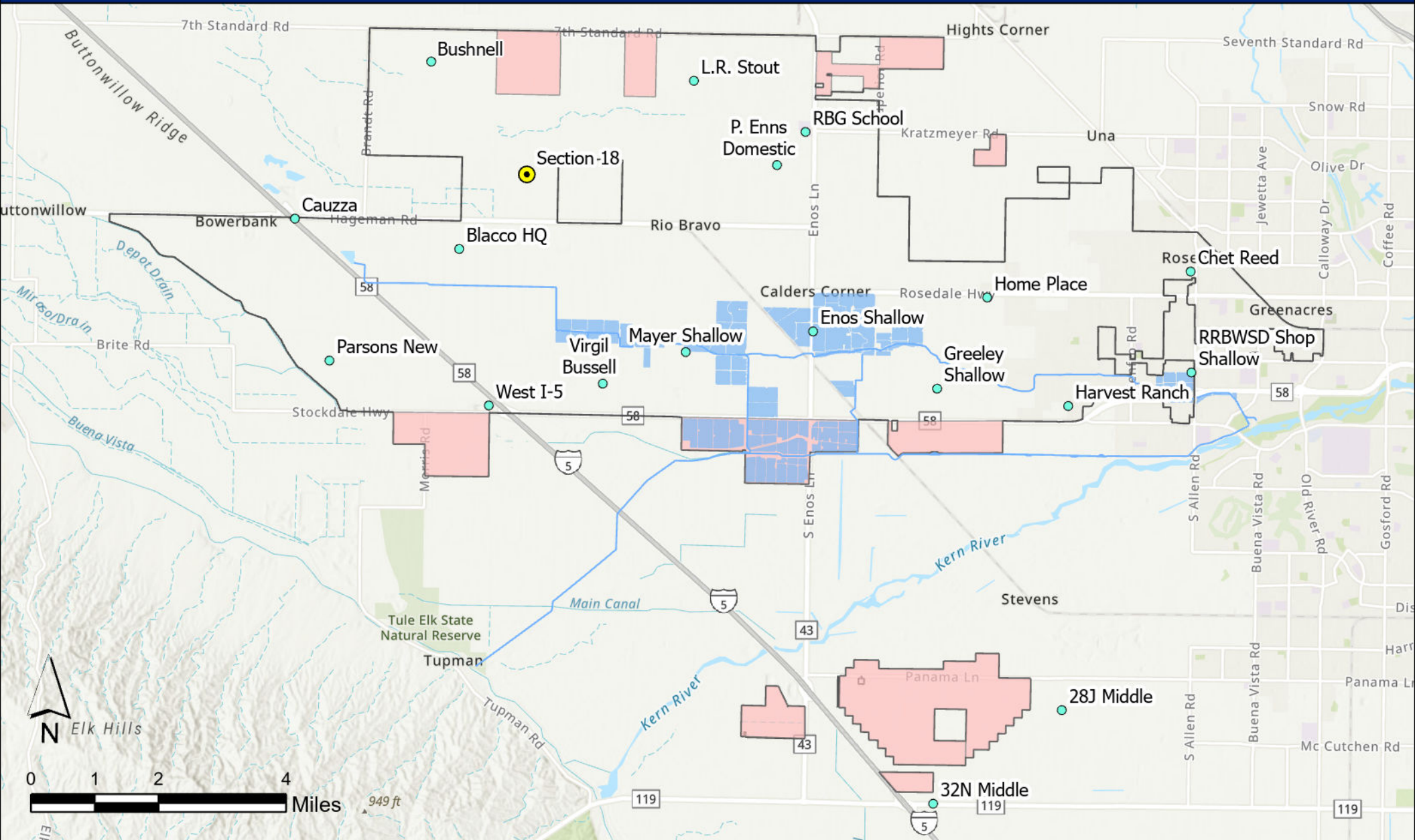
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Rosedale-Rio Bravo Water Storage District - Virgil Bussell - 353619N1193099W001



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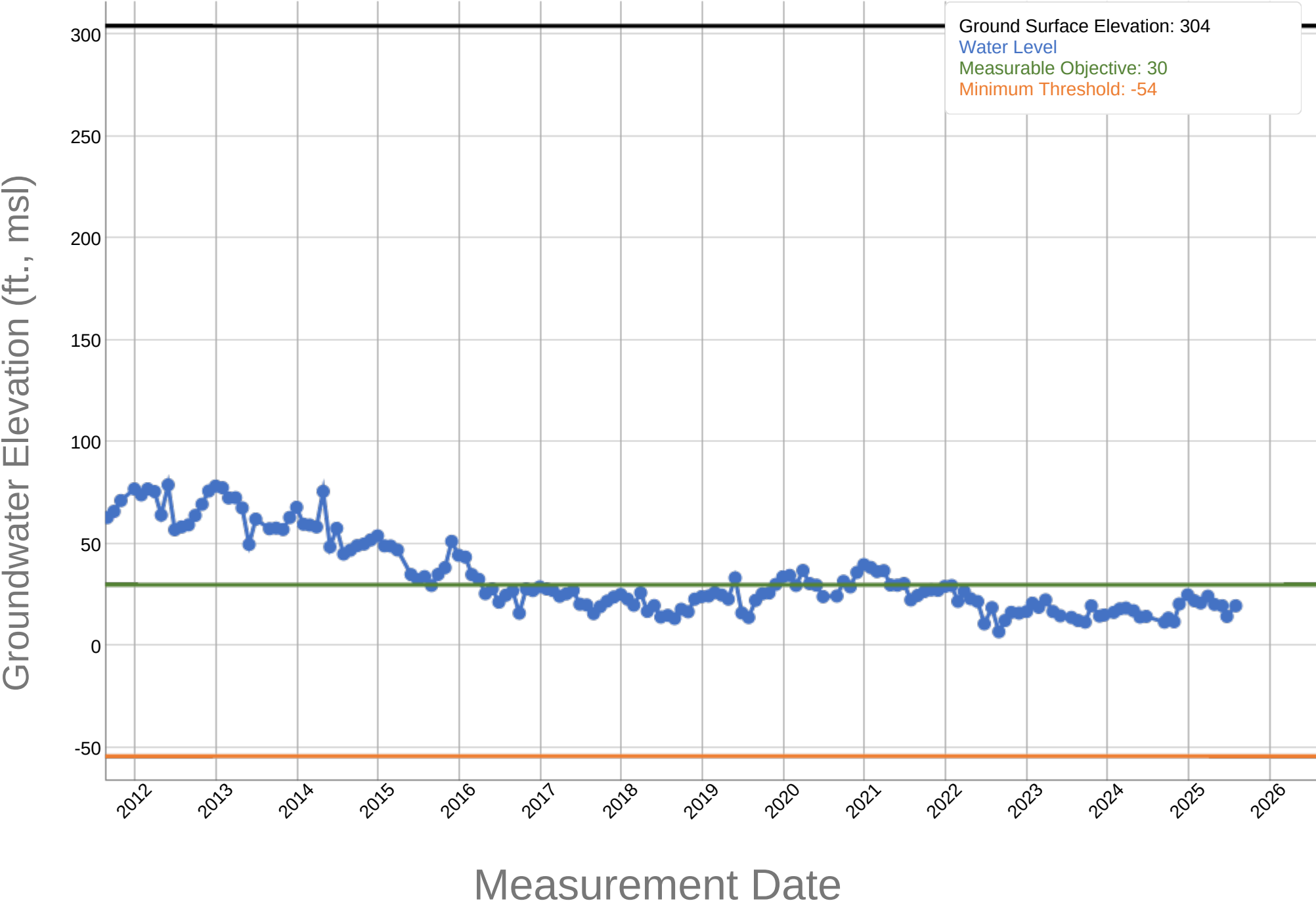


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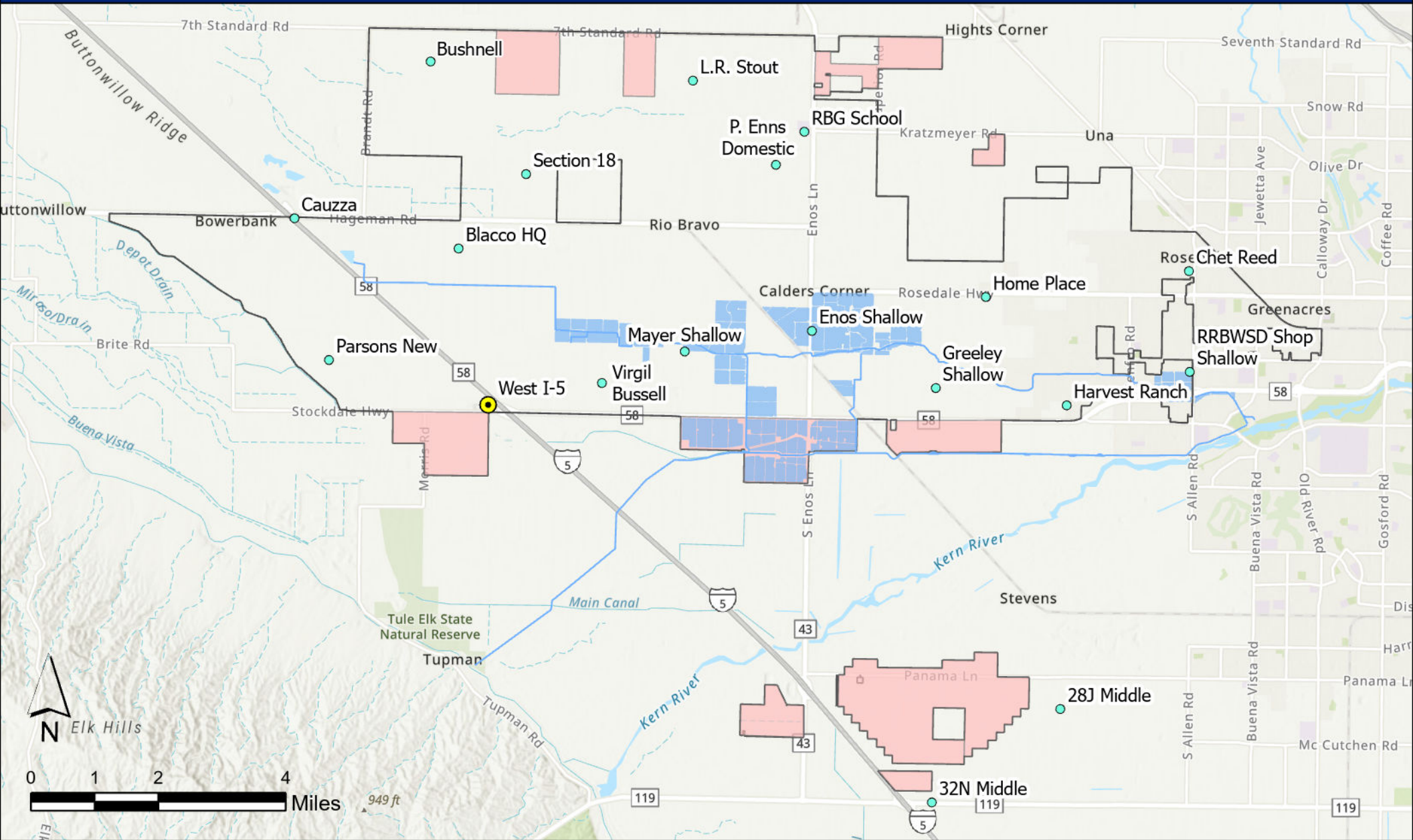
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Rosedale-Rio Bravo Water Storage District - Section 18 - 354090N1193318W001



Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

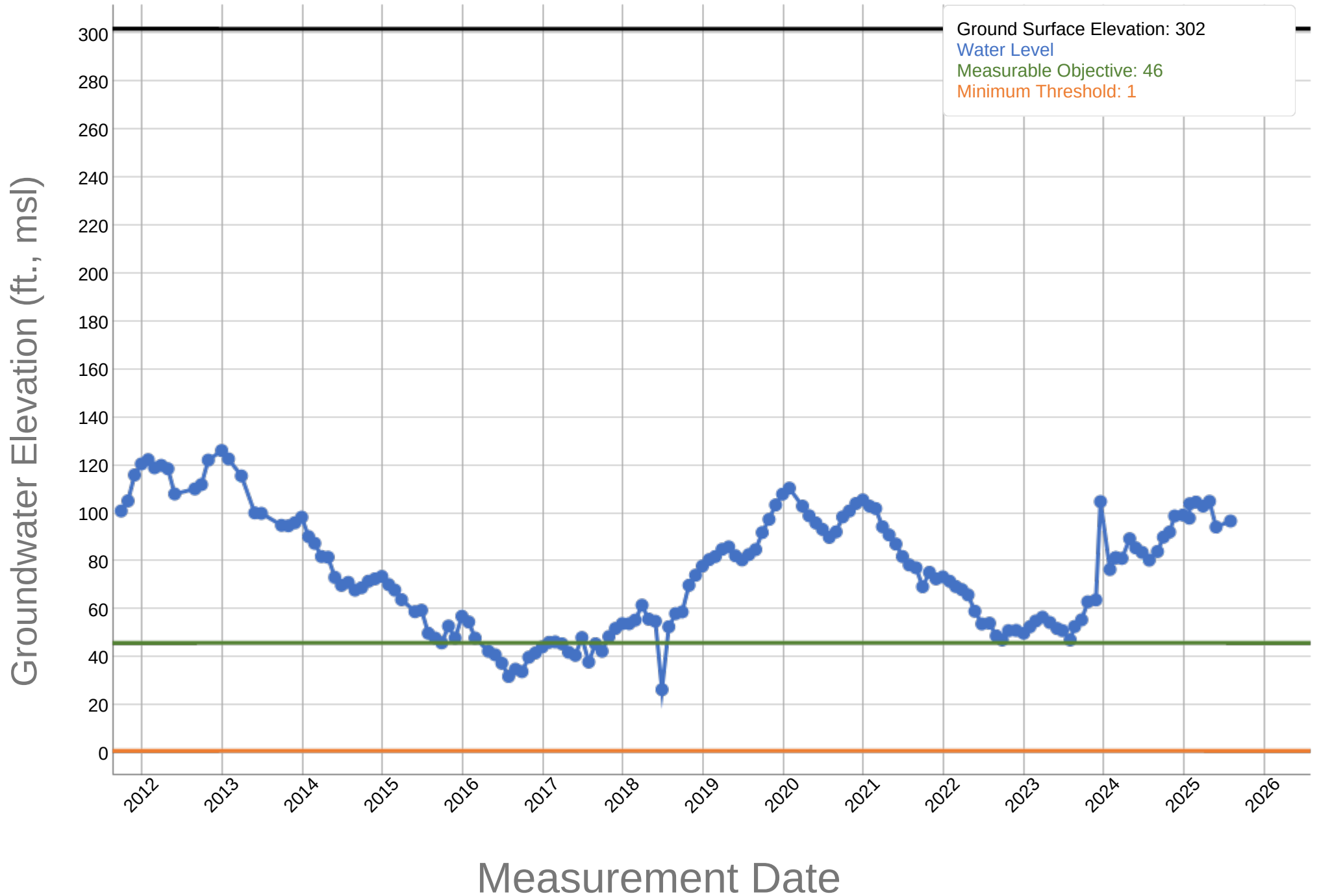


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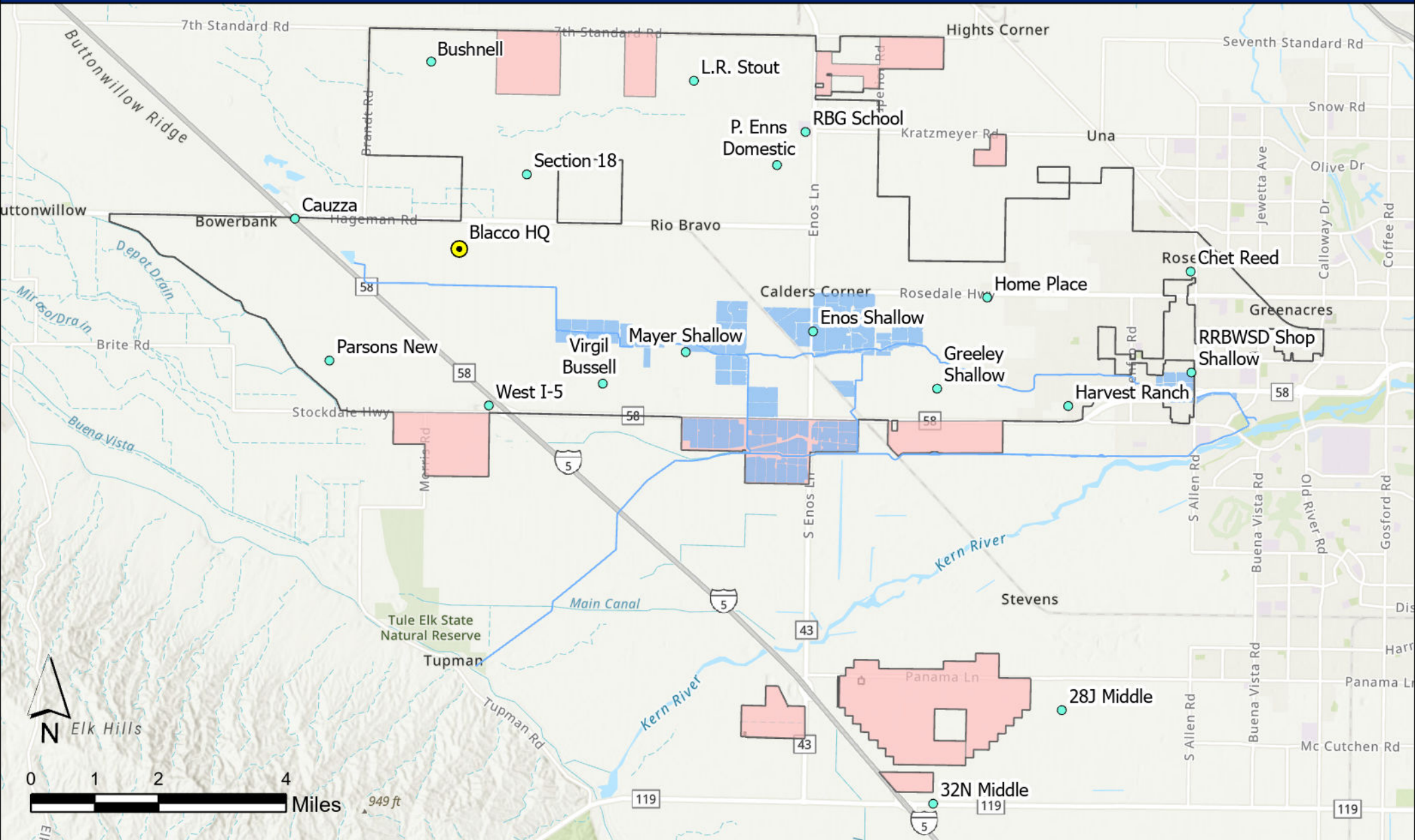
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Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

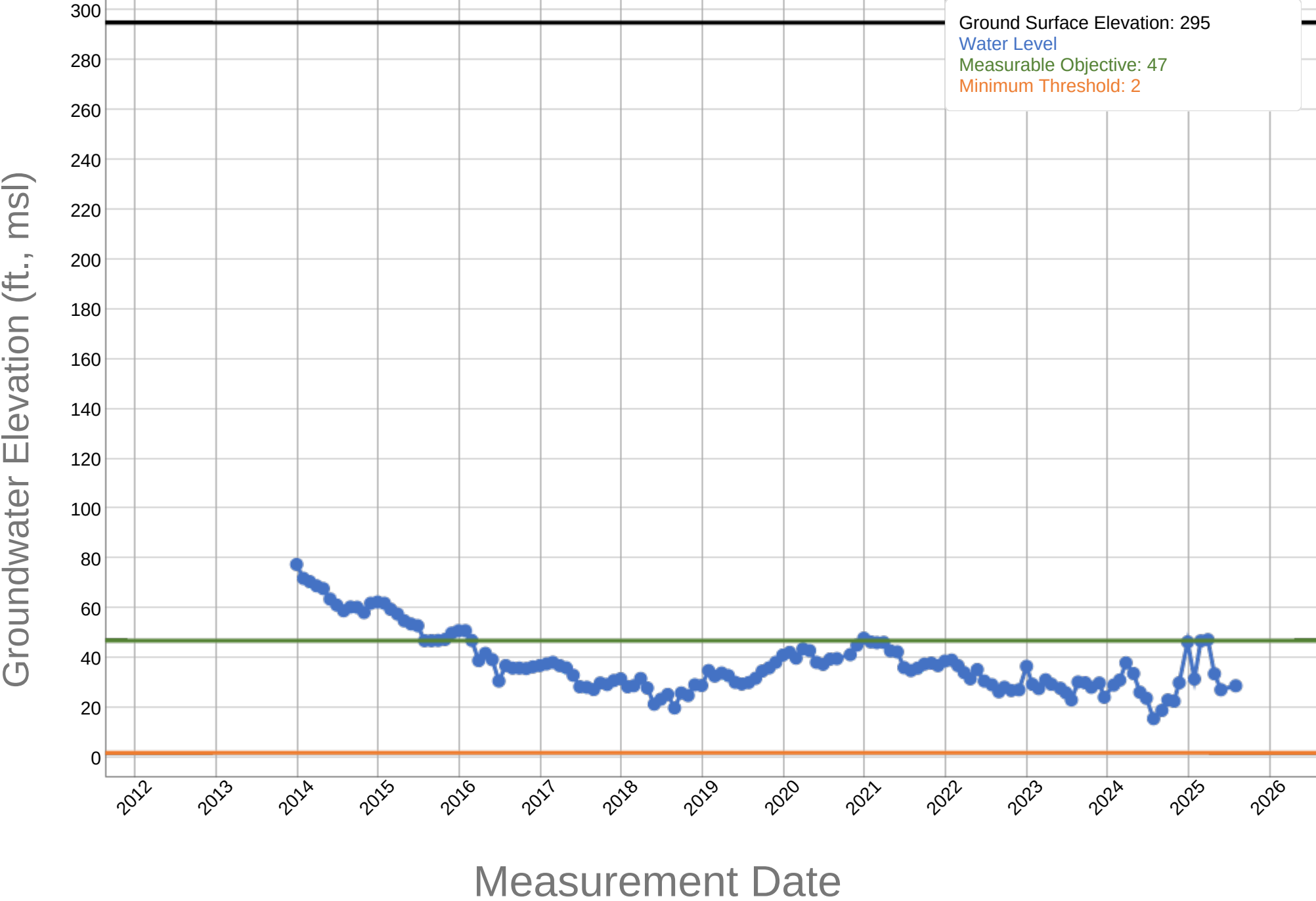


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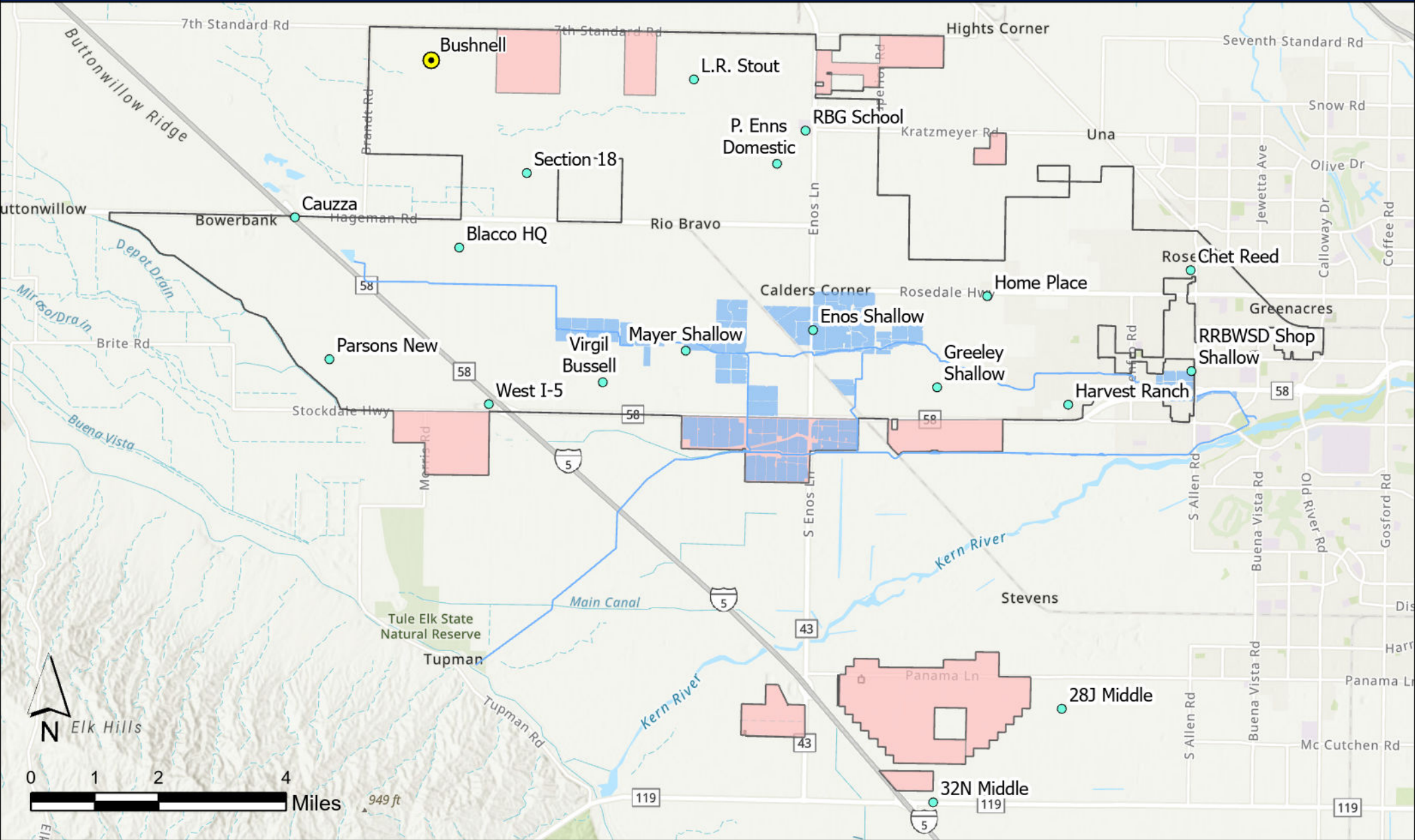
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Rosedale-Rio Bravo Water Storage District - Blacco HQ - 353915N1193454W001



Rosedale-Rio Bravo Water Storage District GSA Groundwater Level Monitoring Network Bakersfield, CA

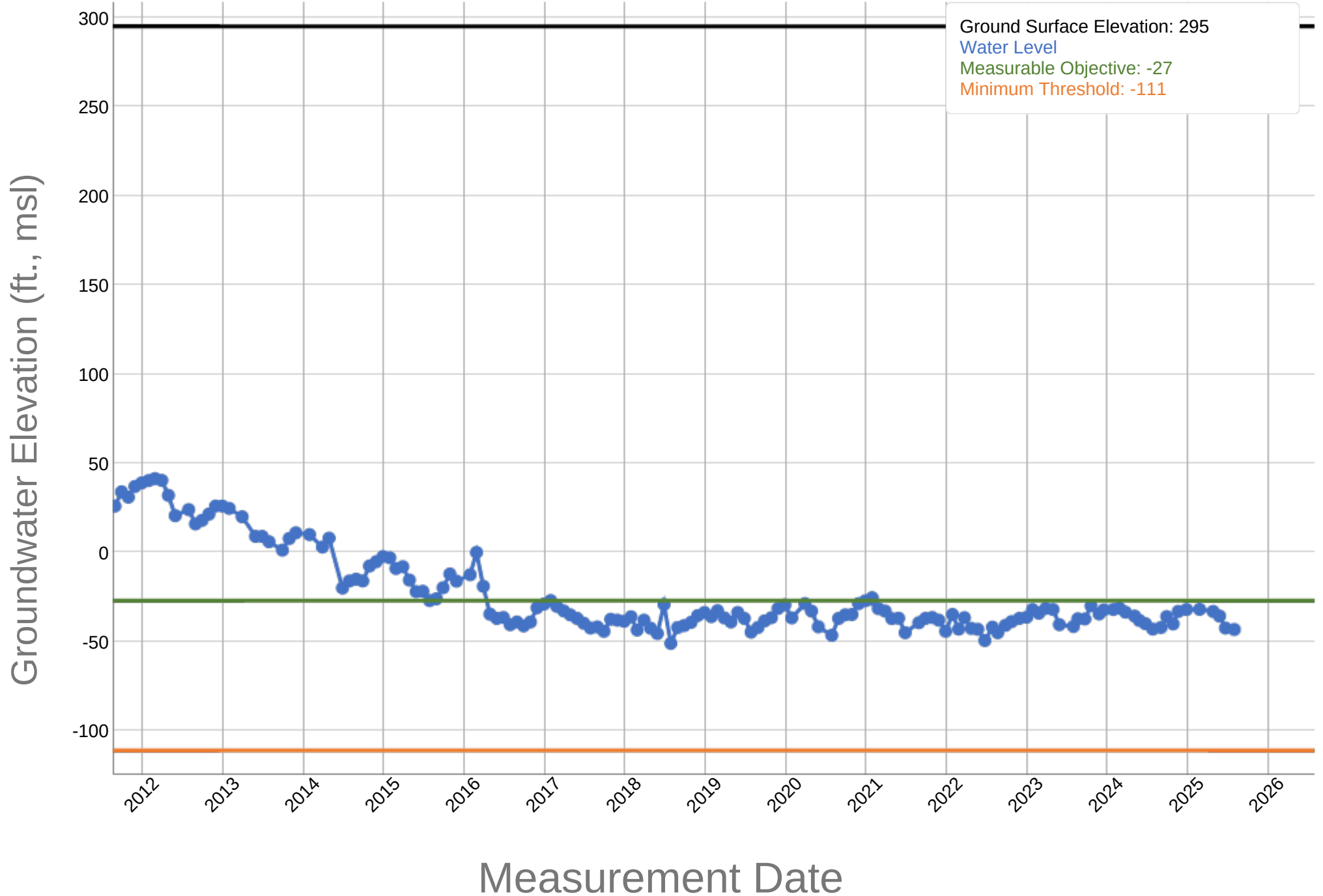


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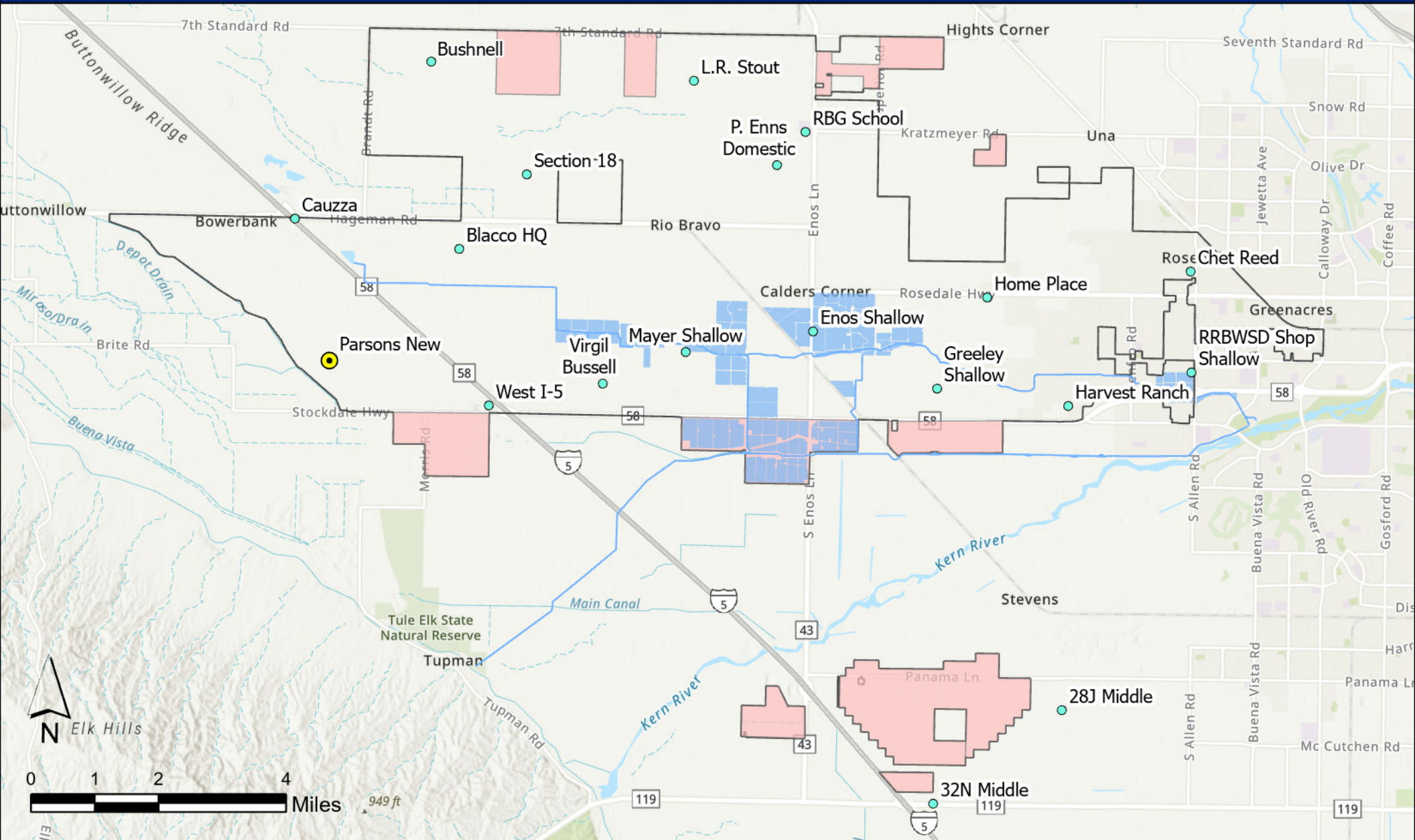
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Rosedale-Rio Bravo Water Storage District - Bushnell - 354350N1193586W001



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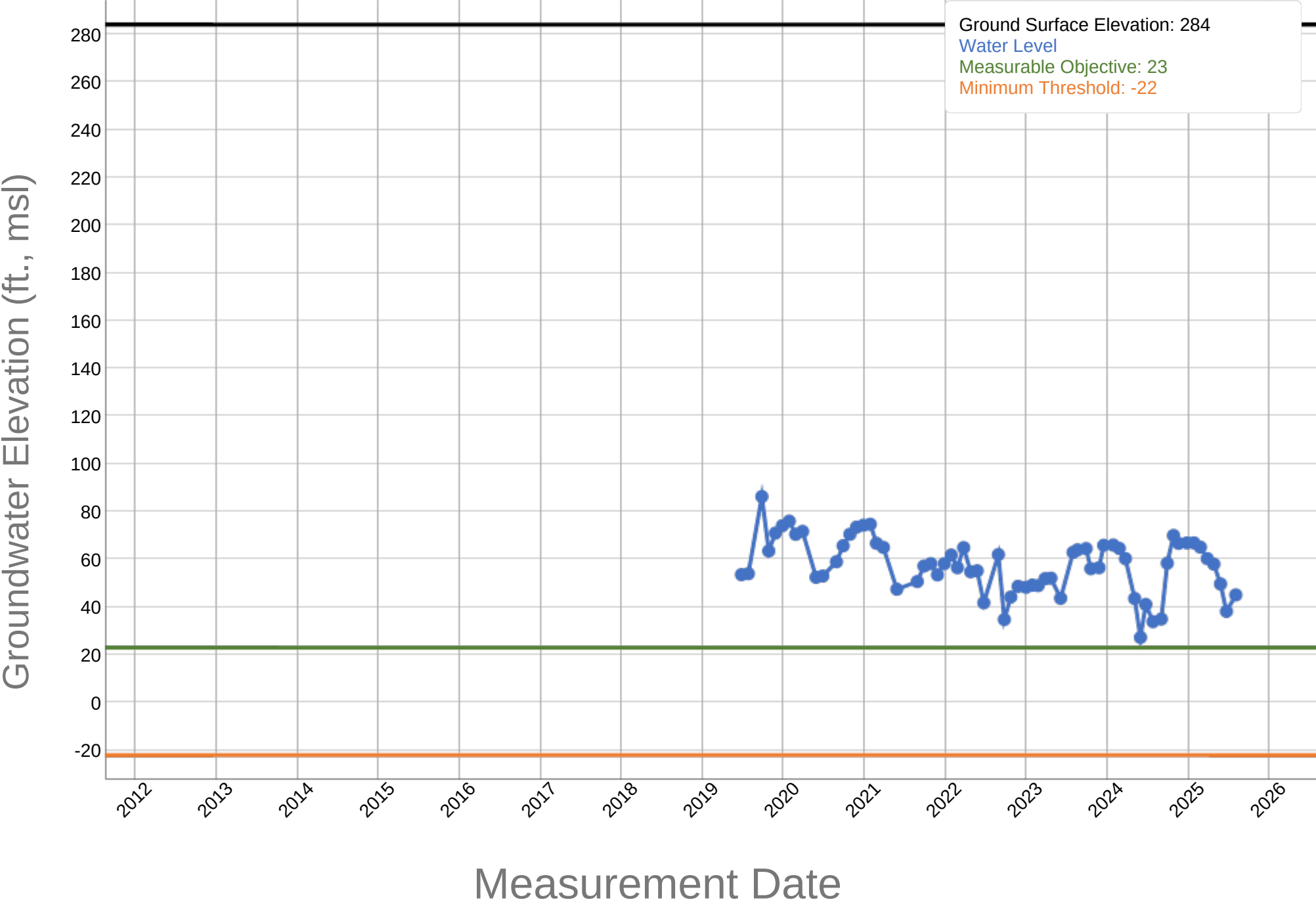


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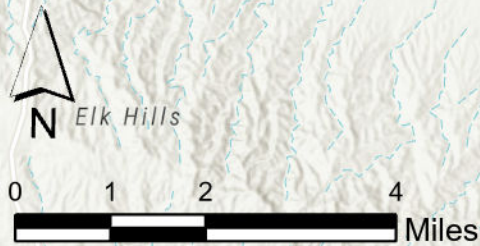
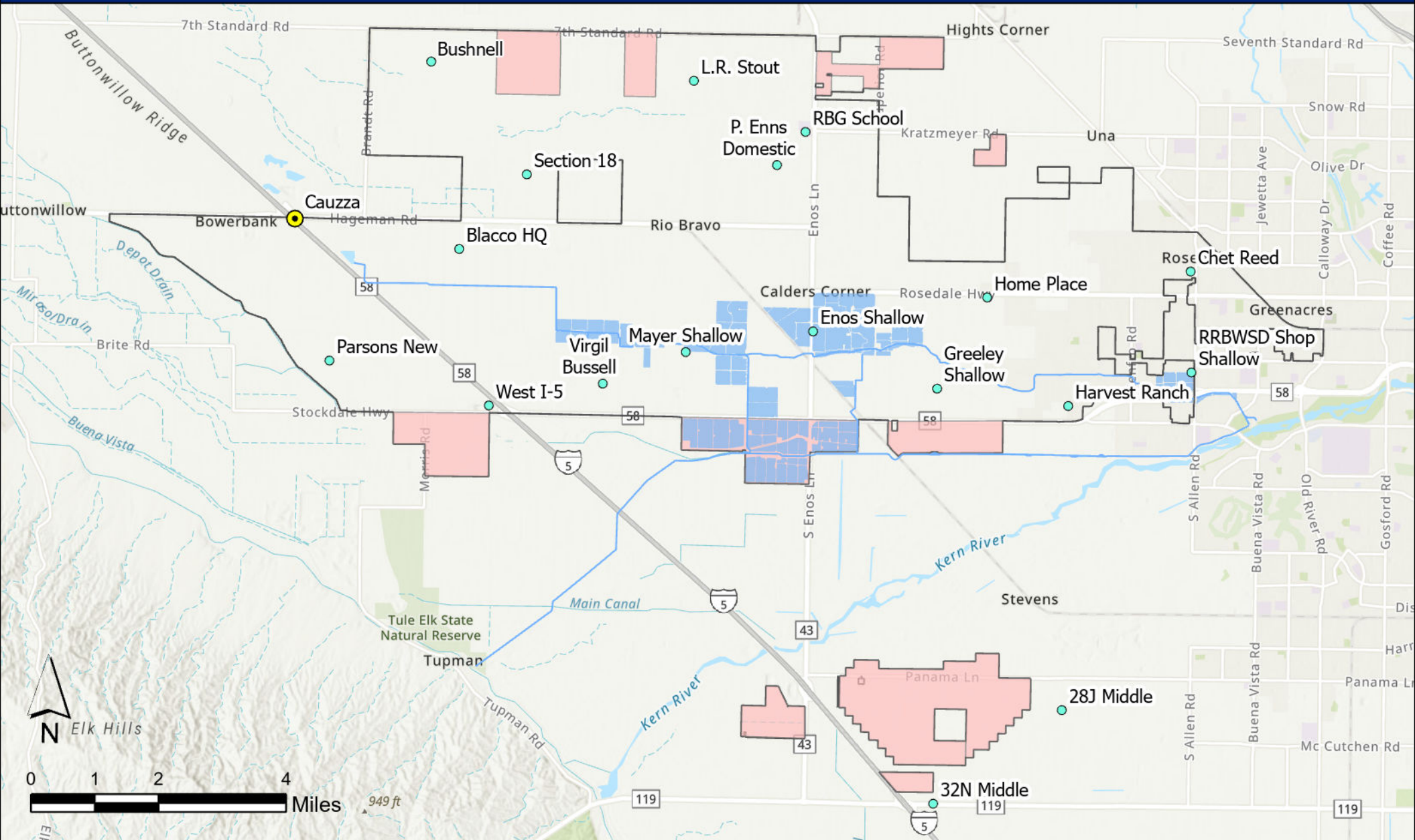
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Rosedale-Rio Bravo Water Storage District - Parsons New - 353660N1193859W001



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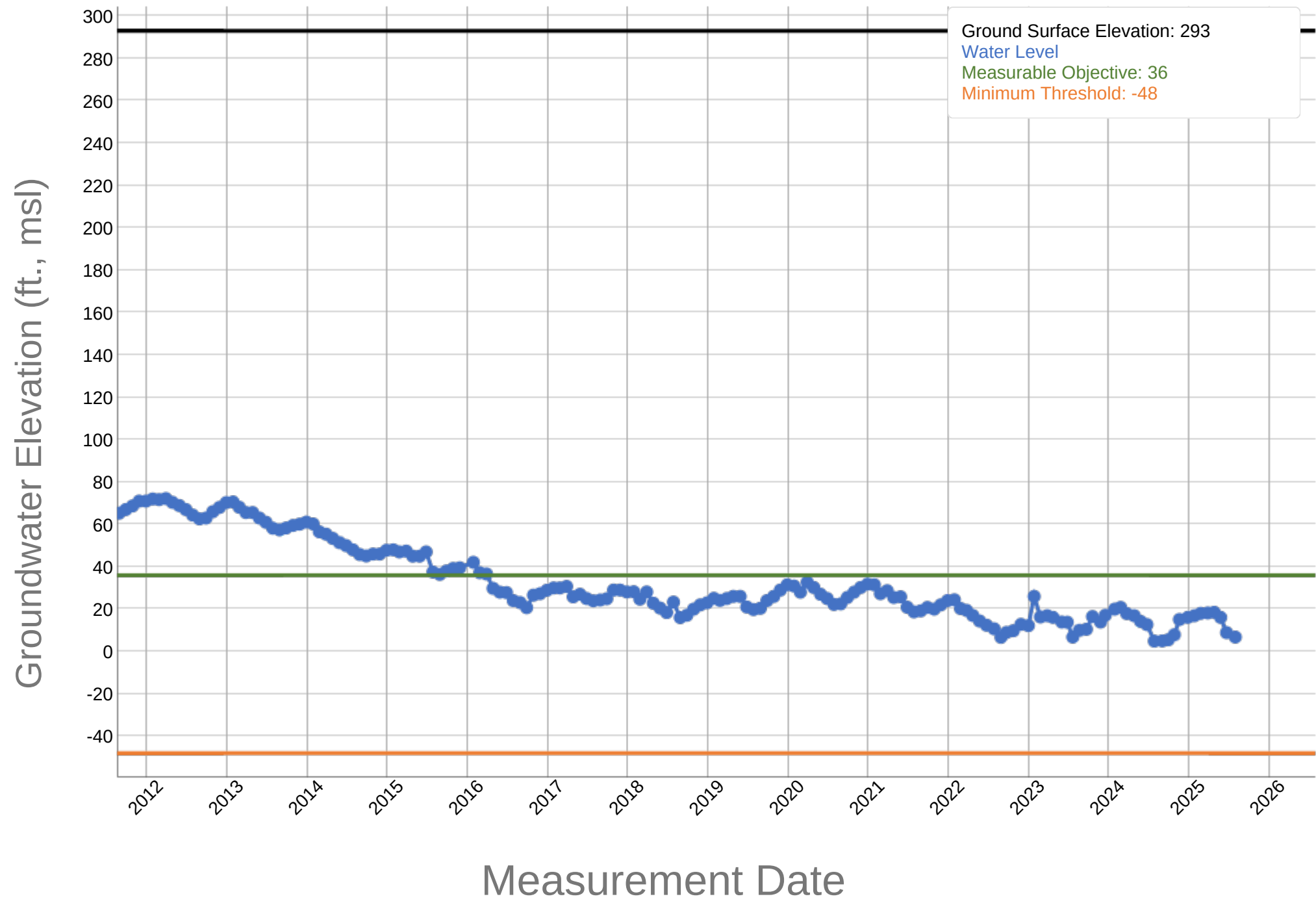


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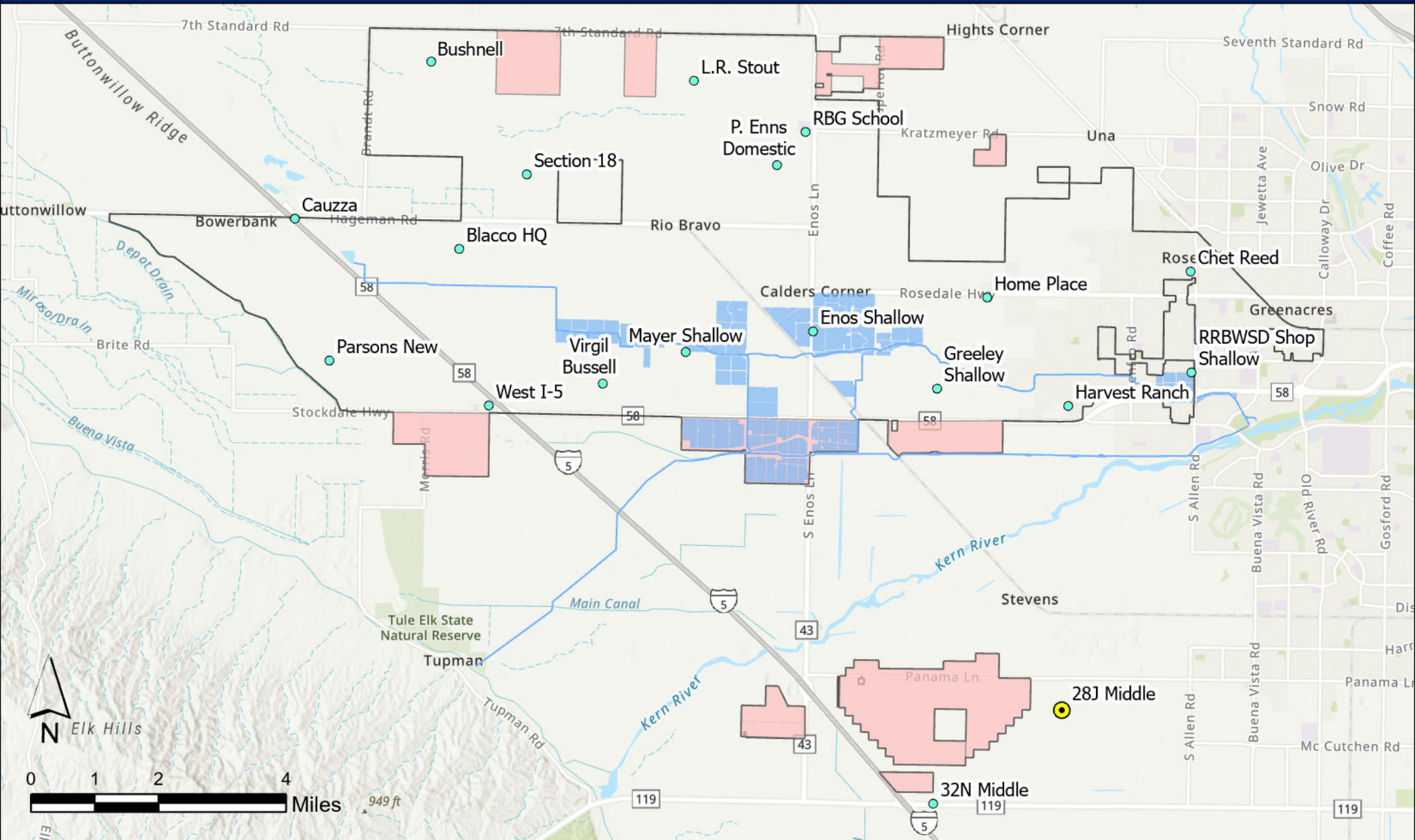
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Rosedale-Rio Bravo Water Storage District - Cauzza - 353986N1193948W001



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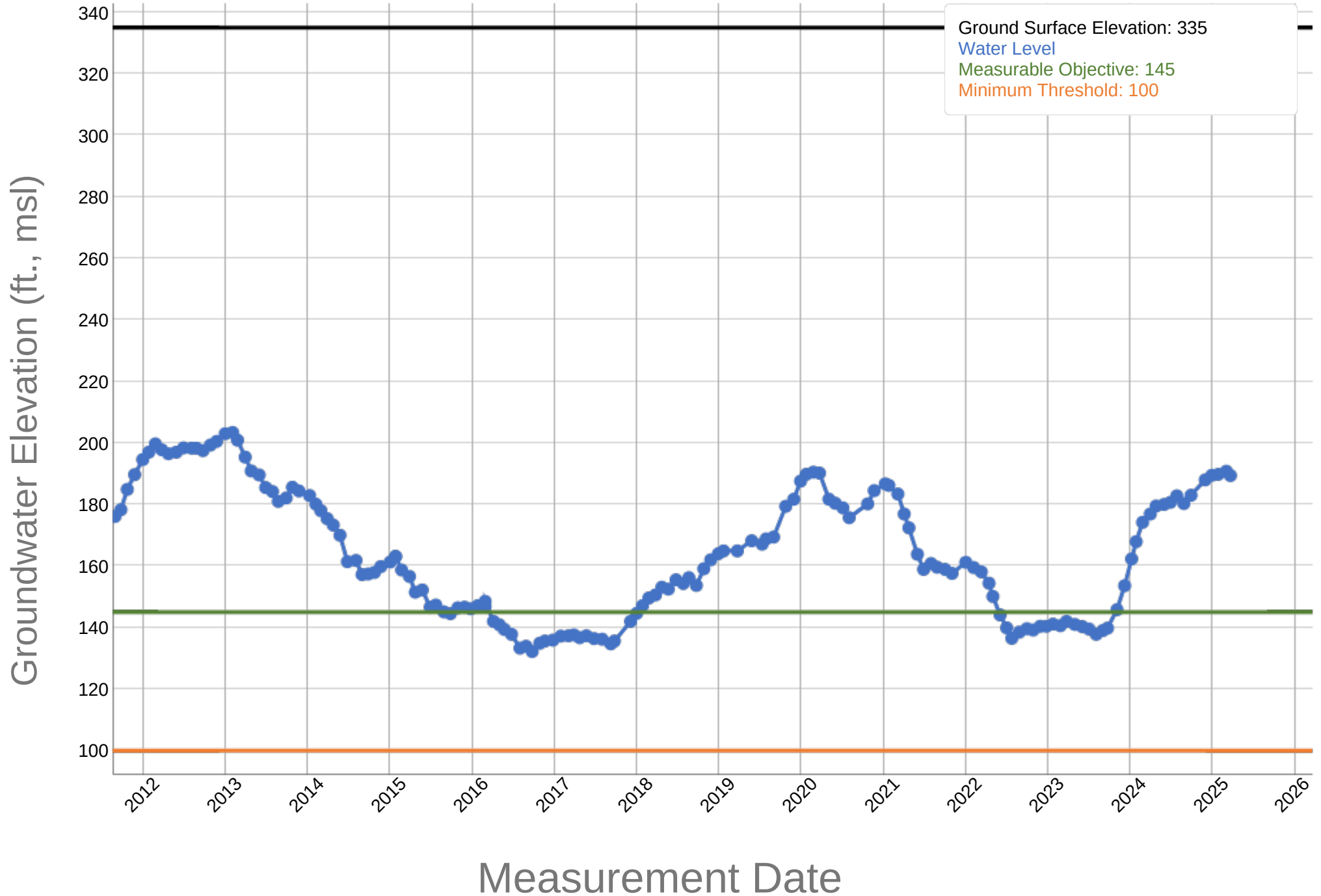


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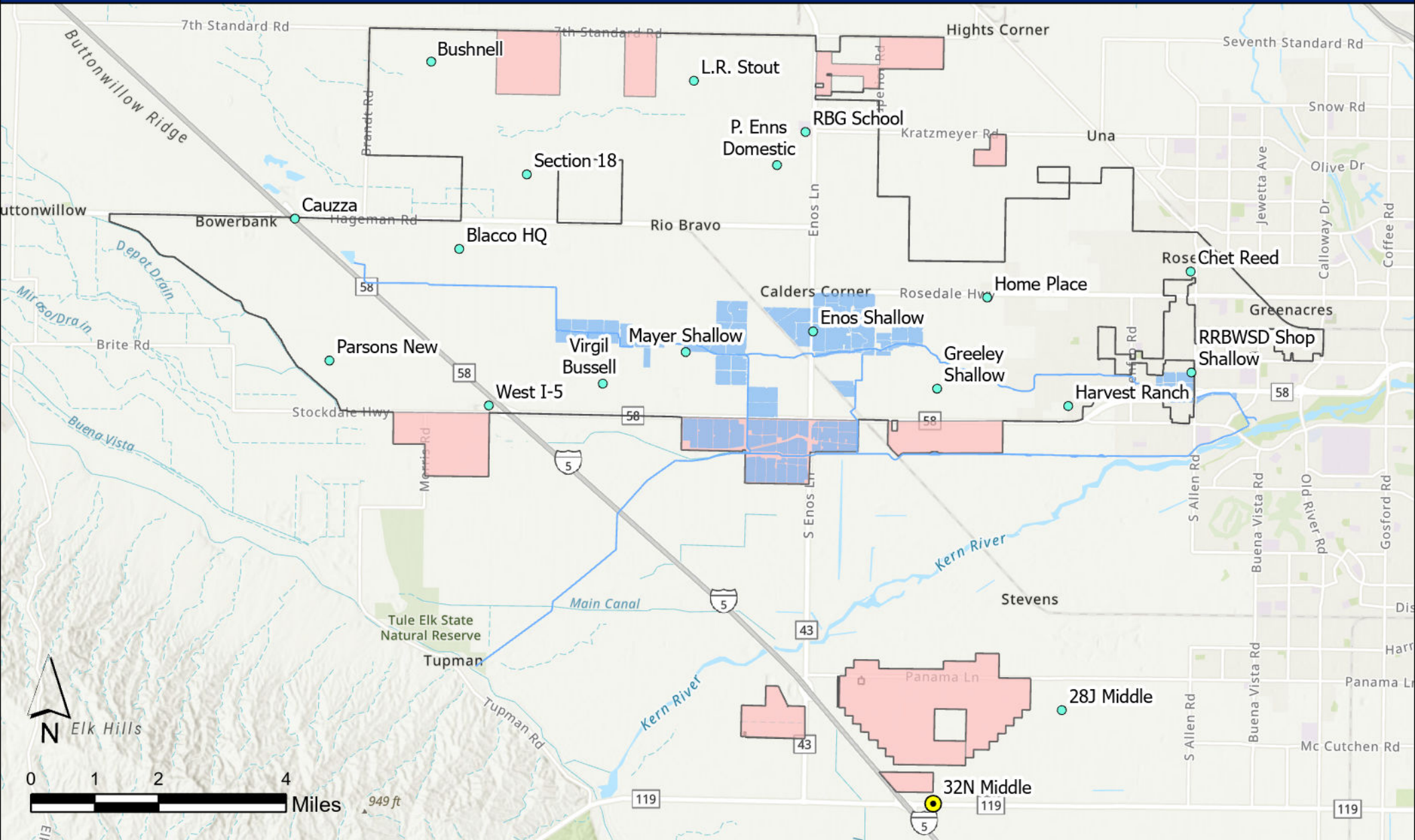
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Rosedale-Rio Bravo Water Storage District - 28J Triple - 352889N1191814W001



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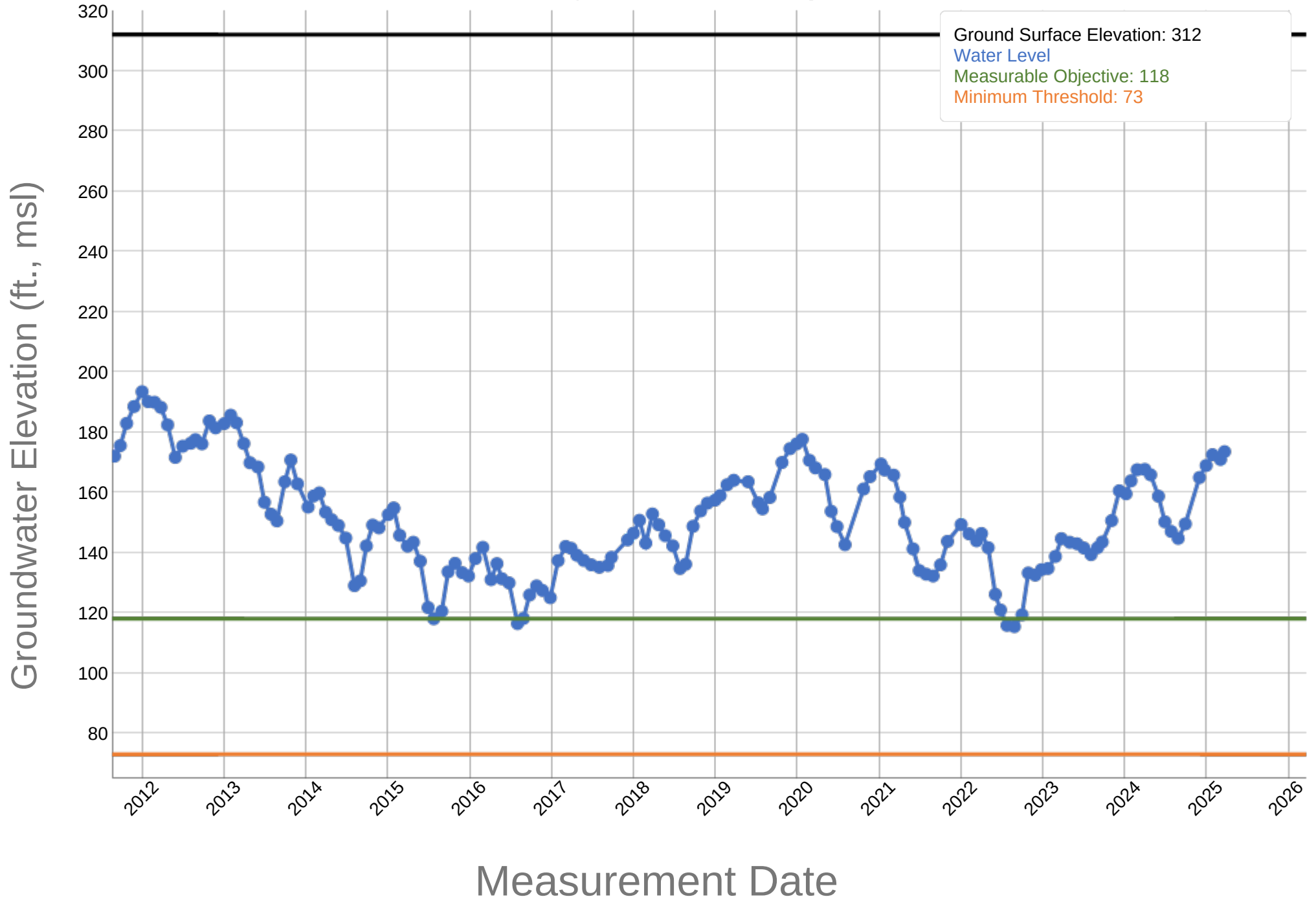


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Rosedale-Rio Bravo Water Storage District - 32N Triple - 352673N1192138W002





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849 Allen Road Bakersfield, CA 93314
(661)589-6045
www.rrbwsd.com

September 30, 2025

To: Stakeholder Advisory Group
Rosedale-Rio Bravo Water Storage District
Agenda Item: 1b

From: Rachelle Echeverria

Re: SGMA Sustainable Management Criteria (SMC) - Water Quality Monitoring Update

Discussion:

As part of ongoing compliance with the Sustainable Groundwater Management Act (SGMA), this memo provides an update on groundwater quality monitoring for the Kern Subbasin's Groundwater Sustainability Plan (GSP). This includes a summary of RRBWSO's current efforts to track water quality constituents at our Representative Monitoring Wells (RMWs).

Constituents of Concern

The amended Subbasin GSP identifies the following constituents for water quality monitoring:

- Arsenic
- Nitrate
- Nitrite
- Total Dissolved Solids (TDS)
- Uranium
- 1,2,3-Trichloropropane (TCP)

RRBWSO GSA's RMW Sites

The following RMWs are being utilized to monitor groundwater quality within our management area (see attached map):

- Frito-Lay 1
- Enos Shallow
- Greeley Shallow
- RRB Shop Shallow

COCs	RMWs			
	Frito Lay	Enos Shallow	Greeley Shallow	RRB Shop Shallow
	MTs			
Arsenic (ug/L)	10	10	10	10
TDS (mg/L)	1000	1000	1000	1000
Nitrate (mg/L)	45	45	45	45
Nitrite as N (mg/L)	1	1	1	1
Uranium (ug/L)	30	30	30	30
1,2,3-TCP (ug/L)	0.005	0.005	0.005	0.005
Proxy Data used				

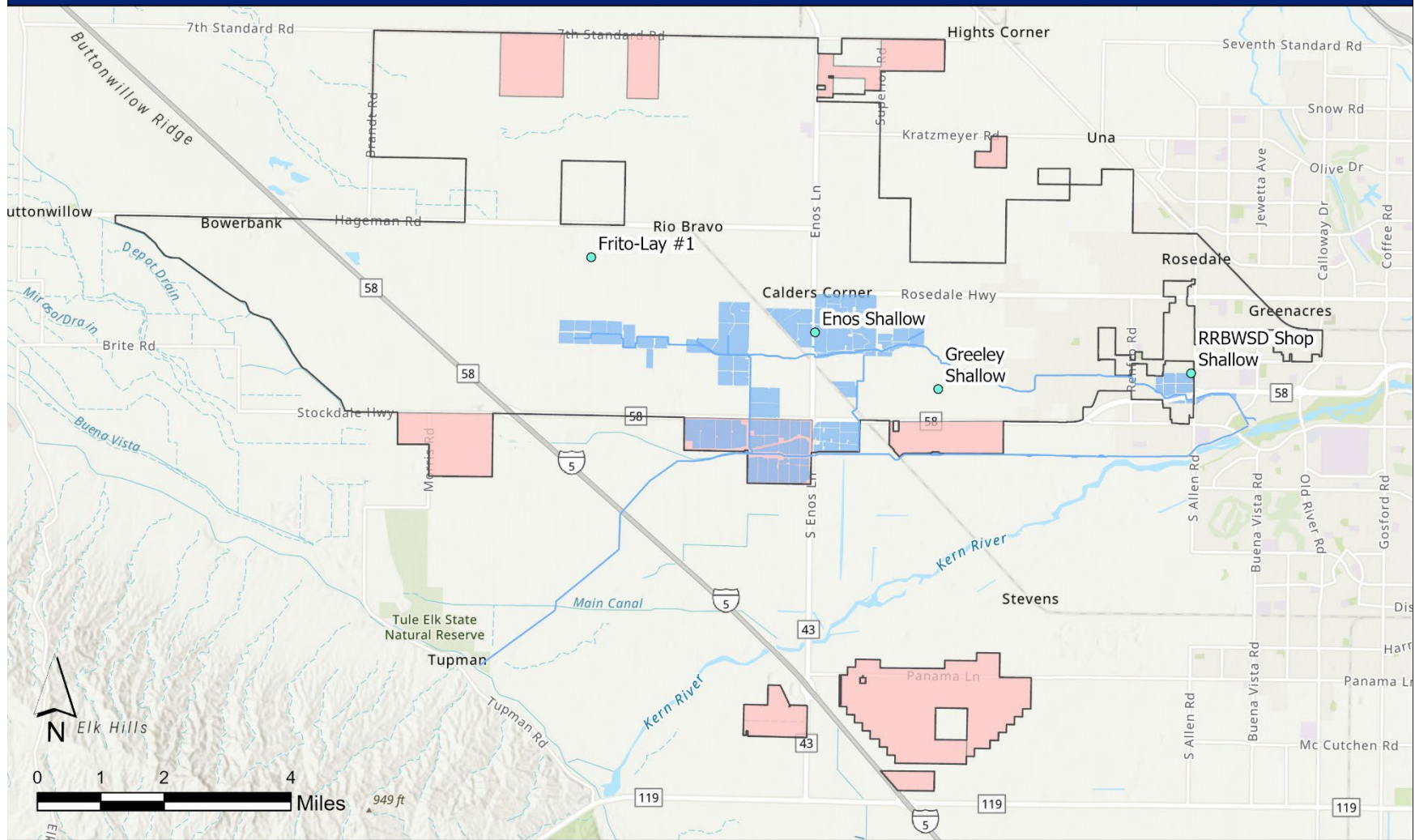
Taken From [Amended Kern County Subbasin GSP](#): Table ES-1. Summary of Sustainable Management Criteria

Sustainability Indicator	Undesirable Result	Minimum Threshold	Measurable Objective
 Degraded Water Quality	One of the following occurs: (1) Subbasin-wide, 15 percent of the Representative Monitoring Well for Degraded Water Quality (RMW-WQs) exceed the MT for the constituents of concern per water year based on confirmed sample and MT Exceedance investigation results¹. (2) Annually, five percent of domestic wells have an assumed MT exceedance¹ based on radius of influence analysis around the RMW-WQ that exceeds the MT, with a cumulative maximum of 15 percent of domestic wells through 2040. (3) Mitigation¹ backstop: a GSA is unable to meet well mitigation needs.	(1) MT is set as close to the water quality objective as feasible. (2) If historical data exceeds the water quality objective, and at least five sample results are available, then the MT is set at the 80th Percentile value. (3) When clear trends are present, discretion should be applied (a) If there is an increasing trend, set the MT at the 80th Percentile of the Pre-2015 data (b) If there is a decreasing trend, MT should be set at the median value or as close to the water quality objective as is reasonable. If the 80th Percentile is within 10 percent of the drinking water MCL, the MT should be set at the water quality objective. (4) Proxy data are predominantly used to demonstrate baseline conditions; however, data may be used when the RMW-WQ and Proxy Well are similar enough to represent the same lithology/aquifer conditions.	The water quality objective.

Notes:

1. Exceedances and mitigation applications are evaluated as defined in the Exceedance Policy and Action Plans (Appendix K-1) and Mitigation Programs (Appendix G).

Rosedale-Rio Bravo Water Storage District GSA Groundwater Quality Monitoring Network Bakersfield, CA



- Conveyance Facilities
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- Representative Monitoring Wells

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BUILDING A SUSTAINABLE WATER SUPPLY TO HELP OUR COMMUNITY THRIVE



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September 30, 2025

To: Stakeholder Advisory Group
Rosedale-Rio Bravo Water Storage District
Agenda Item: 1c

From: Rachelle Echeverria

Re: SGMA Sustainable Management Criteria (SMC) - Subsidence Monitoring Update

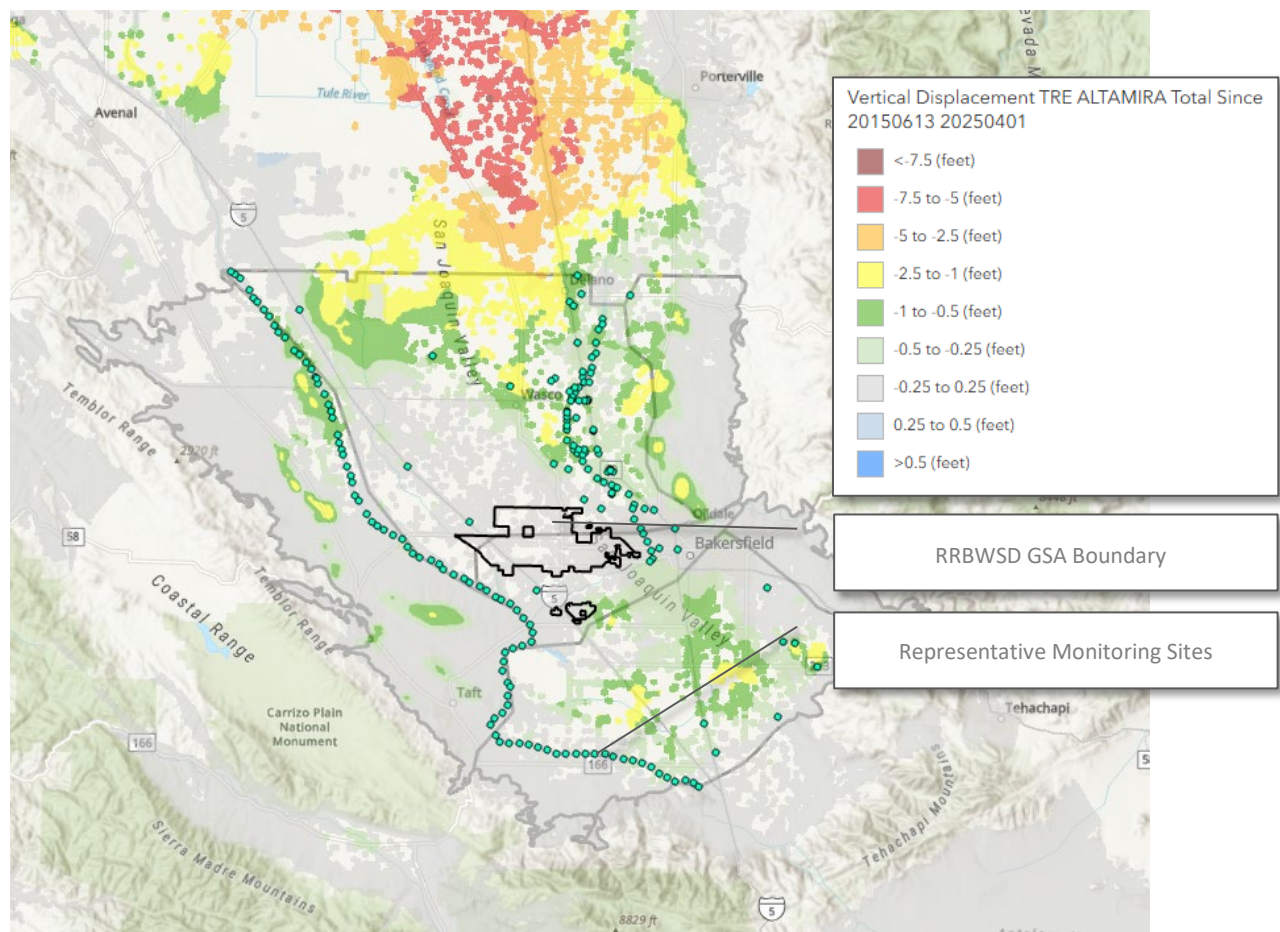
Discussion:

As part of ongoing compliance with the Sustainable Groundwater Management Act (SGMA), this memo provides an update on subsidence monitoring for the Kern Subbasin's Groundwater Sustainability Plan (GSP).

Taken From [Amended Kern County Subbasin GSP](#): Table ES-1. Summary of Sustainable Management Criteria

Sustainability Indicator	Undesirable Result	Minimum Threshold	Measurable Objective
 Land Subsidence	MT extent of land subsidence is exceeded at any RMS-LS along the Regional Critical Infrastructure at a single milepost or GSA or HCM Area MTs after six quarterly consecutive sampling events measured using InSAR data published by DWR or annual survey data, if available, and can be attributed, based on a technical analysis using best available data and tools, to groundwater management activities (e.g. groundwater level changes, P/MAs). Note: The GSAs' management authority does not extend to all activities and processes that cause Kern Subbasin land subsidence.	MTs are established along regional critical infrastructure as a rate and extent based on either the protective level of land subsidence (the rate and extent of subsidence that would not lead to loss of conveyance capacity) or the historical rate of land subsidence projected to 2040 (where the projected amount of subsidence is not expected to lead to loss of conveyance capacity). Additionally, MTs are set for the Kern Subbasin as the average historical rate of land subsidence in each HCM Area from 2015-2023.	50 percent of the MT rate and MT extent.

Map of Kern County Subbasin Total Subsidence 2015-2025



Updates:

The California Department of Water Resources (DWR) has announced the release of a [draft Best Management Practices \(BMP\)](#) document, focused on avoiding or minimizing land subsidence.

- Key Takeaway: Critical Head in Subsidence Management
 - One of the central concepts to be introduced in the BMP is critical head, a groundwater threshold below which subsidence can begin or accelerate. Understanding and managing critical head is essential for minimizing infrastructure damage, preserving aquifer capacity, and maintaining GSP compliance.
- DWR has shared a recorded presentation that explains:
 - The science and mechanics of subsidence
 - The concept of critical head
 - Management strategies using critical head thresholds
 - Real-world examples from the San Joaquin Valley.

[Watch the presentation here: DWR Subsidence & Critical Head Video](#) ▶

[Visit the SGMA Data Viewer to view Subsidence and other SMC data](#) ▶

September 30, 2025

To: Stakeholder Advisory Group
 Rosedale-Rio Bravo Water Storage District
 Agenda Item: 2a.

From: Markus Nygren

Re: RRB-2: RRB Projects



P/MA Number	P/MA Name	Summary Description			Relevant Sustainability Indicators Affected			Overdraft Correction Description Category	Circumstances for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion
					Groundwater Levels & Storage	Groundwater Quality	Land Subsidence							
Projects		Implemented	Functional	In-Process	As-Needed									
RRB-2	McCaslin Recharge Improvements Phase 1	Acquisition and retirement of 175 acres of irrigated ag lands and development of 175 acres of new recharge ponds. For conjunctive-use and 2:1 third party banking.			✓	✓	✓	Land Retirement Third-Party Banking	Complete	NA	NA	Implemented	Complete	Complete

Timetable for Accrual of Expected Benefits	Expected Benefits							Source(s) of Water, if applicable	Legal Authority Required	Estimated Costs		
	Primary (AFY)		Secondary							One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
	Water Supply Augmentation	Demand Reduction	Water Quality Improvement	Flood Control	Water Management Flexibility / Efficiency	Mitigation Programs	Data Gap Filling/ Monitoring					
Implemented		Functional		In-Process			As-Needed					
2023-	630	530	✓	✓	✓		NA	Kern River Flood, SWP Table A, SWP Article 21 , Friant-Kern Flood, 2:1 Exchanges, Kern River Purchase Contract	None	\$6,500,000	\$118,000	RRBWSD (Water Charge) USBR Grants

September 30, 2025

To: Stakeholder Advisory Group
 Rosedale-Rio Bravo Water Storage District
 Agenda Item: 2b.



From: Dan Bartel

Re: RRB-5: Onyx Project

P/MA Number	P/MA Name	Summary Description			Relevant Sustainability Indicators Affected			Overdraft Correction Description Category	Circumstances for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion
					Groundwater Levels & Storage	Groundwater Quality	Land Subsidence							
Projects		Implemented	Functional	In-Process	As-Needed									
RRB-5	Onyx Ranch Water Acquisition	Acquisition of 4109 acres of land with water rights from the South Fork of the Kern River. Following of ranches and change of point of diversion to Kern Subbasin for groundwater recharge.			✓	✓	✓	Exercise of Rights	Complete	NA	NA	Operational	Complete	Complete

Timetable for Accrual of Expected Benefits	Expected Benefits							Source(s) of Water, if applicable	Legal Authority Required	Estimated Costs		
	Primary (AFY)		Secondary							One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
	Water Supply Augmentation	Demand Reduction	Water Quality Improvement	Flood Control	Water Management Flexibility / Efficiency	Mitigation Programs	Data Gap Filling/ Monitoring					
Implemented		Functional		In-Process			As-Needed					
2026-	6000	0	✓	✓			NA	Kern River Pre 1914 Appropriative	None	\$33,000,000	\$450,000	RRBWSD (Water Charge)

South Fork Kern River Monthly Measurement Report

July-2025																								
Daily values in SFD = Second Foot Days, Monthly total in AF = Acre-Feet																								
Date	South Fork				D.Prince (4,5,17,20-22,37)			Halenfeld (5)	RRBWSD (1,3,6,7,12, Wirth1, 30,33, Boone)				J.Nicoll (3)	Audubon (4,5,9,Wirth1,17,18) (20-22,Wirth2,27,29,37)		Smith (2/3 Smith)		RRBWSD (1/3 Smith)		Total Diverted	South Fork		RRBWSD to Isabella	No injury
	Mean Flow	USGS - Onyx @ 0500	Accretions	Doyle Ranch Road	Mill/Hillside	Miller	Prince	Miller	Scodie/Mack	Landers	Nicoll	Redirected "Gross Project Water"	Nicoll	Cottonwood	Nicoll	Total Smith	Smith	Smith	Redirected "Gross Project Water"		Sierra Way "Flow"	Patterson "Flow"	"Net Project Water"	
1	29	29	7		1.8	5.0		1.9		8.9	4.3	0.0	3.0			5.0	3.3	1.7	0.0	28	Yes	Yes	0	67.6%
2	27	28	7		1.7	6.0	1.7			8.9	4.1	0.0	3.0			4.6	3.1	1.5	0.0	28	Yes	Yes	0	67.6%
3	27	27	7		7.2	3.0	7.2			8.5	4.2	0.0	3.0			4.4	2.9	1.5	0.0	36	Yes	Yes	0	67.6%
4	27	27	7		6.4	4.0	6.3			7.8	3.1	0.0	3.0			3.5	2.3	1.2	0.0	33	Yes	Yes	0	67.6%
5	26	26	7		6.2	3.0	6.2			7.6	3.1	0.0	3.0			3.4	2.3	1.1	0.0	31	Yes	Yes	0	67.6%
6	25	25	7		5.9	4.0	5.8			7.6	3.0	0.0	3.0			3.3	2.2	1.1	0.0	31	Yes	Yes	0	67.6%
7	25	25	7		5.8	3.0	5.4			7.9	5.9	0.0	3.0			3.1	2.1	1.0	0.0	33	Yes	Yes	0	67.6%
8	24	24	7		4.7	3.0	4.7			7.6	3.0	0.0	3.0			2.9	1.9	1.0	0.0	28	Yes	Yes	0	67.6%
9	24	25	7		4.9	3.0	4.9			7.2	2.7	0.0	3.0			2.7	1.8	0.9	0.0	27	Yes	Yes	0	67.6%
10	22	24	7		4.9	3.0	4.8			6.6	2.1	0.0	3.0			2.3	1.5	0.8	0.0	26	Yes	Yes	0	67.6%
11	22	22	6	14	4.5	3.0	4.5			6.6	1.9	0.0	3.0			2.3	1.5	0.8	0.0	25	Yes	Yes	0	67.6%
12	21	22	6		4.5	2.5	4.5			3.7	0.0	2.5	2.9			5.6	2.3	0.0	3.3	20	Yes	Yes	0	67.6%
13	20	21	6		3.3	0.0	3.3			0.0	0.0	6.2	3.5			5.3	2.0	0.0	3.3	12	Yes	Yes	0	67.6%
14	19	20	6		3.5	0.0	3.5			1.0	0.0	5.2	3.4			4.6	1.3	0.0	3.3	13	Yes	Yes	0	67.6%
15	19	19	6		3.2	0.3	3.2			2.6	0.0	3.6	2.8			4.4	1.1	0.0	3.3	13	Yes	Yes	0	67.6%
16	18	19	6		3.0	0.3	3.0			1.7	0.0	4.5	2.8			3.9	0.6	0.0	3.3	11	Yes	Yes	0	67.6%
17	18	18	6		2.9	0.3	2.9			1.6	0.0	4.6	2.2			3.5	0.2	0.0	3.3	10	Yes	Yes	0	67.6%
18	18	18	4		2.0	0.3	2.0			1.5	0.0	4.7	2.4			4.6	1.3	0.0	3.3	9	Yes	Yes	0	67.6%
19	18	17	4	17	2.7	0.3	2.7			1.3	0.0	4.9	2.5			4.7	1.4	0.0	3.3	11	Yes	Yes	0	67.6%
20	18	17	4		2.3	0.5	2.3			1.4	0.0	4.8	2.1			5.0	1.7	0.0	3.3	10	Yes	Yes	0	67.6%
21	17	17	4		2.6	0.5	2.6			1.2	0.0	5.0	3.0			5.0	1.7	0.0	3.3	12	Yes	Yes	0	67.6%
22	18	18	4		2.3	0.3	2.3			1.2	0.0	5.0	2.7			5.2	1.9	0.0	3.3	11	Yes	Yes	0	67.6%
23	20	18	4		2.2	0.3	2.3			1.1	0.0	5.1	3.7			4.8	1.5	0.0	3.3	11	Yes	7.4	0	67.6%
24	19	20	4		0.7	0.3	0.7			1.2	0.0	5.0	3.0			5.0	1.7	0.0	3.3	8	Yes	Yes	5.61	67.6%
25	18	18	4		2.5	0.3	2.5			1.0	0.0	5.2	2.8			4.8	1.5	0.0	3.3	10	Yes	Yes	5.73	67.6%
26	18	18	4		2.4	0.3	2.5			1.2	0.0	5.0	2.8			4.7	1.4	0.0	3.3	11	Yes	Yes	5.61	67.6%
27	18	19	4	14	2.4	1.0	2.5			1.2	0.0	4.0	2.8			4.7	1.4	0.0	3.3	11	Yes	Yes	4.94	67.6%
28	18	18	4		1.9	3.0	1.8			1.0	0.0	2.2	2.5			4.4	1.1	0.0	3.3	11	Yes	4.97	3.72	67.6%
29	17	17	4		1.5	0.0	1.4			1.1	0.0	5.1	2.5			4.2	0.9	0.0	3.3	7	Yes	Yes	5.68	67.6%
30	16	16	3		0.0	0.0	0.0			0.9	0.0	5.3	2.5			4.5	1.2	0.0	3.3	5	Yes	Yes	5.81	67.6%
31	16	15	3		0.0	0.0	0.0			1.9	0.0	3.7	2.5			4.0	0.7	0.0	3.3	5	Yes	Yes	4.73	67.6%
SFD	640	647	166		0	99	50	99	0	113	37	92	88	0	0		52	12	66	539	0	0	41.83	
AF	1,269	1,283	328		0	197	100	197	0	224	74	182	175	0	0		102	25	131	1,069	0	0	82.96	
		21	5			296						480	175		0		1.7	0.4		17			0.00	
Note: 7/27-28 deducted flow for Prince Ditch head failure. Buried 7/28 at 1pm																	103	25						
Redirected flow starting 7/12-23 for channel wetting Cottonwood via the Landers																								
Project flows started 7/24 (stream gage confirmed Q at Sierra Way) Miller ditch water is being split Prince and Haf. 50/50																								
Redirected Historic Irrigation Demand Limit = 43																								
USGS SFD at 0500																								
https://waterdata.usgs.gov/monitoring-location/11189500/#data?typed=continuous-00065-0&period=P7D																								
Bold ## on USGS denotes USGS gage verification																								

August-2025																											
Daily values in SFD = Second Foot Days, Monthly total in AF = Acre-Feet																											
Date		South Fork			D.Prince (4,5,17,20-22,37)			Hafenfeld (5)			RRBWSD (1,3,6,7,12, Wirth1, 30,33, Boone,1/3 Smith)				J.Nicoll (3)	Audubon (4,5,9,Wirth1,17,18) (20-22,Wirth2,27,29,37)			Smith (2/3 Smith)	RRBWSD (1/3 Smith)		Total Diverted	South Fork		RRBWSD to Isabella		
	Mean Flow	USGS - Onyx @ 0500	Accretions	Doyle Ranch Road	Mill/Hillside	Miller	Prince	Miller	Landers	Cottonwood	Scodie/Mack	Landers	Nicoll	Redirected "Gross Project Water"	Nicoll	Cottonwood	Nicoll	Total Smith	Smith	Smith	Redirected "Gross Project Water"		Sierra Way "Flow"	Patterson "Flow"	"Net Project Water"	No injury %	
1	15	15	3	12								1.1		4.5	2.3			4.2	0.9	0.0	3.3	4	Yes	8.06	5	67.6%	
2	15	14	1									1.1		3.0	2.9			4.0	0.6	0.0	3.3	5	Yes	Yes	4	67.6%	
3	14	15	1									1.2		3.4	2.6			4.0	0.6	0.0	3.3	4	Yes	Yes	5	67.6%	
4	14	14	1									1.2		2.9	2.0			3.8	0.5	0.0	3.3	4	Yes	Yes	4	67.6%	
5	14	14	1									1.3		2.8	1.4			3.8	0.5	0.0	3.3	3	Yes	Yes	0	67.6%	
6	14	14	1									1.3		2.8	1.2			3.9	0.6	0.0	3.3	3	Yes	Yes	4	67.6%	
7	13	13	1									1.1		2.4	1.2			3.9	0.6	0.0	3.3	3	Yes	Yes	4	67.6%	
8	13	13	1	12								1.0		2.5	0.8			3.8	0.5	0.0	3.3	2	Yes	6.39	4	67.6%	
9	12	13	1									1.2		2.3	0.5			3.6	0.3	0.0	3.3	2	Yes	Yes	4	67.6%	
10	12	12	1									1.1		1.9	0.0			3.5	0.2	0.0	3.3	1	Yes	Yes	4	67.6%	
11	12	12	1									1.1		1.9				3.6	0.3	0.0	3.3	1	Yes	Yes	4	67.6%	
12	12	12	1									1.1		1.9				3.3	0.0	0.0	3.3	1	Yes	Yes	4	67.6%	
13	12	12	1									1.1		1.9				3.6	0.3	0.0	3.3	1	Yes	5.07	4	67.6%	
14	11	12	1									1.1		2.0				3.8	0.5	0.0	3.3	2	Yes	Yes	4	67.6%	
15	11	13	1	15								1.0		1.7				3.5	0.2	0.0	3.3	1	Yes	4.43	3	67.6%	
16	12	12	1									1.0		2.0				3.5	0.2	0.0	3.3	1	Yes	Yes	4	67.6%	
17	12	12	1									1.6		1.4				3.3	0.0	0.0	3.3	2	Yes	Yes	3	67.6%	
18	12	12	1									1.0		2.0				3.5	0.2	0.0	3.3	1	Yes	Yes	4	67.6%	
19	12	12	1									1.0		2.0				3.3	0.0	0.0	3.3	1	Yes	Yes	4	67.6%	
20	12	12	1									0.9		2.1				3.3	0.0	0.0	3.3	1	Yes	Yes	4	67.6%	
21	12	12	1									1.3		1.7				3.3	0.0	0.0	3.3	1	Yes	Yes	3	67.6%	
22	11	11	1	14								1.2		1.8				3.0	0.0	0.0	3.0	1	Yes	5.3	3	67.6%	
23	12	11	1									1.0		2.0				3.0	0.0	0.0	3.0	1	Yes	Yes	3	67.6%	
24	13	12	1									1.2		1.8				3.9	0.6	0.0	3.3	2	Yes	Yes	3	67.6%	
25	17	15	1									1.2		3.4				3.8	0.5	0.0	3.3	2	Yes	Yes	5	67.6%	
26		20	1									2.7		3.5				5.8	2.5	0.0	3.3	5	Yes	Yes	5	67.6%	
27		22	1									2.3		3.9				5.3	2.0	0.0	3.3	4	Yes	Yes	5	67.6%	
28		25	1									1.5		4.7	2.0			5.7	2.4	0.0	3.3	6	Yes	Yes	5	67.6%	
29		20	1	17								1.4		4.8	2.5			5.1	1.8	0.0	3.3	6	Yes	10.34	5	67.6%	
30		20	3									1.3		4.9	2.5			5.3	2.0	0.0	3.3	6	Yes	Yes	6	67.6%	
31		18	3									1.3		4.9	2.5			5.2	1.9	0.0	3.3	6	Yes	Yes	6	67.6%	
SFD	318	444	38		0	0	0	0	0	0	0	39	0	85	24	0	0		21	0	102	84	0	0	122		
AF	630	880	76		0	0	0	0	0	0	0	77	0	168	48	0	0		41	0	202	166	0	0	242		
		14	1				0			0				245	48		0		0.7	0.0		3			3.9		
Note:		Deduct of 4 sfd on 8/5 for accretions correction 7/27-8/1 Cottonwood via the Landers				8/15 Doyle measurement resulted in 5 cfs accretion, did not use, stayed at 1 cfs								USGS SFork at 0500													
		Miller ditch water is being split Prince and Haf. 50/50				8/22 Doyle measurement resulting in 4 cfs accretion, did not use, stayed at 1cfs								https://waterdata.usgs.gov/monitoring-location/11189500/#dataTypeId=continuous-00065-0&period=P7D													
		Redirected Historic Irrigation Demand Limit = 31												Bold ## on USGS denotes USGS gage verification													
		## Saturday South Fork Doyle Ranch Flow measurement, value carries for next week Tuesday-Monday.																									

South Fork Kern River Monthly Measurement Report

September-2025

Daily values in SFD = Second Foot Days, Monthly total in AF = Acre-Feet

Date		South Fork			D.Prince (4,5,17,20-22,37)			Hafenfeld (5)			RRBWS D (1,3,6,7,12, Wirth1, 30,33, Boone,1/3 Smith)				J.Nicoll (3)	Audubon (4,5,9,Wirth1,17,18) (20-22,Wirth2,27,29,37)				Smith (2/3 Smith)	RRBWS D (1/3 Smith)		Total Diverted	South Fork		RRBWS D to Isabella
	Mean Flow	USGS - Onyx @ 0500	Accretions	Doyle Ranch Road	Mill/Hillside	Miller	Prince	Miller	Landers	Cottonwood	Scodie/Mack	Landers	Nicoll	Redirected "Gross Project Water"	Nicoll	Cottonwood	Nicoll	Total Smith	Smith	Smith	Redirected "Gross Project Water"		Sierra Way "Flow"	Patterson "Flow"	"Net Project Water"	
1	17	17	3								1.1		5.1	2.5			4.9	1.6	0.0	3.3	5	Yes	Yes	5.68		
2	16	16	3								1.1		5.1	2.0			4.7	1.4	0.0	3.3	5	Yes	Yes	5.68		
3	16	16	3								1.1		5.1	2.5			4.7	1.4	0.0	3.3	5	Yes	Yes	5.68		
4	16	16	3								1.0		5.2	2.3			4.3	1.0	0.0	3.3	4	Yes	Yes	5.75		
5	16	16	-1	13.6							1.1		3.0	2.5			4.2	0.9	0.0	3.3	5	Yes	4.47	4.26		
6	15	15	-1								1.1		2.4	1.6			4.2	0.9	0.0	3.3	4	Yes	4.01	3.85		
7	15	15	-1								1.1		2.4	1.4			4.2	0.9	0.0	3.3	3	Yes	Yes	3.85		
8	15	15	-1								1.1		2.4	1.2			3.8	0.5	0.0	3.3	3	Yes	Yes	3.85		
9	15	16	-1								1.2		2.9	0.0			4.4	1.1	0.0	3.3	2	Yes	4.18	4.19		
10	15	16	-1								1.1		3.0	0.0			4.1	0.8	0.0	3.3	2	Yes	**4.32 / 4.75	4.25		
11	15	16	-1								1.2		2.9	0.0			4.2	0.9	0.0	3.3	2	Yes	6.38 / 6.2 (CBK meas.)	4.19		
12	15	15	0								1.1		3.1	0.0			4.2	0.9	0.0	3.3	2	Yes	7.46	4.29		
13	16	16	1								1.2		3.9	0.0			4.4	1.1	0.0	3.3	2	Yes	Yes	4.86		
14	16	16	1								1.1		4.0	0.0			4.1	0.8	0.0	3.3	2	Yes	Yes	4.93		
15	16	16	1								1.2		3.9	0.0			4.1	0.8	0.0	3.3	2	Yes	Yes	4.86		
16	16	16	1								1.1		4.0	2.0			4.3	1.0	0.0	3.3	4	Yes	Yes	4.93		
17	15	16	1								1.0		4.1	0.0			4.1	0.8	0.0	3.3	2	Yes	6 (CBK meas.)	5.00		
18	16	15	1								0.9		3.7	1.8			3.7	0.4	0.0	3.3	3	Yes	Yes	4.73		
19	22	16	2								1.1		4.5	2.3			5.1	1.8	0.0	3.3	5	Yes	Yes	5.24		
20	26	29	2								1.8		7.3	2.6			7.0	3.7	0.0	3.3	8	Yes	12.1	7.14		
21	24	24	2								1.6		4.6	2.3			6.4	3.1	0.0	3.3	7	Yes	Yes	5.33		
22	23	24	2								1.2		5.0	2.3			6.1	2.8	0.0	3.3	6	Yes	Yes	5.60		
23	21	22	2								1.2		5.0	2.2			5.6	2.3	0.0	3.3	6	Yes	Yes	5.60		
24	19	20	2	20.6							1.1		5.1	2.1			5.1	1.8	0.0	3.3	5	Yes	11.2(RRB) / 10.6 (CBK)	5.67		
25		18	3								1.2		5.0	2.0			4.9	1.6	0.0	3.3	5	Yes	Yes	5.62		
26		20	3								1.1		5.0	3.0			4.9	1.6	0.0	3.3	6	Yes	Yes	5.62		
27													0.0				0.0				0			0.00		
28													0.0				0.0				0			0.00		
29													0.0				0.0				0			0.00		
30													0.0				0.0				0			0.00		
SFD	414	454	29		0	0	0	0	0	0	30	0	108	39	0	0		36	0	86	104	0	0	130.61		
AF	820	901	58		0	0	0	0	0	0	60	0	214	77	0	0		71	0	170	207	0	0	259.07		
		37					0						273	77		0		1.1	0.0							

Note:

Cottonwood via the Landers
Miller ditch water is being split Prince and Haf. 50/50
Redirected Historic Irrigation Demand Limit = 26
Saturday South Fork Coyote Ranch Flow measurement, value carries for next week Tuesday-Monday.
09/06 District measured 4 cfs at Patterson, hence adjusted accretions down to -1
**Two stream gauge measurements performed to study daily fluctuations. 8:30 AM = 4.32 CFS 14:30PM = 4.75 CFS
9/17 Nicoll ditch off for new meter installation
09/24 Calculated accretions at 5 cfs..adjusted accretions to 3 cfs to be conservative

September 30, 2025

To: Stakeholder Advisory Group
 Rosedale-Rio Bravo Water Storage District
 Agenda Item: 2c.

From: Dan Bartel

Re: RRB-4 and RRB-7: Kern Fan Project



P/MA Number	P/MA Name	Summary Description			Relevant Sustainability Indicators Affected			Overdraft Correction Description Category	Circumstances for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion
					Groundwater Levels & Storage	Groundwater Quality	Land Subsidence							
Projects		Implemented	Functional	In-Process	As-Needed									
RRB-4	Kern Fan Water Storage Project Phase 1	Acquisition and retirement of 350 acres of irrigated ag lands, and development of 350 acres of new recharge ponds. For conjunctive-use and 2:1 third party banking.			✓	✓	✓	Land Retirement Third-Party Banking	Completion of Design	Stakeholder Meetings Board Meetings Hearing	NA	Recharge Complete Recovery in Construction	Current	2025

Timetable for Accrual of Expected Benefits	Expected Benefits							Source(s) of Water, if applicable	Legal Authority Required	Estimated Costs		
	Primary (AFY)		Secondary							One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
	Water Supply Augmentation	Demand Reduction	Water Quality Improvement	Flood Control	Water Management Flexibility / Efficiency	Mitigation Programs	Data Gap Filling/ Monitoring					
Implemented		Functional		In-Process			As-Needed					
2025-	1260	1059	✓	✓	✓		NA	Kern River Flood, SWP Table A, SWP Article 21 , Friant-Kern Flood, 2:1 Exchanges, Kern River Purchase Contract	None	\$13,000,000	\$236,000	RRBWSD (Water Charge) CA WSIP Funding USBR Small Storage Grant

P/MA Number	P/MA Name	Summary Description			Relevant Sustainability Indicators Affected			Overdraft Correction Description Category	Circumstances for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion
					Groundwater Levels & Storage	Groundwater Quality	Land Subsidence							
Projects		Implemented	Functional	In-Process	As-Needed									
RRB-7	Kern Fan Groundwater Storage Project Phase 2	Acquisition and retirement of 850 acres of irrigated ag lands and development of 850 acres of new recharge ponds. For conjunctive-use and 2:1 third party banking. Construction of approximately 400 cfs of conveyance capacity from the California Aqueduct			✓	✓	✓	Land Retirement Third-Party Banking	As Needed	Stakeholder Meetings Board Meetings Hearing	NA	Feasibility	As Needed	2035

Timetable for Accrual of Expected Benefits	Expected Benefits							Source(s) of Water, if applicable	Legal Authority Required	Estimated Costs		
	Primary (AFY)		Secondary							One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
	Water Supply Augmentation	Demand Reduction	Water Quality Improvement	Flood Control	Water Management Flexibility / Efficiency	Mitigation Programs	Data Gap Filling/ Monitoring					
Implemented		Functional		In-Process			As-Needed					
2035-	3780	3177	✓	✓	✓		NA	Kern River Flood, SWP Table A, SWP Article 21 , Friant-Kern Flood, 2:1 Exchanges, Kern River Purchase Contract	None	\$65,000,000	\$944,000	RRBWSD (Water Charge) CA WSIP Funding USBR Small Storage Grant



KERN FAN GROUNDWATER STORAGE PROJECT

ALT5 Feasibility Team

Is the CVC joint works plan doable and affordable?



KERN FAN GROUNDWATER STORAGE ALT 5 FEASIBILITY TEAM

Dan Bartel, GBJPA GM
Fiona Nye, GBJPA, PM

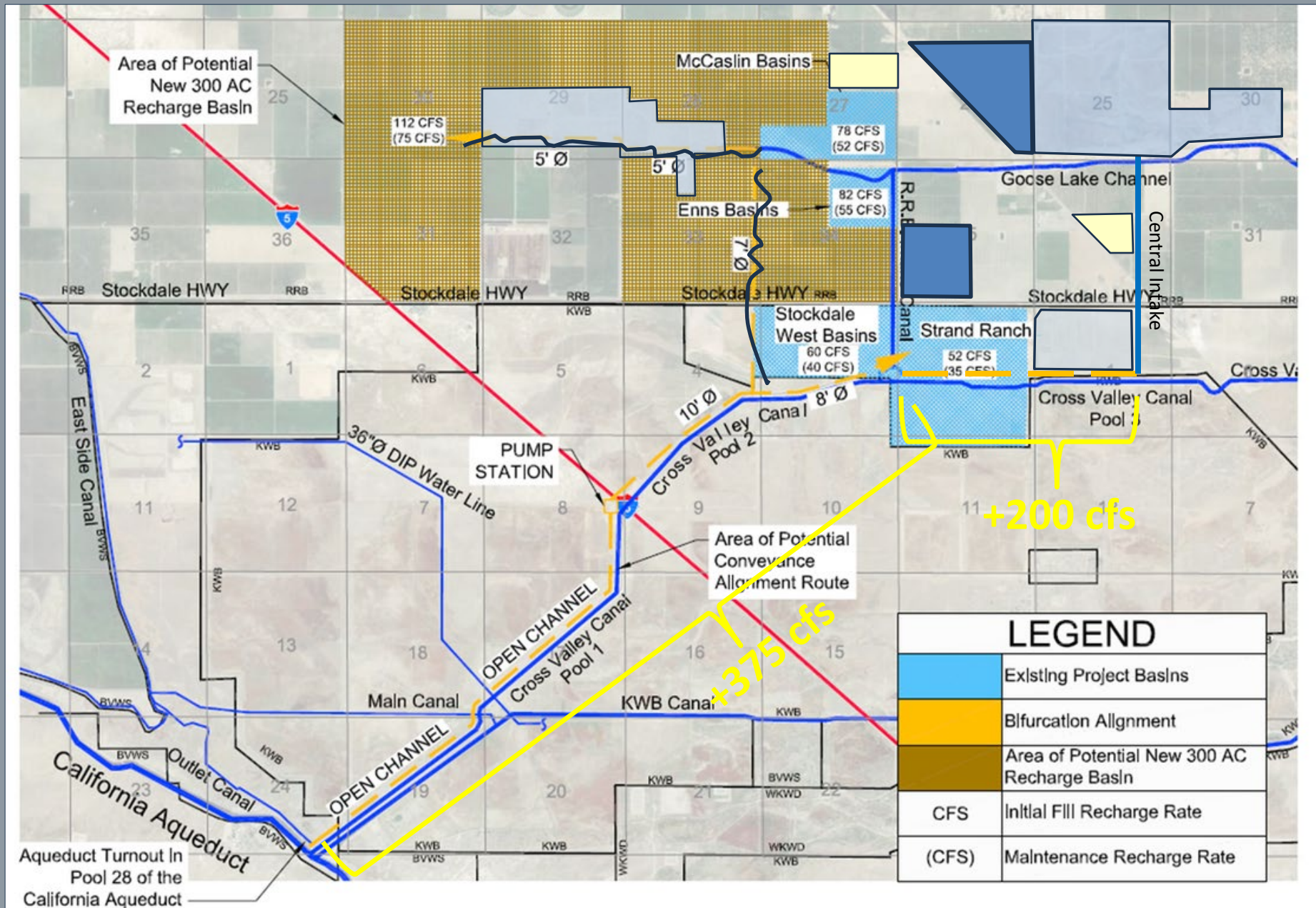
Trent Taylor, RRBWSD, Contracts
Zach Smith, RRBWSD, Operations Manager
Markus Nygren, RRBWSD, Engineering
Rachelle Echeverria, RRBWSD, Resources
Robert Haung, IRWD, Engineering

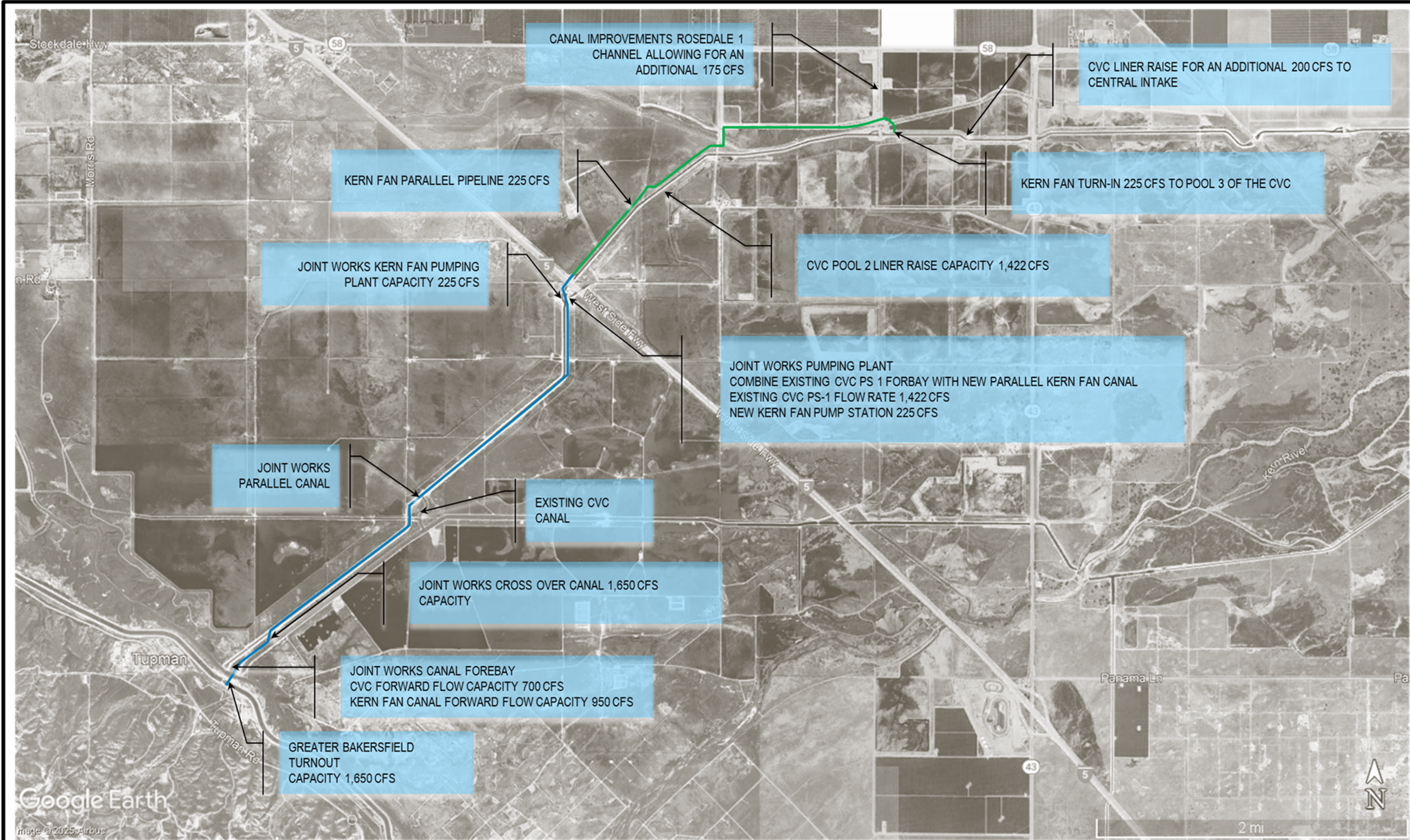
Lauren Bauer, KCWA, Water Resources Manager
Craig Wallace, KCWA, Co-Interim General Manager
James (JT) Gardiner, KCWA, Engineering Manager
Scott Chambless, KCWA, Engineering
Steve Yoder, KCWA, CVC Operator

David Halopoff, CWD, CVC Rep

Curtis Skaggs, Project Manager
Joe Long, Stantec, Conveyance Team
Wayne Dahl, Conveyance Team
Dr. Howes, CVC Consultant
Kristin Pittack, Rincon, CEQA
Aaron and Richard Meyer, Liner Raise

Who are we missing?





**KERN FAN SITE LAYOUT
ALTERNATIVE 5a**

EXHIBIT 2



PROJECT COMPONENTS ALT5 JOINT CONCEPT

Project Description:

375 cfs of capacity to the CVC in Pools 1 and 2
200 cfs in Pool 3 up to the Central Intake

- Improved culvert under the Outlet Canal
- Parallel canal section to Pool 1
- Removal of the bifurcation at PP1
- Improved pumping capacity at PP1
- Raised liner and/or parallel pipeline to Pool 2
- Removal of the bifurcation at PP2
- Improved pumping capacity at PP2
- Raised liner or parallel pipeline to Central Intake (Pool3)



PROJECT BENEFITS ALT5 JOINT CONCEPT

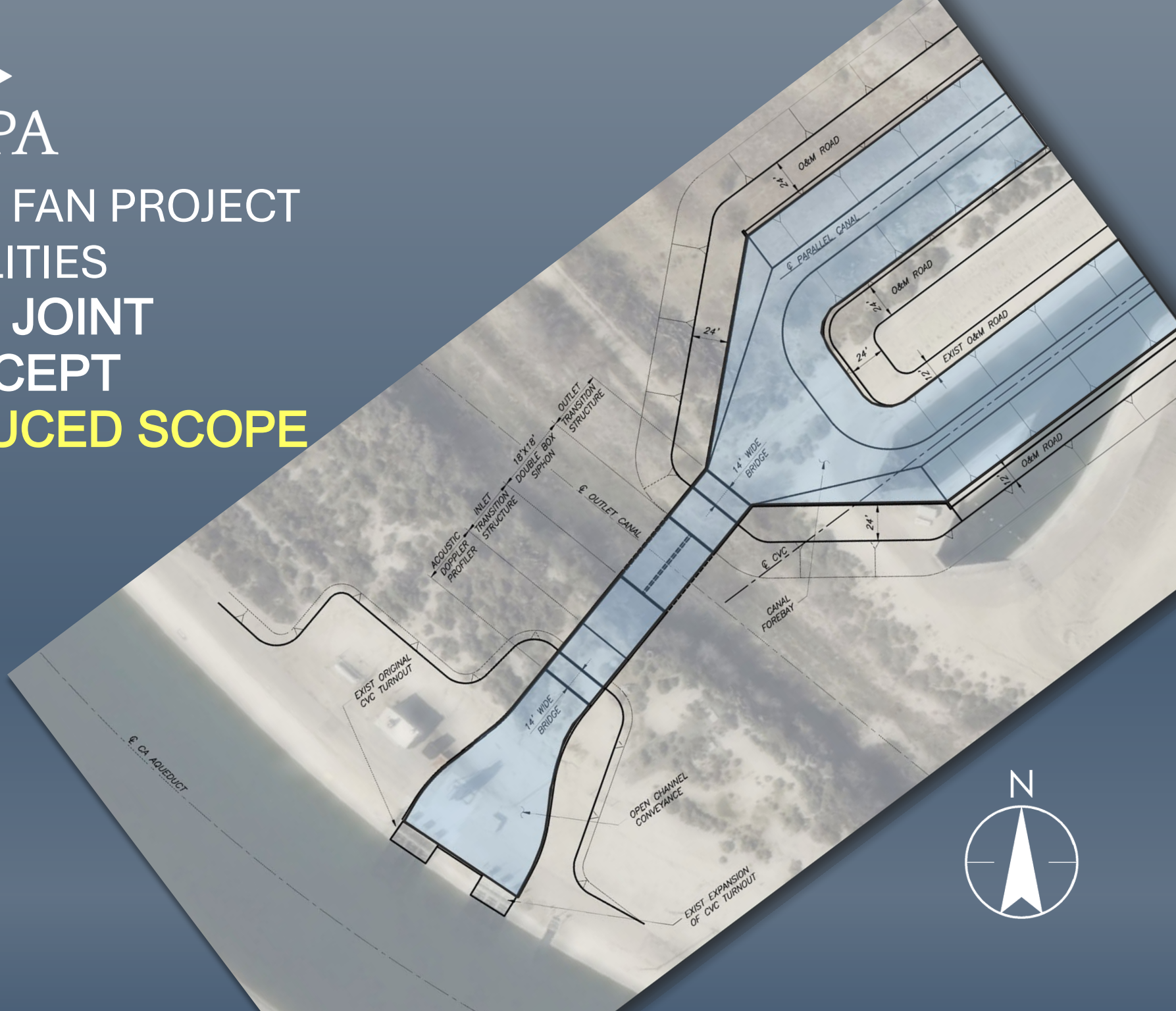
This project offers multiple indirect benefits to Kern County water management:

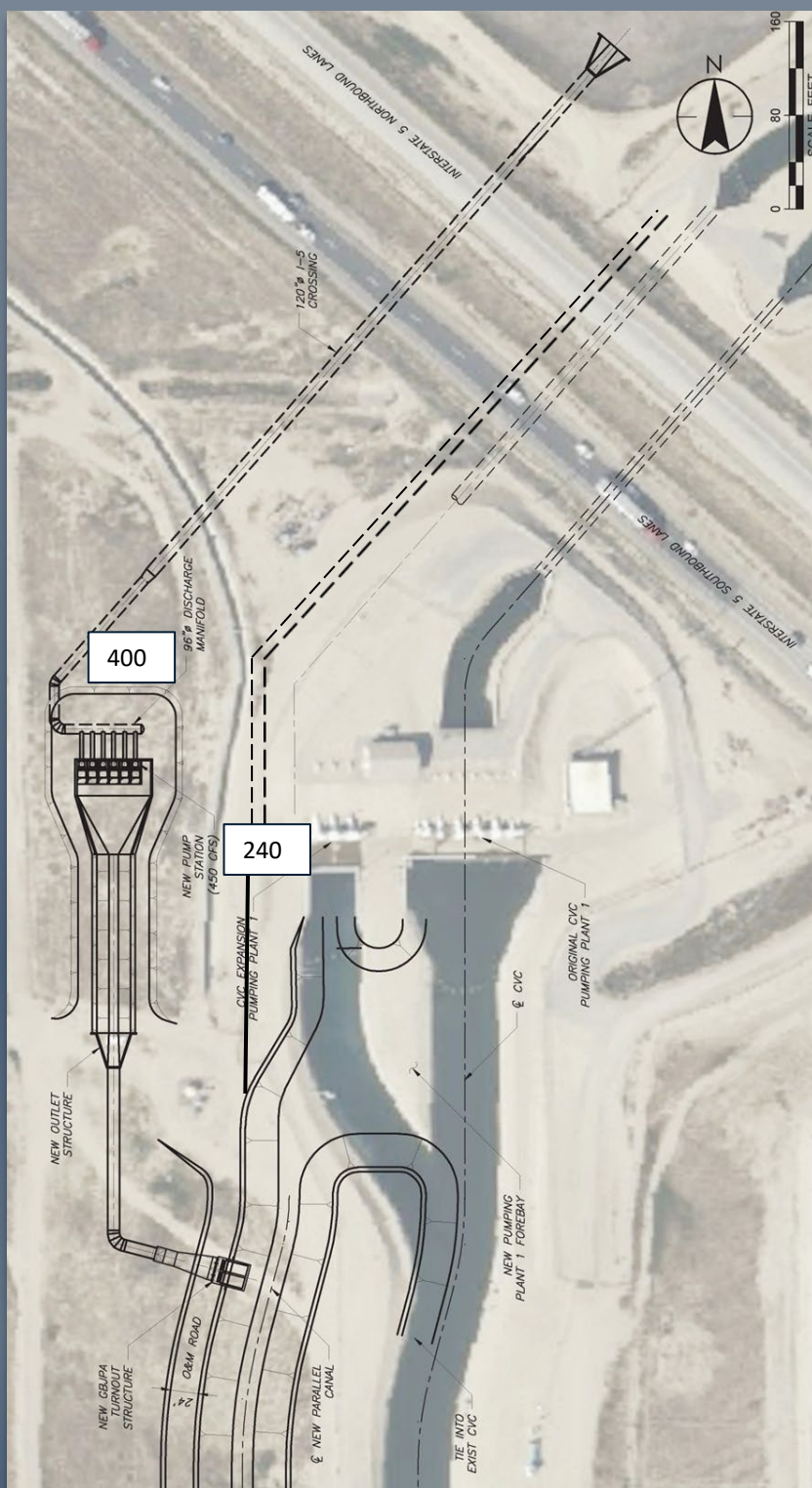
- \$120M grant to enhance high flow capture
- Increasing available unused capacity
- Mitigate limited freeboard risk (Pool 2)
- Elimination of bifurcation oscillation (PP1&2)
- Reduce B Plant vortexing
- Improving pump submergence and performance
- Enhanced reliability in Pool 1
- Reduce Kern County's subsidence impacts/costs



GBJPA

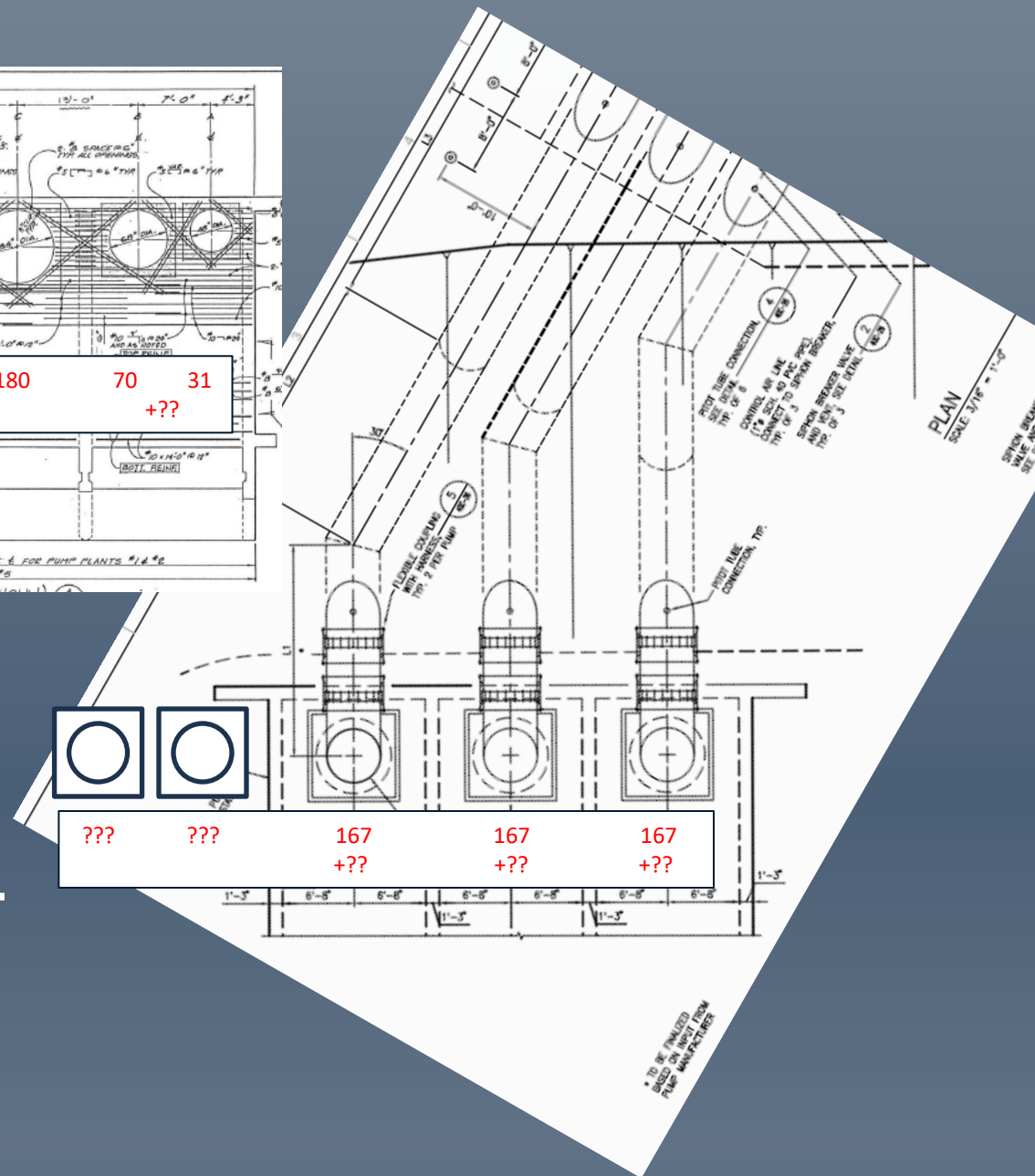
KERN FAN PROJECT
FACILITIES
ALT5 JOINT
CONCEPT
REDUCED SCOPE





GBJPA
KERN FAN PROJECT
FACILITIES
ALT5 JOINT CONCEPT
REDUCED SCOPE

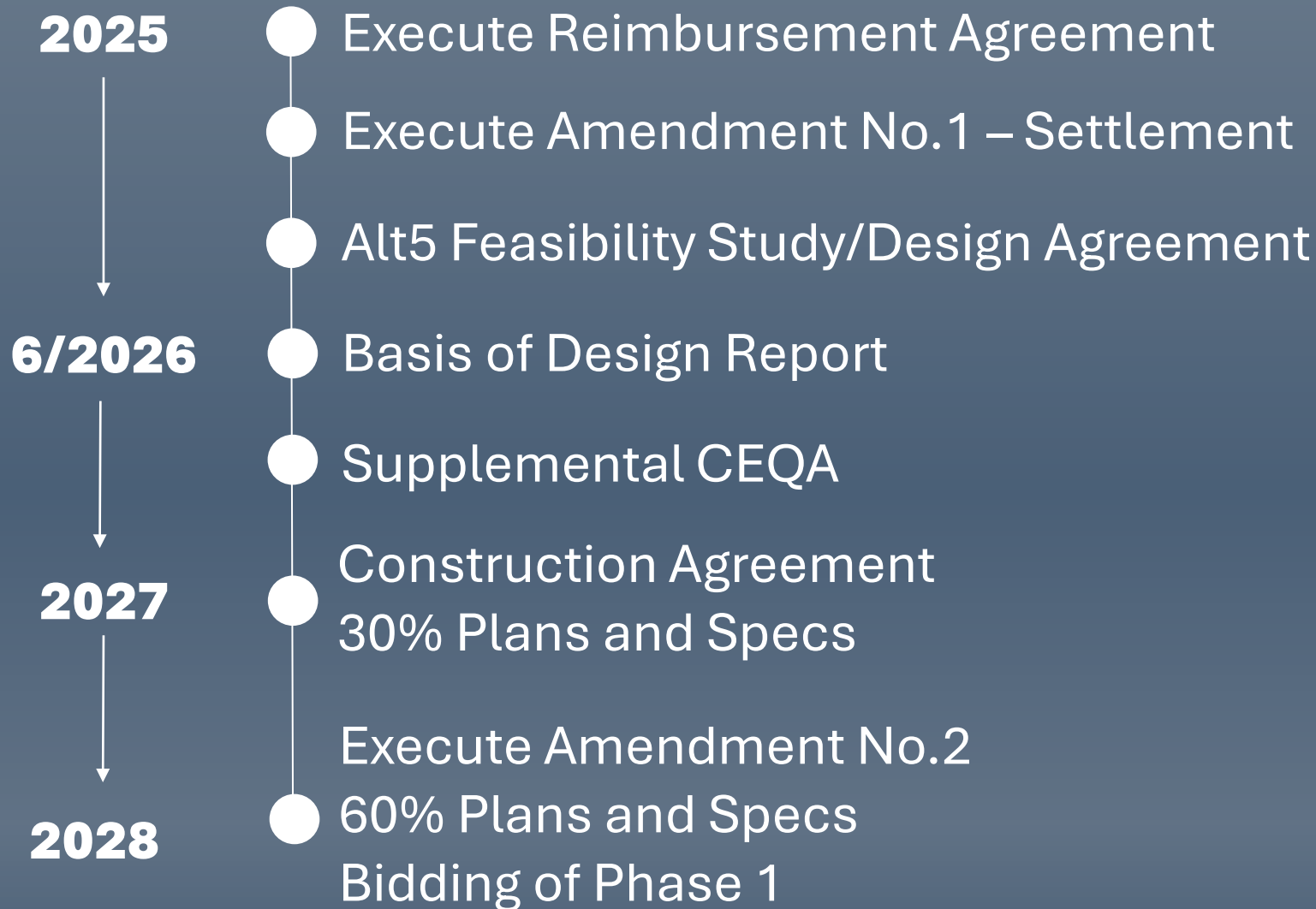




KERN FAN PROJECT
FACILITIES
ALT5 JOINT CONCEPT
PP1 = +240cfs



PROJECT SCHEDULE ALT5 JOINT CONCEPT





PROJECT TEAMS ALT 5 JOINT CONCEPT

Alt5 Feasibility Study Teams- Lead/Members/Deliverables?

Permits/Agreements/Rights-of-Way

Trent – Lead

Kristin, Rachelle, ?

Engineering/Budget/Schedule

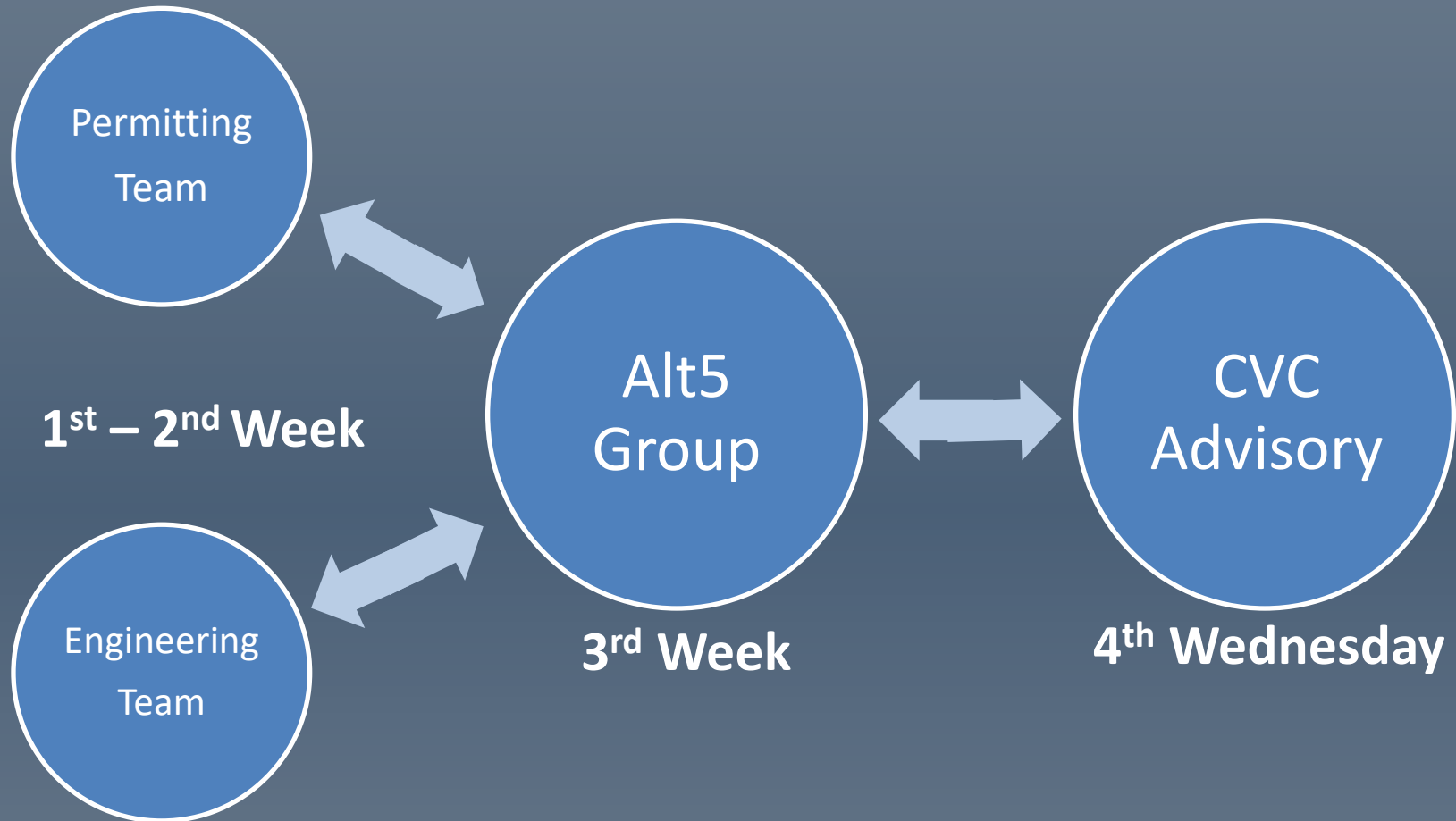
Curtis – Lead

Dan, Markus, Zach, Joe, Wayne, ?

1st Team Meetings – Describe deliverables, schedule, challenges



FEEDBACK FLOW ALT5 JOINT CONCEPT





PROJECT SCHEDULE ALT5 JOINT CONCEPT

July-2025

● Execute Reimbursement Agreement

● Team Kickoff



● Alt5 Feasibility Study



June-2026

● Basis of Design Report





INITIAL MILESTONES ALT5 JOINT CONCEPT

Sept-2025



Engineering

Permitting



Footprint

Agreements



Pool1 Concept

Easements



Pool2/3 Concept

Permits



Schedule/Budget/Data Gaps/Next Steps

Feb-2026



Alt5 Feasibility Study





THANK YOU

September 30, 2025

To: Stakeholder Advisory Group
 Rosedale-Rio Bravo Water Storage District
 Agenda Item: 3a.



From: Trent Taylor

Re: RRB-14: Water Charge Demand Reduction

P/MA Number	P/MA Name	Summary Description			Relevant Sustainability Indicators Affected			Overdraft Correction Description Category	Circumstances for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion
					Groundwater Levels & Storage	Groundwater Quality	Land Subsidence							
Management Actions		Implemented	Functional	In-Process	As-Needed									
RRB-14	District Land Water Budget/Water Charge Demand Reduction	Setting of a Sustainable Water Budget and collection of a Groundwater Use Charge assisting with project financing and creating approximately a 2.5% demand reduction.			✓	✓	✓	Demand Reduction	NA	Stakeholder Meetings Board Meetings Hearing	NA	Implemented	NA	2023

Timetable for Accrual of Expected Benefits	Expected Benefits							Source(s) of Water, if applicable	Legal Authority Required	Estimated Costs		
	Primary (AFY)		Secondary							One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
	Water Supply Augmentation	Demand Reduction	Water Quality Improvement	Flood Control	Water Management Flexibility / Efficiency	Mitigation Programs	Data Gap Filling/ Monitoring					
Implemented		Functional		In-Process			As-Needed					
2024-	0	2000	✓					NA	None	\$100,000	\$25,000	RRBWSD (Assessments)

September 30, 2025

To: Stakeholder Advisory Group
Rosedale-Rio Bravo Water Storage District
Agenda Item: 3b.



From: Trent Taylor/Markus Nygren

Re: RRB-13: White Land Imbalance Reduction

P/MA Number	P/MA Name	Summary Description			Relevant Sustainability Indicators Affected			Overdraft Correction Description Category	Circumstances for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion
					Groundwater Levels & Storage	Groundwater Quality	Land Subsidence							
Management Actions		Implemented	Functional	In-Process	As-Needed									
RRB-13	White Land Water Budget/Demand Imbalance Reduction	White Lands (non-RRBWSD lands in RRBWSD GSA) not used for groundwater banking will correct the water supply imbalance by setting water budgets and a linear reduction of 5% per year over the planning period of 2020-2040.			✓	✓	✓	Demand Reduction	NA	Stakeholder Meetings Board Meetings Hearing	NA	Implemented	NA	2020

Timetable for Accrual of Expected Benefits	Expected Benefits							Source(s) of Water, if applicable	Legal Authority Required	Estimated Costs		
	Primary (AFY)		Secondary							One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
	Water Supply Augmentation	Demand Reduction	Water Quality Improvement	Flood Control	Water Management Flexibility / Efficiency	Mitigation Programs	Data Gap Filling/ Monitoring					
Implemented		Functional		In-Process			As-Needed					
2020-	0	5200	✓					NA	None	\$100,000	\$25,000	RRBWSD (Assessments)

September 30, 2025

To: Stakeholder Advisory Group
 Rosedale-Rio Bravo Water Storage District
 Agenda Item: 3c.



From: Dan Bartel

Re: KSB-5: Well Mitigation/SHE

P/MA Number	P/MA Name	Summary Description			Relevant Sustainability Indicators Affected			Overdraft Correction Description Category	Circumstances for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion
					Groundwater Levels & Storage	Groundwater Quality	Land Subsidence							
Management Actions		Implemented	Functional	In-Process	As-Needed									
KSB-5	Well Mitigation Program	Implementation of a well mitigation program to address water level and quality impacts on drinking water. The program provides emergency bottled water, well assessments, hauled water, and well improvements or replacements.			✓				When groundwater management activities impact domestic wells.	Refer to Subbasin Outreach and Engagement Plan	NA	With the adoption of the GSP in December, the Well Mitigation Plan will be adopted and implemented beginning on January 1, 2025.	NA	2026

Timetable for Accrual of Expected Benefits	Expected Benefits							Source(s) of Water, if applicable	Legal Authority Required	Estimated Costs		
	Primary (AFY)		Secondary							One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
	Water Supply Augmentation	Demand Reduction	Water Quality Improvement	Flood Control	Water Management Flexibility / Efficiency	Mitigation Programs	Data Gap Filling/ Monitoring					
Implemented		Functional		In-Process			As-Needed					
2025-	0	0				✓		NA	NA	\$0	\$45,000	RRBWSD (Assessments)

June 2025

KERN COUNTY SUBBASIN MITIGATION PROGRAM

VERSION 2.0

PRODUCED FOR



PRODUCED BY





Contents

Section 1: Introduction	1
Version 2.0 Well Mitigation Program Updates	1
Section 2: Program Overview	4
Program Need.....	4
Self-Help Enterprises.....	4
Evolving Program.....	5
Section 3: Well Mitigation Program Tracks.....	6
Dry Well Mitigation Track	6
Dry Well Technical Assistance Track	6
Degraded Water Quality Mitigation Track.....	6
Section 4: Application Qualification Criteria.....	8
Application Qualification Criteria for Dry Well Tracks.....	8
Evaluating Application Eligibility for Dry Well Tracks.....	8
Application Qualification Criteria for Degraded Water Quality Track.....	9
Evaluating Application Eligibility for Degraded Water Quality	9
Section 5: Dry Well Mitigation Track Application Process.....	11
Step 1. Stakeholder Outreach	11
Step 2. Identify Need for Mitigation	12
Step 3. Emergency Water and Interim Supplies.....	13
Step 4. Mitigation Need Assessment	13
Step 5. Funding Qualification Assessment	13
Step 6. Mitigation Measure Selection Agreement.....	13
Step 7. GSA Board Approval for Funding	14
Step 8. Funding Transaction.....	14
Step 9. Well Stewardship Education	14
Section 6: Dry Well Technical Assistance Track Application Process	16
Step 1. Stakeholder Outreach	17
Step 2. Identify Need for Technical Assistance	17
Step 3. Meeting with Applicant and GSA Staff.....	19
Step 4. Technical Assistance Needs Assessment.....	19
Step 5. Funding Qualification Assessment	19
Step 6. GSA Board Approval for Funding	20
Step 7. Technical Assistance and Indemnification Selection Agreement.....	20
Step 8. Funding Transaction.....	20
Section 7: Degraded Water Quality Mitigation Track Application Process	22
Step 1. Public Outreach & Engagement	22
Step 2. Applicant Applies for Assistance	23
Step 3. Domestic Well Assessment	23
Step 4. Qualified Professional Performs Technical Evaluation.....	24
Step 5. KMEC Evaluation and Recommendation for GSA	24



Step 6. GSA Board Considers KMEC's Recommendation for Application Approval	25
Step 7. Funding Transaction	25
Step 8. Well Stewardship Education	25
Section 8: Appeal Process	27
Section 9: Application Privacy	27
Section 10: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs	28
Groundwater Level Impacts	28
Subsidence Impacts	33
Groundwater Quality Impacts.....	36
Section 11: Mitigation Funding and Anticipated Costs	38

List of Figures

Figure 1. Kern Subbasin	3
Figure 2. Mitigation Program Tracks.....	7
Figure 3. Application Qualification Criteria.....	8
Figure 4. Kern Subbasin Mitigation Evaluation Committee (KMEC).....	10
Figure 5. Mitigation Track Application Process (Domestic Wells)	15
Figure 6. Guidance on Identifying GSA Identification via SGMA Data Viewer.....	17
Figure 7. Technical Assistance Track Application Process (Community Water Systems)	21
Figure 8. Degraded Water Quality Mitigation Track Application Process (Domestic Wells).....	26
Figure 9. Groundwater Levels Relative to Pump Intake and Bottom of Well.....	29
Figure 10. Domestic Well Depths in the Kern Subbasin (as of November 2024)	30
Figure 11. Small Community Well Depths in the Kern Subbasin (as of November 2024)	31
Figure 12. Public Water Supply & Industrial Well Depths in the Kern Subbasin (as of November 2024) ..	32
Figure 13. Cumulative Subsidence between 2015 – 2023 (ft) based on InSAR data	34
Figure 14. Well Damage Attributed to Subsidence (Borchers et al., 1998).....	35

List of Tables

Table 1. GSA Contact Information	18
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Attachments

Attachment A. Application Process – Technical Evaluation Considerations
Attachment B. Technical Assistance Track Application
Attachment C. Conceptual Indemnification Agreement Example for Technical Assistance Track Applications Assistance



Attention

If you have experienced a loss of drinking water, please contact **Self-Help Enterprises** at **(559) 802-1685**. Self-Help Enterprises is available to assist with accessing emergency drinking water and interim drinking water supplies.

For applications regarding drinking water wells (including agricultural wells used for drinking water purposes), please fill out the online intake form on Self-Help Enterprises' website:

<https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/>

Atención

Si experiencia pérdida de agua potable, comuníquese con **Self-Help Enterprises** al **(559) 802-1685**. Self-Help Enterprises está disponible para ayudarle con el acceso a agua potable de emergencia y suministros provisionales de agua potable.

Para reclamos relacionados con pozos de agua potable (incluidos los pozos agrícolas utilizados para fines de agua potable), complete el formulario de admisión en línea en el sitio web de Self-Help Enterprises:

<https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/>



Section 1: Introduction

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package, composed of Assembly Bill 1739 (Dickinson), Senate Bill 1168 (Pavley), and Senate Bill 1319 (Pavley), collectively known as the Sustainable Groundwater Management Act (SGMA), which is codified in Section 10720 et seq. of the California Water Code. In his signing statement, Governor Brown emphasized that “groundwater management in California is best accomplished locally.” This legislation created a statutory framework for groundwater management that can be sustained during the planning and implementation horizon without causing undesirable results.

SGMA requires high and medium priority basins to achieve sustainability by avoiding undesirable results. These basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, such as the Kern County Subbasin (Kern Subbasin), the deadline for achieving sustainability is 2040.

The Kern Subbasin is comprised of 20 Groundwater Sustainability Agencies (GSAs) working together to achieve groundwater sustainability ([Figure 1](#)). To comply with SGMA Regulations, the Kern Subbasin prepared a coordinated Groundwater Sustainability Plan (2025 Plan) to achieve sustainability by 2040. The Well Mitigation Program is considered part of the 2025 Plan.

In general, the Kern Subbasin will fund administration, outreach, analyses, technical assistance and mitigation services necessary to restore drinking water for households that have lost access to safe drinking water due to groundwater management activities associated with implementation of the 2025 Plan. While households may lose access to their water supply for many reasons, the purpose of this Well Mitigation Program is to avoid or address impacts caused by groundwater management activities undertaken by the Kern Subbasin GSAs after January 1, 2015. The Kern Subbasin has partnered with Self-Help Enterprises, a local expert in providing solutions for households losing access to drinking water described in Section 2. Separate from this Well Mitigation Program, Self-Help Enterprises also administers services for households losing access to their water supply due to causes other than the Kern Subbasin GSAs’ groundwater management activities. This collaboration between the Kern Subbasin and Self-Help Enterprises with respect to loss of access to safe drinking water allows Self-Help Enterprises to serve as a single point of contact for households in the Kern Subbasin losing access to drinking water.

Version 2.0 Well Mitigation Program Updates

As part of Version 2.0, the Kern Subbasin has established a dedicated program track to address degraded water quality. This Degraded Water Quality Mitigation Track is distinct from the Dry Well Mitigation Track. For future revisions to the Well Mitigation Program, the Kern Subbasin GSAs are considering development of a funding assistance track for state small systems (i.e., 5 to 14 connections and less than 25 residents) to address dry wells, or wells at risk of becoming dry, due to groundwater management activities. Potential funding assistance is anticipated to be separate from technical assistance and the Kern Subbasin GSAs are evaluating such assistance preliminarily up to \$100,00.

The Kern Subbasin has committed to implement this Well Mitigation Program within the Plan Area to provide emergency and interim drinking water, as well as long-term solutions, for households that rely on



domestic and multi-use domestic wells¹ and have lost access to drinking water due to groundwater management activities occurring after January 1, 2015. In addition, the Well Mitigation Program provides alternative drinking water supplies to domestic well users that experience water quality degradation due to groundwater management activities.

The Well Mitigation Program document explains the application process, funding mechanisms, and the roles and responsibilities of the Kern Subbasin and Self-Help Enterprises to implement the Well Mitigation Program and the three tracks within the Well Mitigation Program. The Well Mitigation Program document also explains how the Kern Subbasin will determine if applications are eligible for assistance.

¹ The term domestic well as used in the Degraded Water Quality sections of this appendix means domestic wells that serve up to four service connections.

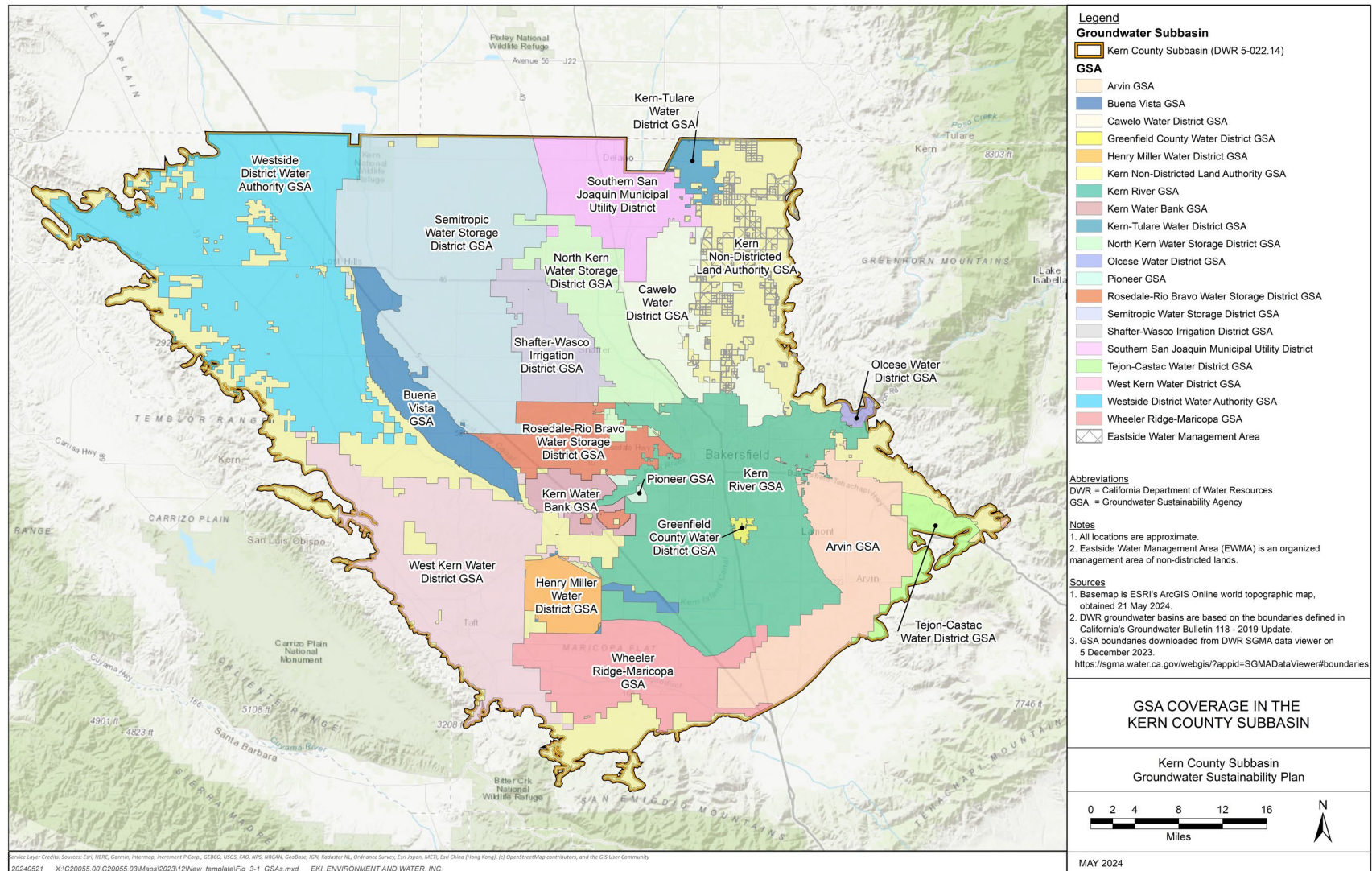


Figure 1. Kern Subbasin



Section 2: Program Overview

The Well Mitigation Program (or “Program”) provides mitigation for impacts to domestic wells and technical assistance for public supply wells that are also community water systems and state small water systems demonstrated to have been adversely affected by declining groundwater levels due to groundwater management activities occurring after January 1, 2015. The Well Mitigation Program also addresses impacts to domestic wells adversely affected by groundwater quality degradation resulting from groundwater management activities occurring after January 1, 2015.

Mitigation and technical assistance under this Program are not available for impacts that were the subject of a prior domestic well impact application that was settled and mitigated under another well mitigation plan or program. To be eligible for consideration under this Program, an application for mitigation must be presented no later than two years after adoption of this Program for an impact occurring between January 1, 2015, and the date of adoption of the Program, and no later than two years after the date of the impact for all other applications.

The Well Mitigation Program may be revised as lessons are learned, data gaps are resolved, new analytical tools are available, and mitigation and administrative costs evolve. As with the 2025 Plan, the Well Mitigation Program is designed as an iterative document with adaptive management at the forefront.

Program Need

The Kern Subbasin is collaboratively managing water supplies within the Plan Area to achieve sustainability by 2040 through implementation of the 2025 Plan, which includes actions established in the exceedance policies detailed in Appendix K.

However, groundwater levels in parts of the Kern Subbasin may decline and land subsidence may occur while the Kern Subbasin implements projects and management actions (P/MAs) through the planning and implementation horizon. Declining groundwater levels created by groundwater management activities during the implementation phase of the 2025 Plan may also induce unintended groundwater quality impacts. The Kern Subbasin recognizes the potential impacts that may occur and identified the need for establishing this Well Mitigation Program to be more protective of beneficial uses and users within the Plan Area.

Self-Help Enterprises

The Kern Subbasin is collaborating with Self-Help Enterprises to administer emergency drinking water supplies, interim drinking water supplies, long-term mitigation support, and well stewardship educational resources for qualifying applications for those experiencing a loss in access to drinking water supplies. Self-Help Enterprises’ Emergency Services team are local experts in well mitigation, administering these same services for low-income households across the San Joaquin Valley. This Well Mitigation Program expands Self-Help Enterprises’ existing program to support households regardless of income-limitation and addresses the Kern Subbasin’s local approach to mitigating potential undesirable results as defined in the 2025 Plan.

The Kern Subbasin has entered into agreements with Self-Help Enterprises to provide financial support for their implementation services of the Well Mitigation Program as it relates to dry wells and loss of access to drinking water. The agreement between the Kern Subbasin and Self-Help Enterprises provides that the Kern Subbasin will reimburse Self-Help Enterprises for costs associated with program administration, groundwater quality sampling, interim drinking water supplies, and long-term mitigation measures for



applications qualifying for mitigation under this Well Mitigation Program as it relates to the Dry Well Mitigation Track.

Self-Help Enterprises will continue to serve as a contract mediator and lender for applicants to arrange mitigation with well drillers to perform the long-term physical mitigation.

As agreed on by the Kern Subbasin and Self-Help Enterprises, the Kern Subbasin is responsible for reimbursing Self-Help Enterprises for costs related to dry wells or loss of access to drinking water to mitigate impacts caused by groundwater management activities after January 1, 2015 (see [Section 5: Dry Well Mitigation Track Application Process](#) starting on Page 11 for more information on the steps to evaluate application qualification). Where a well is impaired for reasons other than groundwater management activities, Self-Help Enterprises may offer emergency drinking water assistance and mitigation through alternative programs. It is important to the Kern Subbasin and Self-Help Enterprises to lessen the burden on households experiencing drinking water issues, where possible. The Self-Help Enterprises collaboration is intended to create a “one-stop-shop” for emergency drinking water supplies and mitigation and allows the financial exchanges to be handled by the Kern Subbasin and Self-Help Enterprises administrative teams.

For the Degraded Water Quality Mitigation Track, the Kern Subbasin is committed to engage qualified professionals or an appropriate contractor/entity (e.g., Self-Help Enterprises) for implementation of the Degraded Water Quality Mitigation Track. The Kern Subbasin is committed to providing financial support for implementation of services such as providing short-term alternative water supplies and implementing long-term solutions for eligible domestic well owners. In the case of nitrate, the Kern Subbasin will seek to work with the Kern Water Collaborative to address interim and long-term solutions for nitrate impacts, as determined appropriate.

Evolving Program

As the Kern Subbasin collects more data and gains insights from demand management changes, project implementation, improved analytical tools and well registration, opportunities to refine the Well Mitigation Program are expected to emerge. In addition to improved data and analytics, lessons will be learned through the implementation of the Well Mitigation Program. Costs to mitigate wells, provide interim supplies, and administration may also evolve over time. The Kern Subbasin intends the Well Mitigation Program to be iterative and evolve as new information, funding, and efficiencies are understood.



Section 3: Well Mitigation Program Tracks

The Well Mitigation Program has three tracks: (1) Dry Well Mitigation Track; (2) Dry Well Technical Assistance Track; and (3) Degraded Water Quality Mitigation Track. [Figure 2](#) summarizes who qualifies for each track. More detail on the application process for each track is described under their respective sections of this Program (starting on Page 11 for the Dry Well Mitigation Track, Page 16 for the Dry Well Technical Assistance Track, and Page 22 for the Degraded Water Quality Mitigation Track).

Dry Well Mitigation Track

The Dry Well Mitigation Track offers emergency drinking water supplies within 24-hours of notification to Self-Help Enterprises, interim drinking water supplies (hailed tank water) within 72-hours, and long-term mitigation solutions for domestic wells and multi-use domestic wells that have been impacted and meet the qualification criteria explained starting on Page 8. Multi-use domestic wells are agricultural wells that are also used to supply drinking water to at least one household. Agricultural wells used solely for agricultural purposes are not eligible for assistance under the Program.

Under this Well Mitigation Program, domestic wells and multi-use domestic wells are defined as having at maximum 4 service connections to 4 separate households.

More information on the application process for the Dry Well Mitigation Track starts on Page 11.

Dry Well Technical Assistance Track

The Dry Well Technical Assistance Track offers up to \$50,000 in funding to support technical assistance in the form of grant development, feasibility planning, or other mechanisms useful to support state small systems and public water systems that are also community water systems (including small community water systems)² that have been impacted and meet the qualification criteria explained in the section below.

More information on the application process for the Technical Assistance Track starts on Page 16.

Degraded Water Quality Mitigation Track

The Degraded Water Quality Mitigation Track offers alternative drinking water for users that rely on domestic wells and multi-use domestic wells. Alternative drinking water may consist of supplying bottled water on an interim basis until a long-term solution is identified or until the water no longer exceeds primary maximum contaminant levels (MCLs). Long-term solutions will vary and may consist of installation of point of use or point of entry treatment systems within the home or at the well – depending on the circumstances. Domestic wells are those wells serving no more than four connections. Multi-use domestic wells are agricultural wells that are also used to supply drinking water to at least one household. Agricultural wells used solely for agricultural purposes are not eligible for assistance under the Program.

More information on the application process for the Degraded Water Quality Mitigation Track starts on Page 22.

² The terms state small systems, community water systems and small community water systems as used in this Appendix mean the same as defined in Health and Safety Code, § 116275.

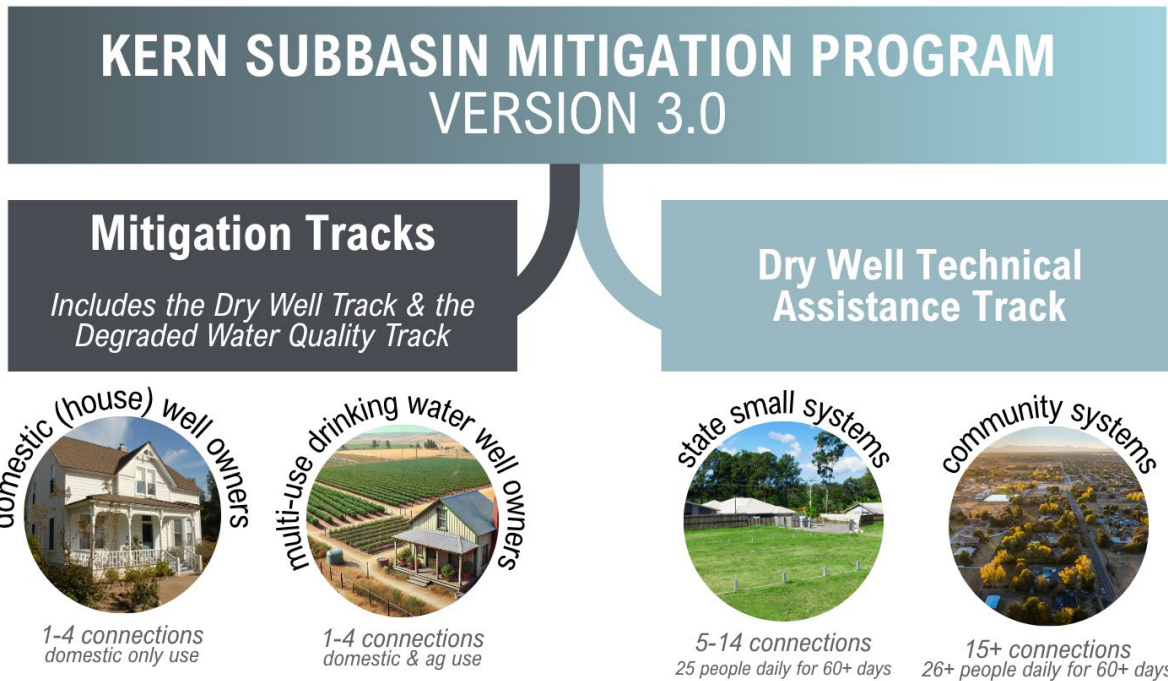


Figure 2. Mitigation Program Tracks



Section 4: Application Qualification Criteria

Application Qualification Criteria for Dry Well Tracks

Not all impacts to wells qualify for mitigation under the Well Mitigation Program's Dry Well Tracks. For example, a well's electrical or mechanical failure may be due to reasons independent of groundwater management activities. Therefore, criteria were established to determine if an application qualifies for assistance under the Well Mitigation Program tracks. The Dry Well Mitigation Program's qualification criteria are shown in [Figure 3](#). The same criteria apply for both the Dry Well Mitigation Track and the Dry Well Technical Assistance Track.

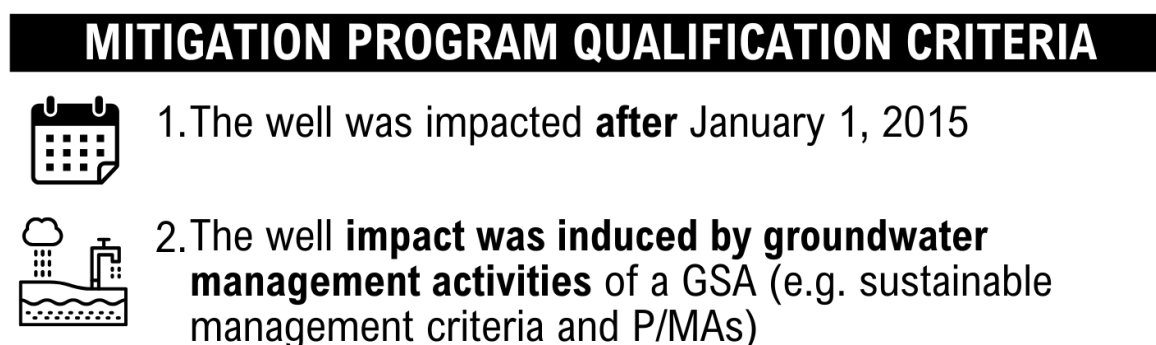


Figure 3. Application Qualification Criteria

Applicants are encouraged to submit applications immediately upon impact. Reimbursement for impacts already mitigated is not available under this Program. Applications for impacts older than 1-year without comprehensive documentation of the impact may not qualify. Documentation that is relevant to the application are photos of the well, photos and descriptions of site conditions, recorded groundwater level measurements, and groundwater quality data. The documentation is necessary because the current well conditions would be unrepresentative of conditions during the time of impact, hindering an effective desktop and field evaluation to assess qualification criteria.

The Well Mitigation Program launched in January 2025. In January 2027 (or two-years from Program adoption), applications for impacts older than 2-years will not be eligible for consideration. This is because 2-year-old well conditions would be unrepresentative of current conditions, making it unfeasible to perform a site-assessment. The first 2 years of implementation offers an exemption from this criterion, as the Well Mitigation Program is new, and it will require several months for the general public to be made aware of the resources available to them, and relevant timelines, through ongoing public engagement and outreach initiatives.

Evaluating Application Eligibility for Dry Well Tracks

Application eligibility will be evaluated on a case-by-case basis. The application processes, described for the Dry Well Mitigation Track on Page 11 and for the Dry Well Technical Assistance Track on Page 16, detail how an application is processed, including evaluations of eligibility based on the qualification criteria identified in the Section above and [Figure 3](#). The evaluation of eligibility will occur in two stages:



Stage 1 – Initial Screening: A Qualified Professional (e.g., PG, PE, CHG) will perform a technical evaluation determining if the impact (1) occurred after January 1, 2015 and was (2) induced by groundwater management activities. The qualified professional will evaluate available data and information, such as that listed in [Attachment A](#), and consider the context of well vulnerability described in [Section 10: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs](#) (starting on Page 28).

Stage 2 – KMEC Eligibility Evaluation: The Kern Subbasin Mitigation Evaluation Committee (KMEC) is a three-seat committee intended to minimize bias in the recommendation process, as shown in [Figure 4](#). The KMEC will provide an intermediate evaluation between the technical evaluation performed by the Qualified Professional and the GSA's final determination. The KMEC's evaluation will include both technical considerations and locally relevant stakeholder input.

Application Qualification Criteria for Degraded Water Quality Track

Not all wells will qualify for mitigation under the Well Mitigation Program's Degraded Water Quality Mitigation Track. For example, a well that was already degraded for the constituent of concern (COC) prior to January 1, 2015 will not qualify. Wells impacted by degraded water quality will only qualify for mitigation under this program if the degradation is due to groundwater management activities. Wells affected by other, unrelated factors will not be eligible for mitigation through this program.

Degraded Water Quality for the purposes of eligibility under this Well Mitigation Program track will be evaluated on a case-by-case basis. For some, initial eligibility may be pre-determined through the Minimum Threshold (MT) exceedance investigation process set forth in the Exceedance Policy (Appendix K) whereby domestic well owners with an *assumed* water quality impact due to GSA projects and management activities receive notice with respect to potential Degraded Water Quality Mitigation and information on the application process for seeking mitigation. For others, their application will be subject to a case-by-case evaluation as part of the application process that considers readily available data and information and consideration of factors similar to those considered as part of an MT Exceedance investigation, as applicable. To ensure transparency and clarity, the application review steps for the Degraded Water Quality Mitigation Track are set forth for two distinct scenarios:

Scenario 1: In accordance with the Exceedance Policy, a domestic well owner *assumed* to be impacted due to GSA projects and management actions will receive a notice related to degraded water quality, along with instructions for submitting an application (see Appendix K).

Scenario 2: Receipt of an application by the Kern Subbasin's single point contact unrelated to notice provided per the Exceedance Policy. In this scenario, it is unknown if a well is impacted by GSA projects and management actions.

While the scenarios and their associated steps are generally similar to each other—and to those in the Dry Well Mitigation Track—there are some key differences. These distinctions are explained as follows:

Evaluating Application Eligibility for Degraded Water Quality

The Kern Subbasin anticipates that applications for mitigation of Degraded Water Quality will be received by a single point of contact. The applications will be screened as follows:



Stage 1 – Initial Screening : Wells *assumed* to be impacted due to groundwater management activities pursuant to the Exceedance Policy will receive direct and specific notice of their potential eligibility for mitigation—subject to additional confirmation—and notice regarding the application process.

For applications received under Scenario 2, initial screening and evaluation will be conducted by an independent qualified professional as part of the case-by-case evaluation of the application after it has been submitted to the Kern Subbasin appointed single point of contact.

For both scenarios, domestic well sampling and analysis for the Kern Subbasin COC will also be part of the initial screening process to determine if the well associated with the application exceeds one or more primary MCLs and if an exceeded primary MCL is related to GSA projects and management activities. The Kern Subbasin anticipates that the contractor/entity selected for implementation of the Degraded Water Quality Program Mitigation Track will also perform well sampling and analysis as part of their agreement with the Kern Subbasin.

Stage 2 – Domestic Well Eligibility Evaluation: Depending on the result(s) for the well sample, Stage 2 will either consist of (1) no further action necessary and the domestic well owner of record will be notified of such; or (2) be eligible for further evaluation to determine eligibility for mitigation. No further action will be necessary if the well test results indicate that there are no exceedances for primary MCLs tested. The Kern Subbasin is mindful of sharing only factual information and not making false claims regarding the safety of someone’s drinking water overall. Notices will be developed in a thoughtful and mindful manner to avoid implying that their well is safe to drink in light of the number of emerging contaminants for which testing may not yet occur.

If there are primary MCL exceedances for the COC, application eligibility will be further evaluated in the same manner as applications for dry wells.

- (A) A Qualified Professional (e.g., PG, PE, CHG) will perform a technical evaluation of the initial assessment performed, including the proposed mitigation solution in the initial assessment. As part of the technical evaluation, the Qualified Professional will also further evaluate the individual domestic well in question, its location, and potential causes for degradation to determine if degraded water quality is due to groundwater management activities. The Qualified Professional may review the MT Exceedance investigation, if available, using the case-by-case evaluation factors identified in the Exceedance Policy and other factors as determined appropriate by the Qualified Professional.
- (B) The Kern Subbasin Mitigation Evaluation Committee (KMEC) will conduct its evaluation. The KMEC is a three-seat committee intended to minimize bias in the recommendation process, as shown in [Figure 4](#). The KMEC will provide an intermediate evaluation between the technical evaluation performed by the Qualified Professional and the GSA’s final determination. The KMEC’s evaluation will include both technical considerations and locally relevant stakeholder input.

Kern Subbasin Mitigation Evaluation Committee

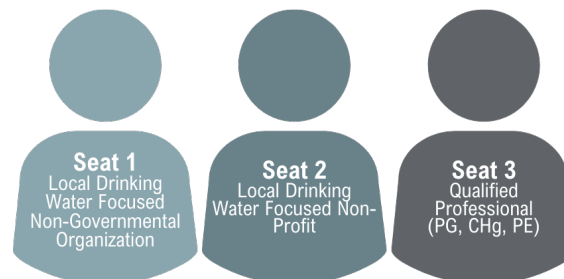


Figure 4. Kern Subbasin Mitigation Evaluation Committee (KMEC)



Section 5: Dry Well Mitigation Track Application Process

The Well Mitigation Program includes two tracks specifically applicable to dry wells or wells experiencing a loss of access to drinking water, based on the type of well and forms of mitigation or assistance available ([Figure 2](#)). This section describes the Dry Well Mitigation Track, which includes emergency supplies, interim supplies, and long-term solutions for domestic wells and multi-use domestic wells impacted by groundwater management activities that occurred after January 1, 2015. The application process for the Dry Well Mitigation Track is explained below and in [Figure 5](#).

Who can apply under the Mitigation Track?



Private Domestic Well Owners³

In the Kern Subbasin, private residences in some unincorporated and unconsolidated small communities and rural portions of the County rely on private wells to meet their domestic water supply needs. Households relying on individual domestic wells for their water supply may apply for assistance under the Dry Well Mitigation Track. For purposes of this Well Mitigation Program, domestic wells are defined as wells with at maximum 4 household connections for drinking water purposes.



Multi-Use Drinking Water Wells (Agricultural Well Owners Using Agricultural Wells for Domestic Supply)

Some private well owners use their wells for both domestic potable supply to a residence and irrigation. Households relying on these wells for drinking water supply may apply for assistance under the Dry Well Mitigation Track. For purposes of this Well Mitigation Program, multi-use drinking water wells are defined as wells used for both agricultural and domestic household purposes with a maximum of 4 service connections.

Dry Well Mitigation Track Application Process

Step 1. Stakeholder Outreach

Public participation and communication are critical to implementing an effective Well Mitigation Program. Stakeholder outreach is organized into three phases: (1) Program development, (2) initial notification, and (3) ongoing outreach.

Phase 1: Program Development. During development of the Well Mitigation Program, the Kern Subbasin conducted a virtual workshop with attendance from various local drinking water advocacy groups to gather

³ Wells used for drinking water purposes that have four or less connections are considered 'domestic' wells in this program. Wells with more than four connections used for drinking water purposes are considered state small systems or community water systems (depending on the connection count), consistent with the terms as defined in Health and Safety Code § 116275.



and incorporate feedback. This workshop summarized the key components of the Well Mitigation Program, including application process, qualification criteria, who can submit an application, and the basis for the budget and funding feasibility. In addition to the Workshop, the Kern Subbasin GSAs, tasked with leading the development of the Well Mitigation Program, engaged in several small group meetings and discussions with Workshop participants to discuss the development of the Well Mitigation Program.

Phase 2: Initial Notification. Following adoption of the Well Mitigation Program, the Kern Subbasin will conduct an outreach campaign to notify Kern Subbasin residents of this new program. Outreach activities include: (1) an email blast to all landowners and participants on the GSAs' interested parties lists and (2) flyers posted in community spaces across the Kern Subbasin. Community spaces include school district buildings, libraries, community centers, and other public locations. The flyers can be made available in English and Spanish, as needed.

Phase 3: Ongoing Outreach. The Kern Subbasin will maintain public awareness of this Well Mitigation Program through postings on GSA websites, agenda items at GSA Board Meetings and stakeholder meetings and events and coordinating with Self-Help Enterprises' outreach initiatives in the Kern Subbasin. This ongoing outreach includes coordination with Kern Water Collaborative, in which it will publicize the Well Mitigation Program as part of the Memorandum of Understanding between the Kern Subbasin and the Kern Water Collaborative. All ongoing outreach can be made available in English and Spanish, as needed.

Step 2. Identify Need for Mitigation

Applicants who have lost access to drinking water must contact Self-Help Enterprises to initiate the mitigation application process. Due to existing laws limiting site access, applications must be submitted by landowners on whose property the adversely impacted well is located; however, in the event a tenant is experiencing loss of access to drinking water, the tenant well user is encouraged to contact the GSA, and the GSA will work with Self-Help Enterprises to notify the well owner of how to apply for mitigation and the benefits of the Well Mitigation Program.

For questions on the applications process or tenant questions on advocating for mitigation support with a landlord(s), a tenant well user should contact the local GSA ([Table 1](#)) and/or Self-Help Enterprises.



Self-Help Enterprises

(559) 802-1685

8445 W Elwin Ct

Visalia, CA 93291

An online intake form is available on Self-Help Enterprises' website:

<https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/>

Translation services are available via phone or in-person.



Step 3. Emergency Water and Interim Supplies

After an application for mitigation is submitted, Self-Help Enterprises will arrange temporary emergency drinking water supplies within 24 hours in the form of bottled water to applicants. Interim supplies, which may include water tanks with delivered supplies, or other appropriate interim measures will be arranged for these households within 72 hours. The Kern Subbasin will fund and/or reimburse Self-Help Enterprises for administering and supplying emergency and interim water supplies for qualifying applications (see Step 8). Emergency water and interim supplies will continue until the application for assistance is resolved.

Step 4. Mitigation Need Assessment

Self-Help Enterprises' field staff will perform an initial assessment, including a site visit and discussions with the landowner and/or tenants. Translation services for Spanish and Punjabi can be made available by Self-Help Enterprises, as needed. Following the assessment, Self-Help Enterprises will provide the documentation and findings to the GSA in which the impacted well is located and the GSA-arranged qualified professional (who will be performing the evaluation in Step 5).

Step 5. Funding Qualification Assessment

A GSA-designated qualified professional (e.g., PG, CHg, PE) will perform a technical evaluation of the information from Self-Help Enterprises on the well, historical groundwater conditions, and land use data to determine if the application qualifies for mitigation under the Well Mitigation Program's qualification criteria and make a recommendation regarding mitigation. The evaluation, findings, and recommendation will be documented and shared with the GSA in which the impacted well is located and the KMEC (Step 6).

In instances in which the application does not qualify for mitigation based on the evaluation from the qualified professional, this information and the supporting documentation will be shared with the applicant by the GSA. The KMEC may reevaluate the determination of disqualification in Step 6 and override the recommendation for disqualification made by the qualified professional.

See [Attachment A](#) and the [Section 10: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs](#) for more information on the type of data and information to be considered and assessed during this step.

Step 6. Mitigation Measure Selection Agreement

Where the application is determined to be qualified for mitigation in Step 5, the KMEC evaluates the findings and recommendation of mitigation measure(s). The KMEC prepares an agreed upon recommendation of (1) proposed mitigation measure(s) and (2) estimated costs associated with administration, assessment, interim supplies, and physical mitigation to be shared with the Board of Directors of the GSA in which the impacted well is located to consider for funding approval in Step 7.

The KMEC's recommendation for long-term mitigation may include, but is not limited to:

- Deepen the well
- Construct a new well
- Modify pump equipment, including lowering the pump
- Consolidation with an existing water system in the vicinity
- Establishment of a new small public water system



- With the consent of the applicant and Self-Help Enterprises, providing other acceptable means of mitigation

Self-Help Enterprises and the staff of the GSA in which the impacted well is located will consider each application on a case-by-case basis to identify the most effective long-term mitigation measure(s).

In instances in which the application was disqualified in Step 5, the KMEC will evaluate the basis for that determination. The KMEC has authority to override this determination and recommend mitigation to the GSA Board of Directors in Step 7.

In cases where the application does not meet the qualification criteria as determined by the qualified professional and the KMEC, the applicant may qualify for mitigation support via other programs that Self-Help Enterprises administers. Self-Help Enterprises will work directly with those applicants to identify options.

Step 7. GSA Board Approval for Funding

Where an application qualifies for mitigation reimbursement, as determined by the KMEC, the qualified professional from Steps 5 and 6 will present to the Board of Directors of the GSA in which the impacted well is located the findings from Step 5 and the KMEC's recommendation on (1) mitigation qualification, (2) proposed mitigation measure to be financially reimbursed, and (3) costs associated with the reimbursement.

The Board of Directors of the GSA in which the impacted well is located will consider approval of mitigation funding reimbursement.

The Well Mitigation Program includes an Appeal Process in the event the applicant disagrees with the determination of the qualified professional, KMEC, or respective GSA Board of Directors. More information is available in the [Section 8: Appeal Process](#) on Page 27.

Step 8. Funding Transaction

Following completion of an agreement and all other necessary documentation, Self-Help Enterprises will advance funding to implement the agreed upon mitigation measure(s). The applicant must complete all of Self-Help Enterprises required legal agreements before the funding transaction between Self-Help Enterprises and the Kern Subbasin is administered. Self-Help Enterprises does not carry out the mitigation measure(s) but acts as a contract coordinator and funding source between the driller/pump contractor and the applicant. The GSA in which the impacted well is located will reimburse Self-Help Enterprises for the funding for all qualifying mitigation support services, including emergency and interim supplies, and Well Mitigation Program administration. Self-Help Enterprises and the Kern Subbasin will establish a funding protocol, including the necessary documentation, for advancing funds, and may agree to deposits to maintain sustainable cashflow for Self-Help Enterprises' administration of the Well Mitigation Program. While the Kern Subbasin funds well mitigation, neither the GSA, member agencies of the GSA, nor Self-Help Enterprises will be liable or responsible for any work performed by contractors.

Step 9. Well Stewardship Education

After the physical mitigation services have commenced, Self-Help Enterprises will administer a Well Stewardship Education training to empower the applicant to maintain the mitigated well. The Well Stewardship Education training involves well and water system filtration maintenance training and financial planning guidance to save for long-term well maintenance.

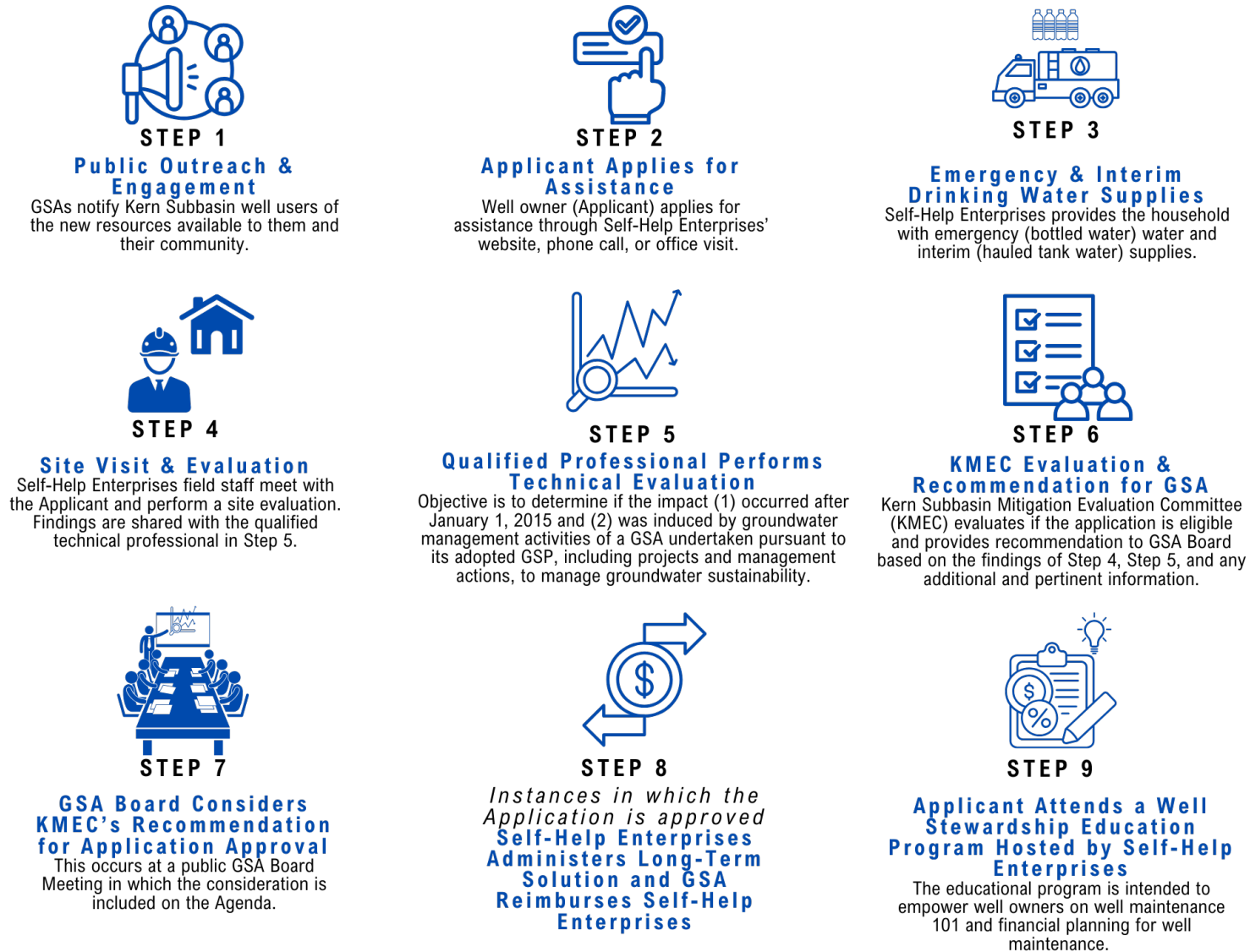


Figure 5. Mitigation Track Application Process (Domestic Wells)



Section 6: Dry Well Technical Assistance Track Application Process

The Well Mitigation Program includes a Dry Well Technical Assistance Track for community water system wells (including small community water systems and state small systems) that have been impacted by groundwater management activities after January 1, 2015. The Dry Well Technical Assistance Track includes up to \$50,000 reimbursement funding for grant application development, contingency planning, feasibility study, or well design.⁴ The application process for the Dry Well Technical Assistance Track is described below and in [Figure 7](#).

Who can apply for the Technical Assistance Track?



Community Water Systems

Most drinking water users in the Kern Subbasin receive their drinking water supplies from public water systems. For purposes of this Well Mitigation Program, community water systems are defined as a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system. Owners of wells that are part of a community water system may submit an application for technical assistance. Public water system wells used exclusively for non-drinking water purposes, such as to irrigate golf courses, landscaping, parks, etc. do not qualify for technical assistance.



State Small Systems

In the Kern Subbasin, some private residences in unincorporated communities (outside of City service area limits) receive their drinking water supplies via a consolidated system of a single or multiple wells. For this Well Mitigation Program, state small systems are defined as wells or system of wells that serve at least 5, but no more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.

⁴ In addition to being eligible for technical assistance, the Kern Subbasin GSAs are currently looking to develop a funding assistance track for state small systems that may potentially provide state small systems up to approximately \$100,000 to address a dry well, or wells at risk of becoming dry, due to groundwater management activities. It was not possible to develop a state small system funding assistance track prior to publication of the Final Plan. In the meantime, the Kern Subbasin GSAs will consider providing assistance to state small systems for dry wells on a case by case basis.



Technical Assistance Application Process

Step 1. Stakeholder Outreach

Stakeholder outreach for the Dry Well Technical Assistance Track is consistent with the stakeholder outreach outlined in the Dry Well Mitigation Track's [Step 1. Stakeholder Outreach](#).

Step 2. Identify Need for Technical Assistance

Applicants must submit a complete Technical Assistance Application ([Attachment B](#)), and email, mail, or hand deliver the completed application to the GSA in which the impacted well is located. Contact information for each GSA is available in [Table 1](#).

To identify the GSA where the well is located, see [Figure 1](#) for a map of the GSAs in the Kern Subbasin. For an interactive map of GSAs and location, see the SGMA Data viewer (<https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer>) and turn on the reference layers for 2018 Bulletin 118 Basins and Groundwater Sustainability Agencies (see [Figure 6](#)).

For support filling out the Technical Assistance Application, the applicant should contact the appropriate GSA. If you are having trouble identifying your GSA or would prefer to identify your GSA via coordination with Kern Subbasin staff, please send an email to comments@kernngsp.com and someone will get back to you in a timely manner.

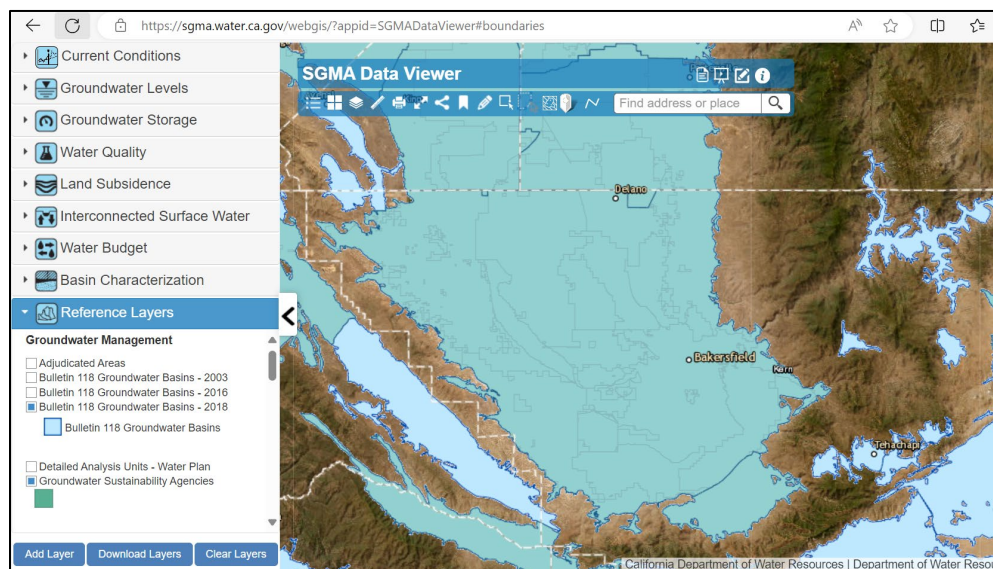


Figure 6. Guidance on Identifying GSA Identification via SGMA Data Viewer

The in-house administrative, financial, and technical resources available to state small and small community systems are often more limited than that for larger community water systems. This can hinder the ability to administer proactive measures to avoid impacts before they occur. Therefore, small community systems and state small systems may submit a proactive application to get a head-start on administering assistance in advance of a potential impact. Small community wells and state small systems who may submit a proactive application can identify if their well is at-risk via the State Water Resources Control Board's Risk Assessment Tool Dashboard :

<https://gispublic.waterboards.ca.gov/portal/apps/dashboards/4f7795ba4349464f9883827ad2e6b67a>

The proactive application involves the same application in [Attachment B](#) and held to the same qualification criteria as other applications (with the revision of the highly probable impact occurring after January 1, 2015 and it being induced by groundwater management activities).



Table 1. GSA Contact Information

GSA	Address	GSA Manager and E-mail	Phone
Arvin GSA www.aewsd.org	20401 E. Bear Mountain Blvd. PO Box 175 Arvin, CA 93203	Jeevan Muhar Engineer-Manager jmuhar@aewsd.org	661-854-5573
Buena Vista GSA www.bvh2o.com	525 North Main Street PO Box 756 Buttonwillow, CA 93206	Tim Ashlock Engineer-Manager tim@BVH2O.com	661-764-2901
Cawelo Water District GSA www.cawelowd.org	17207 Industrial Farm Road Bakersfield, CA 93308	David Halopoff Assistant General Manager dhalopoff@cawelowd.org	661-393-6072
Greenfield County Water District GSA	551 Taft Highway Bakersfield, CA 93307	Nick Cooper ncooper@greenfieldcwgwd.org	661-831-0989
Henry Miller Water District GSA	101 W. Walnut Street Pasadena, CA 91103	Jeof Wyrick President / Chairman jwyrick@jgboswell.com	626-583-3000
Kern Non-Districted Land Authority GSA⁵ (formerly Kern Groundwater Authority GSA) www.kerngwa.com	1518 Mill Rock Way, Suite 100 Bakersfield, CA 93311	Jenny Holtermann ³ Executive Director jenny@kndla.org	(661) 616-5900
Kern River GSA www.kernrivergsa.org	1000 Buena Vista Road Bakersfield, CA 93311	Daniel Maldonado Assistant Director dr Maldonado@bakersfieldcity.us	661-326-3715
Kern Water Bank GSA www.kwb.org	1620 Mill Rock Way, Ste 500 Bakersfield, CA 93311	Jonathan Parker jparker@kwb.org	661-398-4900
Kern-Tulare Water District GSA www.kern-tulare.com	5001 California Ave., Ste 102 Bakersfield, CA 93309	Vanessa Yap Staff Engineer vanessa@kern-tulare.com	661-327-3132
North Kern Water Storage District GSA www.northkernnwsd.com	33380 Cawelo Ave. Bakersfield, CA 93308	David Hampton General Manager dhampton@northkernnwsd.com	661-393-2696
Olcese Water District GSA	15701 Hwy 178 Bakersfield, CA 93306	Jeff Siemens jsiemens@nflc.net	661-872-5050
Pioneer GSA www.kcwa.com/	3200 Rio Mirada Drive Bakersfield, CA 93308	Michelle Anderson Geologist manderson@kcwa.com	661-634-1479
Rosedale-Rio Bravo Water Storage District GSA www.rrbwsd.com	849 Allen Road Bakersfield, CA 93314	Dan Bartel Engineer-Manager dbartel@rrbwsd.com	661-589-6045

⁵ Eastside Water Management Area <https://kernewma.com> is covered by Kern Non-Districted Land Authority GSA. Eastside Water Management Area is managed by: Taylor Blakslee TBlakslee@hgcpm.com 661-477-3385.



GSA	Address	GSA Manager and E-mail	Phone
Semitropic Water Storage District GSA www.Semitropic.com	1101 Central Ave. Wasco, CA 93280	Jason Gianquinto General Manager jgianquinto@semitropic.com	661-758-5113
Shafter-Wasco Irrigation District GSA www.swid.org	16294 Central Valley Hwy. Wasco, CA 93280	Kris Lawrence General Manager klawrence@swid.org	661-758-5153
Southern San Joaquin Municipal Utility District GSA	11281 Garzoli Ave. Delano, CA 93215	Roland Gross General Manager/Secretary roland@ssjmud.org	661-725-0610
Tejon-Castac Water District GSA	4436 Lebec Road Lebec, CA 93243	Angelica Martin Water Resources Director amartin@tejonranch.com	661-663-4262
West Kern Water District GSA	800 Kern Street Taft, CA 93268	Greg Hammett General Manager ghammett@wkwd.org	661-763-3151
Westside District Water Authority GSA	21908 7th Standard Road McKittrick, CA 93251	Mark Gilkey General Manager mgilkey@westsidewa.org	661-633-9022
Wheeler Ridge-Maricopa GSA	12109 Highway 166 Bakersfield, CA 93313	Sheridan Nicholas Engineer-Manager snicholas@wrnwdsd.com	661-527-6075

Step 3. Meeting with Applicant and GSA Staff

Within 10 days of submittal of the application, staff of the GSA in which the impacted well is located will contact the applicant to schedule a meeting to discuss the impact, additional data and information needed and application review process. Notes and information from this meeting will be shared with the qualified professional in Step 4.

Step 4. Technical Assistance Needs Assessment

A qualified professional (e.g., PG, CHg, PE), arranged by the GSA in which the impacted well is located, will perform a field and desktop assessment to identify the likely cause of impact and identify if the application qualifies for technical assistance under the Well Mitigation Program's qualification criteria.

[Attachment A](#) and the [Section 10: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs](#) provides considerations for the assessment.

The findings and recommendations from this evaluation will be documented and shared with the KMEC.

Step 5. Funding Qualification Assessment

The KMEC ([Figure 4](#)) will meet and prepare a recommendation regarding (1) qualification for technical assistance and (2) the needed technical assistance based on the findings from Step 4.

Options for technical assistance include, but are not limited to:

1. Grant application preparation
2. Well Design
3. Contingency Plan Development
4. Feasibility Plan Development



5. With the consent of the applicant and GSA in which the impacted well is located, an alternative form of technical assistance (in an amount up to \$50,000)

These recommendations will be prepared and presented to the GSA Board in Step 6.

Step 6. GSA Board Approval for Funding

The Board of Directors of the GSA in which the impacted well is located will review the recommendations from the KMEC. Where the KMEC and Board of Directors determine the application does not qualify for assistance, that GSA will notify the applicant of the determination and the technical basis for it. Where the application does qualify, the GSA in which the impacted well is located will notify the applicant of the proposed technical assistance amount (i.e., up to \$50,000) awarded, which will be reimbursed in Step 8. The GSA in which the impacted well is located may provide funding up-front or contract the reimbursement directly with the qualified professional performing the technical assistance (up to \$50,000) instead of the well owner upon a showing of financial hardship by the applicant.

Step 7. Technical Assistance and Indemnification Selection Agreement

Following approval by the GSA in which the impacted well is located, the GSA and applicant will enter into an agreement acknowledging the amount of funding, intent of use, and indemnification for liabilities. This step must be completed prior to funding. A conceptual example of an indemnification agreement is included in [Attachment C](#) for context purposes. The actual agreement may vary on a case-by-case basis based on the particular situation.

Step 8. Funding Transaction

After the applicant and GSA in which the impacted well is located complete all necessary agreements, the applicant will proceed with the agreed upon technical assistance. The qualifying applicant must submit all invoicing information to be entitled to reimbursement. The GSA in which the impacted well is located will reimburse the agreed upon amount (Step 6 and Step 7) within 45 days of receiving the invoice from the qualifying applicant.



STEP 1

Public Outreach & Engagement

GSA's notify Kern Subbasin well users of the new resources available to them and their community.



STEP 2

Applicant Applies for Technical Assistance

Applicant emails or mails the GSA a filled-out Technical Assistance Application.

**Note: Applicants representing community wells may submit an Application in advance of an impact if the community well is at-risk of going dry as identified by the SWRCB risk assessment tool.*



STEP 3

Meeting with GSA Staff and Applicant

The meeting includes an overview of the qualification criteria, review of the application, and discussion of the impact.



STEP 4

Qualified Professional Performs Technical Evaluation

Objective is to determine if the impact (1) occurred after January 1, 2015 and (2) was induced by groundwater management activities of a GSA undertaken pursuant to its adopted GSP, including projects and management actions, to manage groundwater sustainability. This evaluation may include a site visit and evaluation.



STEP 5

KMEC Evaluation & Recommendation for GSA

Kern Subbasin Mitigation Evaluation Committee (KMEC) evaluates if the application is eligible and provides recommendation to GSA Board based on the findings of Step 4, Step 5, and any additional and pertinent information.



STEP 6

GSA Board Considers KMEC's Recommendation for Application Approval

This occurs at a public GSA Board Meeting in which the consideration is included on the Agenda.



STEP 7

Instances in which the Application is approved
GSA and Approved Applicant Enter an Indemnification Agreement



STEP 8

Instances in which the Application is approved
Approved Applicant sends GSA Invoice for Technical Assistance Services for GSA to Reimburse

Reimbursement is up to \$50,000. GSAs have discretion to reimburse directly with a qualified technical professional in instances in which the Applicant represents a Disadvantaged Community.

Figure 7. Technical Assistance Track Application Process (Community and Municipal Wells)



Section 7: Degraded Water Quality Mitigation Track Application Process

The Degraded Water Quality Mitigation Track applies to domestic drinking water wells. This section describes the Degraded Water Quality Mitigation Track, which includes interim supplies, and long-term solutions for domestic wells and multi-use domestic wells impacted by Degraded Water Quality as determined through the Exceedance Policy and/or through this Well Mitigation Program. The application process for the Degraded Water Quality Mitigation Track is explained below and in [Figure 8](#).

Who can apply under the Mitigation Track?



Private Domestic Well Owners⁶

In the Kern Subbasin, private residences in some unincorporated and unconsolidated small communities and rural portions of the County rely on private wells to meet their domestic water supply needs. Households relying on individual domestic wells for their water supply may apply for assistance under the Degraded Water Quality Mitigation Track. For purposes of this Well Mitigation Program, domestic wells are defined as wells with at maximum four household connections for drinking water purposes.



Multi-Use Drinking Water Wells (Agricultural Well Owners Using Agricultural Wells for Domestic Supply)

Some private well owners use their wells for both domestic potable supply to a residence and irrigation. Households relying on these wells for drinking water supply may apply for assistance under the Degraded Water Quality Mitigation Track. For purposes of this Well Mitigation Program, multi-use drinking water wells are defined as wells used for both agricultural and domestic household purposes with a maximum of four service connections.

Degraded Water Quality Mitigation Track Application Process

Step 1. Public Outreach & Engagement

Public participation and communication are critical to implementing an effective Well Mitigation Program. Stakeholder outreach is organized into three phases: (1) Program development, (2) initial notification, and (3) ongoing outreach.

Phase 1: Program Development. Stakeholder outreach for the Degraded Water Quality Mitigation Track builds on the stakeholder outreach outlined in the Dry Well Mitigation Track's [Step 1. Stakeholder Outreach](#). For the Degraded Water Quality Mitigation Track, the Kern Subbasin intends to conduct

⁶ Wells used for drinking water purposes that have four or less connections are considered 'domestic' wells in this program. Wells with more than four connections used for drinking water purposes are considered state small systems or community water systems (depending on the connection count).



additional outreach to local advocacy drinking water groups to explain the program and obtain additional feedback as soon as possible, and prior to September 2025.

Phase 2: Initial Notification. Following adoption of the Version 2.0 Well Mitigation Program that includes the Degraded Water Quality Mitigation Track, the Kern Subbasin will conduct an outreach campaign to notify residents within the Plan Area of this new program. Outreach activities include: (1) an email blast to all landowners and participants on the Kern Subbasin's interested parties lists and (2) flyers posted in community spaces across the Kern Subbasin. Community spaces include school district buildings, libraries, community centers, and other public locations. The flyers can be made available in English and Spanish, as needed.

Phase 3: Ongoing Outreach. The GSAs will maintain public awareness of the Degraded Water Quality Mitigation Track by providing direct notice to domestic well owners of record located generally within a 3-mile radius when a RMW-WQ exceeds a Minimum Threshold for a COC, the Minimum Threshold exceedance is found to be caused by GSA actions during the MT Exceedance Investigation, and the domestic well is *assumed* to also be degraded due to GSA projects and management actions (Appendix K). Further, general notice of the program will be maintained on GSA websites, and will be continually highlighted at stakeholder meetings and events and in coordination with similar outreach initiatives taking place in the Kern Subbasin. This ongoing outreach includes coordination with Kern Water Collaborative, who will publicize the Degraded Water Quality Mitigation Track as part of the existing Memorandum of Understanding between the Kern Subbasin and the Kern Water Collaborative. All ongoing outreach can be made available in English and Spanish, as needed.

Step 2. Applicant Applies for Assistance

Applicants who believe they may have Degraded Water Quality must first submit an application for mitigation to the appointed Single Point of Contact for the Kern Subbasin. The Kern Subbasin will provide information with respect to the process for submitting an application on all relevant websites and in notices to domestic well owners of record per the Exceedance Policy, as applicable. The applicant's submittal of the application will initiate the review process and determination of eligibility.

Due to existing laws limiting site access, applications must be submitted by landowners on whose property the potentially adversely impacted well is located; however, in the event a tenant believes they may have degraded drinking water, the tenant well user is encouraged to contact the Kern Subbasin, and the Kern Subbasin will work with the tenant to notify the well owner of how to apply for mitigation and the benefits of the Degraded Water Quality Mitigation Track.

For questions on the applications process or tenant questions on advocating for mitigation support with a landlord(s), a tenant well user should contact the local GSA ([Table 1](#)).

Step 3. Domestic Well Assessment

For Step 3, The Kern Subbasin intends to enter into an agreement with an appropriate contractor/entity (e.g., Self-Help Enterprises) to sample and analyze the domestic well, and provide short-term drinking water if necessary. If the domestic well does not exceed primary MCLs for any of the Kern Subbasin COCs, no further steps apply as it relates to the Kern Subbasin's Degraded Water Quality Mitigation Track. However, non-related exceedances of primary MCLs may be eligible for assistance from other, unrelated programs.

As part of Step 3, the contractor/entity engaged to sample and analyze the domestic well will also be engaged to conduct further well evaluation and recommend a potential long-term mitigation measure



for the domestic well, if necessary. This includes conducting a site inspection of the well to evaluate sources of contamination that may be causing degraded water quality (e.g., septic system near domestic well). Translation services for Spanish and Punjabi can be made available, as needed. Following the assessment, the contractor/entity performing the initial assessment would provide the documentation and findings to the Kern Subbasin designated qualified professional for further evaluation and assessment.

Step 4. Qualified Professional Performs Technical Evaluation

The Kern Subbasin will designate a qualified professional (e.g., PG, CHg, PE) (or professionals) to perform a technical evaluation of the information provided from the contractor/entity that performed Step 3 and 4. For this technical evaluation, the qualified professional will evaluate historical groundwater conditions, readily available data and information, and conduct a case-by-case evaluation using the factors identified in the Exceedance Policy for MT exceedance investigations. This evaluation may be more limited if the domestic well is one that has been identified as a well *assumed* to be degraded due to GSA projects and management actions per the Exceedance Policy (Appendix K). The qualified professional will also evaluate the recommended long-term mitigation measure proposed by the contractor/entity. The qualified professional's evaluation, findings, and recommendation will be documented and shared with the GSA in which the impacted well is located and with the KMEC, who will further evaluate recommended long-term mitigation measures (Step 5).

In instances in which the application does not qualify for mitigation based on the evaluation from the qualified professional, this information and the supporting documentation will be shared with the contractor/entity. The KMEC may reevaluate the determination of disqualification in Step 5 and override the recommendation for disqualification made by the qualified professional.

See [Attachment A](#) and the [Section 10: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs](#) for more information on the type of data and information to be considered and assessed during this step.

Step 5. KMEC Evaluation and Recommendation for GSA

Where the application is determined to be qualified for mitigation in Step 5, the KMEC evaluates the findings and recommendations of the qualified professional and the recommended mitigation measure(s). The KMEC prepares an agreed upon recommendation of (1) proposed mitigation measure(s) and (2) estimated costs associated with administration, assessment, interim supplies, and physical mitigation to be shared with the Board of Directors of the GSA in which the impacted well is located to consider for funding approval in Step 7.

The KMEC's recommendation for long-term mitigation may include, but is not limited to:

- Installation of a Point of Use or Point of Entry treatment system – depending on the level and presence of primary MCLs
- Construct a new well
- Consolidation with an existing water system in the vicinity
- With the consent of the applicant, providing other acceptable means of mitigation

The GSA, in coordination with an appropriate qualified professional, in which the impacted well is located will consider each application on a case-by-case basis to identify the most effective interim and long-term mitigation measure(s).



In instances in which the application was disqualified in Step 5, the KMEC will evaluate the basis for that determination. The KMEC has authority to override this determination and recommend mitigation to the GSA Board of Directors in Step 6.

In cases where the application does not meet the qualification criteria as determined by the qualified professional and the KMEC, the applicant may qualify for mitigation support via other programs administered by Self-Help Enterprises or others.

Step 6. GSA Board Considers KMEC's Recommendation for Application Approval

Where an application qualifies for mitigation reimbursement, as determined by the KMEC, the qualified professional from Steps 4 and 5 will present to the Board of Directors of the GSA in which the impacted well is located the findings from Step 4, and the KMEC's recommendation on (1) mitigation qualification, (2) proposed mitigation measure to be financially reimbursed, and (3) costs associated with the reimbursement.

The Board of Directors of the GSA, in which the impacted well is located, will consider the approval of mitigation funding reimbursement.

The Well Mitigation Program includes an Appeal Process in the event the applicant disagrees with the determination of the qualified professional, KMEC, or respective GSA Board of Directors. More information is available in the [Section 8: Appeal Process](#) on Page 27.

Step 7. Funding Transaction

To implement all or parts of the Degraded Water Quality Mitigation Track, the Kern Subbasin intends to enter into an agreement with a contractor/entity (e.g., Self-Help Enterprises) that will address funding processes to implement the agreed upon mitigation measure(s). Such agreement or agreements may include direct financial support for the services to be provided or an agreement to reimburse the contractor/entity that is performing such services, including qualifying mitigation support services like emergency and interim supplies, and Well Mitigation Program administration.

Step 8. Well Stewardship Education

After physical mitigation services have commenced, the contractor/entity may be asked to offer Well Stewardship Education training, as applicable, to empower the applicant to maintain the mitigated well or maintain treatment systems that may be installed at the well or in the home. The Well Stewardship Education training may include well and water system filtration maintenance training and financial planning guidance to save for long-term well maintenance. As applicable, mitigation awarded for groundwater quality may include providing the applicant with 3-years of filters to ease the initial financial burden of the treatment system's stewardship.

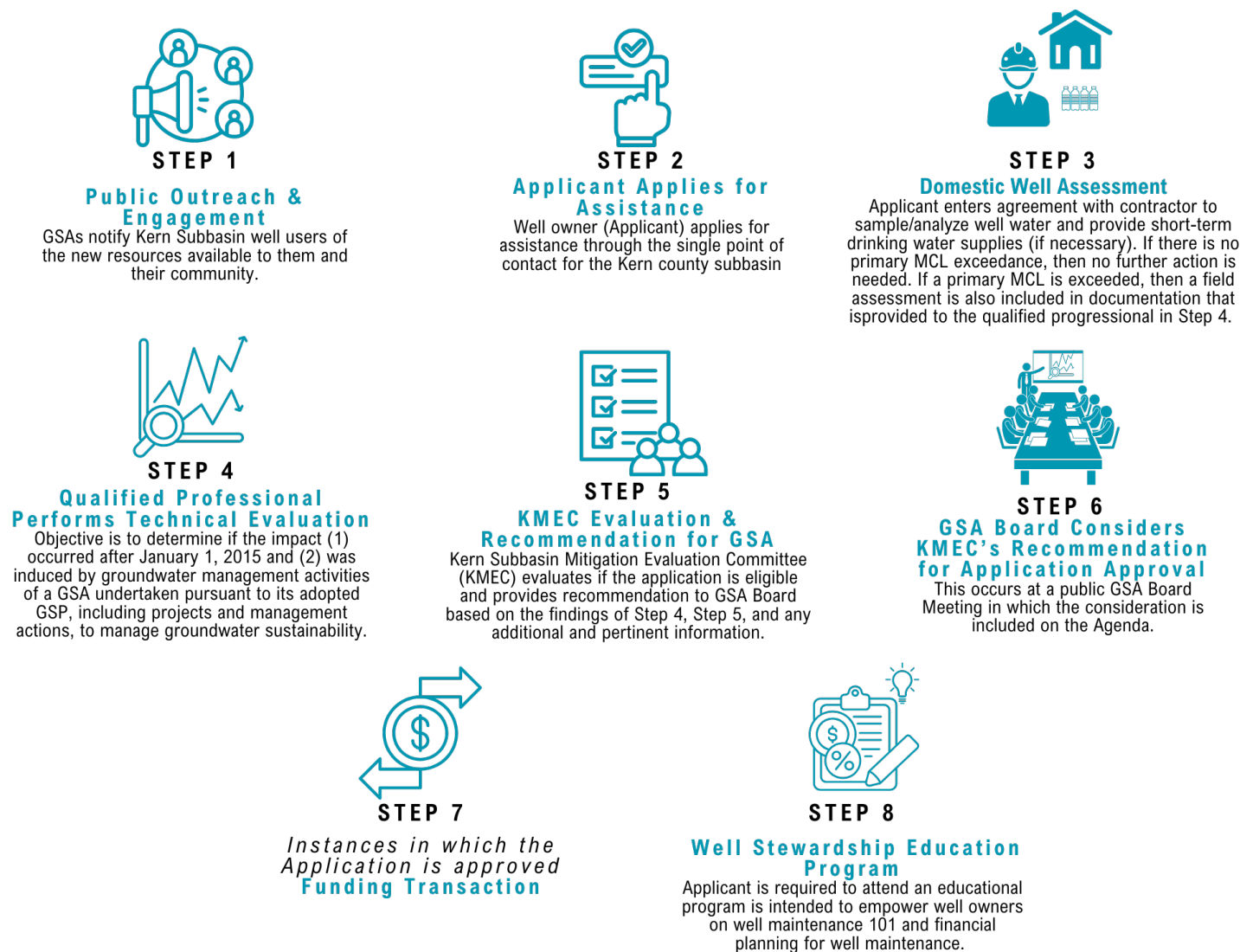


Figure 8. Degraded Water Quality Mitigation Track Application Process (Domestic Wells)



Section 8: Appeal Process

If an applicant disagrees with the mitigation proposed by a GSA, the applicant may submit a request for appeal to the GSA's Board of Directors. This can be arranged by contacting the GSA in which the application was processed and requesting the appeal be placed on an agenda for an upcoming GSA's Board of Directors meeting. The applicant must provide sufficient technical documentation to support the appeal. 'Sufficient technical documentation' means enough data and information for the qualified professional and KMEC to effectively evaluate the application. This includes:

- (1) well construction information such as well depth, perforated intervals, casing size, inclusion of a compression sleeve;
- (2) well sampling data and information that may be available;
- (2) well operation information such as well maintenance and electrical records;
- (3) site information such as specific well location, septic location (if relevant), and any additional pertinent land use information; and
- (4) photos and access to the site for an in-person assessment.

Because the Kern Subbasin funded a similar, robust technical analysis performed by a qualified technical professional (PG, CHg, or PE) in the application process evaluation phase, it is the applicant's responsibility to fund any additional technical analyses necessary to support the applicant's appeal.

The appeal must be submitted within 30 days of the GSA's Board of Directors determination (Step 7 in the Dry Well and Degraded Water Quality Mitigation Tracks and Step 6 in the Dry Well Technical Assistance Track). The GSA's Board of Directors must include the appeal for consideration at the next regularly scheduled Board meeting or within 45 days of being notified by the applicant of an appeal, whichever is sooner.

During the GSA Board meeting when the appeal is heard, the applicant (or a representative for the applicant) must present the technical basis for the appeal. The GSA Board shall either (1) agree to qualify the application or (2) refer the application and appeal documentation to the KMEC for further evaluation. The KMEC's recommendation based on the appeal documentation and initial application will be provided to the Board of Directors of the GSA to consider at an upcoming GSA Board meeting.

When the appeal is referred to the KMEC, the KMEC may revise its recommendation or affirm its existing recommendation and shall document the technical components explaining the evaluation for its determination.

The KMEC's recommendation following evaluation of the appeal will be documented and submitted to the GSA Board of Directors for reconsideration at the next Board meeting.

As with all elements of the Well Mitigation Program, the appeal (and dispute resolution) protocols are subject to revision as lessons are learned through Well Mitigation Program implementation.

Section 9: Application Privacy

Once an application and subsequent information is provided to a GSA, it becomes subject to the California Public Records Act, which may require public disclosure of the information on request. If an



applicant is concerned about sensitive information requested in the application process, the applicant should contact the GSA to discuss data and information-sharing confidentiality solutions.

Section 10: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs

Not all impacts to wells fall within the scope of responsibility for GSA mitigation. For example, a well experiencing an electrical or mechanical failure may be due to reasons independent of groundwater management activities. Therefore, qualification criteria were established to determine if an application falls within GSA responsibility. The qualification criteria under this Well Mitigation Program are explained in [Figure 3](#).

This section describes the technical considerations to be made during the qualified professional's evaluation in Step 4 of the three Program tracks' application processes.

Groundwater Level Impacts

Groundwater pumping in overdraft results in systemic, long-term lowering of groundwater levels. In a water well, if the groundwater levels decline such that a pump in the well is no longer adequately submerged, the pump may not operate correctly. Further lowering of groundwater levels below the pump's intake will render the pump inoperable. If there is no room to further lower the pump in the well, the well is considered dry ([Figure 9](#)). DWR released a guidance document in March 2023 detailing additional considerations to identify adverse impacts to drinking water wells, which has informed this Well Mitigation Program.⁷

During the funding qualification assessment step of the application process, groundwater pumping in overdraft will need to be distinguished from seasonal and longer-term precipitation patterns (e.g., drought, non-chronic lowering of groundwater levels). These differences can be distinguished through an analysis of groundwater level hydrographs for representative monitoring wells in the vicinity of the application of impact.

The total well depths across the Kern Subbasin for different well types (domestic, small community, M&I) are depicted in [Figure 10](#), [Figure 11](#), and [Figure 12](#).

It is important to note that the Kern Subbasin has protocols to address instances of Representative Monitoring Site exceedances of minimum thresholds. Those exceedance protocols initiate actions to avoid significant and unreasonable impacts and notify nearby households of the exceedance. These are detailed in Appendix K of the 2025 GSP.

⁷ DWR. March 2023. Considerations for Identifying and Addressing Drinking Water Well Impacts. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Files/Considerations-for-Identifying-and-Addressing-Drinking-Water-Well-Impacts_FINAL.pdf

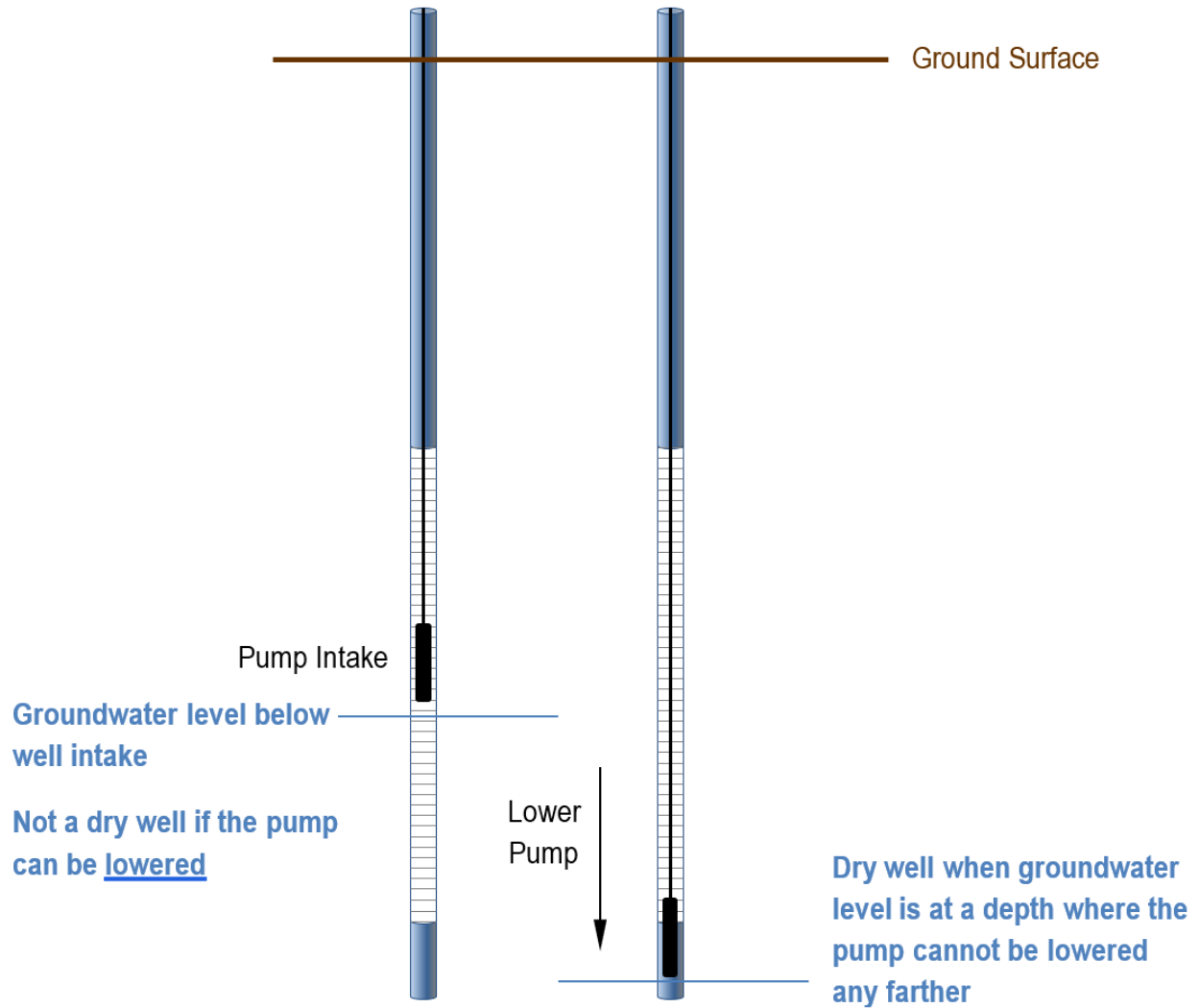


Figure 9. Groundwater Levels Relative to Pump Intake and Bottom of Well

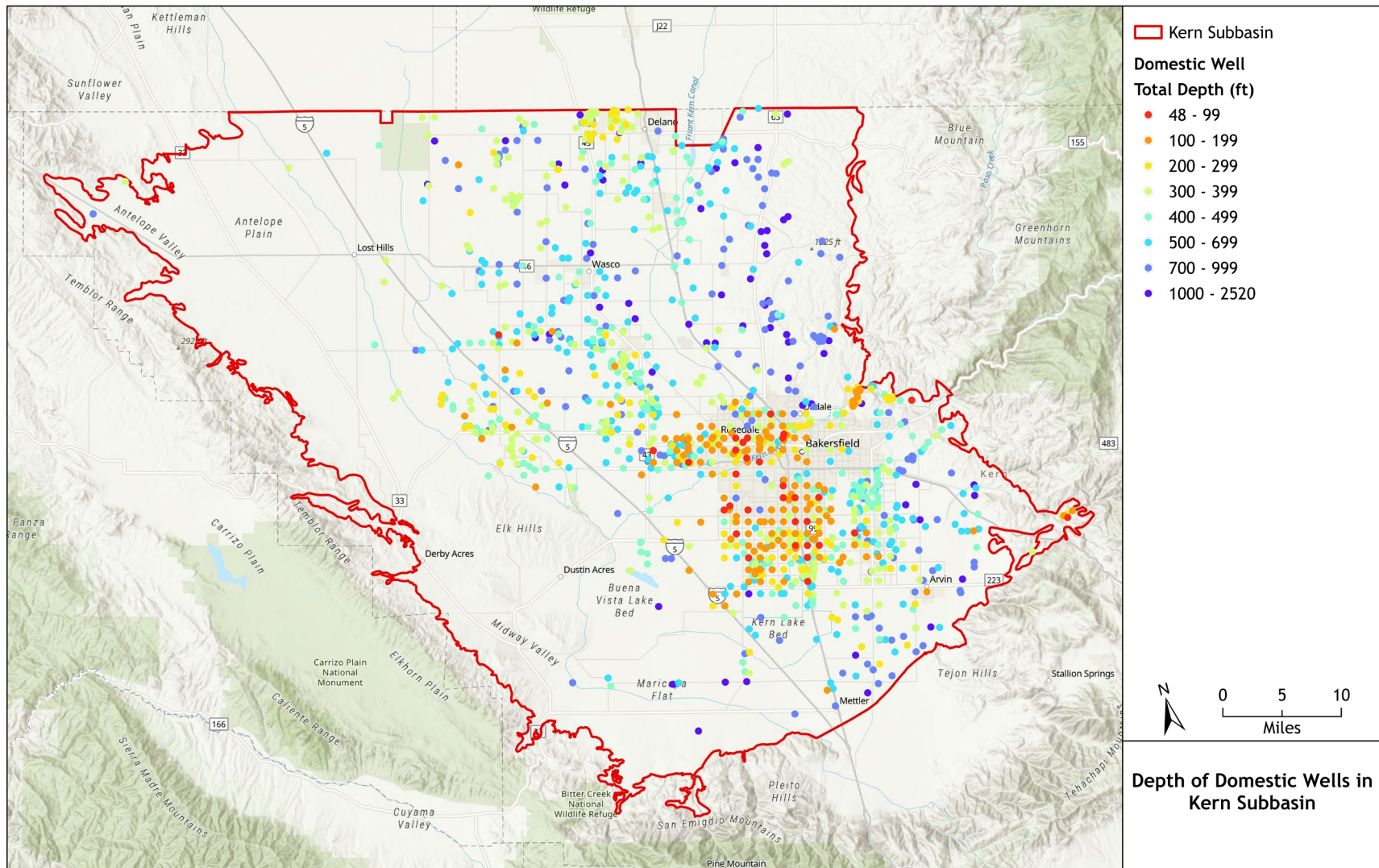


Figure 10. Domestic Well Depths in the Kern Subbasin (as of November 2024)

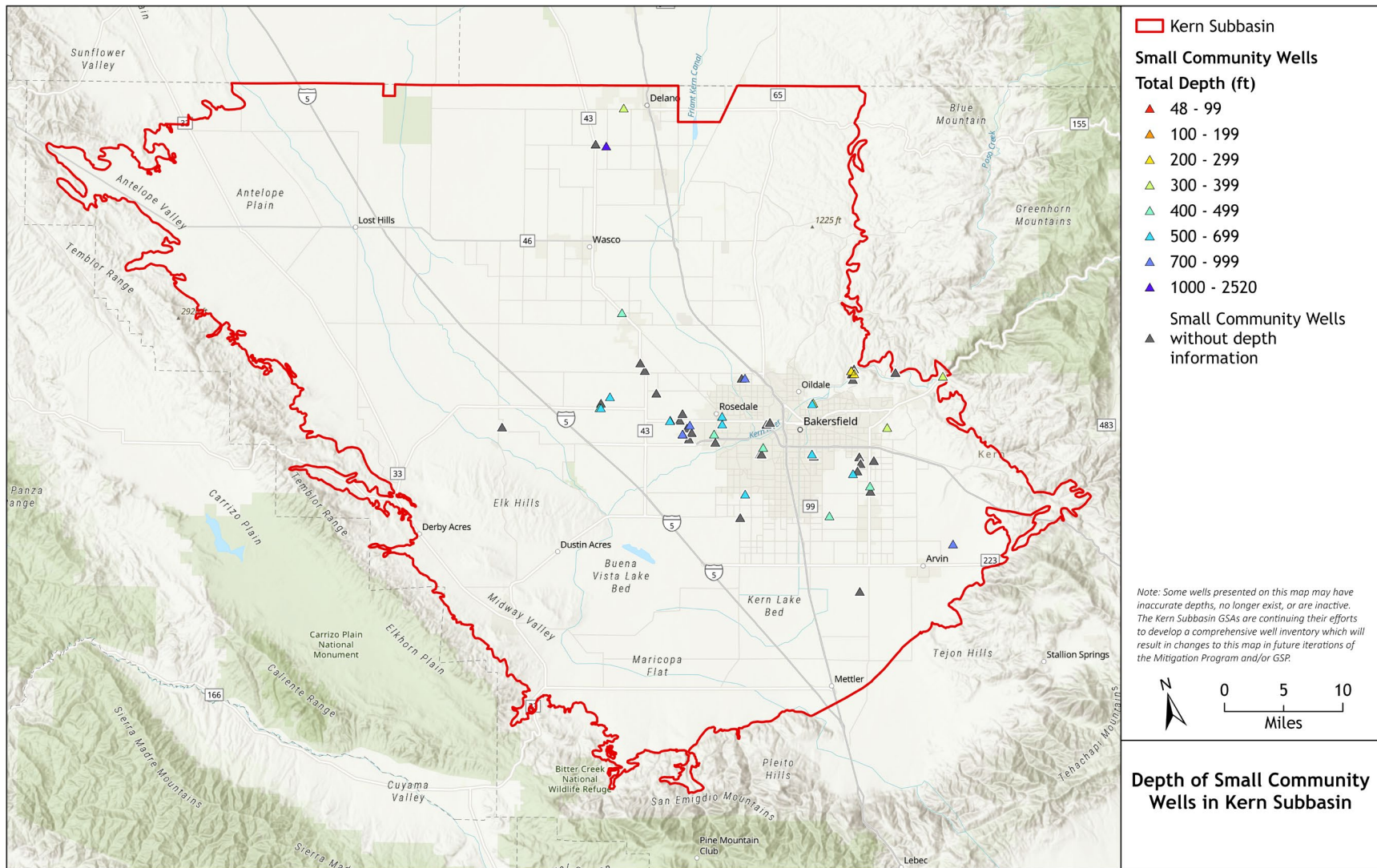


Figure 11. Small Community Well Depths in the Kern Subbasin (as of November 2024)

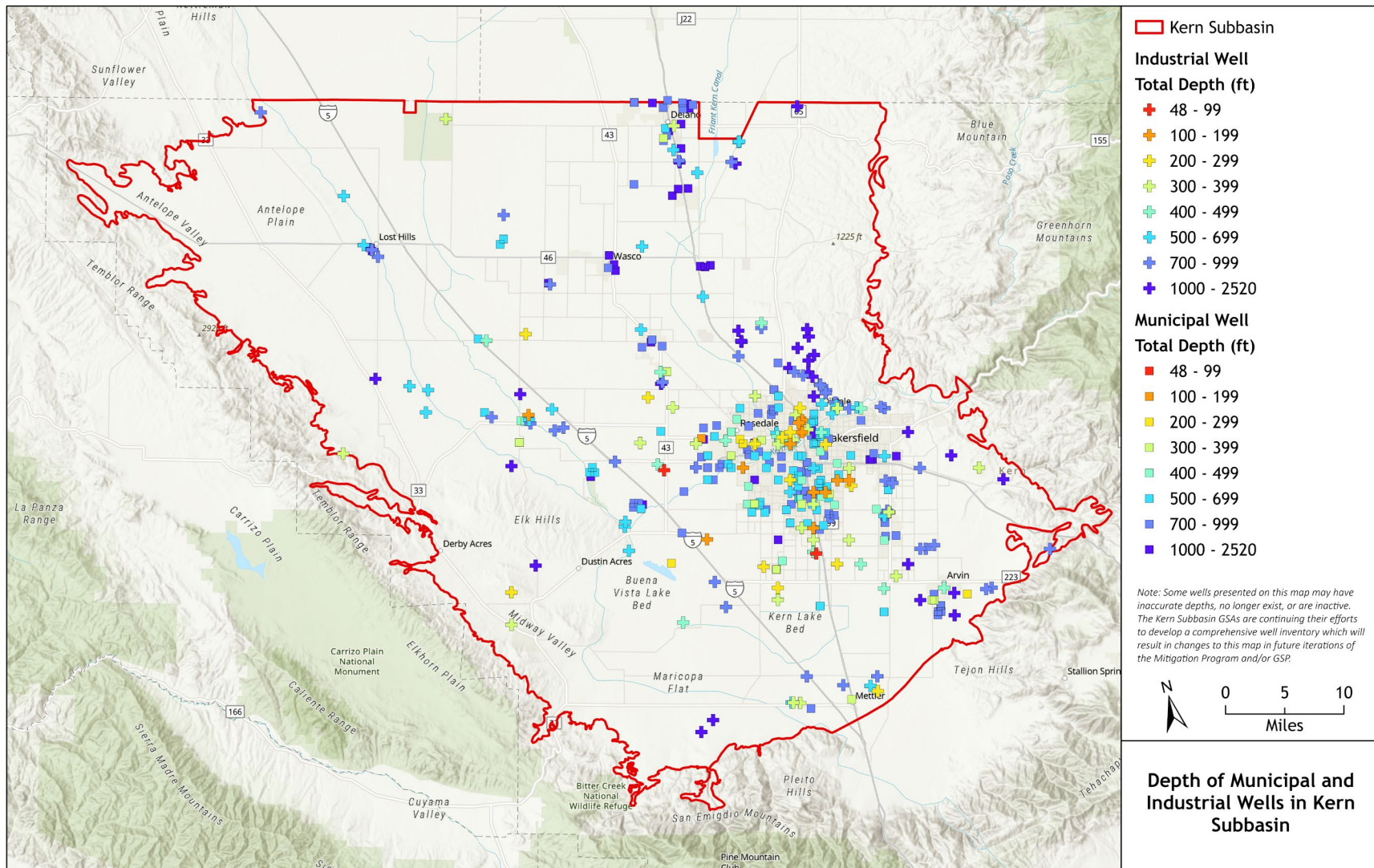


Figure 12. Municipal & Industrial Well Depths in the Kern Subbasin (as of November 2024)



Subsidence Impacts

Land subsidence has been documented within the San Joaquin Valley over both historical and recent timeframes, with the greatest documented subsidence within the Kern Subbasin occurring in the northern portion of the Subbasin ([Figure 13](#)).

Land subsidence rates within the Kern Subbasin range from 0 to 0.3 feet per year resulting in a cumulative land subsidence of 0 to 2.41 feet since 2015, as of 2023. The risk to wells related to land subsidence is well collapse or physical failure ([Figure 14](#)). Many irrigation and municipal wells within subsidence-prone regions of the San Joaquin Valley include a compression sleeve. The compression sleeve can withstand 9 to 12 feet of additional subsidence from the point of construction. Therefore, the limited land subsidence in the Kern Subbasin (and projected limited land subsidence) is not expected to result in well failures due to land subsidence.

It is important to note that the Kern Subbasin has protocols to address instances of Representative Monitoring Site exceedances of minimum thresholds. Those exceedance protocols initiate actions to avoid significant and unreasonable impacts. These are detailed in Appendix K (Attachment K-1) of the 2025 Plan.

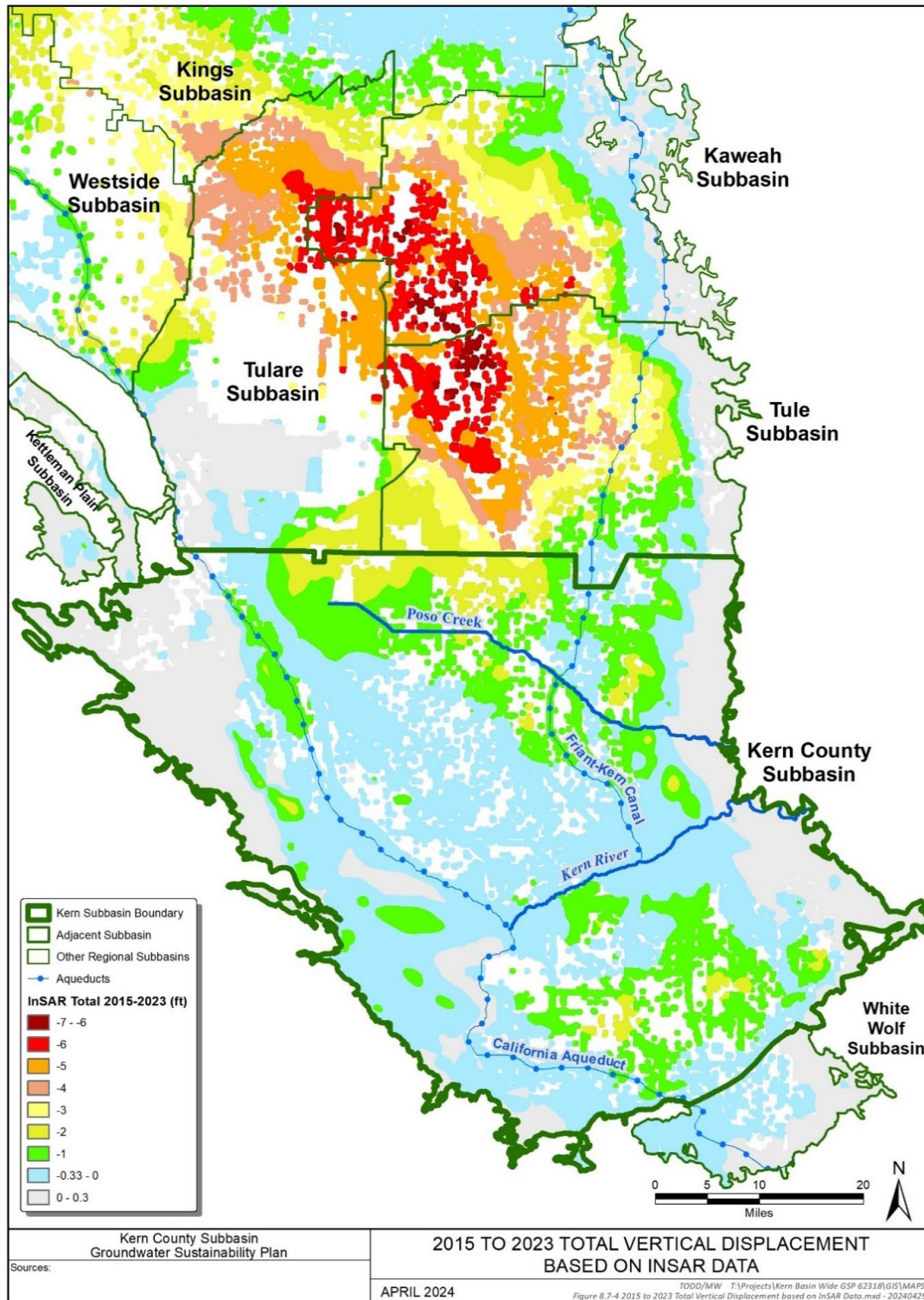


Figure 13. Cumulative Subsidence between 2015 – 2023 (ft) based on InSAR data

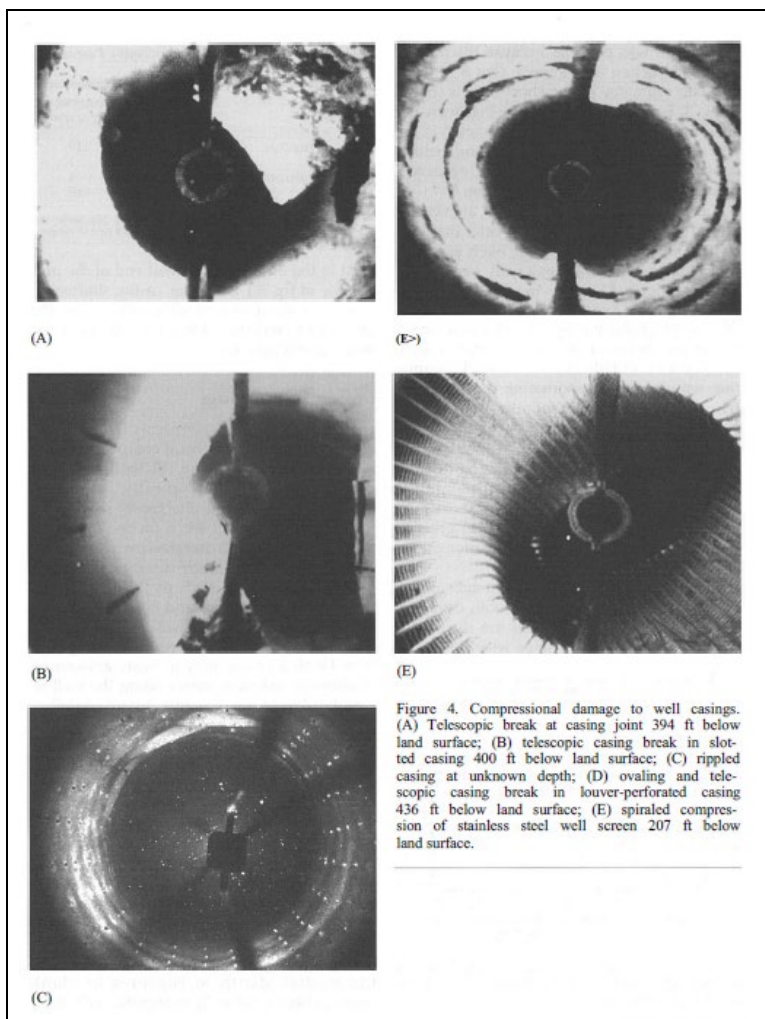


Figure 14. Well Damage Attributed to Subsidence (Borchers et al., 1998)



Groundwater Quality Impacts

Groundwater level changes have been shown in some cases to degrade groundwater quality. While most groundwater meets drinking water standards, some groundwater can contain high concentrations of arsenic, nitrate, nitrite, and 1,2,3-Trichloropropane (1,2,3-TCP), which are all have associated primary MCLs.⁸ In addition to these constituents, the Kern Subbasin also includes uranium as a COC. . Note, the application must meet the qualification criteria of the impact having occurred after January 1, 2015, and degraded water quality in the domestic well must be due to groundwater management activities, as determined through implementation of the Minimum Thresholds Exceedance Policy or as part of the Well Mitigation Program's determination of eligibility.

The Degraded Water Quality Mitigation Track is intended to mitigate or provide technical assistance for adverse impacts associated with groundwater management activities; therefore, groundwater quality issues must be related to chronic lowering of groundwater levels, degradation caused by localized recharge and banking activities, or other groundwater management activity that results in increases in concentrations of COC in groundwater to be considered for mitigation qualification, as determined through implementation of the Minimum Thresholds Exceedance Policy (Appendix K), or through the technical evaluation performed under Step 5 of the Degraded Water Quality Mitigation Track.⁹ Ultimately, determinations of Degraded Water Quality will need to be a case-by-case evaluation considering a number of factors.

Essential factors for consideration include, but are not limited to:

- (1) An exceedance [or exceedances] of a Minimum Threshold at a Representative Monitoring Well for Water Quality (RMW-WQ) as set forth in the 2025 GSP;
- (2) The COC is a primary MCL – not a secondary MCL;
- (3) Location of the domestic well(s) in relationship to the RMW-WQ and location in relationship to GSA projects and management activities;
- (4) Baseline water quality conditions that existed or may have existed prior to January 1, 2015, to determine if degradation occurred prior to January 1, 2015, for the COC;
- (5) Whether groundwater management activities are related to ongoing, standard basin operations that are consistent with operations taking place prior to 2015; or,
- (6) If the presence of the constituents/contaminants in the aquifer are due to the actions of others that are likely responsible parties.

Degraded groundwater quality may be related to groundwater management activities if the changes in groundwater levels has a direct correlation with introduction of a new COC or significant increase in concentration of a COC from 2015 or earlier conditions. The causation and correlations of changes in groundwater quality are to be considered during the mitigation need assessment and funding qualification assessment phases of the mitigation application process. Groundwater quality increasing

⁸ Descriptions of constituents of concern as described in the Kern Subbasin GSP.

⁹ Potential causes of Undesirable Results for degraded groundwater quality are listed in the Kern Subbasin Groundwater Sustainability Plan.



and decreasing trends since pre-2015 conditions can be assessed using trend analyses such as the Mann-Kendall Trend test.

With respect to groundwater quality conditions, the Kern Subbasin will also coordinate with other state and local agencies that have some level of regulatory oversight, control, or involvement with ensuring that drinking water in the Kern Subbasin meets appropriate drinking water standards. These coordination efforts are explained in the Degraded Water Quality Implementation Provisions and are not repeated here (Appendix K-2). Moreover, the Kern Subbasin is actively coordinating with the Kern Water Collaborative, a nonprofit organization focused on nitrate issues within the Kern Subbasin. The Kern Water Collaborative and Kern Subbasin have entered a Memorandum of Understanding to further establish their complementary roles in managing groundwater resources and domestic well protections in the Kern Subbasin. For example, the Kern Water Collaborative offers free nitrate testing for domestic wells within Priority 2 management zone areas, which can support a domestic well owner in identifying the need for mitigation via this Well Mitigation Program. Additionally, data from these domestic wells can be useful in Kern Subbasin groundwater management analyses and decision-making.

Notably, the Kern Subbasin has protocols to address instances of Representative Monitoring Site exceedances of minimum thresholds. Those exceedance protocols initiate actions to avoid significant and unreasonable impacts and notify nearby domestic well owners of record of the exceedance. These notice procedures are detailed in the Exceedance Policy (Appendix K) and explained in the Degraded Water Quality Implementation Provisions (Appendix K-2).



Section 11: Mitigation Funding and Anticipated Costs

The Well Mitigation Program budget for the Kern Subbasin is up to an aggregate of \$3.5 million for the combined first two years of implementation. This cost estimate includes mitigation of qualifying dry wells, reverse-osmosis systems for qualifying groundwater quality-based applications (including filter replacement for three years), technical assistance for other drinking water well types, uncertainty buffers¹⁰, GSA administration of the Well Mitigation Program, as well as Self-Help Enterprises' administration of the Dry Well Mitigation and Dry Well Technical Assistance Tracks of the Well Mitigation Program.

The mitigation cost and budget will be reevaluated every 2 years (or more frequently, if necessary) by the Kern Subbasin.

The Kern Subbasin's mitigation budget is informed by cost estimates generated by the Kern Subbasin's Dry Well Susceptibility Analysis.¹¹ The Dry Well Susceptibility Analysis identified potentially at-risk wells by use type across the Kern Subbasin. All potentially at-risk domestic wells were assumed to receive mitigation of \$90,000 per well (well replacement with all associated emergency/interim supply and administrative costs included). Potentially at-risk other drinking water well types were assumed to receive the maximum technical assistance award of \$50,000 per well.

Note, the \$3.5 million mitigation budget includes funding for uncertainty in the analysis, inflation, and climate change as well as funding for program administration, application evaluation, and mitigation for groundwater quality impacts as well as the funding for mitigation and technical assistance for dry wells.

The funding mechanism for each GSA comes from its existing fee and GSA funding structures. All participating GSAs have mitigation funding as appropriate for their GSA to meet the \$3.5 million Kern Subbasin budget requirement.

The Kern Subbasin will use an impact-attribution based funding structure once the development of the attribution-based analytical tool(s) is complete. Once the tool is developed, it will be used to "true-up" mitigation funding provided under this mitigation program prior to the completion of the tool development. This will require the GSA responsible for the impact to fund the mitigation. More information on this impact-attribution based structure will be provided in future versions of this Well Mitigation Program, as the analytical tools required to perform the attribution analyses become available.

The Kern Subbasin will continue to explore grant funding at the State and federal levels to support program funding opportunities. The State of California has many existing grant programs for community water systems and well construction funding; however, the State's Safe and Affordable Funding for Equity and Resilience (SAFER) Program funding will not be relied upon by the Kern Subbasin for mitigation of domestic well impacts due to groundwater management activities. County, State, and Federal assistance may be needed to best maximize the Well Mitigation Program in conjunction with programs that are developed to address similar issues (i.e. degraded water quality) to SGMA, such as

¹⁰ An uncertainty buffer refers to monies reserved for uncertainty in available data, information, and analytical tools used to develop the cost estimates which informed the Mitigation Program budget. This uncertainty includes consideration for external factors, such as climate change and changes in state and federal policies affecting surface water allocations.

¹¹ Appendix Q of the Kern Subbasin Groundwater Sustainability Plan



CV-SALTS. The Kern Subbasin will also work with local non-governmental organizations that may be able to aid or seek grant monies to assist Well Mitigation Program implementation.



Attachment A

Application Process – Technical Evaluation Considerations

Application Process – Technical Evaluation Considerations

The Technical Evaluation Consideration is intended to determine if the impacted well is within the scope of the Kern Subbasin responsibility for funding, or if the impact was induced by activities outside of the scope of SGMA and therefore shall be mitigated via existing alternative programs. Self-Help Enterprises administers mitigation services for wells qualifying for Kern Subbasin GSA's Well Mitigation Program and alternative programs.

TECHNICAL IMPACT ASSESSMENT

GSA's Assigned Qualified Technician to Perform Desktop Assessment:

Applications related to chronic lowering of groundwater levels

GSA to review:

- Historical static groundwater levels.
- Historical pumping groundwater levels.
- Well operation and maintenance history.
- Well construction history.
- Historical monthly production volume.
- Potential for consolidation to public water system.
- Nearby historical land and water use.
- Depth to bedrock.
- Nearby conjunctive use activity.
- Well depth, perforated intervals, pump depth.

Applications related to degraded water quality

GSA to review:

- Historical groundwater quality at well.
- Historical groundwater quality at nearby wells.
- Historical static groundwater levels.
- Historical pumping groundwater levels.
- Well operation and maintenance history.
- Well construction history.
- Historical monthly production volume.
- Potential for consolidation.
- Nearby historical land and water use.
- Depth to bedrock.
- Nearby conjunctive use activity.
- Well depth, perforated intervals, pump depth.

Applications related to land subsidence

GSA to review:

- Historical InSAR data.
- Historical static groundwater levels.
- Historical pumping groundwater levels.
- Operation and maintenance history.
- Construction history.
- Historical monthly capacity.
- Potential for consolidation.
- Nearby historical land and water use.
- Depth to clay or usable water.
- Nearby conjunctive use activity.
- Well depth, perforated intervals, pump depth.
- Photos of physical damage.
- Original well/infrastructure survey/design.

GSA's Assigned Qualified Technician to Perform Field Assessment:

GSA may perform the following:

- (1) Pull pump and measure pump intake depth, well bottom, static water level.
- (2) Modify wellhead to install sounding port to measure static and pumping level.
- (3) Modify wellhead to install flowmeter(3)
- Modify wellhead to install flowmeter.
- (4) Conduct video log.
- (5) Investigate site to inform estimated water demand.
- (6) Investigate nearby land and water use(6)
- Investigate nearby land and water use.
- (7) Investigate site for consolidation feasibility.

GSA may perform the following:

- (1) Pull pump and measure pump intake depth, well bottom, static water level.
- (2) Modify wellhead to install sounding port to measure static and pumping level.
- (3) Modify wellhead to install flowmeter.
- (4) Conduct video log.
- (5) Collect water quality samples at Applicant's well.
- (6) Collect water quality samples at wells nearby impacted well.
- 7) investigate site for consolidation feasibility.
- 8) Investigate site and nearby land use for source of water quality impact.

GSA to assess:

- (1) Evidence of ground fissures consistent with subsidence.
- (2) Visible casing collapse, damage, or protrusion attributable to subsidence.

For well Applications, the GSA may perform the following:

- (1) Pull pump and measure pump intake depth, well bottom, static water level.
- (2) Modify wellhead to install sounding port to measure static and pumping level.
- (3) Modify wellhead to install flowmeter.
- (4) Conduct video log.

GSA may request additional data and information. GSA may reach out to original driller or design engineer to confirm information provided.

Mitigation Application proceeds to Qualification phase.



Attachment B

Technical Assistance Track Application

Kern Subbasin Technical Assistance Application

See the “Technical Assistance Application Process” Section of the Well Mitigation Program for information on how to identify the GSA in which the impacted well is located and for GSA contact information. If you are unsure of how to answer any questions, please leave blank and this can be further discussed during a meeting with GSA staff. Once all known information is filled out, please email, mail, or hand-deliver this filled-out application to the GSA in which the well was impacted to start the application process.

For applications pertaining to domestic wells or agricultural wells used for domestic purposes, please do not fill out this application. Instead, contact **Self-Help Enterprises** at **(559) 802-1685**. Self-Help Enterprises is available to assist with accessing emergency drinking water and interim drinking water supplies.

Please write which GSA your impact application applies:

Applicant Name: _____

Applicant Preferred Contact Information: _____

Are you the landowner of the property in which this application applies?

Yes No

If no, please provide the name and contact information of the landowner and the GSA shall contact the landowner to notify of the need for their participation in the application process.

Landowner Name: _____

Landowner Contact Information: _____

As the applicant, will you allow physical access to the adversely impacted well for authorized qualified professional(s) to perform a field assessment?

Yes No

Please attach available documentation for the well (for example the State Department of Water Resources Driller’s Log, other well construction information, pump depth, groundwater level, or other information).

Please describe your well impact:

Applicant information:

Date: _____

First Name: _____ Last Name: _____ Middle Initial: _____

Address: _____ City: _____ Zip: _____

Mailing Address: _____

Phone # Home: _____ Cell: _____

Email: _____ Text Ok? Yes No

Accessors Parcel Number: _____

Has the impacted well support access to safe drinking water within the last 60-days? Yes No

If no, explain: _____

Kern Subbasin Technical Assistance Application Impacted Well Information

Please circle response:

Impacted Well's Use	Community	State	
		Small	
Well Water Source:	Aquifer	Spring	Other _____

Please provide as much of the following documentation as is available:

Provide all the information that you have. Ask neighbors and family or well pump repair companies that might know. More information helps the Applications process and not information might stall or disqualify the Application.

- Well completion report (well drillers log)
- Well design documentation
- Water level records
- Water quality records and/or laboratory/test reports
- Photographs
- Well maintenance records
- Well driller name and contact information
- Well pump contractor and contact information
- Documentation from neighboring wells' construction, operations, and maintenance

Please fill out the following information to the best to your ability. Additional information may be requested and/or a site visit may be requested by the GSA:

How many connections are associated with this well?	
When was the well drilled?	
When was water first pumped from the well?	
When did the pump stop working?	
Depth of well	
Depth and length of well screen	
Size of pump (horsepower (HP))	
Depth of pump in well	
Can the pump be fixed?	
Has the pump been removed from the well?	
When was the well last worked on by a pump contractor? What did they work on?	

Kern Subbasin Well Mitigation Program Version 2.0
Technical Assistance Application

Has the well been abandoned? If so, why?	
Does the well have a pump saver? <i>A pump saver is a PVC sleeve with slots on the lower end to allow water to enter while keeping sand particulate out.</i>	
How much water should this well be pumping?	
How much water has the well been pumping recently? (note units including daily or monthly)	
Has the well experienced water quality issues? Describe the issue and when it started	
Have neighboring wells experienced water quality issues? Describe the issue and when it started.	
Is the well located near septic tanks? If so, please provide the distance between well and septic tank and/or leaching field.	

Well Site Map Sketch

Include in sketch:

- Property boundaries
- Structures
- Cross Streets/Roads
- Fences/Gates
- Access
- North Arrow
- Pools/Ponds
- Septic Tank/Leach Lines
- Driveways
- Trees
- Power Poles/Lines
- Existing Wells
- Neighboring Homes/Properties (left, right, across)
- Distance of Connection(s) if known
- Dogs/Animals on the Property

Annotated photos or aerial images of the property may be used in place of a sketch.

Please also attach photos of the impacted well and pump.

Mark the well impacted and any other wells on the property.



Attachment C

Conceptual Indemnification Agreement Example for Technical Assistance Track Applications

EXAMPLE INDEMNIFICATION AGREEMENT FOR TECHNICAL ASSISTANCE
APPLICATIONS

The undersigned (“the Applicant”) having been awarded funding to support technical assistance by _____ Groundwater Sustainability Agency of the Kern Subbasin (“the GSA”) hereby agrees as follows:

1. The Applicant will indemnify and hold harmless the GSA, its Board of Directors, Staff, Consultant Staff, Committee Members, Offices, Third-Party Facilitators from any and all applications, suits, actions, and liability of any character arising or alleged to arise, out of injuries or damages sustained by any person, persons, or property on account of the Applicant’s act or omission, neglect, or misconduct, or in violation of any law, ordinance, or regulation, which was caused to occur during the Applicant’s mitigation development or implementation.
2. The GSA shall not be liable to the Applicant’s staff or guests for any injury incurred while on the property in which mitigation will take place.
3. The Applicant is responsible for paying all taxes owed for income or property value the Applicant receives as a result of the mitigation measure.
4. The GSA is awarding the Applicant funding for the following technical assistance activities:

Name of Applicant

Signature of Applicant

Date

Name of GSA General Manager

Signature of GSA General Manager

Date

September 30, 2025

To: Stakeholder Advisory Group
Rosedale-Rio Bravo Water Storage District
Agenda Item: 3d.



From: Rachelle Echeverria

Re: KSB-7: Well Registry

P/MA Number	P/MA Name	Summary Description			Relevant Sustainability Indicators Affected			Overdraft Correction Description Category	Circumstances for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion
					Groundwater Levels & Storage	Groundwater Quality	Land Subsidence							
Management Actions		Implemented	Functional	In-Process	As-Needed									
KSB-7	Well Registry	An ongoing effort to update and maintain the Subbasin well inventory and translate it into a well registry. Information will be updated and housed within the Subbasin data management system.			✓	✓	✓			Refer to Subbasin Outreach and Engagement Plan	NA	Ongoing	NA	2024-

Timetable for Accrual of Expected Benefits	Expected Benefits							Source(s) of Water, if applicable	Legal Authority Required	Estimated Costs		
	Primary (AFY)		Secondary							One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
	Water Supply Augmentation	Demand Reduction	Water Quality Improvement	Flood Control	Water Management Flexibility / Efficiency	Mitigation Programs	Data Gap Filling/ Monitoring					
Implemented	Functional		In-Process			As-Needed						
2024-	0	0				✓	✓	NA	NA	\$0	\$25,000	RRBWSD (Assessments)

ATTENTION DOMESTIC WELL OWNERS

Help Us Help You—Protect Your Well from a Future Drought!

The Rosedale-Rio Bravo Water Storage District is collecting information on domestic wells in our area to **identify which wells may be at risk from drought** and require proactive water management.



Why provide your well information?

- ✓ **Ensure Your Well is Counted** – Help us better understand how many homes depend on domestic wells in our region.
- ✓ **Early Risk Detection** – Identify if your well could be at risk from declining groundwater levels in times of drought.
- ✓ **Access to Future Resources** – Stay informed about potential funding or assistance programs for domestic well owners.

WHAT'S IN IT FOR YOU?

Free Groundwater Level Monitoring for Participants!

Submit your well information, and we will provide free groundwater level monitoring to help you assess your well's health.

How to submit your well information?

Scan the QR code or visit <https://arcg.is/15109q0> to fill out a short form. Just answer to the best of your ability—every response makes a difference!

Need Help?

We're happy to assist! Call **(661) 589-6045** or email **admin@rrbwsd.com** to schedule an in-person appointment with one of our District representatives.



We're not here to sell you anything. We're your local water district, working to ensure safe, reliable water for our community.



ATENCIÓN PROPIETARIOS DE POZOS DOMÉSTICOS

¡Ayúdenos a ayudarlo—Proteja su pozo de una futura sequía!

El Distrito de Almacenamiento de Agua Rosedale-Rio Bravo está recopilando información sobre pozos domésticos en nuestra área para identificar cuáles podrían estar en riesgo por la sequía y requieren manejo proactivo del agua.



¿Por qué proporcionar la información de su pozo?

- ✓ **Asegure que su pozo sea contado** – Ayúdenos a entender mejor cuántas casas dependen de pozos domésticos en nuestra región.
- ✓ **Detección temprana de riesgos** – Identifique si su pozo podría estar en riesgo debido a la disminución de los niveles de agua subterránea en tiempos de sequía.
- ✓ **Acceso a recursos futuros** – Manténgase informado sobre posibles programas de financiamiento o asistencia para propietarios de pozos domésticos.

¿QUÉ GANA USTED?

¡Monitoreo gratuito del nivel del agua subterránea para los participantes! Envíe la información de su pozo y le proporcionaremos monitoreo gratuito del nivel del agua subterránea para ayudarlo a evaluar la salud de su pozo.

¿Cómo enviar la información de su pozo?

Escanee el código QR o visite <https://arcg.is/15109q0> para llenar un formulario corto. Solo responda lo mejor que pueda—¡cada respuesta hace la diferencia!

¿Necesita ayuda?

¡Con gusto le ayudamos! Llame al **(661) 589-6045** o envíe un correo a **admin@rrbwsd.com** para agendar una cita en persona con uno de nuestros representantes del Distrito.



No estamos aquí para venderle nada. Somos su distrito de agua local, trabajando para garantizar agua segura y confiable para nuestra comunidad.



September 30, 2025

To: Stakeholder Advisory Group
 Rosedale-Rio Bravo Water Storage District
 Agenda Item: 3e.



From: Dan Bartel

Re: KSB-8: ET Calculation

P/MA Number	P/MA Name	Summary Description			Relevant Sustainability Indicators Affected			Overdraft Correction Description Category	Circumstances for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion
					Groundwater Levels & Storage	Groundwater Quality	Land Subsidence							
Management Actions		Implemented	Functional	In-Process	As-Needed									
KSB-8	Consumptive-Use Study	Maintain and improve existing Subbasin consumptive-use study (ITRC Metric/LandIQ) for accurate estimates of water use by parcel within GSA's.			✓	✓	✓			Refer to Subbasin Outreach and Engagement Plan	NA	Ongoing	NA	2020-

Timetable for Accrual of Expected Benefits	Expected Benefits							Source(s) of Water, if applicable	Legal Authority Required	Estimated Costs		
	Primary (AFY)		Secondary							One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
	Water Supply Augmentation	Demand Reduction	Water Quality Improvement	Flood Control	Water Management Flexibility / Efficiency	Mitigation Programs	Data Gap Filling/ Monitoring					
Implemented		Functional		In-Process			As-Needed					
2020-	0	0				✓	✓	NA	NA	\$0	\$25,000	RRBWSD (Assessments)

September 30, 2025

To: Stakeholder Advisory Group
 Rosedale-Rio Bravo Water Storage District
 Agenda Item: 3f.



From: Rachelle Echeverria/Markus Nygren

Re: KSB-10: RMW Data Gaps

P/MA Number	P/MA Name	Summary Description			Relevant Sustainability Indicators Affected			Overdraft Correction Description Category	Circumstances for Implementation	Public Noticing Process	Permitting and Regulatory Process Requirements	Status	Timetable / Circumstances for Initiation	Timetable for Completion
					Groundwater Levels & Storage	Groundwater Quality	Land Subsidence							
Management Actions		Implemented	Functional	In-Process	As-Needed									
KSB-10	RMW Data Gaps	An assessment of level and quality data gaps identified RMN data gaps for water levels and quality. Identified data gaps will be evaluated and addressed by the end of 2026 as specified in Section 15.			✓	✓	✓	NA	NA	NA	Permitting will be required if new wells need to be drilled	Ongoing	NA	2026

Timetable for Accrual of Expected Benefits	Expected Benefits							Source(s) of Water, if applicable	Legal Authority Required	Estimated Costs		
	Primary (AFY)		Secondary							One-time Costs	Ongoing Costs (per year)	Potential Funding Source(s)
	Water Supply Augmentation	Demand Reduction	Water Quality Improvement	Flood Control	Water Management Flexibility / Efficiency	Mitigation Programs	Data Gap Filling/ Monitoring					
Implemented	Functional		In-Process			As-Needed						
2026-	0	0					✓	NA	NA	Unknown at this time	Unknown at this time	Unknown at this time

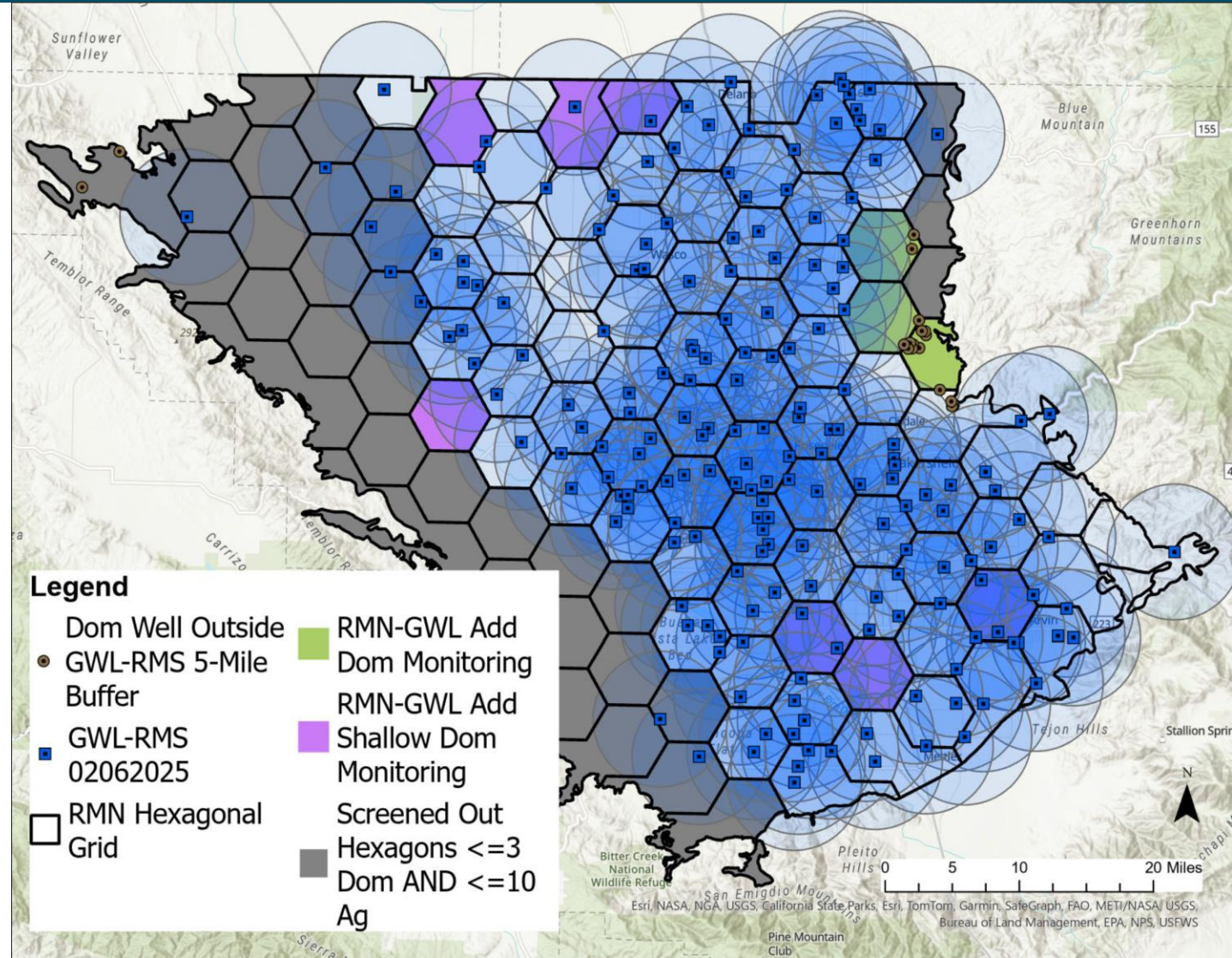
EXPANDED GROUNDWATER LEVEL MONITORING NETWORK

✓ **2025 Plan Revision:** Adding up to 10 additional monitoring wells including 7 shallow wells for a total of up to **197 GWL monitoring wells**

✓ **99%** of domestic wells represented by the monitoring network

2024 Plan had 187 GWL Representative Monitoring Wells

GWL: Groundwater Level(s)



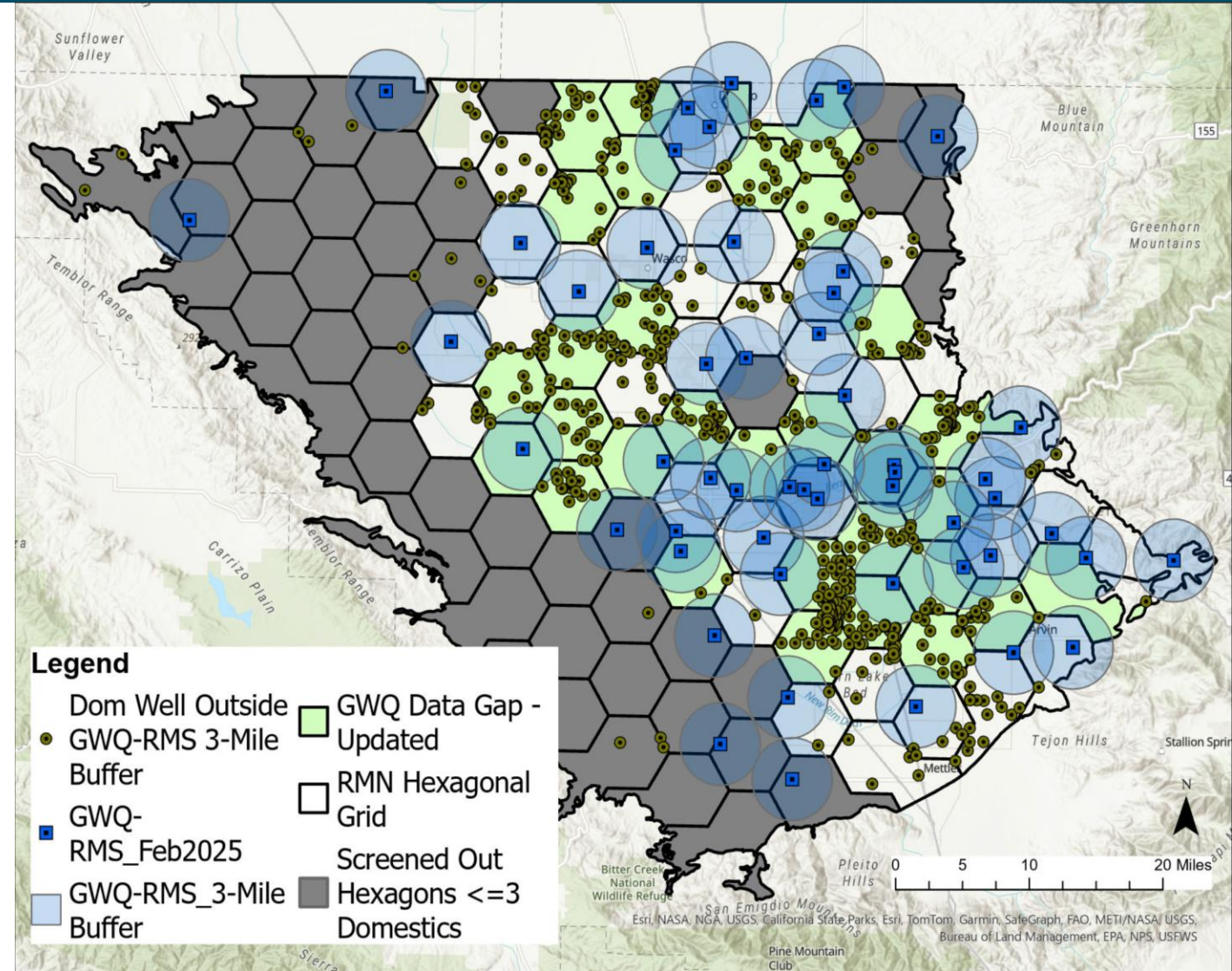
EXPANDED GROUNDWATER QUALITY MONITORING NETWORK

✓ **2025 Plan Revision:** Adding up to 30 additional monitoring wells for a total of up to **82 GWQ monitoring wells**

✓ **95%** of domestic wells represented by the monitoring network

2024 Plan had 52 GWQ Representative Monitoring Wells

GWQ: Groundwater Quality



**STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2025-0029**

**RETURNING THE KERN COUNTY GROUNDWATER SUBBASIN BACK TO THE
DEPARTMENT OF WATER RESOURCES CONSISTENT WITH THE
SUSTAINABLE GROUNDWATER MANAGEMENT ACT**

WHEREAS:

1. Groundwater provides a significant portion of California's water supply, making up more than one-half of the water used by Californians in drought years when surface water is limited. Properly managed groundwater resources can provide for communities, farms, and the environment and help protect against prolonged dry periods and climate change, preserving water supplies for existing and potential beneficial uses. However, excessive groundwater extraction can cause long-term overdraft, failed wells, deteriorated water quality, environmental damage, and irreversible land subsidence that damages infrastructure and diminishes the capacity of aquifers to store water for the future, all of which can have substantial societal and economic impacts. Additionally, failure to manage groundwater to prevent long-term overdraft can potentially infringe on rights to or use of groundwater or interconnected surface water.
2. In 2014, the State of California enacted Assembly Bill 1739, and Senate Bills 1168 and 1319, collectively referred to as the Sustainable Groundwater Management Act (SGMA). SGMA is intended to ensure the proper and sustainable management of groundwater resources in California.
3. The State Water Resources Control Board (State Water Board or Board) recognizes that near-term SGMA implementation has the potential to result in substantial economic impacts in overdrafted basins. The State Water Board further recognizes that the goal of SGMA is sustainable groundwater management that will ensure the long-term viability of groundwater resources for future use by communities, farms, businesses, and the environment.
4. SGMA allows local public agencies overlying alluvial groundwater basins to form Groundwater Sustainability Agencies (GSAs) and prepare and implement Groundwater Sustainability Plans (GSPs) to achieve

sustainable management of the basin. SGMA requires that groundwater basins determined to be high or medium priority by the Department of Water Resources (Department) must do so.

5. SGMA requires GSAs, whose planning and management actions can have broad impacts within their basins, to consider the interests of all beneficial uses and users of groundwater and to encourage the active involvement of diverse elements of the population of a groundwater basin during the development and implementation of GSPs.
6. SGMA recognizes that groundwater management is best accomplished locally; however, if local agencies in a high or medium priority groundwater basin fail to form a GSA or prepare a GSP, or the Department determines that the GSP is inadequate or not being implemented in a way that is likely to achieve SGMA's sustainability goal, SGMA authorizes the State Water Board to intervene in the basin to ensure that the basin is managed sustainably. This is called the state intervention process.
7. To implement SGMA's state intervention process, the State Water Board may designate a basin as probationary. If the State Water Board designates a basin as probationary, the Board must identify the deficiencies in the GSP, identify potential actions to remedy the deficiencies, and exclude from probationary status any portion of a basin for which a GSA demonstrates compliance with SGMA's sustainability goal. The State Water Board may exclude a class or category of extractions from the reporting and fee requirement that applies to probationary basins under Water Code section 5202 if those extractions are adequately managed under an applicable plan or program or are likely to have a minimal impact on basin withdrawals.
8. The deadline for GSAs in critically overdrafted high- and medium-priority basins to adopt and submit GSPs for review by the Department was January 31, 2020.
9. The Kern County Subbasin is a critically overdrafted high-priority basin.
10. As of the date of this resolution, the Department recognizes the following GSAs for the Kern County Subbasin: Arvin Groundwater Sustainability Agency, Buena Vista Water Storage District Groundwater Sustainability Agency, Cawelo Water District Groundwater Sustainability Agency,

Greenfield County Water District Groundwater Sustainability Agency, Henry Miller Water District Groundwater Sustainability Agency, Kern Non-Districted Land Authority Groundwater Sustainability Agency, Kern River Groundwater Sustainability Agency, Kern Water Bank Groundwater Sustainability Agency, Kern-Tulare Water District Groundwater Sustainability Agency - Kern County, North Kern Water Storage District Groundwater Sustainability Agency, Olcese Water District Groundwater Sustainability Agency, Pioneer Groundwater Sustainability Agency, Rosedale-Rio Bravo Water Storage District Groundwater Sustainability Agency, Semitropic Water Storage District Groundwater Sustainability Agency, Shafter-Wasco Irrigation District Groundwater Sustainability Agency, Southern San Joaquin Municipal Utility District Groundwater Sustainability Agency, Tejon-Castac Water District Groundwater Sustainability Agency, West Kern Water District Groundwater Sustainability Agency, Westside District Water Authority Groundwater Sustainability Agency, Wheeler Ridge-Maricopa Groundwater Sustainability Agency (collectively, the Kern County Subbasin GSAs¹).

11. The Kern County Subbasin GSAs submitted the Kern County Subbasin 2020 GSPs to the Department for review between January 22 and 30, 2020.
12. On January 28, 2022, the Department issued a determination that the Kern County Subbasin 2020 GSPs were incomplete and provided the Kern County Subbasin GSAs with 180 days to address the deficiencies identified in the incomplete determination.
13. The Kern County Subbasin GSAs submitted Revised Kern County Subbasin GSPs to the Department for review on July 27, 2022.
14. The Department evaluated the Revised Kern County Subbasin GSPs and on March 2, 2023, issued its “Inadequate Determination of the Revised 2020 Groundwater Sustainability Plans Submitted for the San Joaquin Valley – Kern County Subbasin” (Inadequate Determination) and referred the Subbasin to the State Water Board for potential state intervention.

¹ The number of GSAs in the Kern County Subbasin changed at different times between the initial submission of GSPs to the Department in January 2020 and the most recent submission of GSPs to the State Water Board in September 2025.

15. In an effort to further address the deficiencies identified by the Department, the Kern County Subbasin GSAs developed revised draft GSPs and submitted those Kern County Subbasin 2024 Draft GSPs (2024 Draft GSPs) to the State Water Board for review on May 28, 2024.
16. The State Water Board reviewed the Kern County Subbasin 2022 GSPs, the Department's determination of inadequacy, and the 2024 Draft GSPs. Board staff prepared a draft staff report that described the 2022 GSPs' deficiencies, the 2024 Draft GSPs' further changes, recommended potential actions that GSAs could take to remedy remaining deficiencies, and supported designating the Kern County Subbasin as a probationary basin under SGMA.
17. On July 25, 2024, the State Water Board made the draft staff report available to the public and issued notice of public staff workshops, opportunities to comment, and the date of the board hearing for the proposed designation of the Kern County Subbasin as a probationary basin.
18. When issuing the notice, the State Water Board posted the notice on its website and sent the notice by electronic mail to its SGMA email listserv, to the Department, to each city and county within which any part of the Kern County Subbasin is situated, and to the points of contact for each of the Kern County Subbasin GSAs.
19. On July 26, 2024, the State Water Board mailed the notice to all persons known to the Board who extract or who propose to extract water from the basin.
20. The public comment period for the probationary hearing notice and draft staff report ran from July 26, 2024, to September 23, 2024.
21. State Water Board staff held informational workshops on August 26, 2024, and August 29, 2024, to explain the draft staff report, share more about how to participate in the State Water Board's state intervention process, and accept verbal public comments regarding the draft staff report.
22. The Kern County Subbasin GSAs incorporated additional revisions and submitted the Kern County Subbasin 2024 adopted GSPs (2024 Final GSPs) to the State Water Board for review on December 16, 2024.

23. State Water Board staff revised and finalized the Staff Report after considering public comment and reviewing the 2024 Final GSPs. The report recommended that the State Water Board designate the Kern County Subbasin as a probationary basin under SGMA.
24. On February 20, 2025, the State Water Board opened a hearing to determine whether to place the Kern County Subbasin on probation. In recognition of the substantial progress the Kern County Subbasin GSAs made in revising the GSPs since the Department issued its 2023 Inadequate Determination, the Board adopted [Resolution 2025-0007](#) continuing the hearing to September 17, 2025 so that remaining deficiencies might be resolved without the need for the Board to designate the subbasin probationary, and directing the GSAs to increase community engagement to assist in the resolution of outstanding issues.
25. The Kern County Subbasin GSAs submitted the Kern County Subbasin Community Outreach and Engagement Strategy to the State Water Board for review on March 20, 2025.
26. The Kern County Subbasin GSAs submitted the Kern County Subbasin 2025 Draft GSPs (2025 Draft GSPs) to the State Water Board for review on June 20, 2025.
27. On June 23, 2025, the State Water Board made the 2025 Draft GSPs available to the public, and the Board accepted written public comments regarding the 2025 Draft GSPs until August 7, 2025. Comments included, but were not limited to, concerns regarding potential impacts of groundwater management on drinking water wells and potential loss of wetland habitat.
28. Board staff reviewed the 2025 Draft GSPs and concluded that the GSAs substantially, though not completely, addressed the deficiencies identified in the previous GSPs, identifying three primary issues that, if resolved, staff would recommend returning the Kern County Subbasin to the Department's oversight. Kern County Subbasin GSAs continued working diligently with Board staff to try to resolve these priority issues, which relate to drinking water wells, including contaminants such as 1,2,3-trichloropropane (1,2,3-TCP), and durable governance. Subsequently, the GSAs represented that changes were or are being made to address the three priority deficiencies identified by Board staff.

29. The State Water Board recognizes the challenge 1,2,3-TCP poses for GSAs as an anthropogenic contaminant introduced as an impurity in agricultural soil fumigants and that responsibility for introduction and remediation of 1,2,3-TCP is the subject of past and pending litigation with responsible parties. Notwithstanding GSAs bearing no responsibility for introduction of 1,2,3-TCP, the State Water Board recognizes GSAs' commitments to take steps to assist well owners impacted by 1,2,3-TCP due to GSA management activities while preserving recovery from responsible parties.

30. The Kern County Subbasin GSAs incorporated additional revisions and submitted the Kern County Subbasin 2025 adopted GSPs (2025 Final GSPs) to the State Water Board for review on September 2, 2025.

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Finds that the Department of Water Resources' determination that the GSPs for the Kern County Subbasin were inadequate made the Kern County Subbasin subject to state intervention under Chapter 11 of SGMA.
2. Finds that the Kern County Subbasin GSAs substantially addressed the deficiencies identified in the Department of Water Resources' Inadequacy Determination and additional issues identified by State Water Board staff.
3. Finds that designating the Kern County Subbasin as probationary under SGMA is not necessary at this time and that the Kern County Subbasin should be returned to the oversight of the Department of Water Resources under Chapter 10 of SGMA.
4. Directs Office of Sustainable Groundwater Management staff to review the revised Kern County Subbasin adopted 2025 GSPs for consistency with the 2025 Draft GSPs and representations regarding changes to be made to address the three priority deficiencies identified by staff, and, if satisfactorily resolved, to transmit a letter to the Department of Water Resources formalizing the return of the Kern County Subbasin to the Department's oversight consistent with the above findings.

5. Encourages the Kern County Subbasin GSAs to continue to engage with parties representing wetland interests and to consider approaches that can meet the needs of this habitat given its statewide importance.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on September 17, 2025.

AYE: Chair E. Joaquin Esquivel
Vice Chair Dorene D'Adamo
Board Member Sean Maguire
Board Member Laurel Firestone
Board Member Nichole Morgan

NAY: None

ABSENT: None

ABSTAIN: None


Courtney Tyler
Clerk to the Board

KERN NON-DISTRICTED LAND AUTHORITY

(FORMERLY KERN GROUNDWATER AUTHORITY)

3200 Rio Mirada Drive, Bakersfield, CA 93308

Meeting of the Board of Directors

September 22, 2025, 2:00 p.m.

To virtually attend the meeting and to be able to view any presentations or additional materials provided at the meeting, please join online using the link and information below:

<https://us02web.zoom.us/j/87916828311?pwd=MXovFd9w4lFdX8AnOTJBubbKBaglaC.1>

Telephone Dial-in: (669) 900-6833

Meeting ID: 879 1682 8311

Password: 795650

KERN NON-DISTRICTED LAND AUTHORITY BOARD OF DIRECTORS AGENDA

This meeting is held in accordance with the Brown Act pursuant to Section 54956 of the California Government Code and the Kern Non-Districted Land Authority Joint Powers Agreement.

1. Roll Call- Quorum Determination.

In the absence of a quorum, the Board will handle only those items not needing a quorum.

2. Flag Salute

3. Public Input

This portion of the meeting is set aside to provide the public with an opportunity to bring to the attention of the Board matters of which the Board may not be aware and which are not on the current agenda. No action can be taken on any matter raised during this portion of the meeting; however, a Board member may request that the matter be placed on any future agenda for further review and possible action. Members of the public may directly address the Board of Directors on any item of interest within the Board's subject matter jurisdiction, before or during the Board's consideration of the item. The President may limit the time allowed for comment

4. Approval of Minutes

- a. *August 25, 2025 (Rachelle/Valerie)

5. Financial Report

- a. *Financial Report & Accounts Payables (Andrew/ Barry)

6. Administration

- a. Executive Director Report (in packet)
- b. Landowner Outreach (Debbie)
- c. Landowner Assessment Ad Hoc (Barry)

-
- 7. DWR Grant Administration**
 - a. Report on Grant Administration (Jason)
 - 8. County of Kern Participation**
 - a. Kern County Participation Ad Hoc Committee Report (Royce)
 - 9. Legal (Valerie)**
 - a. Kern Subbasin SGMA Hearing
 - b. Statewide Update
 - 10. New Business**
 - 11. Correspondence**
 - a. Famoso Hills (Trent)
 - 12. Closed Session**
 - a. Potential Litigation- Government Code Section 54956.9(d)(2)
 - 13. Adjournment**

A person with a qualifying disability under the Americans with Disabilities Act of 1990 may request the Authority provide disability-related modification or accommodation in order to participate in any public meeting of the Authority. Such assistance includes appropriate alternative formats for the agendas and agenda packets. Requests should be made in person, by telephone, facsimile and/or written correspondence to the Authority office, at least 48 hours before a public Authority meeting. Written materials related to an item on this agenda to be considered in open session that are public documents and that are distributed to board members after the posting of the agenda, will be made available for public inspection when they are so distributed at the location of the KNDLA meeting during normal business hours. Documents that are public documents provided by others during a meeting will be available at the same location during business hours after the meeting.

[View this email in your browser](#)



The Rosedale Recap!

August 2025 Newsletter

August 12, 2025, Board Meeting Update

The District convenes on the second Tuesday of every month at 8 AM. We encourage public participation and value your input during these Board meetings. To review our most recent Board Packet, please click the button below.

**AUG
12
2025**

BOARD OF
DIRECTORS
MEETING
&
RRBWSD GSA
STAKEHOLDER
MEETING

8:00 AM

[Explore the Board Packet](#)

Attention Domestic Well Owners!

We are collecting data from domestic well owners in our area. This effort will help us better understand which wells may be at risk during future droughts and connect residents with potential resources. If you own a domestic well, please take a few minutes to complete our short survey. Your participation will also make you eligible for **free groundwater level monitoring** to help track the condition of your well. You can access the survey and flyer using the buttons attached.



[Domestic Well Survey](#)

[Flyer \(English & Spanish\)](#)



Sustainable Groundwater Management Act (SGMA) Updates

At the August 12th Board meeting, RRBWSD adopted the Kern Subbasin's 2025 Groundwater Sustainability Plan (GSP). Use the button below to access the GSP and supporting documents.

The Kern Subbasin held a public comment period from June to July, addressing six comment letters and SWRCB staff concerns. The final plan is being submitted to SWRCB staff, with the Continued Probationary Hearing scheduled for September 17. Our hope is that all the hard work will pay off and they will move our Subbasin from the regulatory process and back to DWR for approval.

[View the Revised GSP Here](#)

[View RRBWSD's Project and Management Actions Here \(pg.267\)](#)

RRBWSD GSA Water Charge Updates

RRBWSD staff have completed the 2024 Water Charge process and collected nearly all payments. The water charge for water use during the 2025 calendar year has been set at \$145.00 per acre-foot used in excess of available supply, with the 2026 rate to be determined later this year. To calculate annual water charges, the District currently uses LandIQ, a company that provides satellite-based evapotranspiration (ET) data to monitor crop water use.

[Water Charge Page](#)



Staff Team Building!

It's been a grind working to get a Kern Subbasin SGMA plan approved. To keep sanity, we traded desks for hiking boots and enjoyed a team-building hike on the Unal Trail near Lake Isabella. Guided by the trail brochure, we paused at various markers along the way to learn about the area's rich history and the Tubatulabal Tribe, who once lived and thrived in this region. It was a great day of fresh air, shared learning, and connecting with one another outside the office.

Check out these helpful water resources below!



CALIFORNIA DEPARTMENT OF WATER RESOURCES SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE

[Watch](#)

[Here!](#)

What is Subsidence? Watch the CA Department of Water Resources' presentation on subsidence and critical head.

Don't know which GSA you are in?

Use the button to access the Kern County GIS Map. View the **Layers** category, expand the **Water Resources** tab and select **Groundwater Sustainability Agencies**.

[Kern County GIS](#)

[Interactive Map](#)



Kern County Subbasin
Groundwater Sustainability Agencies

Visit the Kern Subbasin GSA website for information about the Groundwater Sustainability Plan (GSP).

[Kern Subbasin Website](#)

Don't forget: You can use the Kern Subbasin Data Management System (DMS) to access water data near you.

[Explore the DMS](#)



Need some help using the DMS? Check out our tutorial on using the DMS to find depth to water readings!

Have you lost access to drinking water? Please contact Self-Help Enterprises. Click the English or Spanish button for more information.

[English](#)

[Spanish](#)

Mark your calendars for important upcoming meetings!

Kern Non-Districted Land Authority (KNDLA) Board Meeting:

Tuesday, Aug 25th at 2:00 PM at the Kern County Water Agency's office and via Zoom.

**AUG
25
2025**

KERN NON
DISTRICTED
LAND
AUTHORITY
(KNDLA) BOARD
MEETING

2:00 PM

RRBWSD Board & RRBWSD GSA Stakeholder Meeting:

Tuesday, September 9th at 8:00
AM at the RRBWSD office (**in
person only**).



RRBWSD GSA Stakeholder Meeting:

Tuesday, September 30th at 9:00
AM at the RRBWSD office and via
Zoom.



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Our mailing address is:

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