Stockdale Integrated Banking Project

Final Environmental Impact Report Addendum No. 3
State Clearinghouse #2013091076

prepared by

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1 Introduction and Project Description

1.1 Project Title

Stockdale Integrated Banking Project

1.2 Lead Agency/Project Sponsor and Contact

Lead Agency/Project Sponsor

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1.3 Project Location

The project site encompasses approximately 150 acres across all of Assessor's Parcel No. (APN) 104-250-30 and a portion of APN 104-250-28 in unincorporated Kern County. The project site is located on the south side of Sidding Road, approximately one mile west of Enos Lane. The project site overlies the Kern County Subbasin of the San Joaquin Valley Groundwater Basin.

Figure 1 shows the regional location of the project site, and Figure 2 shows the project site at a local scale. Figure 3 shows photographs of the project site.

1.4 Surrounding Land Uses

The project site is located in an agricultural area and is surrounded by agricultural uses in all directions. The Santa Fe Railroad is located approximately 375 feet north of the project site. Residences are located approximately 400 feet north of the project site's northwest corner and 815 feet west of its northeast corner. Rural residential and commercial land uses in the unincorporated community of Calder's Corner are located approximately one mile east of the project site. The project site is 5 miles north of the Kern River.

Figure 1 Regional Project Location

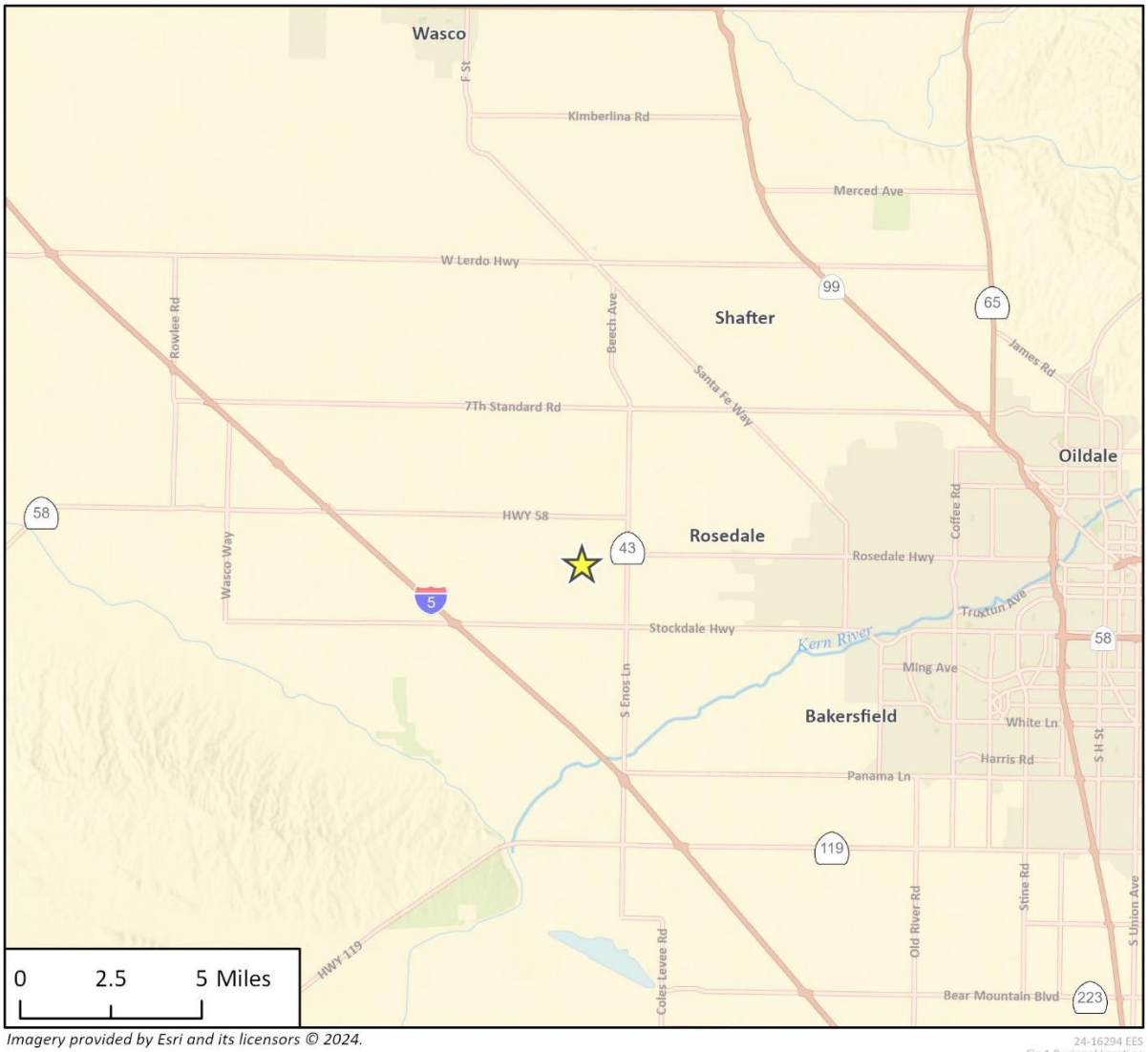

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Fig 1 Regional Location

Project Location

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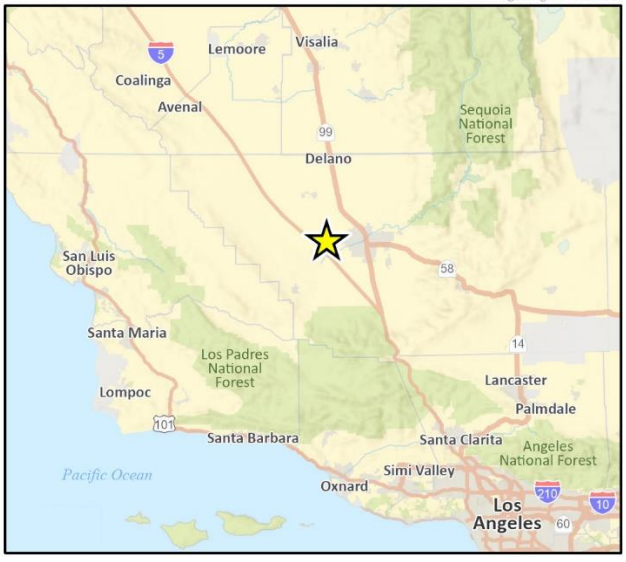

Figure 2 Project Site Location

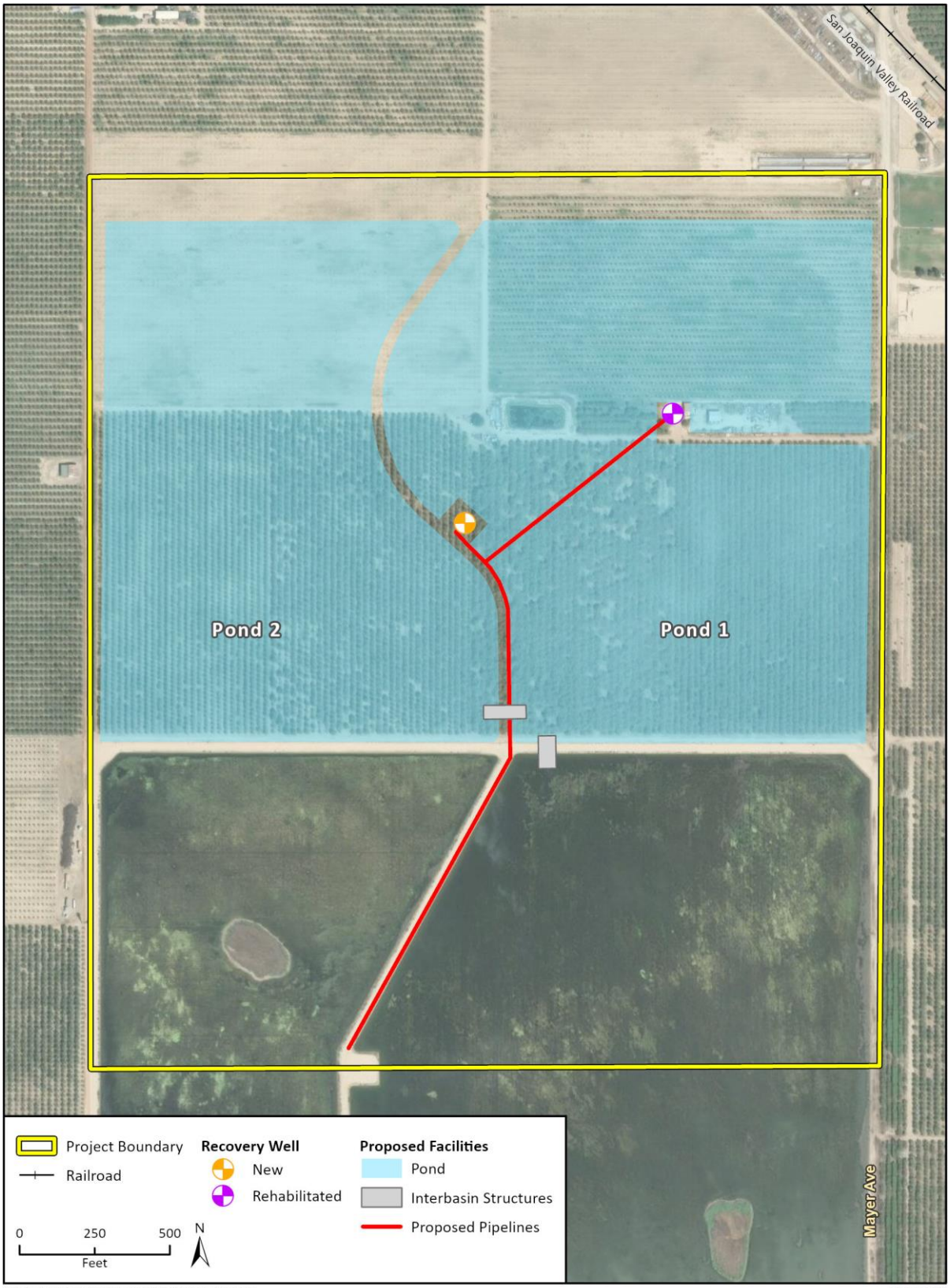

Figure 3 Site Photographs

Photograph 1. *Southwest facing Northeast*

Photograph 2. *Southeast facing North*

Photograph 3. *North facing Southwest*

Photograph 4. *North facing West*

1.5 General Plan Designation

Under the Kern County General Plan, the project site has a land use designation of 8.1 (Intensive Agriculture) with a minimum parcel size of 20 acres. This land use designation is intended for agricultural uses, including but not limited to irrigated cropland, orchards, and vineyards, and also allows for groundwater recharge areas (County of Kern 2009).

1.6 Zoning

The project site is zoned Exclusive Agriculture (A). Pursuant to Kern County Code Chapter 19.12, the purpose of the A district is to designate areas suitable for agricultural uses and to prevent the encroachment of incompatible uses. Permitted used include but are not limited to irrigated cropland, livestock lands, industrial agricultural uses, and groundwater recharge facilities.

1.7 Description of Project

Project Background

Rosedale-Rio Bravo Water Storage District (Rosedale) is a California Special District, originally formed in 1959 by landowners to construct and operate groundwater recharge projects. Historically, surface water from the Kern River overflowed into the Goose Lake Channel, which traverses the community of Rosedale, approximately once every three years. Landowners were aware that groundwater levels increased significantly after such events, and Rosedale was formed to create and maintain sustainable groundwater supplies. Rosedale's service area encompasses approximately 44,000 acres, approximately 27,500 acres of which are used for irrigated agriculture. Unlike most water districts, Rosedale makes very few direct water deliveries to customers; instead, nearly all of Rosedale's water supplies are recharged into groundwater aquifers and then extracted by private wells (Rosedale 2024).

In 2015, Rosedale certified an EIR for the Stockdale Integrated Banking Project (Original Project), which involved the development of three sites for use as groundwater recharge areas. The three sites analyzed in the Stockdale Integrated Banking Project EIR included Stockdale East, a 230-acre site; Stockdale West, a 323-acre site; and a third project site up to 640 acres in size that may be made up of non-contiguous parcels that were not specifically located at the time of EIR preparation. The Original Project would allow Rosedale to utilize available storage in the San Joaquin Valley Groundwater Basin. Together, the EIR estimated the three sites could provide an additional recharge capacity of approximately 69,000 acre-feet per year (AFY) (Rosedale 2015).

The proposed McCaslin Groundwater Recharge Project (Modified Project) would provide approximately 17,500 AFY of groundwater recharge capacity, which would be located on part of the third groundwater recharge site envisioned in the Stockdale Integrated Banking Project EIR.

Project Description

The Modified Project would involve construction and operation of a groundwater recharge basin, consisting of two ponds, one recovery well, and five control structures. Pond 1, located on the east side of the project site, would be approximately 53 acres and would be graded to create a three- to four-foot berm surrounding the pond. Pond 2, located on the west side of the project site, would be

approximately 43 acres and would also be graded to create a three- to four-foot berm. The elevated berms would serve as an access road for maintenance workers and vehicles. The groundwater recharge basins would provide approximately 17,500 AFY of groundwater recharge based on an assumed infiltration rate of 0.5 feet per day for approximately 365 days. Groundwater recharge facilities built at the Modified Project site would be considered a compatible agricultural land use; would allow for agricultural uses when not operated for water recharge or water management purposes; and would not preclude future use of the parcel for direct agricultural production or grazing.

Once cleared of vegetation, each pond would be excavated. Earthwork would also be required to use onsite materials to construct the berms and the pad for a proposed recovery well. Water for groundwater recharge would be supplied by connecting the project site to the existing groundwater basins immediately south of the project site. The connection points would be situated within a centralized location of the project, with only minor variations in location. The project would also include installation of approximately 1,000 feet of 15-inch polyvinyl chloride (PVC) plastic irrigation pipeline, extending south to connect with an existing recovery pipeline and groundwater recharge basins. Interbasin control structures and inflow pipelines would be installed to facilitate water flow into the site. Pipelines would be installed via open-cut trench installation, and other interbasin control structures would be prefabricated off-site and then installed. The maximum depth of excavation, except for the proposed recovery well, would be five feet.

The Modified Project anticipates rehabilitation of an existing well as reflected on the site plan (identified by the purple dot on Figure 2). If rehabilitation is not feasible, the Modified Project would also include installation and operation of one recovery well (identified by the orange dot on Figure 2), which would extract stored surface water that has been recharged via the basin and other groundwater recharge basins in the area. As described above, onsite materials would be used to construct an earthen well pad for the recovery well. The well is anticipated to be 18 to 24 inches in diameter and would have a maximum depth of 900 feet below ground surface. The recovery well's aboveground features, including a wellhead, motor control center, and pump house, would connect to a transformer. The recovery well's flow capacity would be 5-7cfs and could recover 2,500 AFY. The recovery well would also require open-cut excavation for the installation of recovery return pipelines, which would convey extracted groundwater from the Modified Project site to Rosedale's existing distribution system. No offsite construction will occur outside of the Modified Project boundaries.

Construction Activities

Construction would occur over approximately 22 months, and Rosedale would initiate construction as early as June 2025. Anticipated phases and their durations are summarized in Table 1. Actual phasing would be determined by the construction contractor.

Table 1 Anticipated Construction Schedule

Construction Phase	Estimated Duration
Recharge Basin, Berm, and Well Pad Earthwork	7 months
Interbasin and Inflow Control Structure Installation	4 months
Well Drilling and Equipping	7 months
Recovery Return Pipeline Installation	4 months

Construction activities would generally occur from 6:00 a.m. to 5:00 p.m., Monday through Friday. Recovery well installation, described further below, may require constant (24 hours a day, 7 days a week) construction activities. Construction equipment staging and worker parking areas would be located onsite. Construction activities may require lighting during early morning hours. Construction personnel would adhere to the Public Resources Code to minimize fire risk; these regulations include PRC Section 4442, which requires earth-moving and portable construction equipment with internal combustion engines to use spark arrestors when operating on any forest-covered, brush-covered, or grass-covered land. Construction would not require the closure of adjacent roadways.

Construction Grading and Contouring

Construction of both ponds would require the excavation of approximately 50,000 cubic yards (CY) of soil and would require placing and compacting approximately 60,000 CY of soil for infill. No export of soil would occur.

Open Cut Trench Pipeline Installation

Inflow pipeline and recovery return pipelines would be installed via open cut trench. Open cut trench pipeline installation would involve excavation of a trench, installation of the new pipelines, and then backfilling the trench with soil. The maximum depth of excavation is anticipated to be five feet. Pipeline materials (such as PVC) will be removed from the site to landfill. No export of concrete materials would occur.

Recovery Well Installation

The recovery well would be installed with a drill rig, which could require constant (24 hours a day, 7 days a week) construction activities for 25 days. Nighttime construction would require additional security lighting.

Operation and Maintenance

The proposed groundwater recharge basin and recovery well would require periodic maintenance, including occasional clearing of debris and well maintenance. Weed and pest control operations would be conducted as necessary, utilizing products approved for aquatic use in order to protect and preserve groundwater quality. Periodic earthwork operations would be required to maintain levees, enhance soil permeability, and remove vegetative growth. Earthwork would involve disking or scraping the basins to remove the top layer (e.g., one inch) of sediment, approximately once every three years. Additionally, cover crops would be planted to prevent soil hardpan formation, reduce dust, and suppress weed growth. Earthwork equipment could include graders, loaders, and tractors (110- HP light motor). Maintenance would redistribute soils on-site and would not require off-site soil removal or disposal.

One daily trip to the Modified Project site would be required during operation. Operation of the Modified Project would result in a minor increase in vehicle trips compared to existing conditions, as Rosedale staff currently visit nearby facilities and would subsequently visit the project site in the same trip. The recovery well would require approximately 600 kilowatt-hours of electricity per acre-foot of extracted water in operation.

1.8 Other Public Agencies Whose Approval is Required

Rosedale is the Lead Agency for this Modified Project. The Modified Project would require a well permit from the County of Kern Environmental Health Division.

1.9 Prior Environmental Documents

Table 2 provides a summary of prior environmental documents prepared for the Stockdale Integrated Banking Project.

Table 2 Summary of Prior Environmental Documents

Document Title	Lead Agency	Focus of Document	Certification Date
Stockdale Integrated Banking Project Final Environmental Impact Report	Rosedale-Rio Bravo Water Storage District and Irvine Ranch Water District	Analyzed the Stockdale Integrated Banking Project, which would allow Rosedale to utilize available storage in the local San Joaquin Valley Groundwater Basin by developing groundwater banking facilities on up to three project sites; the third project site was not specifically located but could be located on up to 640 acres within an identified site radius.	November 2015
Stockdale Integrated Banking Project Final Environmental Impact Report Addendum No. 1	Rosedale-Rio Bravo Water Storage District	In this Addendum No. 1 to the 2015 Final EIR, Rosedale analyzed the potential environmental impacts associated with the construction and operation of the portions of the third project site within Rosedale's Conjunctive Use Program on four parcels, totaling 315 acres.	October 13, 2020
Stockdale Integrated Banking Project Final Environmental Impact Report Addendum No. 2	Rosedale-Rio Bravo Water Storage District	In this Addendum No. 2 to the 2015 Final EIR, Rosedale revised portions of the third project site, referred to as the McCaslin Recharge Ponds and Bowling Recharge Ponds described in Addendum No. 1, and examined the implementation of a Fallow Transfer Program on portions of the third project site in combination with Rosedale's Conjunctive Use Program to be included within Rosedale Groundwater Sustainability Agency (GSA) Groundwater Sustainability Plan (GSP). The Bowling Recharge Pond, assessed in Addendum No. 1, remained unmodified, while the 275-acre McCaslin	January 11, 2022

	Recharge Ponds previously described in Addendum No. 1 were modified and reduced to approximately 195 acres.

2 Overview of CEQA Guidelines Section 15164 and Section 15162

CEQA Guidelines Sections 15162 and 15164 set forth the criteria for determining the appropriate additional environmental documentation, if any, to be completed when a project has a previously certified EIR.

CEQA Guidelines Section 15164 states that a lead agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary, but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred. *CEQA Guidelines* Section 15162(a) states that no Subsequent or Supplemental EIR shall be prepared for a project with a certified EIR unless the lead agency determines, based on substantial evidence in the light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project that will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
    A. The project will have one or more significant effects not discussed in the previous EIR.
    B. Significant effects previously examined will be substantially more severe than shown in the previous EIR.
    C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative.
    D. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The analysis pursuant to *CEQA Guidelines* Section 15162 demonstrates whether the lead agency can approve the activity as being within the scope of the existing certified EIR, that an addendum to the existing EIR would be appropriate, and no new environmental document, such as a new EIR, would be required. The addendum need not be circulated for public review but can be included in or attached to an EIR, and the decision-making body shall consider the addendum with the EIR prior to deciding on the project.

Rosedale has prepared this EIR Addendum, pursuant to *CEQA Guidelines* Sections 15162 and 15164, to evaluate whether the project's environmental impacts are covered by and within the scope of the 2015 Final EIR (certified November 2015 (SCH No. 2013091076), and subsequent addenda. This Addendum details any changes in the project, changes in circumstances under which the project is

undertaken, and/or "new information of substantial importance" that may cause one or more effects to environmental resources.

The responses herein substantiate and support the District's determination that the Modified Project is within the scope of the 2015 Final EIR and does not require subsequent action under *CEQA Guidelines* Section 15162. In summary, the 2015 Final EIR and subsequent addenda adequately analyze potential environmental impacts, and no further environmental review is required.

3 Environmental Effects and Determination

3.1 Environmental Areas Determined to Have New or Substantially More Severe Significant Effects Compared to Those Identified in the Certified EIR

The subject areas checked below were determined to be new significant environmental effects or to be previously identified effects that have a substantial increase in severity either due to a change in project, change in circumstances, or new information of substantial importance, as indicated by the checklist and discussion on the following pages.

■ NONE

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

3.2 Determination

Based on this analysis:

☐ Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in *CEQA Guidelines* Section 15162(a)(3). Therefore, a SUBSEQUENT or SUPPLEMENTAL EIR is required.

■ No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in *CEQA Guidelines* Section 15162(a)(3). Therefore, the previously certified EIR is adequate and this evaluation serves as an ADDENDUM to the Stockdale Integrated Banking Project Final Environmental Impact Report, State Clearinghouse Number 2013091076 dated November 2015.

Signature	Date
Dan Bartel	Engineer-Manager
Printed Name	Title

4 Addendum No. 3 Evaluation Methodology

4.1 Context of the 2015 Final EIR, Addendum No. 1 and Addendum No. 2

The Final EIR was approved in November 2015 and evaluated the potential impacts of the proposed Stockdale Integrated Banking Project, which would develop groundwater banking facilities on three project sites, Stockdale East, Stockdale West, and a project site radius in which a third Stockdale site of up to 640 acres, yet to be specifically located, could occur. The project described in the 2015 Final EIR, including the descriptions of the Stockdale Integrated Banking Project from the Final Environmental Impact Report Addendum No. 1 and Final Environmental Impact Report Addendum No. 2, is referred to in this Addendum as the "Original Project".

Addendum No. 1 to the Stockdale Integrated Banking Project 2015 Final EIR analyzed the potential environmental impacts associated with the construction and operation of portions of the third project site, on four parcels, totaling 315 acres, that have been identified and acquired within Rosedale's Conjunctive Use Program. In Addendum No. 2 to the 2015 Final EIR, Rosedale revised portions of the third project site, referred to as the McCaslin Recharge Ponds and Bowling Recharge Ponds in Addendum No. 1, and examined the implementation of a Fallow Transfer Program on portions of the third project site in combination with Rosedale's Conjunctive Use Program to be included within Rosedale's GSA GSP. Under Addendum No. 2, the 40-acre Bowling Recharge Pond assessed in Addendum No. 1 remained unmodified, while the 275-acre McCaslin Recharge Ponds previously described in Addendum No. 1 were modified and reduced to include approximately 195 acres. Additional proposed modifications to the third project site under Addendum No. 2 include locating one new recovery well on the Bowling Recharge Ponds and 2 new recovery wells on the McCaslin Recharge Ponds. The proposed Modified Project to expand the McCaslin Recharge Ponds will be integrated and operated along with Rosedale's Conjunctive Use Program and will be included within the Kern Subbasin GSP's Project and Management Actions for Rosedale. No other new or substantially greater impacts were identified in either prior Addendum.

Chapter 5, *Other Considerations,* of the 2015 Final EIR determined that the Original Project would not induce growth. As described in section 5.15 below, the Original Project does not involve construction of new housing and would not substantially expand or establish new employment opportunities that, in turn, would generate housing development. Nor would the Original Project provide water supply infrastructure to a previously undeveloped or underserved region. The 2015 Final EIR similarly determined that the Original Project could not accommodate additional growth. Therefore, the Original Project would not have significant direct or indirect impacts related to growth inducement.

4.2 Addendum No. 3 Analysis and Format

The 2015 Final EIR evaluated the construction and operational impacts of the Original Project, which consists of three sites: Stockdale East, Stockdale West, and a third project site made up of non-contiguous parcels which is later specifically located in subsequent Addenda. The Original Project

also included the Central Intake Pipeline alignment. As defined in the 2015 Final EIR, the Original Project was expected to add approximately 26,000 AF of available storage under Stockdale West and approximately 18,400 AF of available storage under Stockdale East to Rosedale's existing 1.7 million AF of storage that underlies its service area and its maximum annual recharge of approximately 228,600 AFY under the Conjunctive Use Program.

The proposed Modified Project, as discussed within the Final EIR and all subsequent addenda, would expand Rosedale's annual maximum recharge capacity to about 487,100 AFY. The McCaslin Recharge Ponds were initially introduced in the Final EIR, further identified in Addendum No. 1 to be the Bowling Recharge Pond and McCaslin Recharge Ponds, and further modified in Addendum No. 2. Under Addendum No. 2, the 40-acre Bowling Recharge Pond assessed in Addendum No. 1 remained unmodified while the 275-acre McCaslin Recharge Ponds previously described in Addendum No. 1 were modified and reduced to include approximately 195 acres. Additional proposed modifications to the third project site under Addendum No. 2 include locating one new recovery well on the Bowling Recharge Ponds and 2 new recovery wells on the McCaslin Recharge Ponds. Specifically, the proposed Bowling Recharge Pond, described in Addendum No. 1, would introduce an additional 8,000 AF of recharge capacity. As analyzed within this Addendum No. 3, the proposed McCaslin Recharge Ponds, initially introduced in Addendum No. 1, modified in Addendum No. 2, and further modified herein, would introduce up to 17,500 acre-feet per year of groundwater recharge capacity. This Addendum No. 3 further modifies the 195-acre McCaslin Recharge Ponds to now encompass an area of approximately 292 acres and connection to existing groundwater recharge ponds from Addendum No. 2.

The following sections will summarize the impacts identified in the 2015 Final EIR; discuss potential impacts, including cumulative impacts, associated with the Modified Project; and present a conclusion regarding potential impacts associated with the Modified Project and how they compare to operational impacts identified in the 2015 Final EIR. The analysis in Section 5 follows the environmental topic areas identified in Appendix G of the *CEQA Guidelines*.

5 Addendum No. 3 Evaluation

5.1 Aesthetics

2015 Final EIR Findings

Aesthetics are discussed in Section 3.1, *Aesthetics*, of the 2015 Final EIR. The 2015 Final EIR determined that operation of the Original Project would not result in a substantial degradation of the visual character of the project area and its surroundings. The 2015 Final EIR determined that the Original Project would not be located within a designated scenic vista or scenic highway corridor and would not adversely affect these scenic resources. The 2015 Final EIR found, however, that operation of the Original Project may result in new sources of light or glare that would adversely affect nighttime views of the area. Mitigation Measure AES-1 of the 2015 Final EIR requires all nighttime construction lighting and security lighting installed on new facilities to be shielded and directed downward to avoid light spill onto neighboring properties. The 2015 Final EIR found there would be no significant construction or operational cumulative impacts to aesthetics.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

The Modified Project would involve construction and operation of a groundwater recharge basin, consisting of two ponds, one recovery well, five control structures, and a 1,000-foot pipeline and interbasin structures to connect to existing adjacent groundwater recharge ponds. Both ponds would be graded to create a three- to four-foot berm, which would serve as an access road for maintenance workers and vehicles. Construction of the ponds would require the removal of vegetation. The recovery well's aboveground features would include a wellhead, motor control center, and pump house, which would connect to a transformer. Construction equipment staging and worker parking areas would be located onsite. Construction activities may require lighting during early morning hours.

As with the Original Project, the Modified Project would not occur within or adjacent to a designated scenic vista or scenic highway corridor and would have no impact on these resources, as found in the 2015 Final EIR.

Similar to the Original Project, the Modified Project would occur in an area dominated by agricultural land uses and among previously implemented groundwater recharge projects. The Modified Project would occur within the third Stockdale project site radius, as identified on Figure 2-1 of the 2015 Final EIR, which includes existing agricultural lands, recharge basins, and recovery and conveyance facilities. As determined in the discussion of the third Stockdale project site in the 2015 Final EIR, although agricultural land would be converted to groundwater banking facilities, the nature of the site would be consistent with the overall visual character of surrounding properties within the site radius.

As with the Original Project, the Modified Project would require temporary nighttime construction. Nighttime construction would require security lighting in addition to construction lighting.

Mitigation Measure AES-1 of the 2015 Final EIR would still apply, requiring all nighttime construction lighting and security lighting installed on new facilities to be shielded and directed downward to avoid light spill onto neighboring properties.

Therefore, visual impacts associated with the Modified Project would be the same as was identified for the Original Project in the 2015 Final EIR. No additional mitigation would be required and impacts would be less than significant.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR. No additional environmental assessment of aesthetics is required.

5.2 Agriculture and Forestry Resources

2015 Final EIR Findings

Agriculture and forestry resources are discussed in Section 3.2, *Agriculture and Forestry Resources,* of the 2015 Final EIR. All identified Original Project features would be located on agricultural land. Approximately 165 acres of the Stockdale East portion of the Original Project are subject to a Restrictive Covenant and Equitable Servitude Agreement for Agricultural Land Preservation, intended to mitigate the loss of farmland classified as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland due to implementation of the Adobe Solar project. The agreement allows water recharge ponds, drilling water wells, existing water wells, pumps, electrical service, and irrigation water distribution ditches, pipelines and other systems, and any other facilities for the production, generation, storage or transmission of water or related to the exercise of rights reserved by Rosedale. The third Stockdale project site would be located within the identified project radius, which encompasses Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and other nonagricultural and built up lands.

The 2015 Final EIR determined that the Original Project analyzed therein would not include lands zoned as forest land, timberland, or timberland zoned Timberland Production and therefore would not conflict with forest land zoning or result in the conversion of forest land to non-forest use.

Agricultural land uses, such as annual farming, grazing, or fallowing, would be allowed within the basins at Stockdale West when not operated for water recharge or water management purposes. Groundwater recharge facilities are considered to be compatible with agricultural land uses according to Kern County's Agricultural Preserve Standard Uniform Rules, Kern County's General Plan Land Use designation of Intensive Agriculture, and Kern County's zoning designation for Exclusive Agriculture. Additionally, the Restrictive Covenant Agreement applicable to the Stockdale East portion of the Original Project allows for the construction of recharge ponds, wells, pumps, pipelines and any other facilities for the production, generation, storage or transmission of water. Agricultural land uses, such as annual farming, grazing, or fallowing, would be allowed within the basins affected by the Original Project when not operated for water recharge or water management purposes and direct agricultural uses would not be precluded in the long-term future. Similarly, groundwater recharge facilities built at the third Stockdale project site would be considered a compatible agricultural land use, would allow for agricultural uses while the basins are not used for

recharge, and would not preclude future use of the parcel for direct agricultural production or grazing.

Construction of the Central Intake Pipeline associated with the Original Project would involve the removal of approximately 6.8 acres of almond orchards from active agricultural production; however, the land would not be permanently converted to non-agricultural use, as the land could still be cultivated in the future. The Stockdale Properties also would be managed in accordance with Kern County's rules for agricultural preserves as applicable, minimizing risk of permanent conversion of farmland.

The 2015 Final EIR determined that neither the Stockdale East nor the Stockdale West portions of the Original Project would occur on land contracted as agricultural preserves under the Williamson Act. The Central Intake alignment would occur adjacent to lands under Williamson Act contract, south of Brimhall Road. However, the designated site radius, where the third Stockdale project site has the potential to be located, contains lands under Williamson Act contract. Therefore, the 2015 Final EIR identified potential for the Original Project to conflict with existing zoning for agricultural use or a Williamson Act contract. If the third Stockdale project site were to be located within a County-designated agricultural preserve and/or under an existing Williamson Act contract, then Kern County's Agricultural Preserve Standard Uniform Rules may apply, which state that groundwater recharge operations are compatible land uses on agricultural preserves if the preserve is used for commercial agriculture for at least seven months out of a twelve-month period. Although the Central Intake Pipeline would run alongside an orchard under a Williamson Act contract, the pipeline would be underground and would not preclude the use of the property for commercial agriculture.

If the third Stockdale project site is to be sited on lands under a Williamson Act contract, the 2015 Final EIR would implement Mitigation Measure AGR-1, which would require compliance with the Standard Uniform Rules as applicable to avoid conflict with agricultural zoning or potential Williamson Act contracts. Impacts would be less than significant with mitigation.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

As with the Original Project, the Modified Project would not include lands zoned as forest land, timberland, or timberland zoned Timberland Production and therefore would not conflict with forest land zoning or result in the conversion of forest land to non-forest use, as determined in the 2015 Final EIR.

Similar to Stockdale East and Stockdale West of the Original Project, groundwater recharge facilities built at the Modified Project would be considered compatible with agricultural land uses according to Kern County's Agricultural Preserve Standard Uniform Rules, Kern County's General Plan Land Use designation of Intensive Agriculture, and Kern County's zoning designation for Exclusive Agriculture. Similarly, the Modified Project would allow for agricultural uses at the McCaslin Groundwater Recharge Ponds while the basins are not used for recharge and would not preclude future use of the parcel for direct agricultural production or grazing. The Modified Project is located on designated Prime Farmland; however, it would not convert Prime Farmland to permanent non-agricultural land uses. Impacts would be less than significant, as identified in the 2015 Final EIR.

Unlike the proposed components of the Original Project, the McCaslin Recharge Project component of the Modified Project would occur on lands that were under a Williamson Act contract when Rosedale acquired the property. The 2015 Final EIR accounted for the possibility of the third Stockdale project site occurring on lands under Williamson Act contract, given the presence of such lands within the designated site radius. The 2015 Final EIR introduces Mitigation Measure AGR-1, to be implemented should the third Stockdale project site be under a Williamson Act contract. Notwithstanding the fact that Rosedale's acquisition of the site cancelled the existing Williamson Act contract, Mitigation Measure AGR-1 would be implemented for the Modified Project and would require compliance with the Standard Uniform Rules as applicable. Impacts would be less than significant with mitigation.

As is true of the Original Project, the Modified Project would support agriculture in the Kern Fan area by reducing future overdraft conditions in the underlying groundwater basin and by increasing available supplies for agricultural uses, thereby preserving and maintaining agricultural production on agricultural lands within Rosedale. The Modified Project would eliminate agricultural extractions that in the past have contributed to overdraft of the groundwater basin. Furthermore, agricultural land uses, such as annual farming, grazing, or fallowing, would be allowed within the basins of the Modified Project when not operated for water recharge or water management purposes. Impacts related to farmland conversion would be less than significant, as identified in the 2015 Final EIR.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR. Though the Modified Project would include lands previously under Williamson Act Contract, the application of Mitigation Measure AGR-1 would reduce impacts such that the Modified Project would not result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.3 Air Quality

2015 Final EIR Findings

Air quality is discussed in Section 3.3, *Air Quality,* of the 2015 Final EIR. The 2015 Final EIR concluded that operation of the Original Project would not conflict with SJVAPCD air quality plan; generate emissions in excess of established thresholds, contributing to existing nonattainment conditions; result in cumulatively considerable increases of criteria air pollutants; expose sensitive receptors to substantial pollutant concentrations; or result in other emissions or odors that would adversely affect a substantial number of people. The Original Project would not introduce new stationary sources of emissions and would not interfere with population and long-term vehicle-miles-traveled (VMT). The 2015 Final EIR concluded that operational impacts of the Original Project would be less than significant.

The 2015 Final EIR found there would be no significant construction or operational cumulative impacts to air quality.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

The Modified Project would involve the construction and operation of the third Stockdale project site, which would be similar in nature though smaller in scale, compared to the Stockdale East and Stockdale West properties described in the Original Project.

The Modified Project would be consistent with the Kern County land use designations and zoning for the project area. In addition, the County General Plan is consistent with the applicable air quality plan because data and projections from the General Plans are incorporated into the clean air plans. Therefore, as with the Original Project, the Modified Project would be consistent with the SJVAPCD air quality plan.

As identified in the 2015 Final EIR, annual construction activities and emissions associated with the Modified Project would be similar to those described and assessed associated with the Original Project. Modeled unmitigated project construction emissions for the Original Project were estimated to be well below the identified significance thresholds. Considering emissions associated with the Original Project are anticipated to be similar, existing thresholds would not be exceeded. The project applicant would still need to comply with all applicable SJVAPCD rules and regulations. Potential impacts related to emissions associated with the Modified Project would be less than significant, as determined in the 2015 Final EIR. Impacts would not exceed those identified in the 2015 Final EIR.

As discussed in the Final EIR, the SJVAPCD has identified that any project that would individually have a significant air quality impact could also be considered to have a significant cumulative air quality impact. Construction emissions would result in the generation of air pollutants in the San Joaquin Valley Air Basin and would incrementally add to cumulative emissions. For operation activities, on-road traffic would be minimal and would result in a negligible increase in criteria pollutant emissions. Triennial earthwork operations would also result in minor increases in criteria pollutant emissions. Short-term project construction and long-term project operations would result in a less-than-significant individual project impact. Therefore, the proposed project would not result in cumulatively considerable increases of criteria air pollutants. The Modified Project would be similar in nature and reduced in scale compared to the Original Project assessed in the Final EIR and similarly would not result in a considerable contribution to cumulative air quality impacts.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.4 Biological Resources

2015 Final EIR Findings

Biological resources are discussed in Section 3.4, *Biological Resources* of the 2015 Final EIR.

The 2015 Final EIR determined no local policies or ordinances governing biological resources would be affected by the Original Project. The Original Project would not conflict with wildlife migration corridors or impede wildlife movement.

The 2015 Final EIR determined no suitable habitat exists for local reptiles, the blunt-nosed leopard lizard and the San Joaquin whipsnake, within the area affected by the Original Project. However,

removal or disturbance of non-native grassland, fallow and active agricultural fields, almond trees, and two cottonwood trees, particularly during breeding season, could potentially impact special-status nesting and migratory birds. Implementation of Mitigation Measure BIO-1 would reduce potential impacts to special-status nesting and migratory birds to less than significant levels. The State threatened Swainson's hawk has been observed foraging in the vicinity of Stockdale East, Stockdale West, and the Central Intake alignment. Preconstruction surveys would be conducted as described in Mitigation Measure BIO-2, reducing any impacts to Swainson's hawk to a less than significant level. Burrowing owls and/or suitable burrowing owl habitat was observed at both Stockdale East and Stockdale West properties. With implementation of Mitigation Measure BIO-3, any impacts to the burrowing owl would be less than significant. While the 2015 Final EIR determined impacts to Nelson's Antelope squirrel, Tipton kangaroo rat, and badger would be unlikely, activities associated with the construction of the Original Project on Stockdale East could result in adverse impacts to the San Joaquin kit fox. With implementation of Mitigation Measure BIO-4, and completion of USFWS "early evaluation" in accordance with its most recent San Joaquin Kit Fox Survey Protocol, potential impacts to the San Joaquin kit fox would be reduced to a less than significant level. While the 2015 Final EIR determined no special-status plant species are known to occur or could potentially occur at the Stockdale East or Stockdale West properties, or along the Central Intake alignment, implementation of Mitigation Measure BIO-5 will identify any special-status plants that occur within the area of disturbance at the slough, and if necessary require implementation of avoidance measures.

Pre-construction surveys would be required to determine suitability for special-status species to occur on-site for the third Stockdale site. The overall composition of the area designated within the additional site radius is mainly composed of agricultural lands similar to the ones proposed for the Stockdale East and Stockdale West properties. It is assumed that similar impacts and species would occur at most potential sites within the additional site radius. Mitigation Measure BIO-5, would require preconstruction surveys to determine the presence of special-status plant species and required steps to avoid or mitigate for impacts to such species within the third Stockdale site. Mitigation Measures BIO-6 and BIO-1 through BIO-4 would reduce potential impacts to special-status wildlife species to a less than significant level

The 2015 Final EIR found there would be no significant construction or operational cumulative impacts to biological resources.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

As described in the 2015 Final EIR, the overall composition of the area designated within the additional site radius is mainly composed of agricultural lands similar to the ones proposed for the Stockdale East and Stockdale West properties. It is assumed that similar impacts and species would occur at most potential sites within the additional site radius.

A biological resources assessment (BRA) conducted for the Modified Project determined though habitats within the survey area are potentially suitable for blunt-nosed leopard lizards, they are not present within the survey area and impacts to blunt-nosed leopard lizards are not expected to occur.

With respect to plant species, no unique or special-status plant species were identified within the study area. It is possible that nesting birds may utilize the existing orchard, and ground-nesting species may utilize this area for nesting purposes. These areas could be impacted by construction activities, grading and vegetation removal, and noise or other disturbances may cause an individual to abandon a nest, resulting in an indirect impact. Pre-disturbance surveys for nesting birds would be necessary to ensure these species are not impacted.

It was determined the Modified Project would not substantially reduce the extent, diversity, or quality of native or other important vegetation, as the study area is mostly devoid of any native vegetation. Similarly, the Modified Project is not anticipated to result in permanent or temporary impacts to any wetland or riparian habitat.

The Modified Project also would not create a significant impact on the movement of wildlife due to its size.

The BRA recommends to avoid, protect, minimize, and mitigate impacts to special-status species during and following construction. The mitigation measures defined in the Final EIR capture all recommendations proposed in the BRA. Specifically, adherence to Final EIR mitigation measures BIO-1 though BIO-7 would avoid, protect, and minimize impacts to the species identified by the BRA to occur in and around the Modified Project. Impacts to biological resources would remain less than significant, as identified in the Final EIR.

As discussed in the Final EIR, construction of facilities in and around open space areas could result in destruction and/or disturbance of natural habitat. Habitat destruction or disturbance would contribute to the overall impacts to natural habitat in the vicinity of proposed project resulting from cumulative development. As with the Original Project, the Modified Project area is characterized primarily by agricultural land use; no designated open space areas would be disturbed as a result of the Modified Project. Additionally, the Modified Project would not result in the permanent loss of habitat for any special-status species, and Final EIR Mitigation Measures BIO-1 through BIO-7 would remain to fully mitigate any potential impacts to species or wetlands. Therefore, the Modified Project would not contribute significantly to cumulative loss of species or habitat in the project vicinity.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.5 Cultural Resources

2015 Final EIR Findings

Cultural resources are discussed in Section 3.5, *Cultural Resources,* of the 2015 Final EIR. The 2015 Final EIR determined the Original Project would have no impact on known historical or unique archaeological resources located at Stockdale East, Stockdale West, or Central Intake Pipeline alignment. Implementation of Mitigation Measure CUL-1, would reduce potential impacts to buried and previously unknown archaeological resources to a less-than-significant level.

As a cultural survey was not conducted for the third Stockdale site, Mitigation Measure CUL-2 would be implemented and an additional Phase I cultural resources study would be required once the third property has been identified.

Implementation of Mitigation Measure CUL-3, as defined in the 2015 Final EIR, would reduce potential impacts to paleontological resources by requiring a qualified paleontologist be notified should paleontological resources be discovered. Considering the location of the third Stockdale site is not determined by the Original Project, Mitigation Measure CUL-4 would be implemented to require an additional paleontological resources literature review be conducted along with recommendations for the need to implement Mitigation Measure CUL-3 once the third property has been identified. Implementation of Mitigation Measure CUL-5 would reduce potential impacts to human remains to a less-than-significant level.

The 2015 Final EIR found there would be no significant construction or operational cumulative impacts to cultural resources.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

In compliance with Mitigation Measure CUL-2, an intensive Phase I survey using parallel transects spaced at 15-meter intervals was conducted on October 28, 2024, by ASM Affiliates for the McCaslin Recharge Project associated with the Modified Project. The survey determined significant disturbances have occurred throughout the study area from utilities maintenance, dirt road grading, paved road maintenance, and both active and inactive orchards. Ground-surface disturbance associated with the Modified Project would occur within previously disturbed agricultural areas. No cultural resources of any kind were identified within the study area. No artifacts or archaeological features were observed in the disturbed area.

A records search of site files and maps was conducted at the Southern San Joaquin Valley Information Center (SSJVIC) and a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed prior to April 2025. The results of the records search identified no cultural resources within the study area.

According to the April 2025 Cultural Resources Memo, on August 14, 2024, the Native American Heritage Commission (NAHC) was contacted to request a list of Tribes traditionally and culturally affiliated with the study area, as well as a Sacred Lands File (SLF). On August 15, 2024, the NAHC responded with negative SLF results and eight Tribal contacts from five Tribes. Outreach letters were mailed to all listed Tribes on December 17, 2024, and follow-up emails were sent on January 3, 2024. Responses were received from the Santa Rosa Rancheria Tachi Yokut Tribe and the Tejon Indian Tribe. The Santa Rosa Rancheria Tachi Yokut Tribe referred ASM to the Tejon Indian Tribe, whose response is that the Tribe considers the Project to be in an area of low sensitivity and therefore that the Tribe did not have any concerns with the Project moving forward without their additional input.

Based on the findings of the cultural resource survey, the Modified Project would result in no significant impacts to cultural resources. In the unlikely event that cultural resources are encountered during the construction or operation of the Modified Project, however, Mitigation

Measure CUL-3 would require that an archaeologist be contacted to evaluate the discovery. Impacts would not exceed those identified in the 2015 Final EIR.

In compliance with Mitigation Measure CUL-4, a paleontological literature review was conducted for the Modified Project. The review determined the project site is immediately underlain by late Holocene-age alluvial valley and fan deposits and early to middle Holocene-age young lacustrine, playa, and estuarine (paralic) deposits at the surface. These Holocene deposits are presumably underlain by Pleistocene-age alluvial deposits at a depth that is conservatively estimated to be as shallow as 15 feet bgs. Any impacts to paleontological resources are only likely to occur during excavations at the Project site that will disturb deposits of Pleistocene age, which are considered to be potentially fossil-bearing. Therefore, only excavations that will extend greater than about 15 feet bgs are here considered to have the potential to impact paleontological resources. Project-related earthwork, as currently outlined, is not anticipated to negatively impact paleontological resources, as earthwork will not extend deep enough to impact geologic units with undetermined resource potential.

As described in the Final EIR, the project vicinity contains a significant archaeological and historical record that, in many cases, has not been well documented or recorded. Thus, there is potential for ongoing and future development projects in the vicinity to disturb landscapes that may contain known or unknown cultural resources. Similarly, excavation activities associated with the Modified Project in conjunction with other projects in the area could contribute to the progressive loss of fossil remains. Potential impacts of the Modified Project to cultural resources, in combination with other projects in the area, could contribute to a cumulatively significant impact due to the overall loss of historical and archaeological artifacts unique to the region. However, the Final EIR introduced mitigation measures in the event that archaeological resources or paleontological resources are encountered during construction activity, which would reduce project impacts to a less than significant level. Therefore, with adherence to Final EIR mitigation measures CUL-1 through CUL-5, the Modified Project would not result in a considerable contribution to cumulative cultural resources impacts.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.6 Geology, Soils, and Seismicity

2015 Final EIR Findings

Geology and soils impacts are discussed in Section 3.6, *Geology, Soils, and Seismicity,* of the 2015 Final EIR. The 2015 Final EIR determined that some of the impact criteria for geology, soils, and seismicity were not applicable to the Original Project; for example, the Original Project features are located subject to a very low to no risk related to fault rupture, landslides or lateral spreading, and expansive soils. The Original Project would not involve the construction or use of septic tanks or alternative wastewater disposal systems.

The 2015 Final EIR determined the Original Project would have less than significant impacts related to risk of loss, injury, or death involving exposure to seismic ground shaking and liquefaction with the incorporation of Mitigation Measure HYDRO-2 which would monitor shallow groundwater and

minimize conditions that would contribute to potential liquefaction hazards. The Original Project would not extract any groundwater beyond what has been recharged into the groundwater table and therefore would not change the existing conditions associated with subsidence or hydrocompaction due to groundwater extraction.

The 2015 Final EIR determined that with implementation of the Stormwater Pollution Prevention Plan (SWPPP) and Mitigation Measure HYDRO-1, and the operational design of the Original Project, impacts related to soil erosion and topsoil loss would be less than significant with mitigation.

The 2015 Final EIR found there would be no significant construction or operational cumulative impacts to geology, soils, and seismicity.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

As identified in the 2015 Final EIR, the entire additional site radius, encompassing the Original and Modified Project, overlies Entisols soils and is not within the vicinity of a major fault. Considering the Final EIR assessed potential geologic impacts over the entire project site radius, in which the Modified Project would occur, potential impacts of the Modified Project related to geology and soils would remain consistent with those identified for the Original Project. Impacts would not exceed those identified in the 2015 Final EIR.

Cumulative development in the vicinity of the Modified Project would have no effect on regional seismic hazard. As identified in the Final EIR, the Original Project, and all other regional development projects in exceedance of one acre would be required to implement a SWPPP in compliance with the State Construction General Permit. Adherence to applicable regulations would avoid or minimize any potential impacts related erosion or the loss of topsoil. As such, regional development would not result in cumulative impacts related to geology, soils, or seismicity.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.7 Greenhouse Gas Emissions

2015 Final EIR Findings

Greenhouse gas (GHG) emissions are discussed in Section 3.7, *Greenhouse Gas Emissions,* in the 2015 Final EIR. The 2015 Final EIR determined that the Original Project would result in less than significant construction and operational GHG emissions. Although the Original Project would generate GHG emissions, these emissions would not exceed the project-specific threshold of 10,000 metric tons of carbon dioxide equivalent per year, as identified in the 2015 Final EIR. Total GHG emissions associated with the Original Project would not exceed this threshold, and impacts were determined to be less than significant.

The 2015 Final EIR determined the Original Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions and that there would be no significant construction or operational cumulative impacts to GHG emissions.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

As identified in Section 5.3, *Air Quality*, emissions associated with the Modified Project would be similar to those associated with the Original Project. These emissions would not exceed the project-specific threshold of 10,000 metric tons of carbon dioxide equivalent per year, as identified in the 2015 EIR. Impacts would not exceed those identified in the 2015 Final EIR.

As discussed in the Final EIR, the analysis of impacts to GHG emissions is inherently cumulative. Impacts associated with GHG emissions have been determined to be less than significant. No additional analysis is required. The Modified Project would not result in a considerable contribution to cumulative GHG emissions impacts.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.8 Hazards and Hazardous Materials

2015 Final EIR Findings

Hazards and hazardous materials are discussed in Section 3.8, *Hazards and Hazardous Materials* of the 2015 Final EIR. The 2015 Final EIR determined that some of the impact criteria for hazards and hazardous materials are not applicable to the Original Project. The 2015 Final EIR concluded that thresholds related to airport hazards, emergency access, and wildfires are not applicable to the Original Project. The modifications included therein would not include the construction or operation located within two miles of public airport or public use airport or located within an airport land use plan area. The Original Project would not be located within an adopted emergency response plan or emergency evacuation plan. In addition, all Original Project facilities would be located onsite at the Stockdale Properties and Central Intake alignment and would not impede access to any emergency responders. According to the CalFire Fire Hazard Severity Zone (FHSZ) Maps, the Original Project is not located within a high fire hazard zone or within a wildland area.

The 2015 Final EIR determined that operation of the Original Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. All hazardous materials and pesticides transported, used, and disposed of during construction and operation and maintenance activities would be done according to applicable regulations that would limit significant hazards to the environment, including regulations specific to application of pesticides within recharge basins and in proximity to wellheads. Operation of the oilfield injection well on Stockdale East would be regulated in accordance with the Geologic Energy Management Division (CalGEM, formerly DOGGR) Underground Injection control (UIC)

program. The 2015 Final EIR determined the Original Project would not introduce hazardous materials into the groundwater due to the depth of the injection well relative to the usable groundwater aquifer, depth of the cement seal relative to groundwater level fluctuations, and colocation of the proposed water banking facilities with the existing oilfield injection well. Therefore, construction and operation of the Original Project would not result in a significant hazard to people or the environment due to existing hazardous materials within the project area.

Impacts related to the potential accidental upset or encounter of hazardous materials related to construction or operation of the Original Project would be reduced through the implementation of Mitigation Measures HAZ-1, HAZ-2, and HAZ-3. Mitigation Measure HAZ-1 would require that samples of soils at the Stockdale East property are analyzed and removed appropriately if soils contain hazardous quantities of contaminants. Mitigation Measure HAZ-2 would require that a proper assessment can be made of the potential to encounter asbestos-containing materials. Mitigation Measure HAZ-3 would require the completion of a Phase I Environmental Site Assessment (ESA) for the third Stockdale project site and Central Intake Pipeline are identified.

The Stockdale East, Stockdale West, and Central Intake Pipeline specific projects associated with the Original Project are not located within a quarter mile of an existing or proposed school. Mitigation Measure HAZ-4, requiring construction coordination with the Rio Bravo-Greeley Union School District and affected schools, would apply should the third Stockdale project occur within the vicinity of the Rio Bravo Greeley School.

The 2015 Final EIR determined the proposed Stockdale East, Stockdale West, and Central Intake assessed as the Original Project are not included on lists of hazardous materials sites. Should the third Stockdale project site, introduced under the Modified Project, be located on a property with an active oilfield or well field or other hazardous materials or contamination, Mitigation Measure HAZ-3 would require a Phase I ESA to be completed.

As stated in the 2015 Final EIR, the proposed recharge basins related to the Original Project would create new standing pools of water and could result in impacts related to vector control. Mitigation Measure HAZ-5 would be implemented to minimize the potential effects associated with airborne insect populations by minimizing population increases. Mitigation Measure HAZ-5 would facilitate coordination between IRWD, Rosedale, Kern County Department of Public Health Services, and the Kern Mosquito and Vector Control District prior to project operations to develop and implement, if necessary, appropriate insect abatement methods.

With implementation of Mitigation Measures HAZ-1 through HAZ-5, the 2015 Final EIR determined impacts related to hazards and hazardous materials would be reduced to a less than significant level. The 2015 Final EIR found there would be no significant construction or operational cumulative impacts to hazards and hazardous materials.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

As with the Original Project, the Modified Project would not occur within two miles of a public airport or public use airport or located within an airport land use plan area, within an adopted emergency response plan or emergency evacuation plan, within a high fire hazard zone, or within a

wildland area. No impacts related to these resources would occur, as identified in the 2015 Final EIR.

The Modified Project, would occur on an approximately 107-acre agricultural property. A Phase I ESA, prepared for the Modified Project, identified two out of service irrigation wells and various hazardous substance containers at the site.

As with the Original Project, all hazardous materials and pesticides transported, used, and disposed of during construction and operation and maintenance activities associated with the Modified Project would be done according to applicable regulations that would limit significant hazards to the environment, including regulations specific to application of pesticides within recharge basins and in proximity to wellheads. Mitigation Measures HAZ-1, HAZ-2, HAZ-3, and HAZ-5 would be implemented for the Modified Project, reducing risk of accidental upset or encounter of hazardous materials and potential effects associated with airborne insect populations.

The Modified Project would not occur within a quarter mile of the Rio Bravo-Greeley School, or any other existing or proposed school. Mitigation Measure HAZ-4 would not apply to the Modified Project and impacts would be reduced relative to the Original Project for which the 2015 Final EIR identified the potential to occur within the vicinity of the Rio Bravo-Greeley School.

According to the Phase I ESA conducted for the Modified Project, neither the subject property, nor any nearby properties associated with the Modified Project are listed in databases indicating contaminated groundwater, hazmat spills, releases, or UST related records (Advanced Environmental Concepts Inc. 2024). In addition, a Phase I ESA conducted for the property in which the 1,000 foot recovery pipeline would be located (APN 104-250-30) determined there are no hazardous environmental conditions within the property (Advanced Environmental Concepts Inc. 2019). The subject property is commercially farmed and subject to regulation under the Irrigated Lands Regulatory Program (ILRP) under General Order R5-2013-0120-09. Considering the Modified Project is not included on lists of hazardous materials sites, related impacts would remain the same as identified in the 2015 Final EIR.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.9 Hydrology and Water Quality

2015 Final EIR Findings

Hydrology and water quality impacts are discussed in Section 3.9, *Hydrology and Water Quality,* of the 2015 Final EIR.

The 2015 Final EIR determined the Original Project would not alter drainage to cause or exacerbate any potential flooding on- or off-site; create or contribute new sources of runoff or polluted runoff; require a new or improved drainage system for storm water capture; subject housing or structures to risks related to flood flow; impact to people or structures related to potential risk of loss, injury or death involving flooding from the failure of a levee or dam; or subject people or structures to potential risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

With implementation of the BMP requirements in Mitigation Measure HYDRO-1, the potential for pollutants and sediment to affect the water quality of runoff from construction sites would be minimized to less-than-significant levels, as identified in the 2015 Final EIR.

The 2015 Final EIR determined model-predicted drawdowns associated with operation of the Original Project are well within normal fluctuations. During certain years and groundwater conditions, additional drawdown between 16 and 29 feet may have no adverse effects on pre-existing nearby wells and their ability to produce water to support existing or planned land uses. It was determined that, based on the CEQA significance criteria, the Original Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The Original Project would be operated subject to, and in accordance with, Rosedale's MOUs with adjoining entities in the Kern Fan area and the complementary Long Term Operations Plan.

The Original Project could result in mounding of shallow groundwater that could affect subsurface structures, in particular the Cross Valley Canal (CVC). With implementation of Mitigation Measure HYDRO-2, a shallow groundwater monitoring plan would be developed and implemented that would require installation of piezometers, a monitoring program, and recharge restrictions that would ensure recharge operations do not adversely affect the CVC. Further, shallow groundwater mounding associated with proposed recharge activities would not affect the regional direction of groundwater flow. As such, impacts would be less than significant with mitigation.

The 2015 Final EIR identified the project SWPPP would include BMPs to minimize the impacts of construction to a less than significant level. Erosion control BMPs have been proven effective at minimizing erosion during construction and associated earthwork activities. With implementation of Mitigation Measure HYDRO-1, the project would be able to minimize the potential for erosion or siltation to occur during construction. Once proposed facilities are installed, operation of groundwater recharge, recovery, and conveyance facilities would not alter conditions that affect erosion or siltation.

The surface water sources for recharge generally have constituent concentrations that are lower than the underlying groundwater, and therefore with blending, groundwater quality would improve. Still, Mitigation Measure HAZ-1 would require that samples of soils at the Stockdale East property are analyzed and removed appropriately if soils contain hazardous quantities of contaminants. Therefore, impacts to water quality would be considered less than significant with mitigation.

The 2015 Final EIR introduced Mitigation Measure HYDRO-3 which would ensure any development associated with the third Stockdale site would not impede or redirect flood flows, either by requiring the project design to avoid flood hazard areas or by designing the project in accordance with the Kern County Floodplain Management Ordinance to ensure flood hazards or flood elevations on neighboring parcels are not significantly altered. Impacts would be less than significant with mitigation.

The 2015 Final EIR found there would be no significant construction or operational cumulative impacts to surface water hydrology and water quality.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

A groundwater impact analysis prepared by Thomas Harder & Co. (Appendix A) for the Modified Project in July of 2025 determined groundwater levels predicted for maximum mounding conditions are not anticipated to rise to levels that would cause a liquefaction hazard. Model simulations for the Project show that groundwater levels remain below approximately 147 ft bgs during maximum mounding. Maximum mounding conditions are predicted to result in a localized groundwater mound beneath the McCaslin North basin that does not significantly change the northwestern flow of groundwater from the facility. Similarly, maximum drawdown conditions are predicted to result in a localized pumping depression around the McCaslin North agriculture well that does not significantly change the western flow of groundwater from the facility.

Maximum drawdown conditions are not predicted to lower groundwater levels at the nearest Rosedale Representative Monitoring Site (RMS) wells, as reflected in the GSP, to the Modified Project; rather, the groundwater levels are predicted to increase by as much as approximately 1 foot due to Modified Project operations (Thomas Harder & Co. 2025).

Operation of the Modified Project would be similar in nature and scale to the Original Project. The Modified Project would adhere to the Original Project SWPPP which include BMPs to minimize the potential impacts of construction. Mitigation measures defined by the 2015 Final EIR would be implemented by the Modified Project. Implementation of Mitigation Measure HYDRO-3 would ensure any development associated with the Modified Project would not impede or redirect flood flows, either by requiring the project design to avoid flood hazard areas or by designing the project in accordance with the Kern County Floodplain Management Ordinance. With adherence to applicable mitigation measures, impacts would not exceed those identified in the 2015 Final EIR.

The analysis of impacts to hydrology and water quality is inherently cumulative. As discussed in the Final EIR, the impacts associated with hydrology and water quality were determined to be less than significant. Similarly, hydrology and water quality impacts associated with the Modified Project would be less than significant. No additional analysis is required. The Modified Project would not result in a considerable contribution to cumulative hydrology and water quality impacts.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.10 Land Use and Planning

2015 Final EIR Findings

Land use and planning is discussed in Section 3.10, *Land Use and Planning*, of the 2015 Final EIR. The 2015 Final EIR determined that construction and operation of recharge basins, production wells, and conveyance structures associated with the Original Project would be consistent with existing community land use and would not serve to divide an established community. The Original Project would be compatible with applicable land use plans, policies and regulations of Kern County. Design of project facilities would be required to accommodate setbacks from midsection lines, or implementation of optional Mitigation Measure LU-1 would eliminate midsection lines and any associated setback requirements. The 2015 Final EIR identified the Original Project could conflict with the Metropolitan Bakersfield Habitat Conservation Plan. However, the Original Project would

not result in the conversion of land to urban uses, and mitigation measures were included in Chapter 3.4, *Biological Resources*, to reduce project impacts to threatened and endangered species to less than significant levels. Therefore, the Original Project would not conflict with the MBHCP, or any other policies adopted for the purpose of avoiding or mitigating an environmental effect.

With adherence to the Mitigation Measures identified in Chapter 3.4, *Biological Resources*, of the 2015 Final EIR, it was determined that land use and planning impacts related to the Original Project would be reduced to a less than significant level. The 2015 Final EIR found there would be no significant construction or operational cumulative impacts to land use and planning.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

The project site is located in an agricultural area and is surrounded by agricultural uses in all directions. As with the Original Project, the Modified Project would be consistent with existing community land use and would not serve to divide an established community.

The Modified Project would be located on agricultural land designated as Intensive Agriculture by the Kern County General Plan, as anticipated by the 2015 Final EIR, which allows for groundwater recharge facilities. Kern County setback and either mid-section line requirements would be adhered to or optional Mitigation Measure LU-1 would be implemented to eliminate midsection lines and any associated setback requirements, similar to Stockdale East and Stockdale West. Similarly, the Modified Project would occur on land zoned Exclusive Agriculture (A), on which groundwater recharge facilities are a permitted use.

The 2015 Final EIR identified the Original Project could conflict with the Metropolitan Bakersfield Habitat Conservation Plan (MBHCP). The MBHCP and associated ITP expired in 2023, since the provision of the 2015 Final EIR. Still, as with the Original Project, the Modified Project would not result in the conversion of land to urban uses, and adherence to the mitigation measures included in Chapter 3.4, *Biological Resources*, would reduce potential project impacts to threatened and endangered species to less than significant levels. The Modified Project would not conflict with the MBHCP, or any other policies adopted for the purpose of avoiding or mitigating an environmental effect.

With adherence to the Mitigation Measures identified in Chapter 3.4, *Biological Resources*, of the 2015 Final EIR, it was determined that land use and planning impacts related to the Original Project would be reduced to a less than significant level. Therefore, the 2015 Final EIR found there would be no significant construction or operational cumulative impacts to land use and planning. Similarly, with adherence to the mitigation measures defined in the Final EIR, land use impacts associated with the Modified Project would be less than significant. No additional analysis is required. The Modified Project would not result in a considerable contribution to cumulative land use impacts.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.11 Mineral Resources

2015 Final EIR Findings

A discussion of mineral resources is provided in Section 3.11, *Mineral Resources,* of the 2015 Final EIR. The 2015 Final EIR determined that the Original Project would not result in the loss of availability of known mineral resources or loss of availability of locally valuable sand and gravel resources.

The Stockdale East property and Central Intake project associated with the Original Project are located in areas historically associated with oilfield activities. The Stockdale East property in particular is currently cultivated for agricultural use and contains an active oilfield, including oil pads and drums associated with oilfield activities. The oilfields and wells may remain active during project implementation and operation. Rosedale would be required to accommodate existing and future drill islands to maintain access to underlying mineral rights. With incorporation of the drill islands into the project design, the 2015 Final EIR found the Original Project would not impede future access to subsurface mineral resources. Development of groundwater banking facilities on the Stockdale properties would not preclude existing or future access to any underlying mineral rights, such as oil rights.

The 2015 Final EIR found there would be no significant construction or operational cumulative impacts related to mineral resources.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

As with the Original Project, the Modified Project would not result in the loss of availability of known mineral resources or loss of availability of locally valuable sand and gravel resources as the site of the proposed modifications does not occur within an identified mineral resource zone.

Abandoned oil drums found at the site of the Modified Project indicate historical oilfield activity in the area. According to the Phase I ESA conducted for the site in June of 2024 and prepared by Advanced Environmental Concepts Inc., an offsite oil pumping station is described to the northwest. Per CalGEM Map No. 436, as referenced in the site specific Phase I ESA's (Advanced Environmental Concepts Inc. 2019 and 2024), the site associated with the Modified Project is not within the Administrative Boundary of any Oil and Gas Fields and no oil or gas wells have been drilled at the subject property. The Modified Project would not impede future access to any potential subsurface mineral resources. Development of groundwater banking facilities, as proposed by the Modified Project, would not preclude existing or future access to any underlying mineral rights, such as oil rights.

Construction and operation of the Modified Project would not result in substantial adverse cumulative effects to designated mineral resource zones because, as indicated by the 2015 Final EIR, none are known to occur in the project area. No component of the Modified Project would impede or preclude existing or future access to subsurface mineral resources including oil, gas, or gravel. Therefore, the Modified Project would not result in a considerable contribution to cumulative mineral resources impacts.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.12 Noise

2015 Final EIR Findings

Noise is discussed in Section 3.12, *Noise,* of the 2015 Final EIR. The 2015 Final EIR found that the Original Project would not expose sensitive receptors to noise levels in excess of established standards. Construction of the Original Project would be in accordance with the City and County noise standards for construction; there are no regulations restricting construction noise levels. Operational activities would not significantly increase noise levels and would not create noise impacts.

Similarly, the 2015 Final EIR determined vibration levels associated with construction of the Original Project would not be perceptible outside of the project construction areas, given the requirements for setbacks from property boundaries. Construction would not exceed vibration thresholds for human annoyance or for building damage due to attenuation and distance of sensitive receptors and structures.

Noise generated during day-to-day operation of the Original Project facilities associated with the Original Project would be minimal and would not significantly increase ambient noise levels. Routine maintenance and monitoring activities that would require the transportation of minimal heavy equipment to the project site, workers, and truck trips would be infrequent and would not substantially increase ambient noise levels.

Though construction noise associated with the Original Project would expose sensitive receptors to temporary increases in ambient noise levels, noise impacts would be reduced to less than significant levels with implementation of noise controls on construction equipment and other best practices as required by NOISE-1.

The 2015 Final EIR found that the Original Project would not result in noise impacts to an Airport Land Use Plan or private airstrip. The Original Project would not occur within two miles of a public airport, public use airport, or airport land use plan area and would not occur near enough to sensitive residences or structures associated with a private airstrip expose people residing or working in the area to excessive noise levels.

With adherence to mitigation measure NOISE-1, the 2015 Final EIR found there would be no significant construction or operational cumulative impacts to noise and vibration.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

The Modified Project would introduce a third groundwater recharge site, similar in scale and setting to the two specific facilities described under the Original Project. The new facility proposed under

the Modified Project would occur approximately 400 feet from the nearest residences, relatively similar to the 200-foot and 800-foot distances separating the Stockdale East and Stockdale West properties, respectively, from the nearest sensitive receptors. Construction of the Modified Project would be conducted in accordance with the City and County noise standards for construction; there are no regulations restricting construction noise levels. Operational activities would not significantly increase noise levels and would not create noise impacts. The Modified Project, as with the Original Project, would not expose sensitive receptors to noise levels in excess of established standards.

Similarly, vibration levels associated with construction of the Modified Project would be similar in scale to those associated with construction of the Original Project. Vibration would not be perceptible outside of the project construction areas, given the requirements for setbacks from property boundaries. Construction of the Modified Project would not exceed vibration thresholds for human annoyance or for building damage due to attenuation and distance of sensitive receptors and structures.

Operational activities associated with the Modified Project would be limited to periodic maintenance. Noise generated during day-to-day operation of the proposed facilities would be minimal and would not significantly increase ambient noise levels. As identified for the Original Project, routine maintenance and monitoring activities be infrequent and would not substantially increase ambient noise levels.

Construction noise associated with the Modified Project would expose sensitive receptors to temporary increases in ambient noise levels, noise impacts would be reduced to less than significant levels with implementation of noise controls on construction equipment and other best practices as required by NOISE-1.

As with the Original Project, the Modified Project would not occur within two miles of a public airport, public use airport, or airport land use plan area, would not occur near enough to sensitive residences or structures associated with a private airstrip expose people residing or working in the area to excessive noise levels, and would not result in noise impacts to an Airport Land Use Plan or private airstrip.

As determined by the Final EIR, with adherence to mitigation measure NOISE-1, there would be no significant construction or operational impacts to noise and vibration associated with the Original Project. Therefore, the 2015 Final EIR found there would be no significant construction or operational cumulative impacts related to noise. Similarly, with adherence to the mitigation measures defined in the Final EIR, noise impacts associated with the Modified Project would be less than significant. No additional analysis is required. The Modified Project would not result in a considerable contribution to cumulative noise impacts.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.13 Transportation

2015 Final EIR Findings

Transportation is evaluated in Section 3.13, *Transportation and Traffic,* of the 2015 Final EIR.

The 2015 Final EIR found that the Original Project would result in less than significant construction and operational traffic impacts, assuming adherence to Mitigation Measure TR-1 during construction of the Central Intake Pipeline. Operational increases in vehicle trips related to maintenance activities would not affect the existing level of service.

The transportation of construction-related equipment may require the use of oversize vehicles. Mitigation Measure TR-2 would ensure a Construction Traffic Control Plan is prepared and implemented to ensure construction-related oversize vehicle loads and travel are in compliance with applicable California Vehicle Code sections and California Street and Highway Codes. Mitigation Measure HAZ-4 would require coordination with the Rio Bravo-Greeley Union School District, if the third Stockdale project site is within 0.25 miles of a school, to determine a haul route that would not impact existing school safety routes. Preparation and implementation of the Construction Traffic Control Plan in accordance with Mitigation Measure TR-2 would ensure emergency access is not impacted during construction.

The Original Project does not include new or altered airport facilities and would not affect air traffic patterns. Similarly, the Original Project would not occur in the vicinity of transit bus stops or bikeways and is not anticipated to impact public transit, bicycle, or pedestrian facilities.

Some construction impacts, such as construction traffic safety, roadway deterioration, and parking interference, would be less than significant with implementation of Mitigation Measures TR-1, TR-2, and HAZ-4 identified in the 2015 Final EIR. In operation, the Original Project would result in small traffic increases and operational traffic impacts would be less than significant. The 2015 Final EIR found there would be no significant construction or operational cumulative impacts to transportation.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

The Modified Project would involve the construction and operation of the third Stockdale project site, which would be similar in scale to the Stockdale East and Stockdale West properties described in the Original Project. The Modified Project would not include new or altered airport facilities and would not affect air traffic patterns. The Modified Project would not occur within 0.25 miles of a school.

Transportation of construction-related equipment associated with the Modified Project may require the use of oversize vehicles. Some construction impacts, such as construction traffic safety, roadway deterioration, and parking interference, would have the potential to occur under the Modified Project as with the Original Project. Certain construction activities could require short-term lane or road closures or detours. The use of oversize vehicles could create a hazard to the public by limiting views on the roadways, obstructing space, and reducing travel speed on the roadway. Mitigation Measures TR-1, TR-2, and HAZ-4, identified in the 2015 Final EIR, would be implemented for the Modified Project. These measures would ensure motorists are aware of short-term lane or road closures or detours, ensure the Construction Traffic Control Plan is developed prior to construction, and require coordination with the Rio Bravo-Greeley Union School District to determine a haul route that would not impact existing school safety routes. Impacts would not exceed those identified in the 2015 Final EIR.

As determined by the Final EIR, with adherence to mitigation measures TR-1, TR-2, and HAZ-4, there would be no significant construction or operational impacts to transportation associated with the Original Project. Therefore, the 2015 Final EIR found there would be no significant construction or operational cumulative impacts related to transportation. Similarly, with adherence to the mitigation measures defined in the Final EIR, transportation impacts associated with the Modified Project would be less than significant. No additional analysis is required. The Modified Project would not result in a considerable contribution to cumulative transportation impacts.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.14 Utilities and Energy

2015 Final EIR Findings

Utilities and service systems are discussed in Section 3.14, *Utilities and Energy,* of the 2015 Final EIR. The 2015 Final EIR determined the Original Project would have no impact on wastewater treatment facilities and that there would be no increase in storm water runoff that would require construction or expansion of storm water drainage facilities. Similarly, the 2015 Final EIR found that no impacts to water rights holders, other water suppliers, or other public utilities would occur from the purchase, exchange, or transfer of water would occur as the Original Project would not require a new water supply. The Original Project would not result in adverse effects on landfill capacity and would not conflict with statues and regulations related to solid waste. The 2015 Final EIR indicated that It is not anticipated that additional power generation facilities would be required to serve the Original Project, or that the demand would exceed capacity of energy providers. Still, the Original Project would incorporate energy efficient equipment such as system pumps and motors in accordance with Mitigation Measure UTIL-1 to minimize the energy intensity of the Original Project and the impact on local power supply providers while also supporting policies of the California Energy Action Plan II. Impacts to utilities and service systems were found to be less than significant.

The 2015 Final EIR found there would be no significant construction or operational cumulative impacts to utilities and service systems.

Addendum No. 1 and Addendum No. 2 determined that the proposed modifications identified therein would not change the conclusions of the certified 2015 Final EIR. No additional mitigation was introduced beyond the existing commitments contained within the MMRP, all of which had been satisfied in full at the time of approval of Addendum No. 1 and Addendum No. 2.

Addendum No. 3 Analysis

The Modified Project would involve the construction and operation of the McCaslin Groundwater Recharge project as the third Stockdale project site, which would be similar in scale to the Stockdale East and Stockdale West properties described in the Original Project.

The Modified Project would have similar demands on utilities systems as the Original Project. The Modified Project is not expected to generate wastewater or excess stormwater. The Modified Project would have no impact on wastewater treatment facilities, and there would be no increase in storm water runoff that would require construction or expansion of storm water drainage facilities.

Similarly, the Modified Project would not require a new water supply and no impacts to water rights holders, other water suppliers, or other public utilities would occur from the purchase, exchange, or transfer of water. The Modified Project would generate only minimal waste and would not result in adverse effects on landfill capacity and would not conflict with statues and regulations related to solid waste. The 2015 Final EIR indicated that it is not anticipated that additional power generation facilities would be required to serve the Original Project, or that the demand would exceed capacity of energy providers. As with the Original Project, the Modified Project would incorporate energy efficient equipment such as system pumps and motors in accordance with Mitigation Measure UTIL-1 to minimize the energy intensity of the Modified Project and the impact on local power supply providers while also supporting policies of the California Energy Action Plan II. Impacts to utilities and service systems were found to be less than significant and would not exceed those determined in the 2015 Final EIR.

As determined by the Final EIR, with adherence to mitigation measure UTIL-1, there would be no significant construction or operational impacts to utilities and energy associated with the Original Project. Therefore, the 2015 Final EIR found there would be no significant construction or operational cumulative impacts related to utilities and energy. Similarly, with adherence to the mitigation measures defined in the Final EIR, utilities and energy impacts associated with the Modified Project would be less than significant. No additional analysis is required. The Modified Project would not result in a considerable contribution to cumulative utilities and energy impacts.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.15 Growth Inducement

2015 Final EIR Findings

Growth inducement refers to the potential for a project to stimulate or encourage additional development or growth in an area, including through the removal of an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. A project's growth inducing potential is therefore considered significant if project-induced growth could result in significant physical effects in one or more environmental issue areas.

Growth Inducement is addressed in Chapter 5, Growth Inducement Potential, in the 2015 Final EIR. The 2015 Final EIR determined the Original Project would not have a direct growth-inducing effect within the IRWD service area or the Rosedale district boundaries. The Original Project does not involve construction of new housing and would not substantially expand or establish new employment opportunities that, in turn, would generate housing development. Nor would the Original Project provide water supply infrastructure to a previously undeveloped or underserved region. The 2015 Final EIR similarly determined that the Original Project could not accommodate additional growth. The Original Project would not be capable of providing water every year and therefore could not support the continuous demands associated with population growth. Neither IRWD nor Rosedale has authority or responsibility for approving land use designations. Neither district makes decisions about approving new development that would require connections to potable water supplies. The 2015 Final EIR states that the Original Project neither supports nor

encourages growth within the IRWD or Rosedale service areas to a greater degree than presently estimated by the agencies with land use jurisdiction within their service areas. The Original Project would not remove any obstacles to growth and would not indirectly have a significant impact on growth inducement.

Addendum No. 3 Analysis

As discussed above, the 2015 Final EIR analyzed the growth-inducing and secondary environmental effects associated with the Original Project. As with the Original Project, the Modified Project would not have any direct growth-inducing effects. The Modified Project would not involve construction of new housing and would not substantially expand or establish new employment opportunities that, in turn, would generate housing development. Nor would the Modified Project provide water supply infrastructure to a previously undeveloped or underserved region. Therefore, the 2015 Final EIR already analyzed the growth-inducing and secondary environmental effects associated with the proposed water allocation, and the Modified Project would not result in new significant impacts or mitigation measures.

Conclusion

The Modified Project would not result in new significant impacts beyond those addressed or analyzed in the 2015 Final EIR, nor would it result in significant impacts which are more severe than those described in the 2015 Final EIR.

5.16 CEQA Topics Not Evaluated in the 2015 Final EIR

Several CEQA Guidelines were updated, and modifications to the CEQA Guidelines Appendix G Checklist were adopted subsequent to certification of the Final EIR in 2015. These topics as they relate to the proposed modifications are discussed herein. The following CEQA significance thresholds from Section VII, *Geology and Soils* and Section XX, *Wildfire* of Appendix G of the 2025 CEQA Guidelines were used to evaluate the proposed modifications to the Original Project.

Modified Project Analysis

Significance Threshold Criteria

Impacts would be potentially significant if the proposed modifications would introduce new significant impacts or substantially increase the severity of previously identified significant impacts associated with:

GEOLOGY AND SOILS

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

WILDFIRE

- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:
    - Substantially impair an adopted emergency response plan or emergency evacuation plan

- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes

Impact Analysis

GEOLOGY AND SOILS

As described in section 5.5, *Cultural Resources*, in compliance with Mitigation Measure CUL-4, a paleontological literature review was conducted for the Modified Project. The review determined the project site is immediately underlain by late Holocene-age alluvial valley and fan deposits and early to middle Holocene-age young lacustrine, playa, and estuarine (paralic) deposits at the surface. These Holocene deposits are presumably underlain by Pleistocene-age alluvial deposits at a depth that is conservatively estimated to be as shallow as 15 feet bgs. Any impacts to paleontological resources are only likely to occur during excavations at the Project site that will disturb deposits of Pleistocene age, which are considered to be potentially fossil-bearing. Therefore, only excavations that will extend greater than about 15 feet bgs are here considered to have the potential to impact paleontological resources. Project-related earthwork, as currently outlined, is not anticipated to negatively impact paleontological resources, as mitigable earthwork will not extend deep enough to impact geologic units with undetermined resource potential.

This impact was assessed under *Cultural Resources* in the Final EIR and has since been moved to the *Geology and Soils* section of CEQA Appendix G.

WILDFIRE

No portion of the Modified Project, or the extent of the project site radius assessed, exist within a designated State Responsibility Area or on lands classified as very high fire hazard severity zones (CalFire 2025). No impact would occur related to wildfire.

This impact was also assessed under the *Hazards* section of the Final EIR.

5.17 Other CEQA Considerations

Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, of the 2015 Final EIR discusses environmental issues not addressed.

Environmental Issues not Addressed

The 2015 Final EIR did not further analyze impacts to Population and Housing, Public Services, or Recreation in the Draft EIR, as no impacts would occur as a result of project. The Original Project would not displace existing housing or substantial numbers of people and would not require construction of replacement housing; would not directly induce population growth by constructing new homes or businesses; would not affect service ratios, response times, or other performance objectives for fire protection, police protection, schools, parks, or other public facilities; and would

not include recreational facilities and would not require construction or expansion of recreational facilities.

Conclusion

The Modified Project would not result in new significant impacts to Population and Housing, Public Services, or Recreation, or growth inducement and would not substantially increase the severity of impacts already identified in the 2015 Final EIR for the Original Project. The Modified Project includes modifications to the proposed McCaslin Recharge Ponds, initially identified in the Final EIR as the third Stockdale site and occurring within the identified project site radius assessed therein. Considering this site would occur within a radius for which impacts have already been assessed, and that the Modified Project would not alter other project components assessed in the Final EIR, there is no change to the previous analysis that determined there were not impacts to these environmental resources.

6 Conclusion

Rosedale, acting as the Lead Agency, has determined that a third addendum to the 2015 Final EIR is the appropriate environmental document under CEQA because the Modified Project would not require revisions to the 2015 Final EIR due to new significant environmental effects or substantial increases in the severity of significant effects previously identified in the 2015 Final EIR.

There are no changed circumstances or new information that meet the standards requiring further environmental review under *CEQA Guidelines* Section 15162. Thus, the Modified Project would not result in new or more severe significant impacts beyond what were addressed in the 2015 Final EIR and would not meet any other standards under *CEQA Guidelines* Section 15162(a)(3). No additional analysis is required based on the discussions throughout this addendum. The Modified Project would not result in new significant or substantially more severe significant impacts that were not discussed in the 2015 Final EIR. Accordingly, no additional CEQA review is required.

CEQA Guidelines Section 15164 states that "[t]he lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in *CEQA Guidelines* Section 15162 calling for preparation of a subsequent EIR have occurred." An addendum is therefore appropriate because, as explained above, none of the conditions calling for preparation of a subsequent EIR have occurred.

7 References

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7.2 List of Preparers

Rincon Consultants, Inc. prepared this Addendum No. 3 under contract to the Rosedale-Rio Bravo Water Storage District. Persons involved in data gathering analysis, project management, and quality control are listed below.

Rincon Consultants, Inc.

Jennifer Jacobus, Principal-in-Charge
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Brooke Baranek, Environmental Planner

7.3 Appendix A

Stockdale Integrated Banking Project

McCaslin North Facility

July 16, 2025

Prepared for

Rosedale-Rio Bravo Water Storage District

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1 INTRODUCTION

This report summarizes an analysis of potential groundwater level changes from proposed additional artificial recharge and recovery facilities for the Stockdale Integrated Banking Project (the Project) near Bakersfield, California (see Figures 1 and 2). The proposed additional recharge and recovery facility is referred to as the McCaslin North property and covers approximately 97 acres on the south side of Sidding Road, approximately one mile west of Enos Lane in unincorporated Kern County (see Figure 2). One existing agriculture well in this area (the McCaslin North Ag well) is proposed to be rehabilitated and incorporated for groundwater recovery for the Project. In the event that the well cannot be successfully rehabilitated then one new well would be constructed for Project groundwater recovery (the Proposed well). The Project would expand Rosedale-Rio Bravo Water Storage District's (the District's) annual managed recharge capacity by approximately 14,500 acre-ft/yr (see Table 1).

Presented herein are the results of a hydrogeological analysis to assess potential groundwater level impacts from managed recharge and groundwater recovery associated with the Project. The analysis was conducted using the most recent version of the District's groundwater flow model of the Kern Fan Area.

1.1 Purpose and Scope

The purpose of the analysis presented herein is to:

1. Estimate the annual recharge capacity of the proposed recharge facility.
2. Estimate the annual recovery capacity of the proposed recovery well.
3. Evaluate potential changes in groundwater levels associated with recharge and recovery at the facility.

The scope of work to address the objectives included:

1. Compiling and reviewing hydrogeological data for the immediate Project area.
2. Developing estimates of recharge capacity at the recharge basin and of recovery capability at the recovery well.
3. Developing a recharge and recovery scenario for analysis.
4. Analyzing the scenario using the District's calibrated groundwater flow model of the Kern Fan Area.
5. Evaluating potential groundwater level changes from model results.
6. Preparing this report describing the analysis and summarizing the results.

1.2 Conceptual Project Description

The Project includes the McCaslin North recharge basin and one recovery well, either the McCaslin North Ag well or the Proposed new well, in the District's service area (see Figure 2). For planning purposes, it is assumed that the McCaslin North recharge basin would cover approximately 95 acres of the 97-acre property located north of the existing Enns, Mayer, and McCaslin recharge basins. Groundwater recovery will be accomplished from the McCaslin North Ag Well, however if the well cannot be successfully rehabilitated then the Proposed well will be constructed as part of the Project.

1.3 Analysis Methodology

Potential changes in groundwater levels predicted for the Project recharge and recovery scenario were analyzed using the District's calibrated groundwater flow model of the Kern Fan Area. The model was developed using MODFLOW, a block centered, finite difference groundwater flow modeling code developed by the United States Geological Survey (USGS) for simulating groundwater flow (McDonald and Harbaugh, 1988).[1] MODFLOW is one of the most widely used and critically accepted model codes available (Anderson and Woessner, 2002).[2]

The original documentation for the model is presented in Thomas Harder and Company (TH&Co; 2011).[3] Since that time, the model has been updated, refined, and recalibrated on a regular basis. The version used for this analysis is calibrated through December 2024.

1.4 Types and Sources of Data

The calibrated groundwater flow model used in the analysis of groundwater level changes incorporates a comprehensive hydrogeological database of the Project Area, as summarized in TH&Co (2011).[3] The types of data used to develop the model included geology, soils/lithology, groundwater levels, hydrogeology, surface water hydrology, and groundwater recharge and pumping. Information regarding the Project area was provided by the District.

[1] McDonald, M.G., and Harbaugh, A.W., 1988. A Modular Three-Dimensional Finite-Difference Ground-Water Flow Model: in Techniques of Water-Resources Investigations of the United States Geological Survey; Book 6 Modeling Techniques.
[2] Anderson, M.P., and Woessner, W.W., 2002. Applied Groundwater Modeling, Simulation of Flow and Advective Transport. Academic Press.
[3] TH&Co., 2011. Hydrogeological Impact Evaluation Related to Operation of the Kern Water Bank and Pioneer Projects. Prepared for McMurtrey, Hartsock, & Worth and Rosedale-Rio Bravo Water Storage District, December 5, 2011.

2 PROJECT OPERATIONAL PARAMETERS

2.1 Estimates of Maximum Annual Recharge Capacity

For this analysis, annual recharge capacity is defined as the maximum volume of water that the Project can infiltrate into the subsurface in a year. The recharge capacity was estimated based on the size of the basin (wetted area), the time available to accept water (assumed to be 10 months), and the infiltration rate. The wetted area is estimated to be 95 acres for the Project as provided by the District. The reduced wetted area accounts for berms, well pads, and other areas that will not be wetted and is consistent with other recharge projects in the vicinity.

Potential infiltration rates in the recharge basin were assigned based on infiltration rates measured in nearby existing recharge basins. The basin was assigned an infiltration rate of 0.5 feet/day based on measured infiltration rates in the District's Mayer, Enns, and Superior basins.

Using the assumed infiltration rates and the wetted area for the Project, as described above, the resulting annual recharge capacity for the Project is approximately 14,488 acre-feet/year (acre-ft/yr; see Table 1). During the three-year recharge cycle simulated in the Project scenario (see Section 3.0 herein), a total of 43,463 acre-ft was recharged (see Table 2).

2.2 Individual Well Pumping Rates

The potential pumping rate for the Project well was determined based on pumping rates for existing wells in the Project area. Individual well production rates in the Project area typically range from approximately 1,600 gallons per minute (gpm) to approximately 5,000 gpm. However, wells with perforated intervals in the deep aquifer (400 to 700 feet below ground surface; ft bgs) are capable of long-term average production rates of approximately 2,500 gpm. The McCaslin North Ag well is perforated in the deep aquifer from 336 to 794 ft bgs, as provided by the District, and it was assumed that the Proposed well will also be perforated in the deep aquifer. Based on an instantaneous pumping rate of 2,500 gpm and assuming a 70 percent utilization over a 10-month period, the one Project well can recover 2,352 acre-ft/yr. During the two-year recovery cycle simulated in the Project scenario (see Section 3.0 herein), a total of 4,705 acre-ft was recovered (see Table 2).

3 PROJECT OPERATIONAL SCENARIO FOR ANALYSIS USING THE GROUNDWATER FLOW MODEL

The Stockdale Integrated Banking Project McCaslin North facility is located in the central part of the District's service area. Existing recharge and recovery operations are already occurring to the south (Kern Water Bank) and in the direct vicinity of the Project area (Rosedale-Rio Bravo Water Storage District Drought Relief Project). In addition, there is ongoing groundwater production in the area to supply agriculture and municipal demands. For this analysis, monthly artificial recharge and groundwater production for the Project was superimposed on a portion of the historical groundwater record that represents a potential range of groundwater level conditions that could be expected in the future. Significant changes in groundwater levels have occurred during the various recharge and recovery cycles in the Project area since 1995 when the Kern Water Bank began operations (see Figure 3). In the past 10 years, groundwater levels have fluctuated as much as 150 ft between 2019 (high groundwater condition) and 2023 (low groundwater condition). For the Project scenario, the low groundwater condition period was selected as the baseline conditions upon which to superimpose Project recovery to simulate the greatest potential cumulative groundwater level impact at existing wells. For Project recharge, the low groundwater condition (2017) immediately prior to a period of higher groundwater levels (2019) was selected as the baseline conditions for the first recharge period followed by 2019 and 2023 for the second and third recharge periods, respectively.

3.1 Baseline Groundwater Level Conditions

The Baseline condition for this analysis is the historical groundwater condition for the calibrated groundwater flow model. This baseline condition includes all historical hydrological conditions, including recharge and recovery from other projects (e.g., Kern Water Bank, Pioneer Project, Strand Ranch, etc.), which resulted in the calibrated groundwater levels in the model.

3.2 Project Operational Scenario

Project-related groundwater recharge and pumping was superimposed on the Baseline condition in accordance with the Project scenario summarized in Table 2. Project recharge was introduced into the model for the historical period from March 2017 through December 2017, March 2019 through December 2019, and March 2023 through December 2023 (see Figure 3). The maximum capacity of the basin (14,488 acre-ft/yr) was recharged in the model during these periods for a total of 43,463 acre-ft recharged in the Project scenario (see Table 2). Project recovery was introduced into the model for the historical period from March 2021 through December 2021, and March 2022 through December 2022 (see Figure 3). The maximum capacity of the recovery well (2,352 acre-ft/yr) was extracted in the model at the McCaslin North Ag well during these periods for a total of 4,705 acre-ft recovered in the Project scenario (see Table 2). For the Project scenario, recovery was only simulated at the McCaslin North Ag well and not at the Proposed well.

4 FINDINGS

4.1 Predicted Changes in Groundwater Flow During Maximum Recharge Mounding

Groundwater recharge at the McCaslin North facility during high groundwater conditions is not predicted to result in significant changes in the groundwater flow direction in the Project area. Intermediate (model layer 2) groundwater under Baseline conditions flows to the northwest beneath the McCaslin North facility. Although Project scenario groundwater contours show higher elevations and localized mounding beneath the basin, the direction of groundwater flow is similar (see Figure 4). In the deep aquifer (model layer 3), the groundwater flow direction is also similar between the Baseline and Project scenario conditions even though groundwater contours show higher elevations and localized mounding beneath the McCaslin North basin (see Figure 5).

4.2 Predicted Changes in Groundwater Levels During Maximum Recharge Mounding

Beneath the McCaslin North facility during high groundwater conditions (i.e., March 2019 through December 2019), approximately 31 ft of groundwater mounding is simulated to occur in the intermediate aquifer, and approximately 19 ft of groundwater mounding is simulated to occur in the deep aquifer (see Figures 6 and 7, respectively). During this maximum mounding, groundwater levels in the McCaslin North basin are within approximately 147 ft of land surface in the intermediate aquifer, and within approximately 150 ft of land surface in the deep aquifer.

4.3 Predicted Changes in Groundwater Flow During Maximum Recovery Drawdown

Groundwater recovery at the McCaslin North facility during low groundwater conditions is not predicted to result in significant changes in the groundwater flow direction in the Project area. Intermediate groundwater under Baseline conditions flows to the west beneath the McCaslin North facility. Although Project scenario groundwater contours show lower elevations, suggesting a localized pumping depression beneath the McCaslin North Ag well, the direction of groundwater flow is similar (see Figure 8). In the deep aquifer, the groundwater flow direction is also similar between the Baseline and Project scenario conditions even though groundwater contours show lower elevations, suggesting a localized pumping depression beneath the McCaslin North Ag well (see Figure 9).

4.4 Predicted Changes in Groundwater Levels During Maximum Recovery Drawdown

Beneath the McCaslin North basin during low groundwater conditions (i.e., March 2022 through December 2022), approximately 6 ft of groundwater drawdown is simulated to occur in the intermediate aquifer, and approximately 7 ft of groundwater drawdown is simulated to occur in the deep aquifer (see Figures 10 and 11, respectively). During this maximum drawdown, the maximum pumping interference at the nearest existing project well is predicted to be approximately 0.5 ft in the intermediate aquifer at Enns 1, and approximately 0.3 ft in the deep aquifer at Enns 1 (see Figures 10 and 11, respectively).

4.5 Predicted Project Groundwater Level Relative to Sustainable Management Criteria

TH&Co compared the projected groundwater levels during simulated Project scenario recovery under historical low groundwater conditions to the Minimum Thresholds established for the Rosedale-Rio Bravo Management Area (RRBMA) Representative Monitoring Site (RMS) wells in the Kern Groundwater Authority Groundwater Sustainability Plan (GSP) established under the 2014 Sustainable Groundwater Management Act (SGMA) (see Attachment A). The deepest projected groundwater levels for the intermediate aquifer at selected RRBMA RMS wells are shown on Figure 12, and the deepest projected groundwater levels for the deep aquifer at the same wells are shown on Figure 13. Project scenario groundwater levels are not projected to drop below the Baseline groundwater levels or the established Minimum Thresholds at any of the RMS. Rather, Project scenario groundwater levels are predicted to be slightly higher compared to Baseline conditions by as much as approximately one foot in the intermediate and deep aquifers (see Figures 12 and 13).

5 CONCLUSIONS

The following summarizes the findings that have been developed based on the analysis of the Project recharge and recovery scenario:

1. Based on infiltration rates estimated from recharge operational data at the adjacent banking facilities, the maximum estimated recharge capacity of the McCaslin North facility is approximately 14,488 acre-ft/yr.
2. Groundwater levels predicted for maximum mounding conditions are not anticipated to rise to levels that would cause a liquefaction hazard. In general, maintaining groundwater levels below 50 ft bgs will be protective of liquefaction during an earthquake.[4] Further geotechnical studies in the Kern Water Bank area have also shown that groundwater levels below 15 ft bgs are protective of liquefaction.[5] Model simulations for the Project show that groundwater levels remain below approximately 147 ft bgs during maximum mounding.
3. Project groundwater recovery is predicted to result in up to 0.5 ft of drawdown at the nearest existing project well (Enns 1). Although Project recovery was only simulated at the McCaslin North Ag well, the results would not be materially different if the Proposed new well were required instead of the Ag well, as the wells are less than 800 ft apart and the assumed pumping rate would be the same.
4. Maximum mounding conditions are predicted to result in a localized groundwater mound beneath the McCaslin North basin that does not significantly change the northwestern flow of groundwater from the facility.
5. Maximum drawdown conditions are predicted to result in a localized pumping depression around the McCaslin North Ag well that does not significantly change the western flow of groundwater from the facility. Although Project recovery was only simulated at the McCaslin North Ag well, the results would not be materially different if the Proposed new well were required instead of the Ag well, as the wells are less than 800 ft apart and the assumed pumping rate would be the same.
6. Maximum drawdown conditions are not predicted to lower groundwater levels at the nearest RRBMA RMS wells to the Project, rather the groundwater levels are predicted to increase by as much as approximately 1 foot due to the Project operations.

[4] Martin, G.R., and Lew M., eds, 1999. Recommended Procedures for Implementation of DMG Special Publication 117: Guidelines for Analyzing and Mitigating Liquefaction Hazards in California. Southern California Earthquake Center – University of Southern California.

[5] Krazen & Associates, 2013. *Soil Liquefaction Evaluation for the Proposed McAllister Ranch Irrigation District – James Project, Panama Lane, Kern County, California*. Dated March 13, 2012.

Tables

Stockdale Integrated Banking Project - McCaslin North Facility
Annual Recharge Capacity Estimate

	McCaslin North Basin
Wetted Basin Size (acres)	95
Estimated Infiltration Rate (ft/day)	0.5
Monthly Infiltration Capacity (acre-ft/month)	1,449
Annual Infiltration Capacity[1] (acre-ft/year)	14,488

Note:

[1] For a 10-month recharge period.

Stockdale Integrated Banking Project - McCaslin North Facility
Summary of Operational Scenario

	Recharge			Recovery		
	Simulated Period of Recharge	Amount Recharged[1] (acre-ft)	Total Recharged (acre-ft)	Simulated Period of Recovery	Amount Recovered[2] (acre-ft)	Total Recovered (acre-ft)
McCaslin North Basin	Mar 2017 - Dec 2017 Mar 2019 - Dec 2019 Mar 2023 - Dec 2023	14,488 14,488 14,488	43,463	Mar 2021 - Dec 2021 Mar 2022 - Dec 2022	2,352 2,352	4,705

Notes:

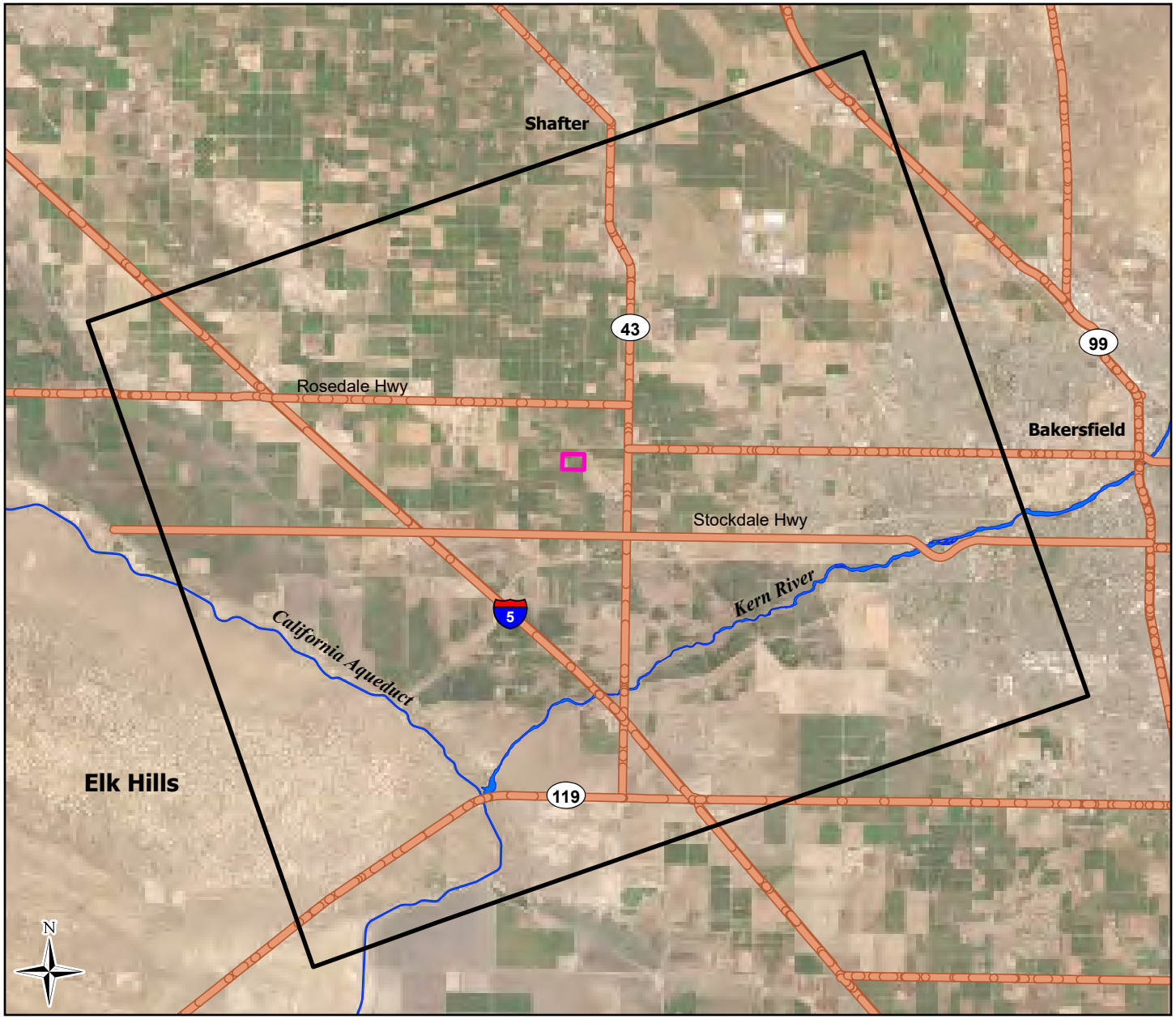
[1] For a 10-month recharge period.

[2] Assumes 70% utility.

Figures

Rosedale Rio-Bravo Water Storage District
Stockdale Integrated Banking Project - McCaslin North Facility

Figure 1



Map Features

- Highway/Road
- Project Boundary
- Model Domain
- Water Course

Regional Map

0 1.25 2.5 5 Miles

NAD 83 State Plane Zone 5

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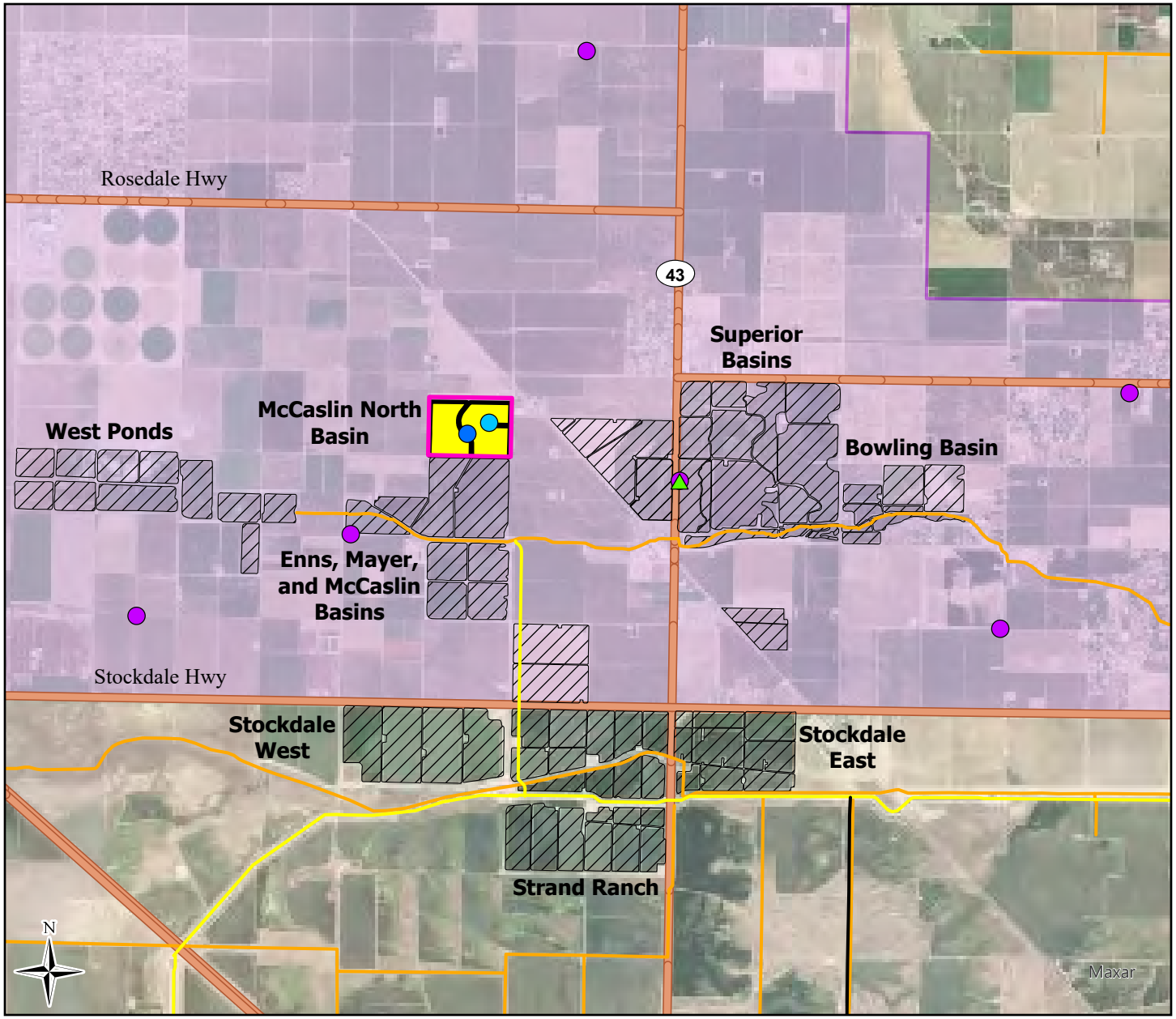
Rosedale Rio-Bravo Water Storage District
Stockdale Integrated Banking Project - McCaslin North Facility

Figure 2



Map Features

- McCaslin North Ag Well
- Proposed Well
- SGMA RMS Well
- Observation Well (see Figure 3)
- Unlined Canal
- Lined Canal
- Pipeline
- Highway/Road
- Project Boundary
- McCaslin North Basin
- Recharge Basin
- Rosedale-Rio Bravo WSD

Project Location

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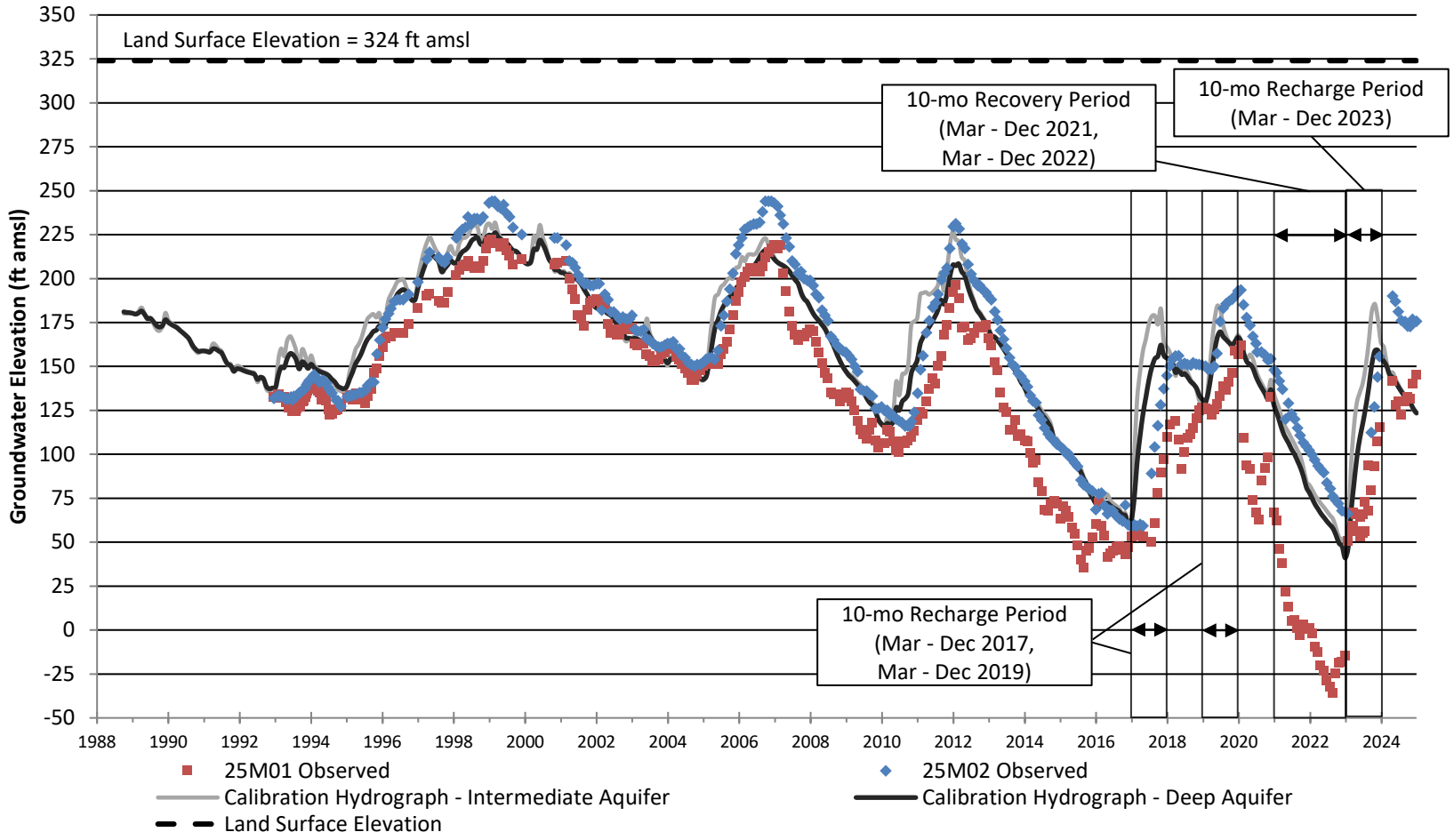
0 0.5 1 2 Miles
NAD 83 State Plane Zone 5

July 2025

Figure 3

Hydrologic Conditions for Recharge and Recovery Periods
Baseline Hydrograph - 29S/25E-25M



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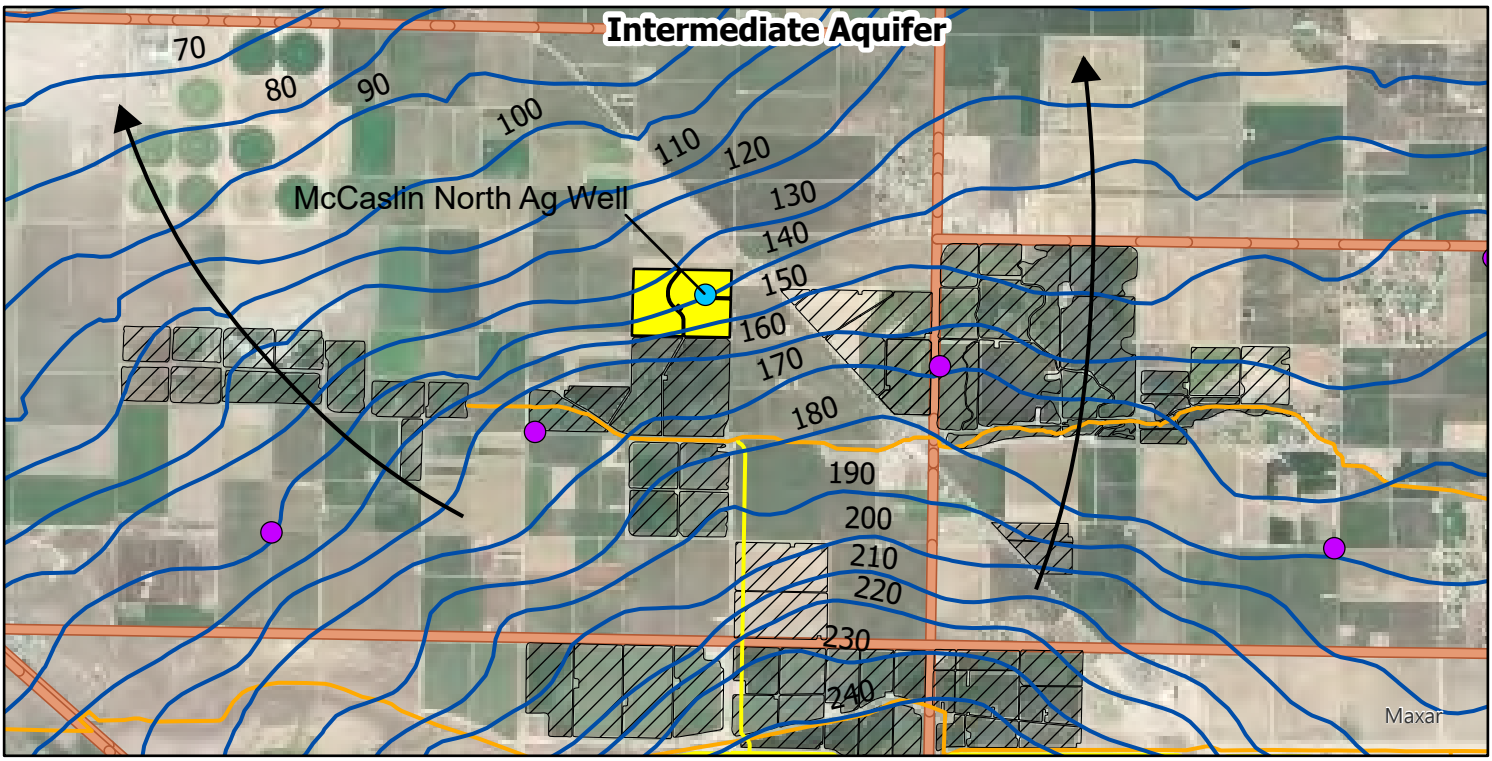
Groundwater Consulting

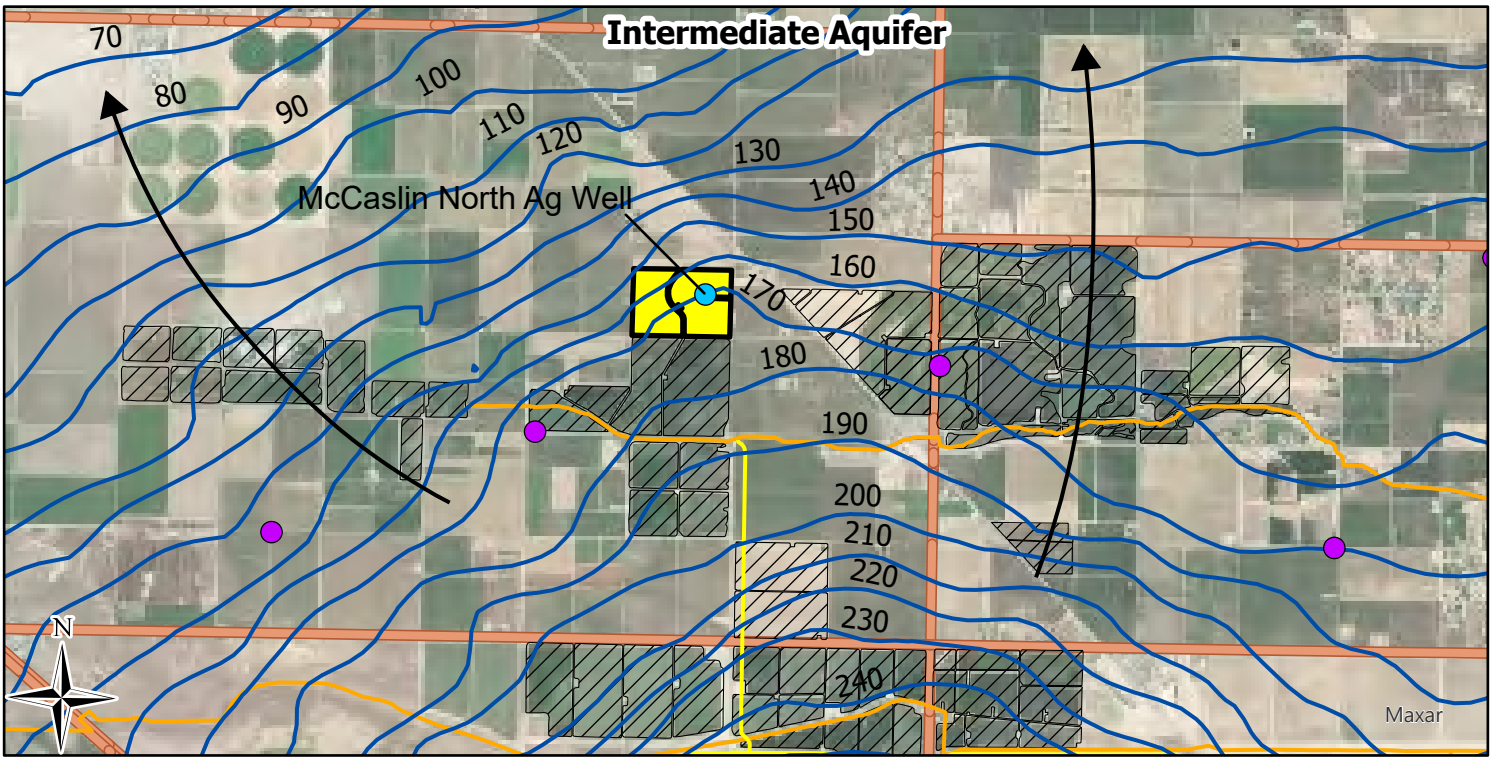
Rosedale Rio-Bravo Water Storage District
Stockdale Integrated Banking Project - McCaslin North Facility

Figure 4

Baseline Groundwater Elevation Contours - December 2019



Model-Predicted Groundwater Elevation Contours - Maximum Mounding (December 2019)



Groundwater Flow Direction

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0 0.25 0.5 1
Miles

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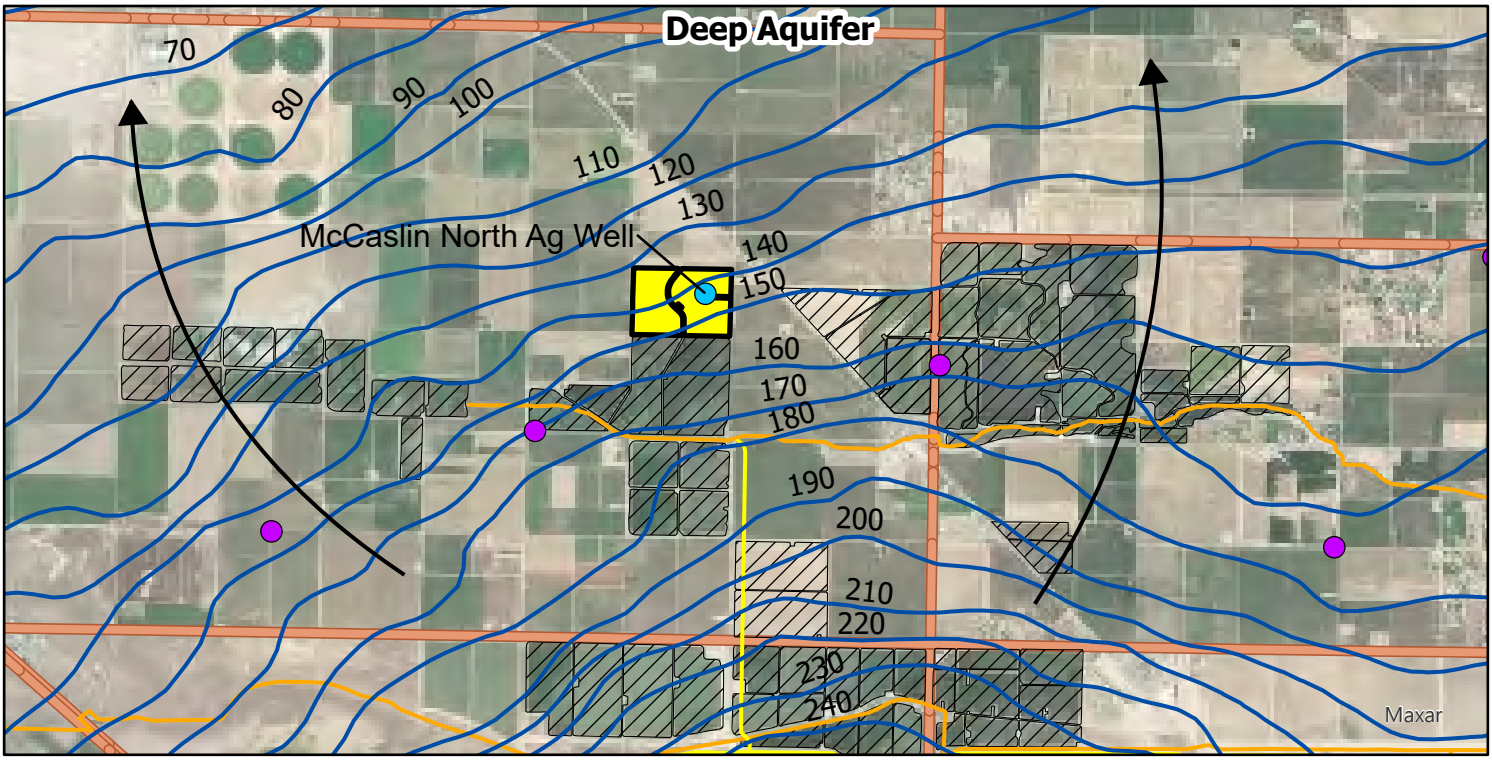
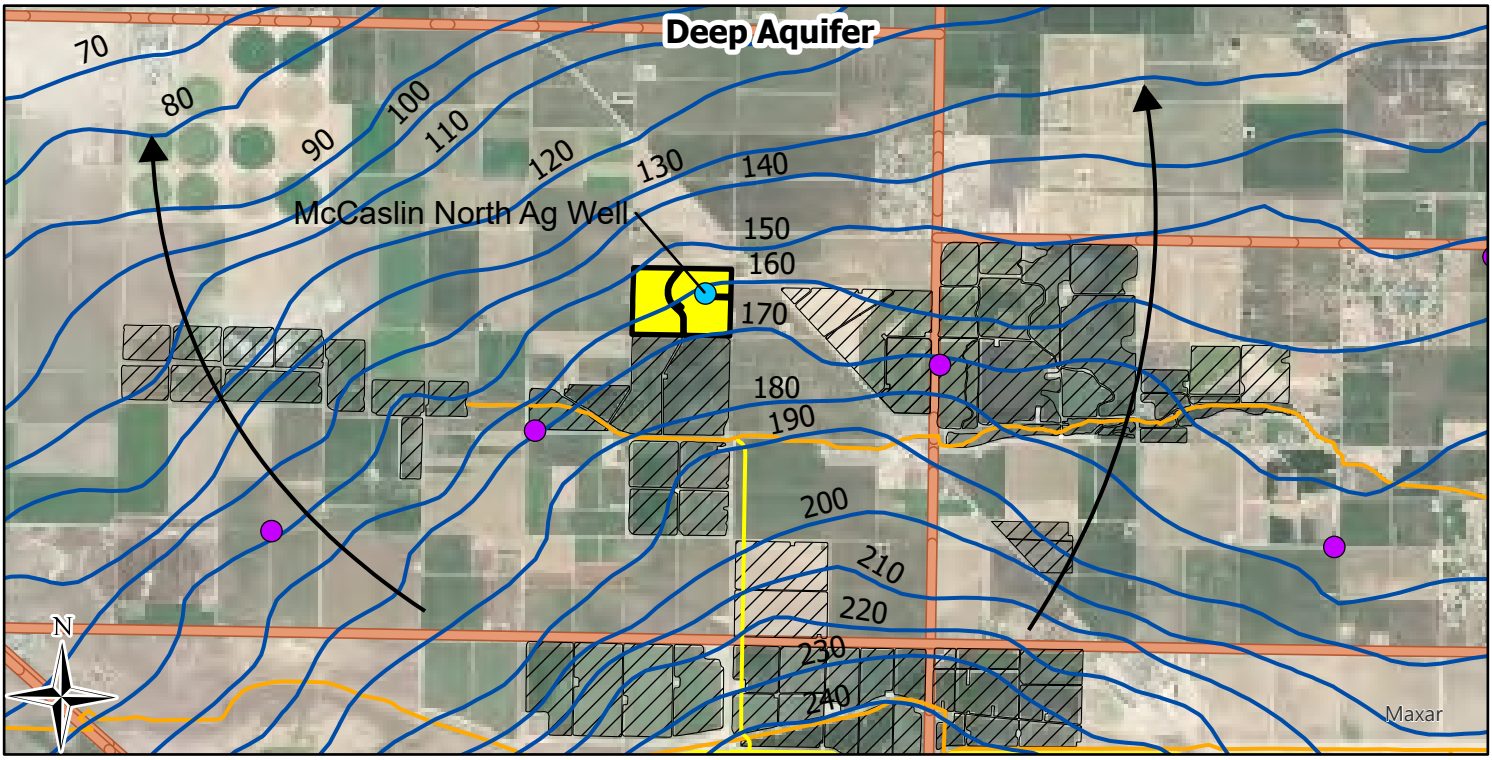
Rosedale Rio-Bravo Water Storage District
Stockdale Integrated Banking Project - McCaslin North Facility

Figure 5

Baseline Groundwater Elevation Contours - December 2019



Model-Predicted Groundwater Elevation Contours - Maximum Mounding (December 2019)



Groundwater Flow Direction

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Groundwater Consulting

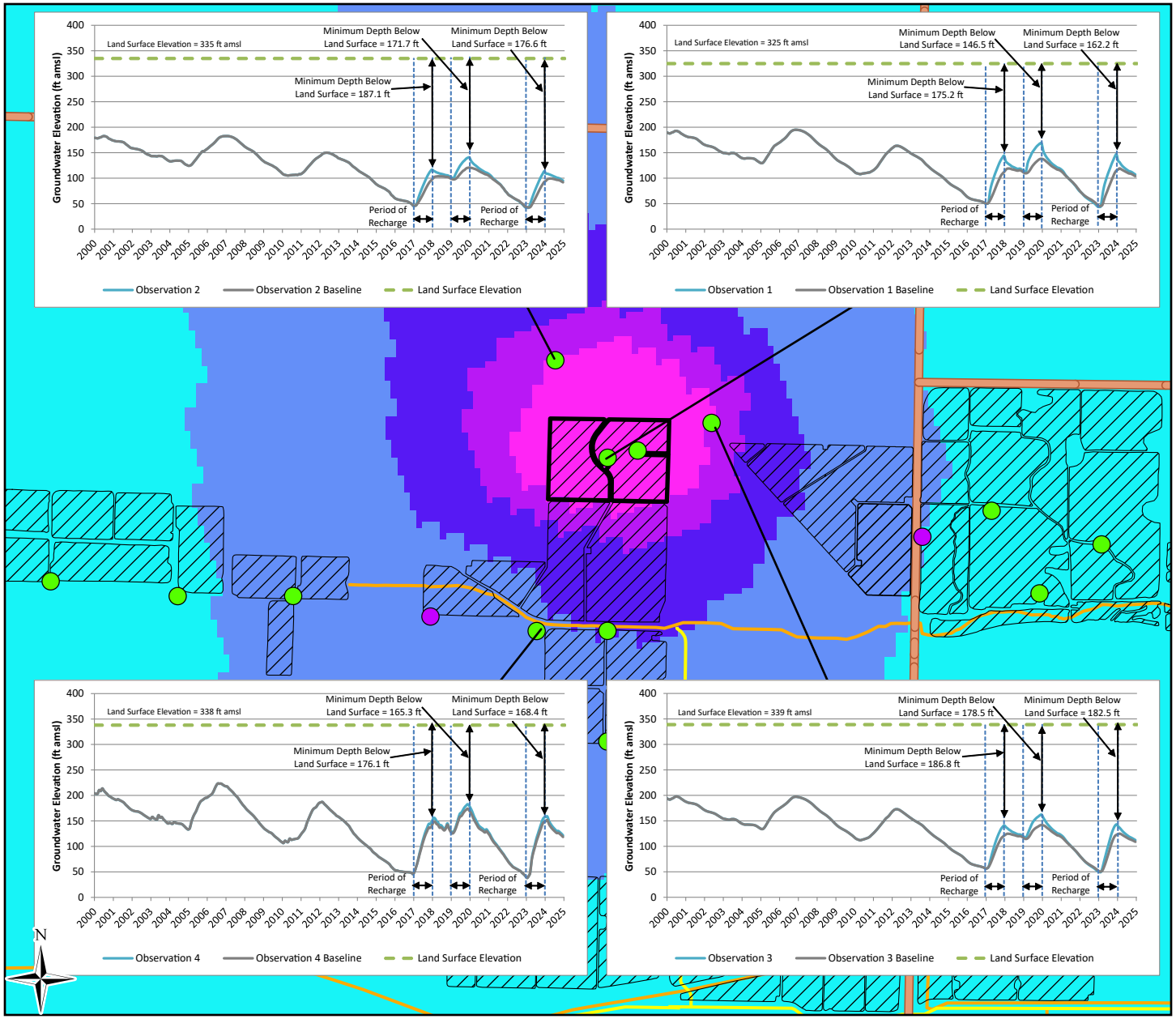
0 0.25 0.5 1
Miles

NAD 83 State Plane Zone 5

July 2025

Rosedale-Rio Bravo Water Storage District
Stockdale Integrated Banking Project - McCaslin North Facility

Figure 6



Map Features

Maximum Groundwater Level Mounding (ft)

- 0 to 5
- 5 to 10
- 10 to 15
- 15 to 20
- 20 to 31
- SGMA RMS Well
- Model Observation Point
- Unlined Canal
- Lined Canal
- Pipeline
- Highway/Road
- McCaslin North Basin
- Recharge Basin

Intermediate Aquifer Maximum Model-Predicted Groundwater Recharge Mounding - December 2019

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0 0.25 0.5 1 Miles

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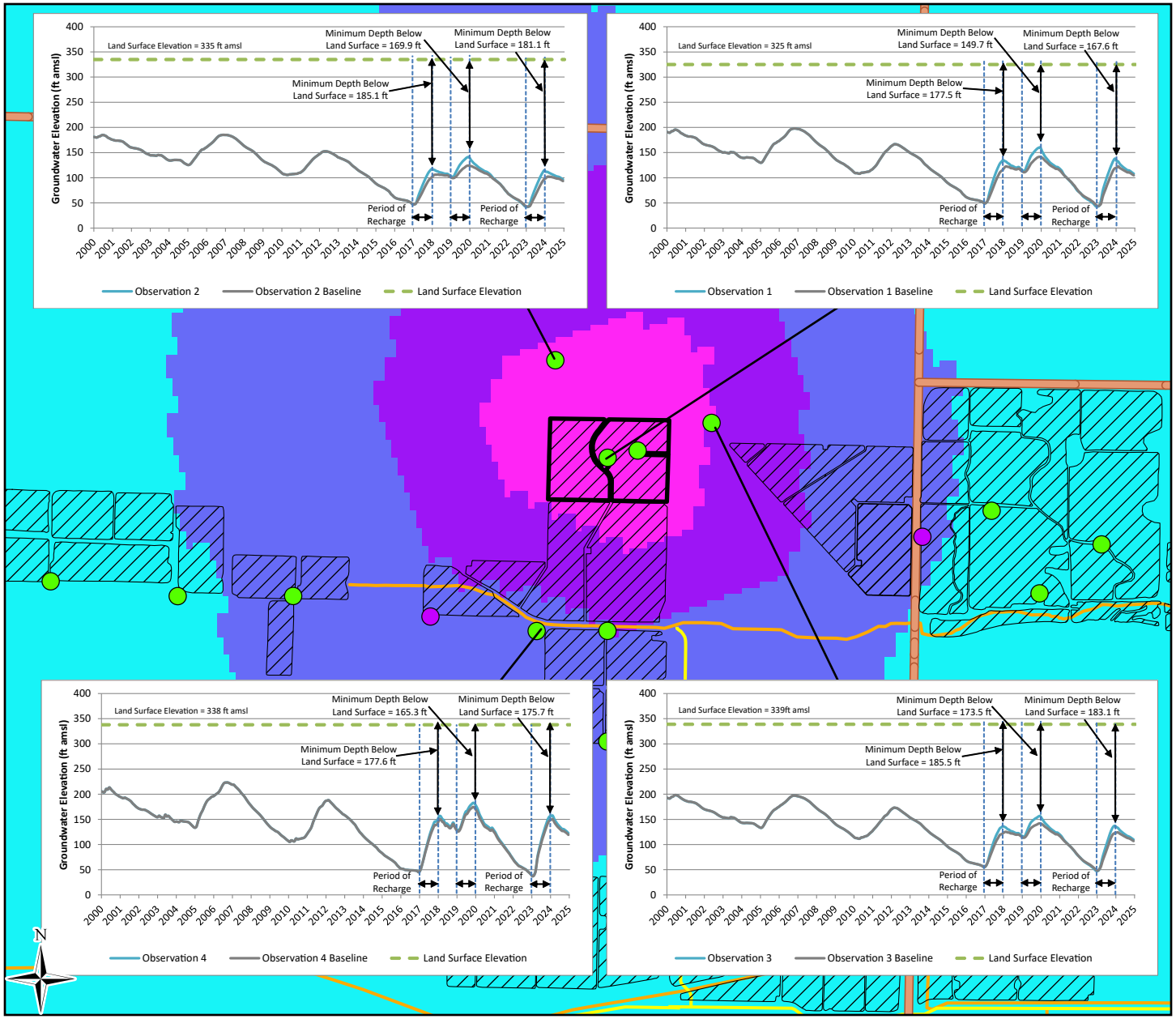
Rosedale-Rio Bravo Water Storage District
Stockdale Integrated Banking Project - McCaslin North Facility

Figure 7



Map Features

Maximum Groundwater Level Mounding (ft)

- 0 to 5
- 5 to 10
- 10 to 15
- 15 to 19
- SGMA RMS Well
- Model Observation Point
- Unlined Canal
- Lined Canal
- Pipeline
- Highway/Road
- McCaslin North Basin
- Recharge Basin

Deep Aquifer
Maximum Model-Predicted
Groundwater Recharge
Mounding - December 2019

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0 0.25 0.5 1 Miles

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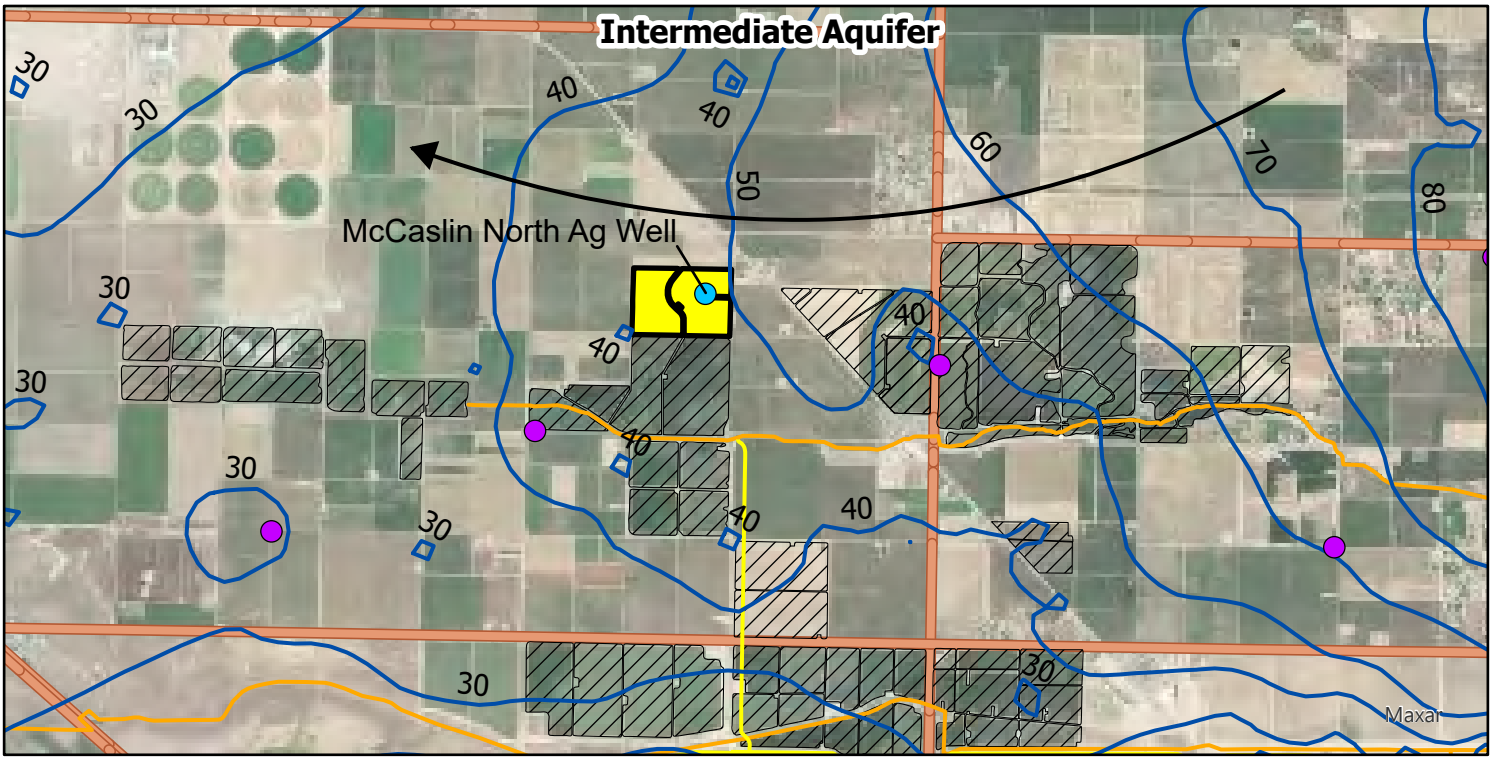
July 2025

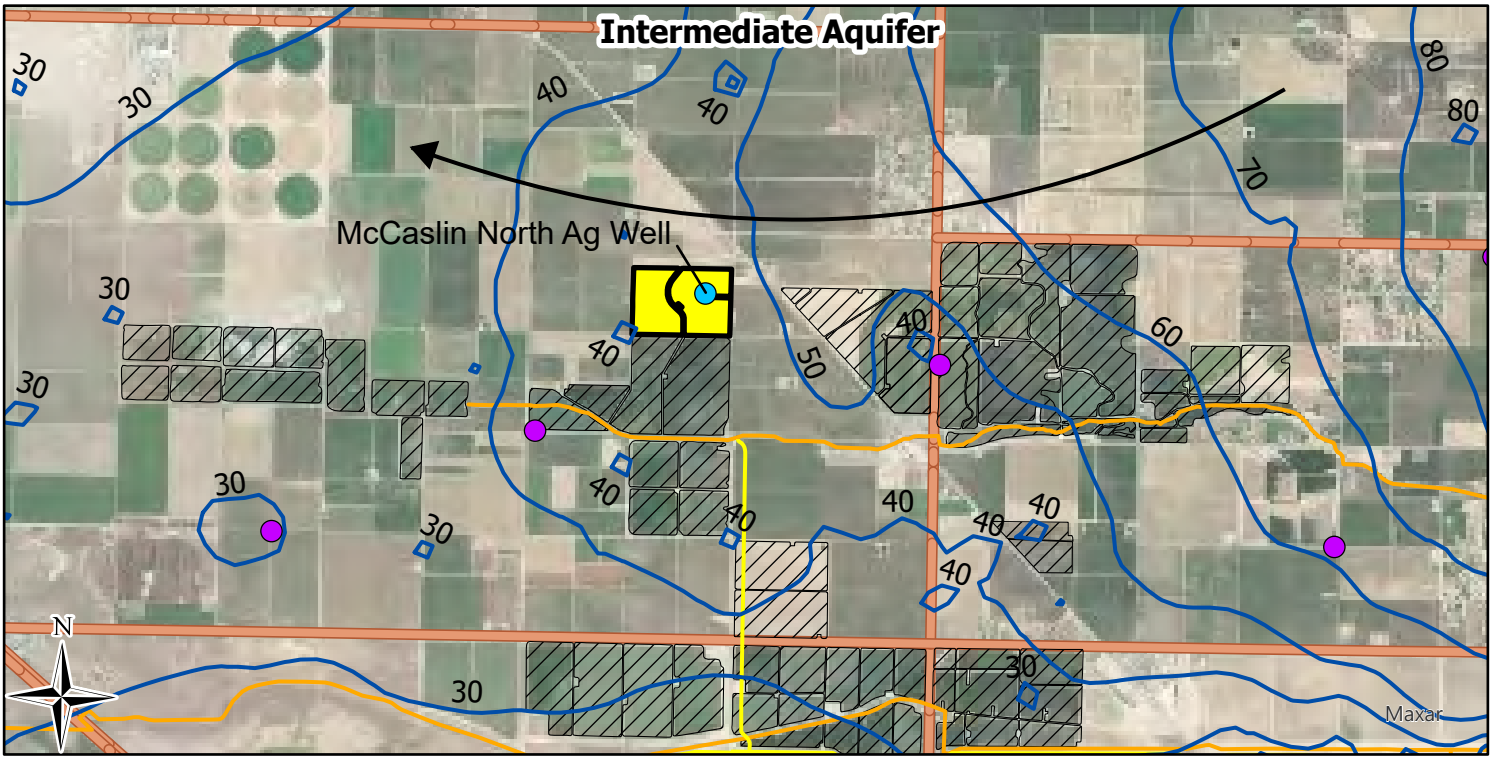
Rosedale Rio-Bravo Water Storage District
Stockdale Integrated Banking Project McCaslin North Facility

Figure 8

Baseline Groundwater Elevation Contours - December 2023



Model-Predicted Groundwater Elevation Contours - Maximum Drawdown (December 2023)



Groundwater Flow Direction

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0 0.25 0.5 1
Miles

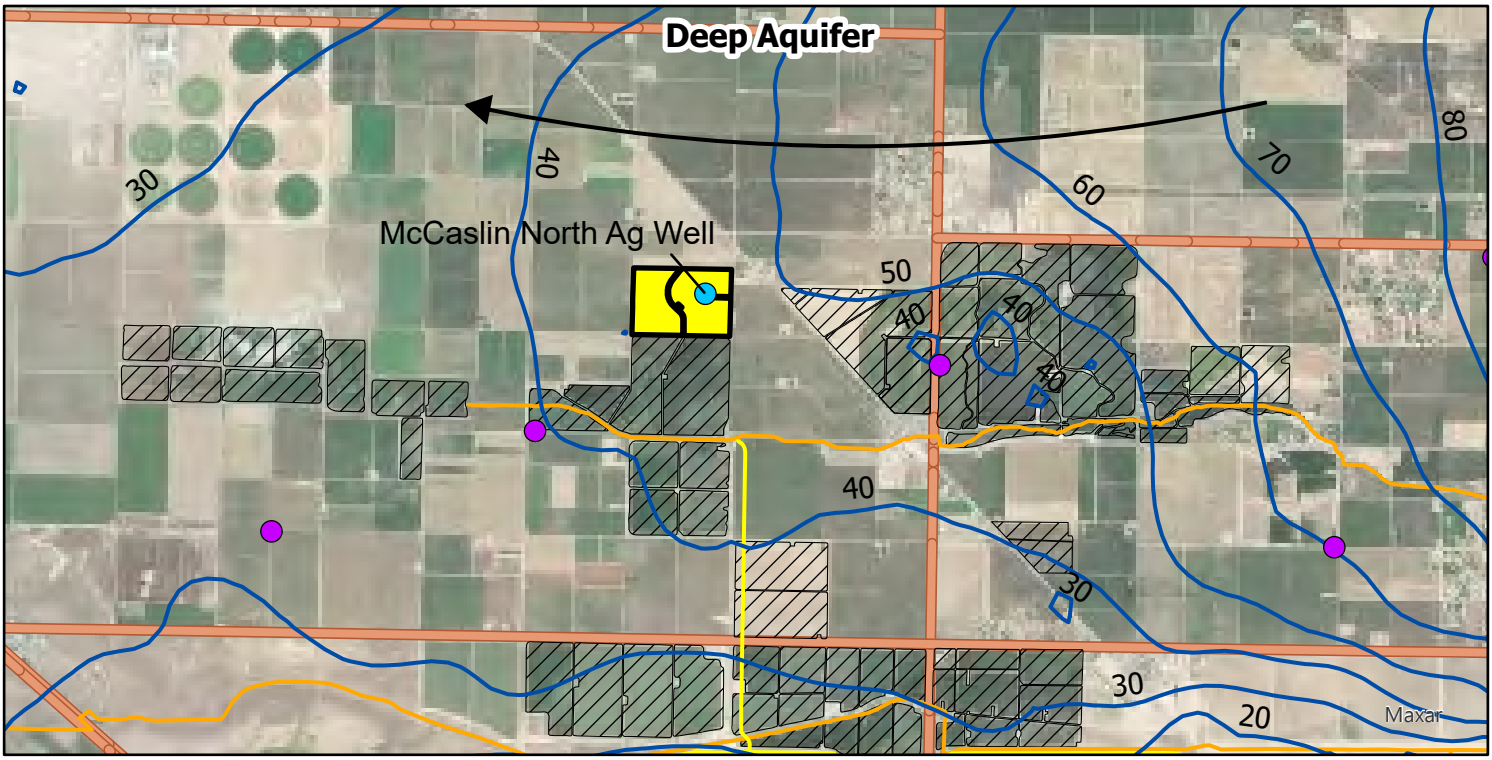
NAD 83 State Plane Zone 5

July 2025

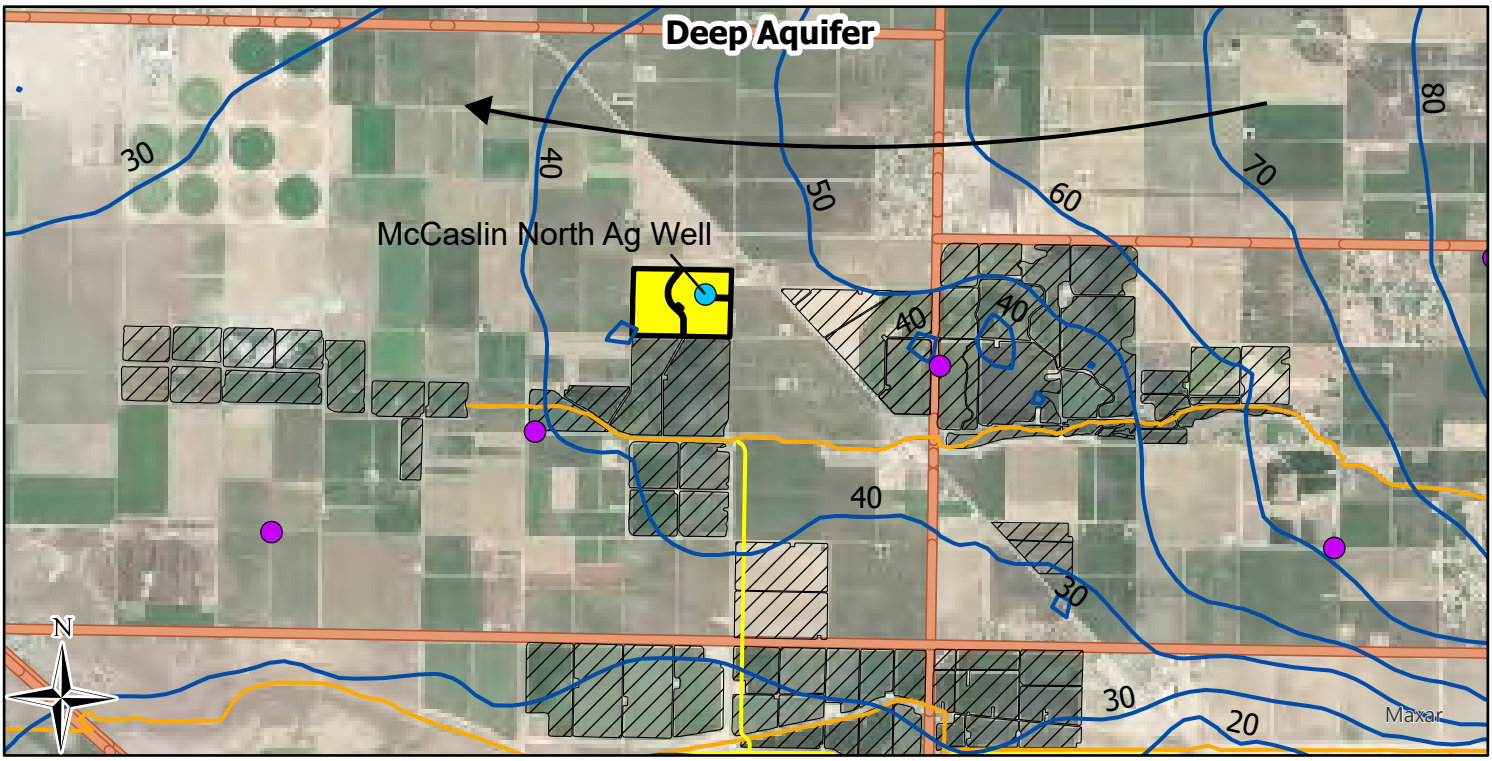
Rosedale Rio-Bravo Water Storage District
Stockdale Integrated Banking Project McCaslin North Facility

Figure 9

Baseline Groundwater Elevation Contours - December 2023



Model-Predicted Groundwater Elevation Contours - Maximum Drawdown (December 2023)



Groundwater Flow Direction

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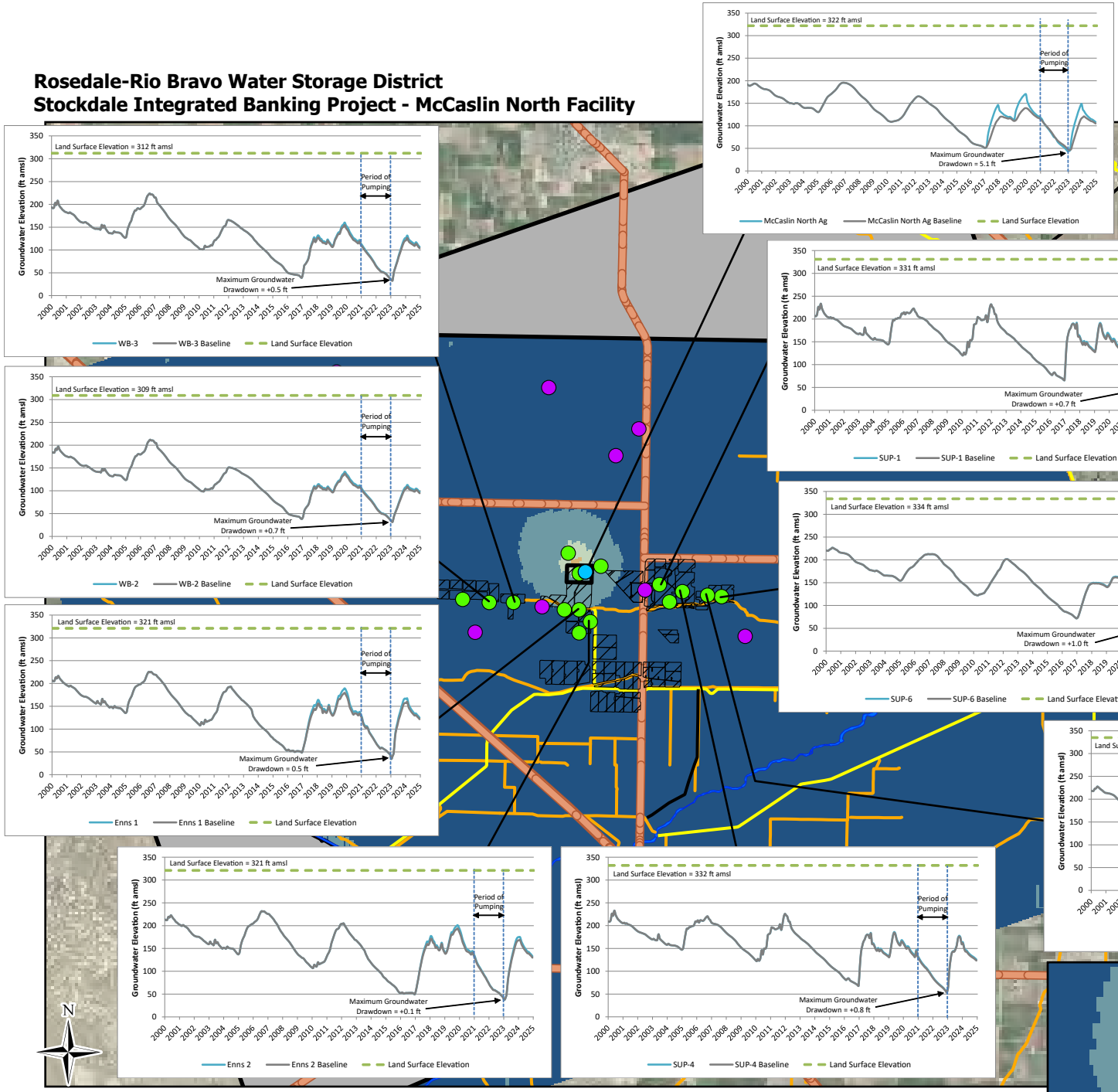
0 0.25 0.5 1
Miles
NAD 83 State Plane Zone 5

July 2025

Rosedale-Rio Bravo Water Storage District
Stockdale Integrated Banking Project - McCaslin North Facility

Figure 10



Map Features

Maximum Groundwater Level Drawdown (ft)

- 4 to 6
- 2 to 4
- 0 to 2
- < 0
- McCaslin North Ag Well
- SGMA RMS Well
- Model Observation Point
- Inactive Model Domain

Intermediate Aquifer
Maximum Model-Predicted Groundwater Drawdown
December 2023
July 2025

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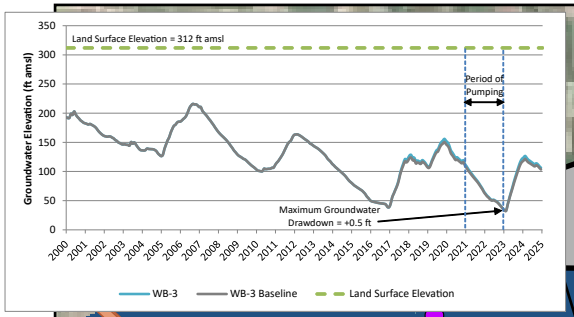
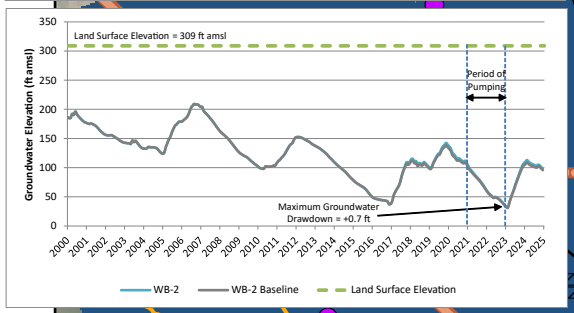
0 1.25 2.5 5 Miles

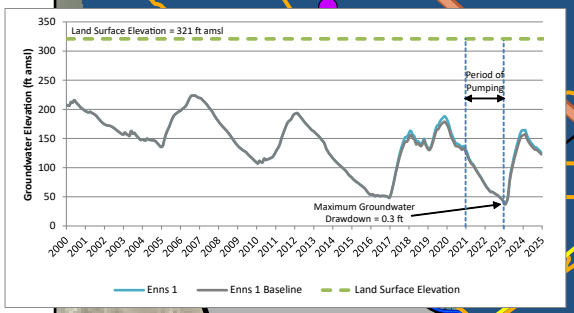
NAD 83 State Plane Zone 5

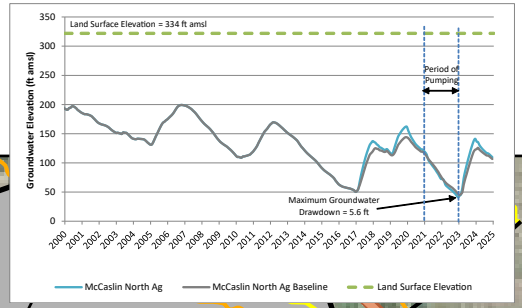
Rosedale-Rio Bravo Water Storage District
Stockdale Integrated Banking Project - McCaslin North Facility

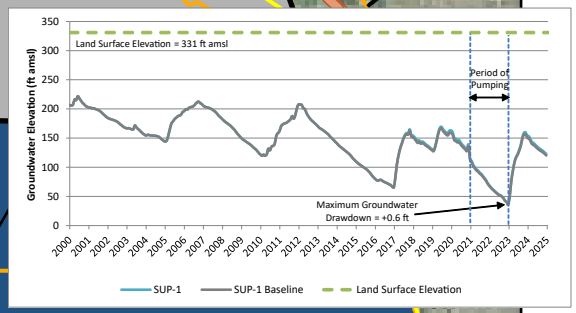
Figure 11

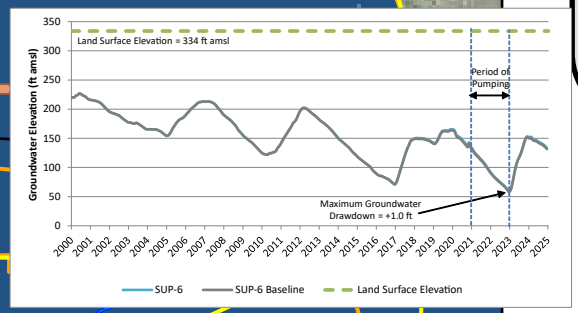


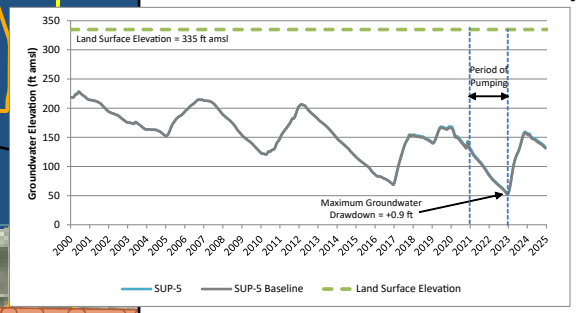


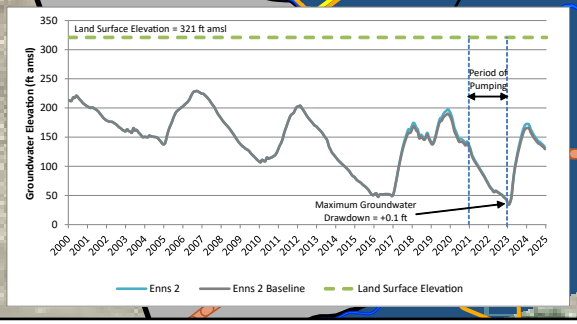


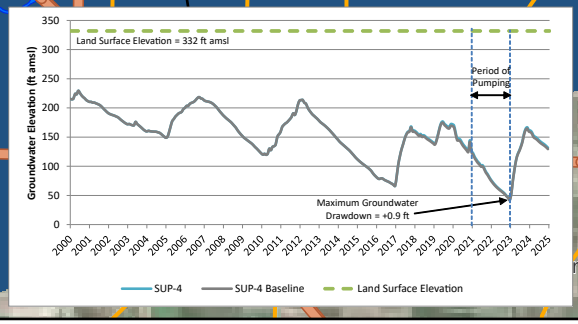


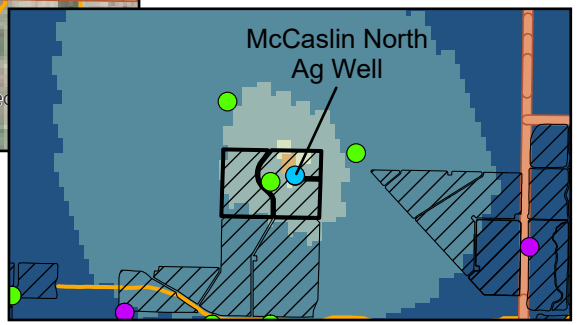












Map Features

Maximum Groundwater Level Drawdown (ft)

- 6 to 7
- 4 to 6
- 2 to 4
- 0 to 2
- < 0
- McCaslin North Ag Well
- SGMA RMS Well
- Model Observation Point
- Inactive Model Domain

Deep Aquifer
Maximum Model-Predicted Groundwater Drawdown
December 2023
July 2025

N

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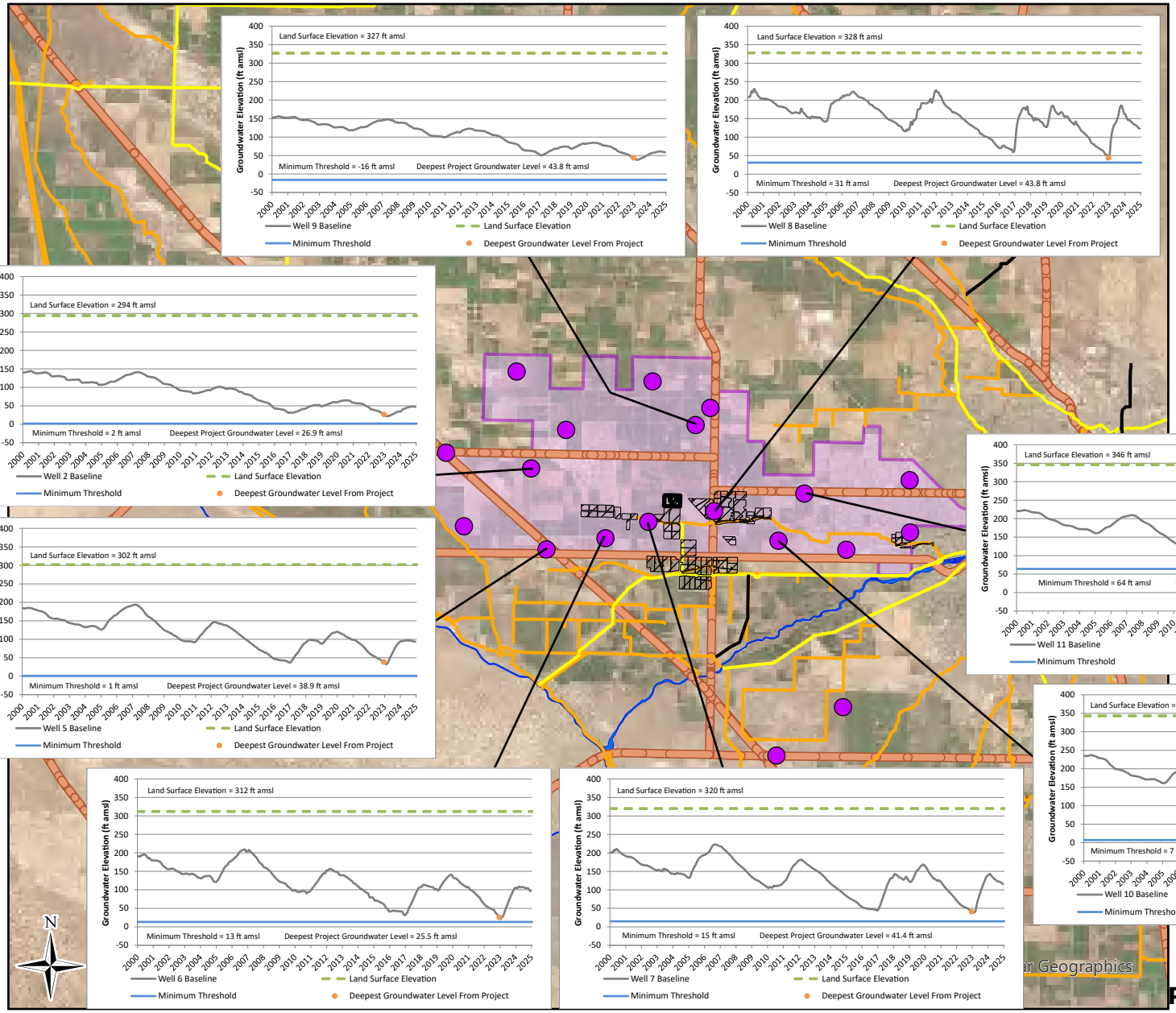
0 1.25 2.5 5
Miles

NAD 83 State Plane Zone 5

Rosedale-Rio Bravo Water Storage District
Stockdale Integrated Banking Project - McCaslin North Facility

Figure 12



Map Features

- SGMA RMS Well
- Unlined Canal
- Lined Canal
- Pipeline
- Highway/Road
- McCaslin North Basin
- Recharge Basin
- Water Course
- Rosedale-Rio Bravo WSD

Intermediate Aquifer
SGMA RMS Minimum Threshold
Project Impacts - December 2023

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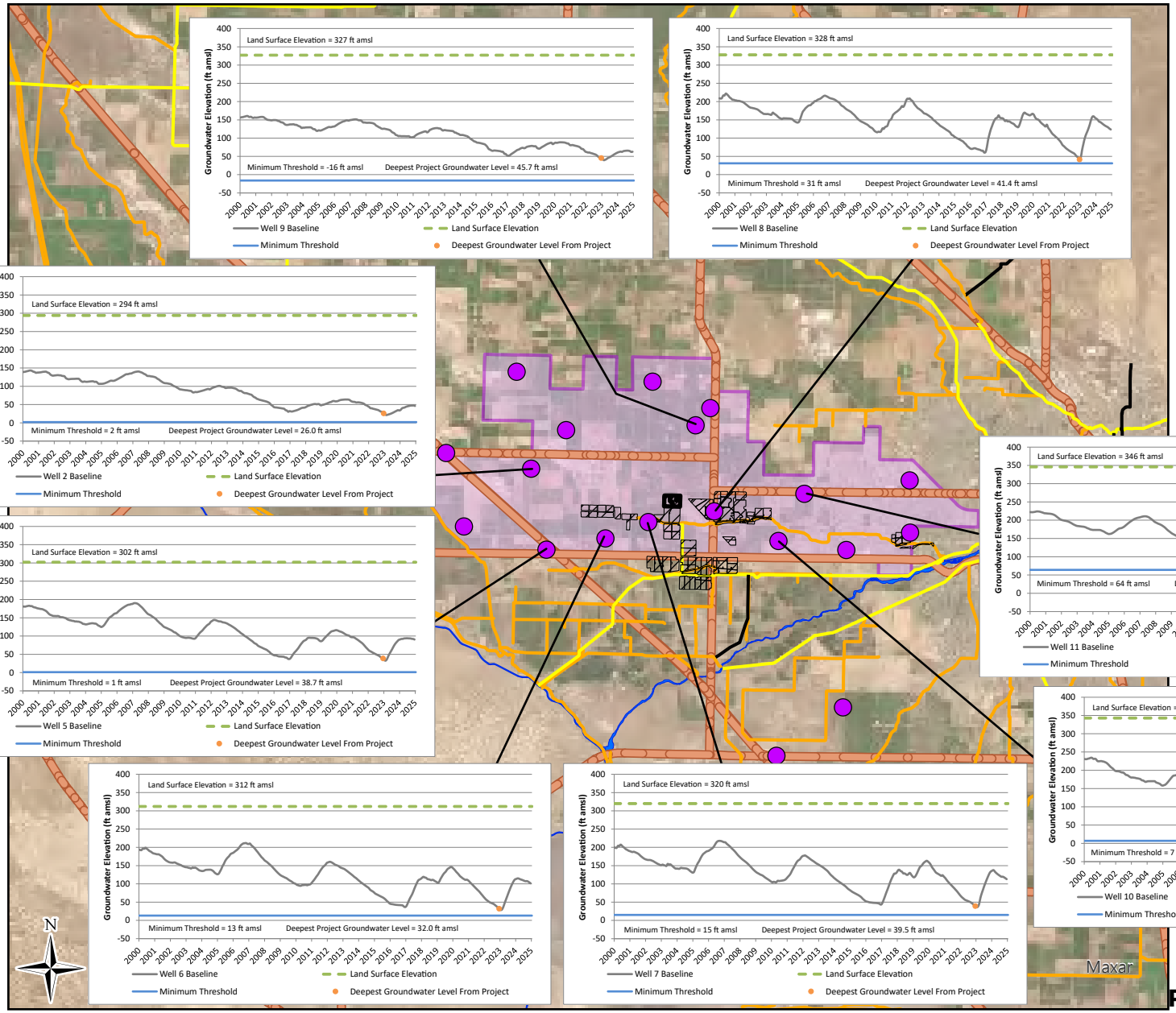
0 2.5 5 10
Miles
NAD 83 State Plane Zone 5

July 2025

Rosedale-Rio Bravo Water Storage District
Stockdale Integrated Banking Project - McCaslin North Facility

Figure 13



Map Features

- SGMA RMS Well
- Unlined Canal
- Lined Canal
- Pipeline
- Highway/Road
- McCaslin North Basin
- Recharge Basin
- Water Course
- Rosedale-Rio Bravo WSD

Deep Aquifer
SGMA RMS Minimum Threshold
Project Impacts - December 2023

Thomas Harder & Co.
Groundwater Consulting

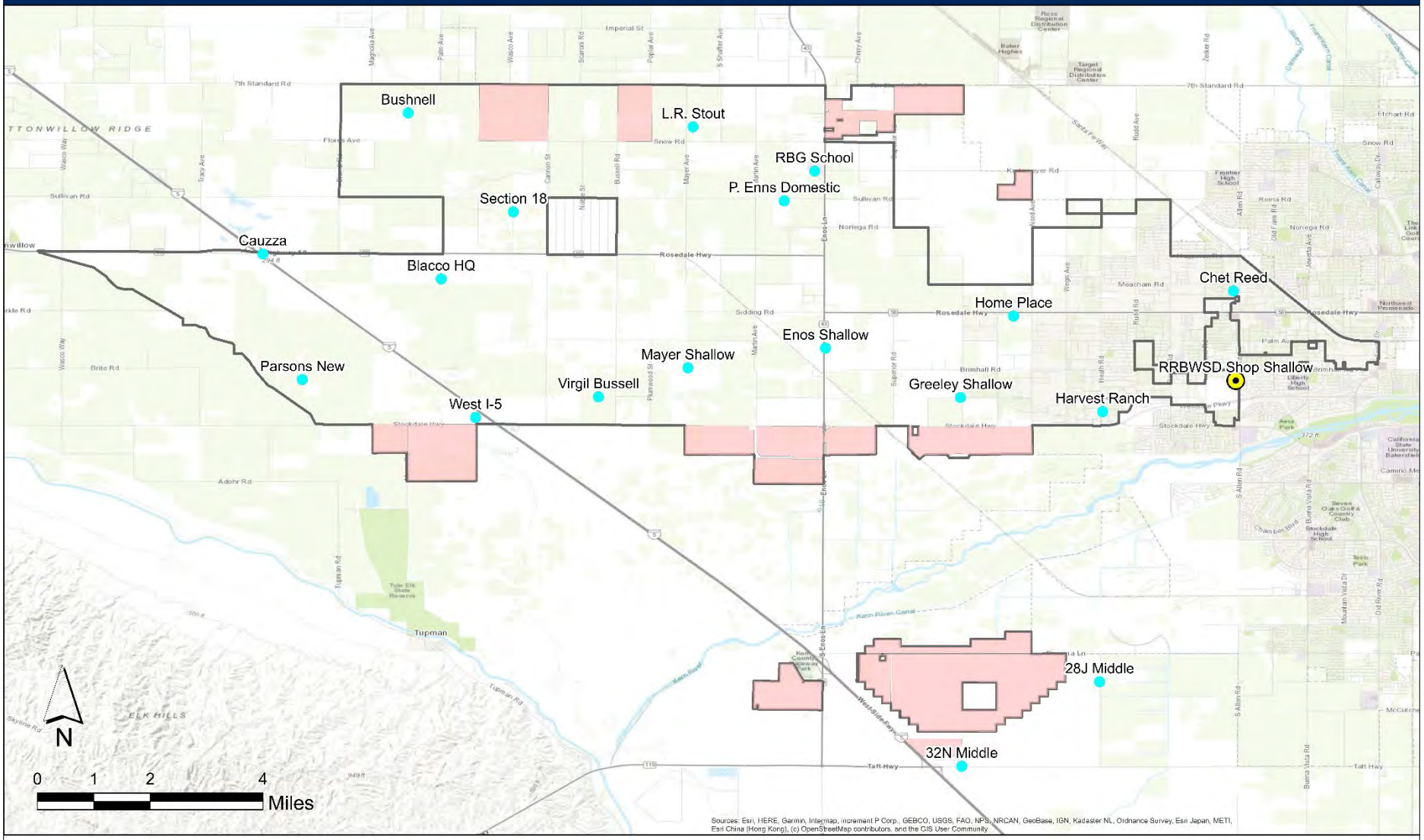
0 2.5 5 10
Miles
NAD 83 State Plane Zone 5

July 2025

Attachment A

RRBMA Minimum Thresholds and Measurable Objectives

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



Legend

- Water Level Representative Monitoring Wells (RMWs)
- RRBWSD GSA White Lands
- RRBWSD GSA Boundary

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

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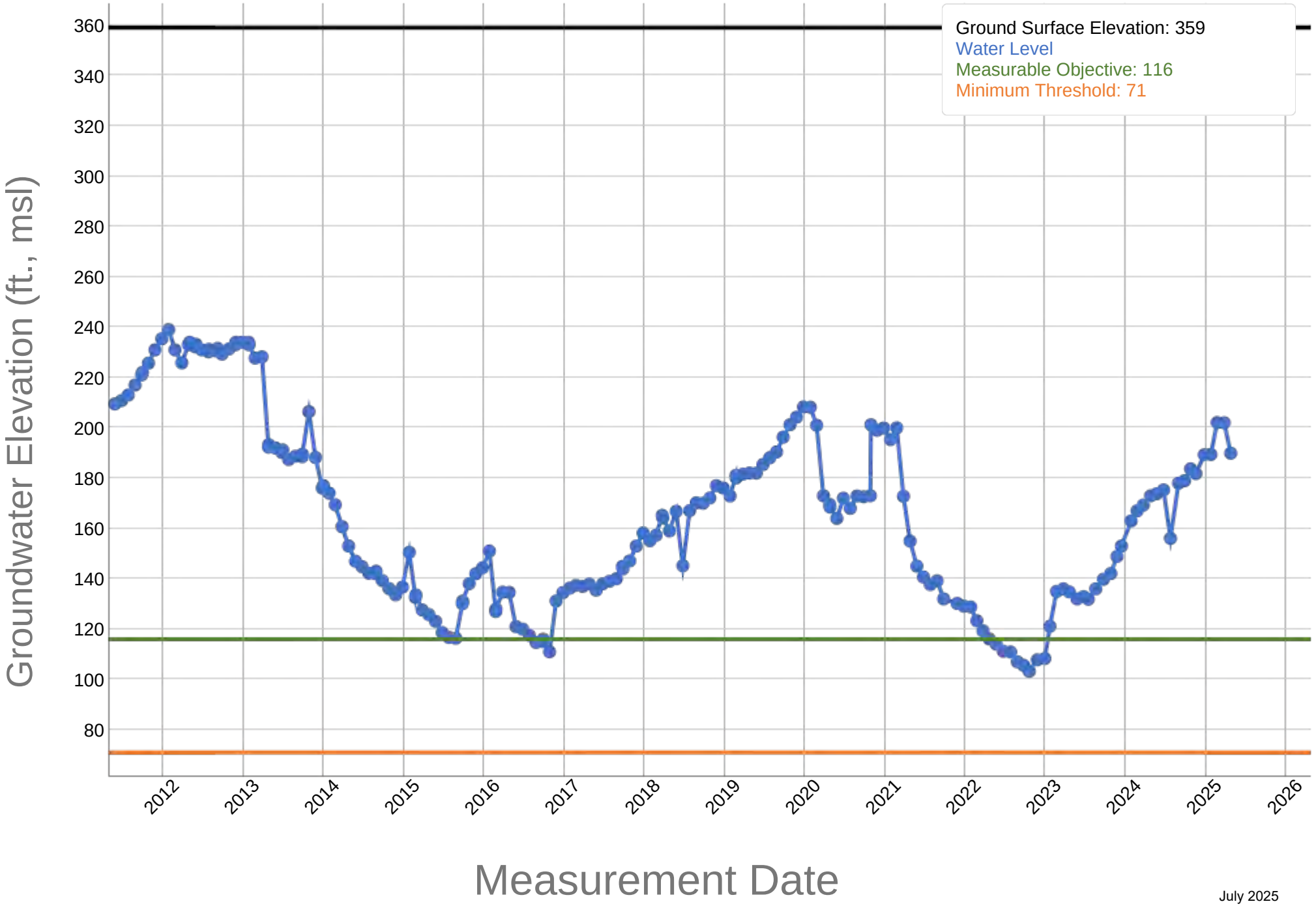
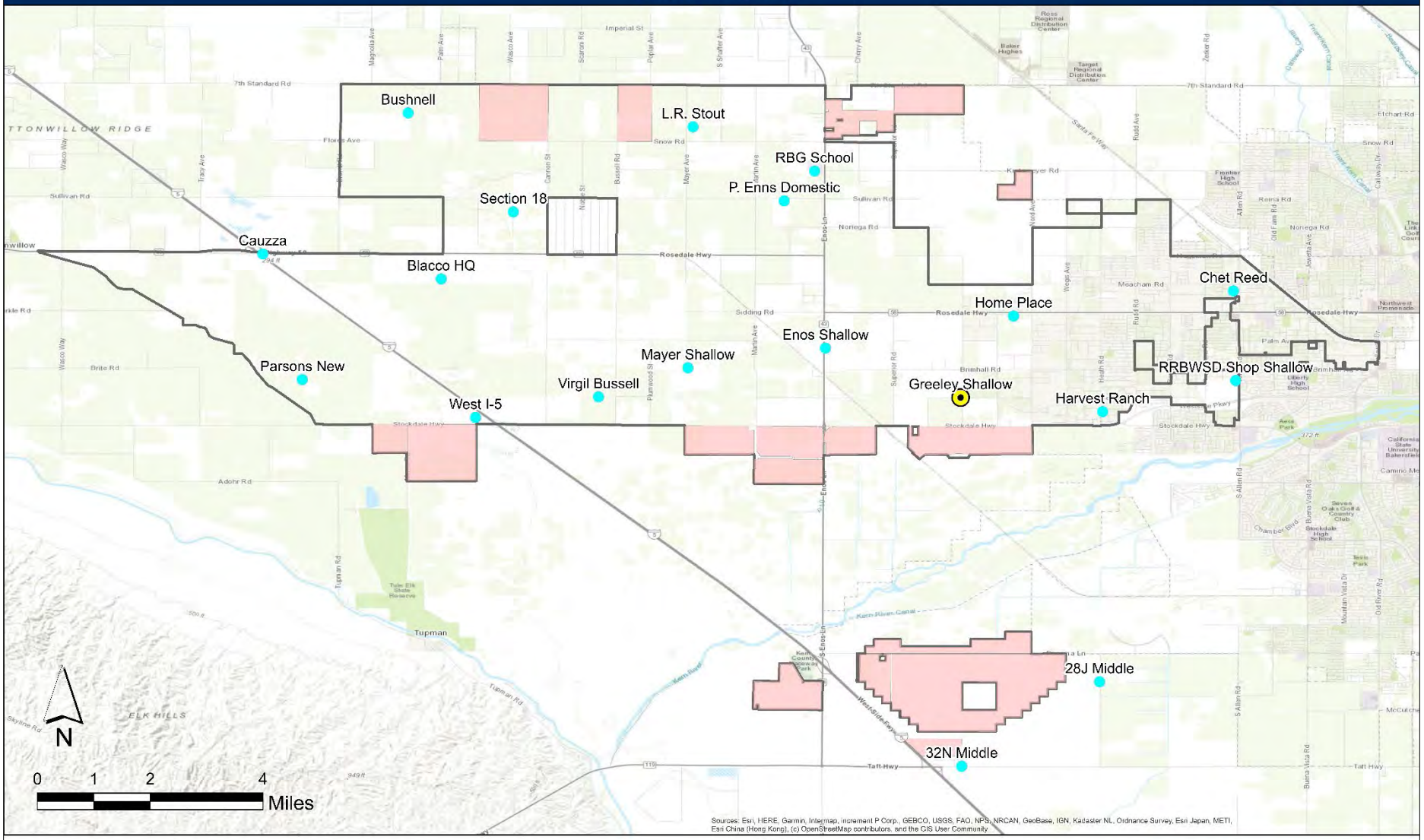
Rosedale-Rio Bravo Water Storage District - 35H RRBWSD Shop - 353620N1191457W002



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



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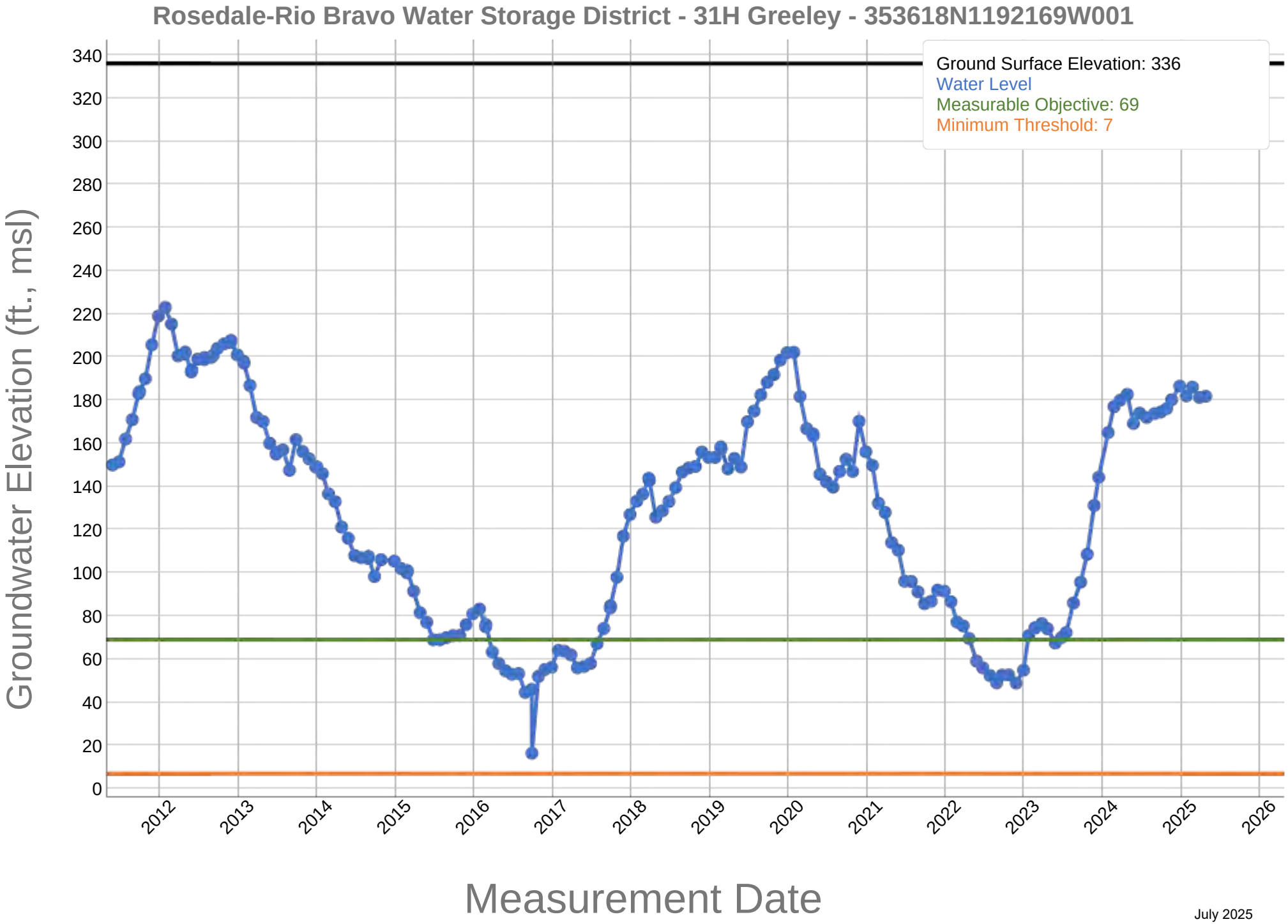
RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

July 2025


Rosedale-Rio Bravo Water Storage District - 31H Greeley - 353618N1192169W001
Ground Surface Elevation: 336
Water Level
Measurable Objective: 69
Minimum Threshold: 7
Groundwater Elevation (ft., msl)
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
2012
2013
2014
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2016
2017
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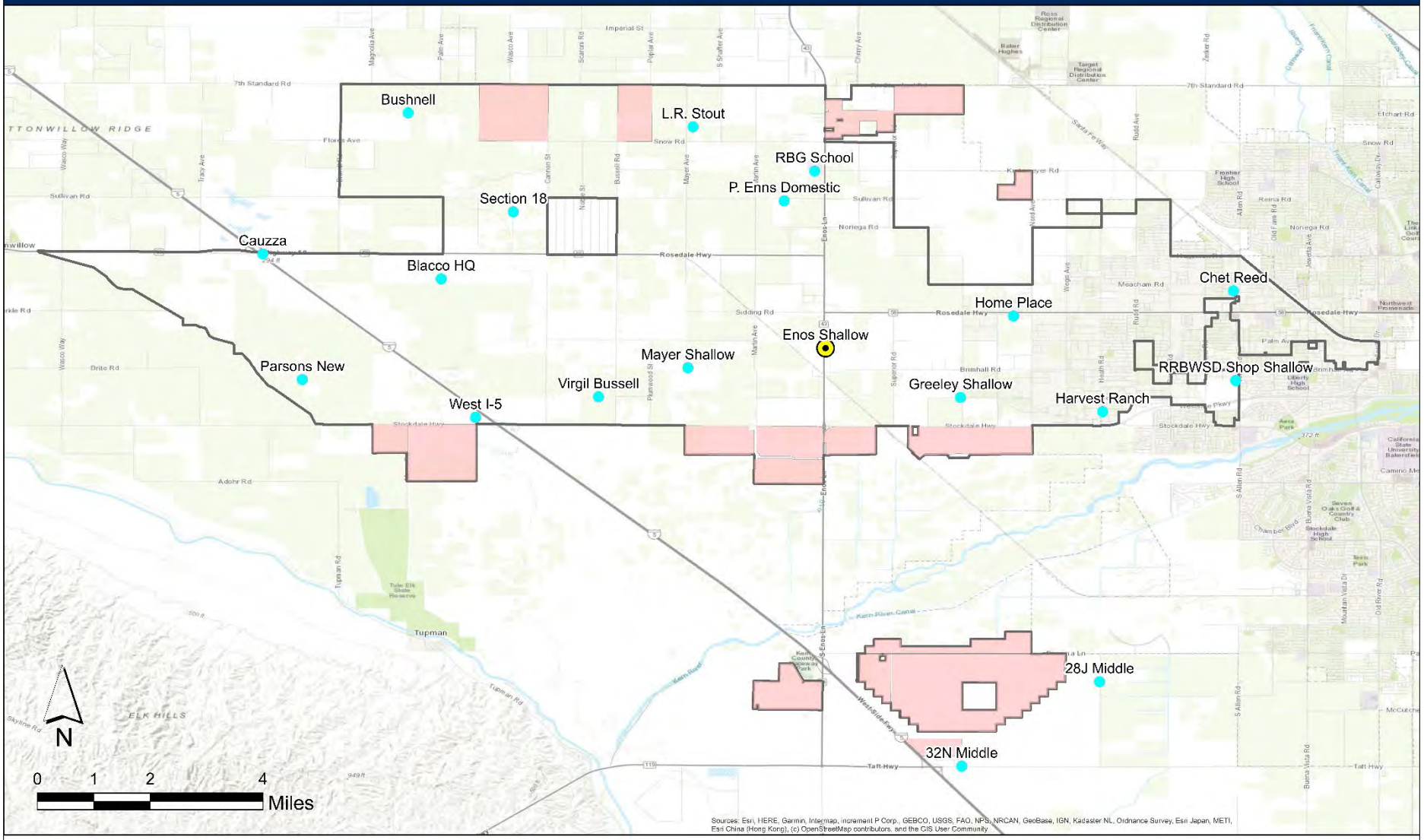
2026
Measurement Date

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



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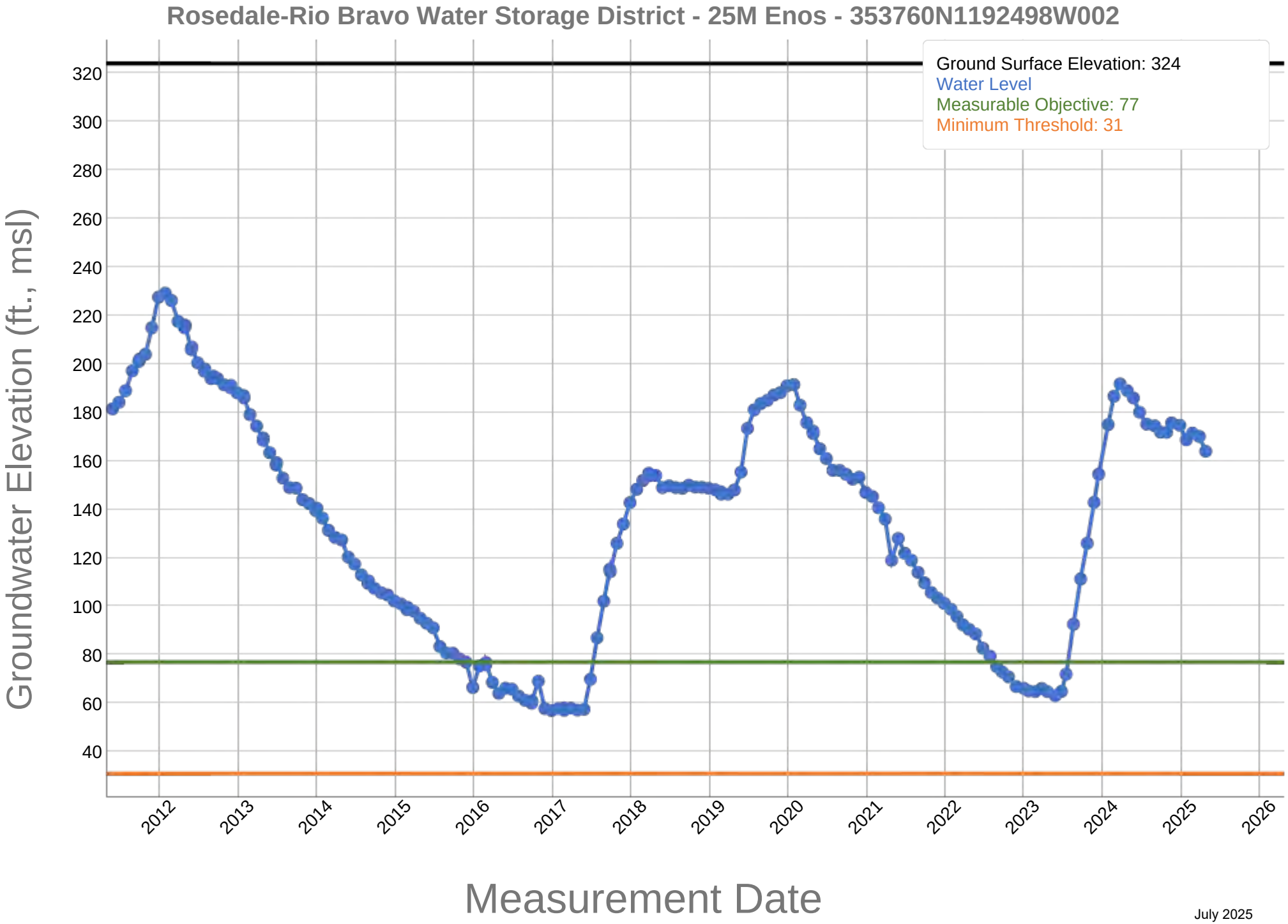
ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

July 2025


Rosedale-Rio Bravo Water Storage District - 25M Enos - 353760N1192498W002
Ground Surface Elevation: 324
Water Level
Measurable Objective: 77
Minimum Threshold: 31
Groundwater Elevation (ft., msl)
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
2012
2013
2014
2015
2016
2017
2018
2019
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2022
2023
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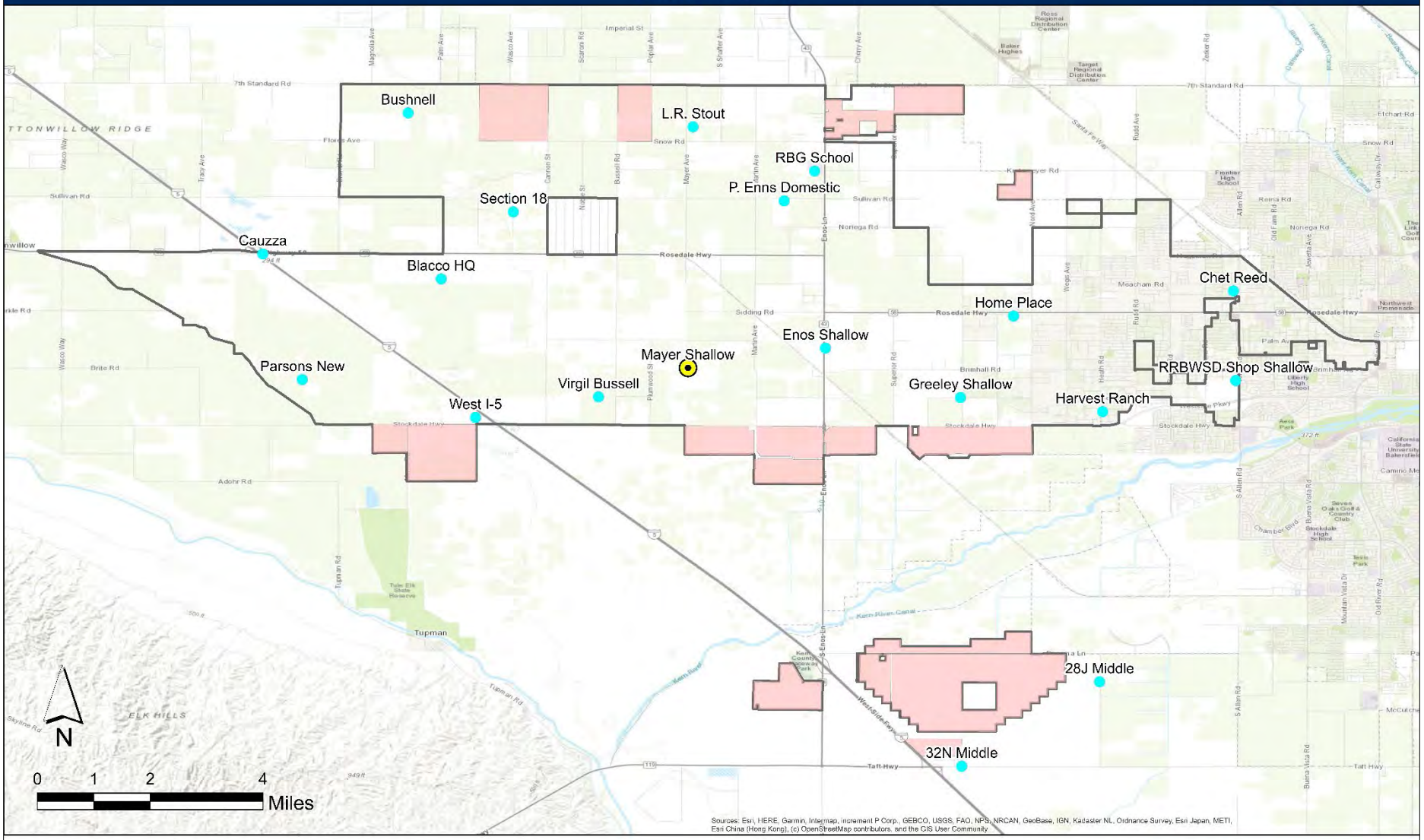
2025
2026
Measurement Date

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



Legend

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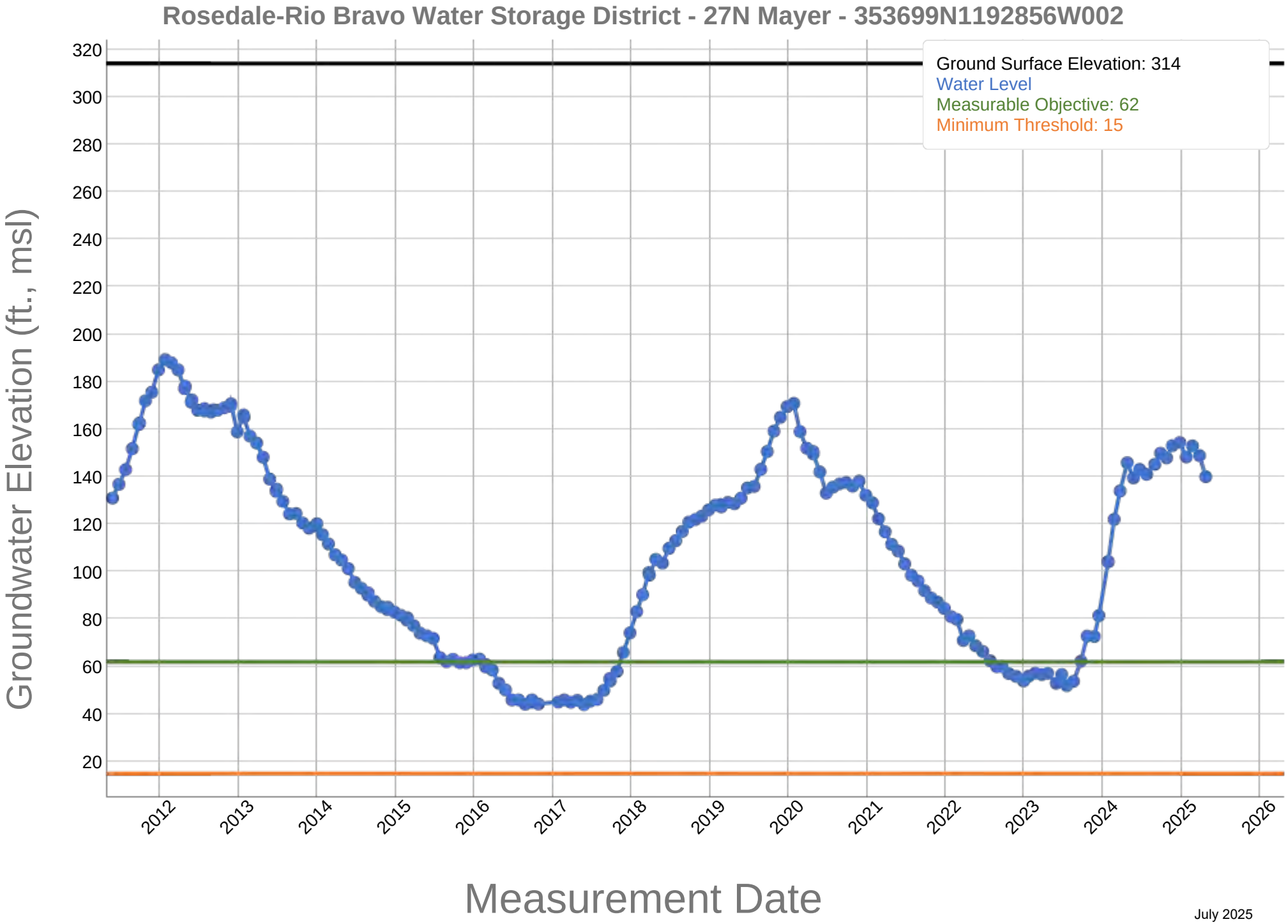
RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

July 2025


Rosedale-Rio Bravo Water Storage District - 27N Mayer - 353699N1192856W002
Ground Surface Elevation: 314
Water Level
Measurable Objective: 62
Minimum Threshold: 15
Groundwater Elevation (ft., msl)
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
2012
2013
2014
2015
2016
2017
2018
2019
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2021
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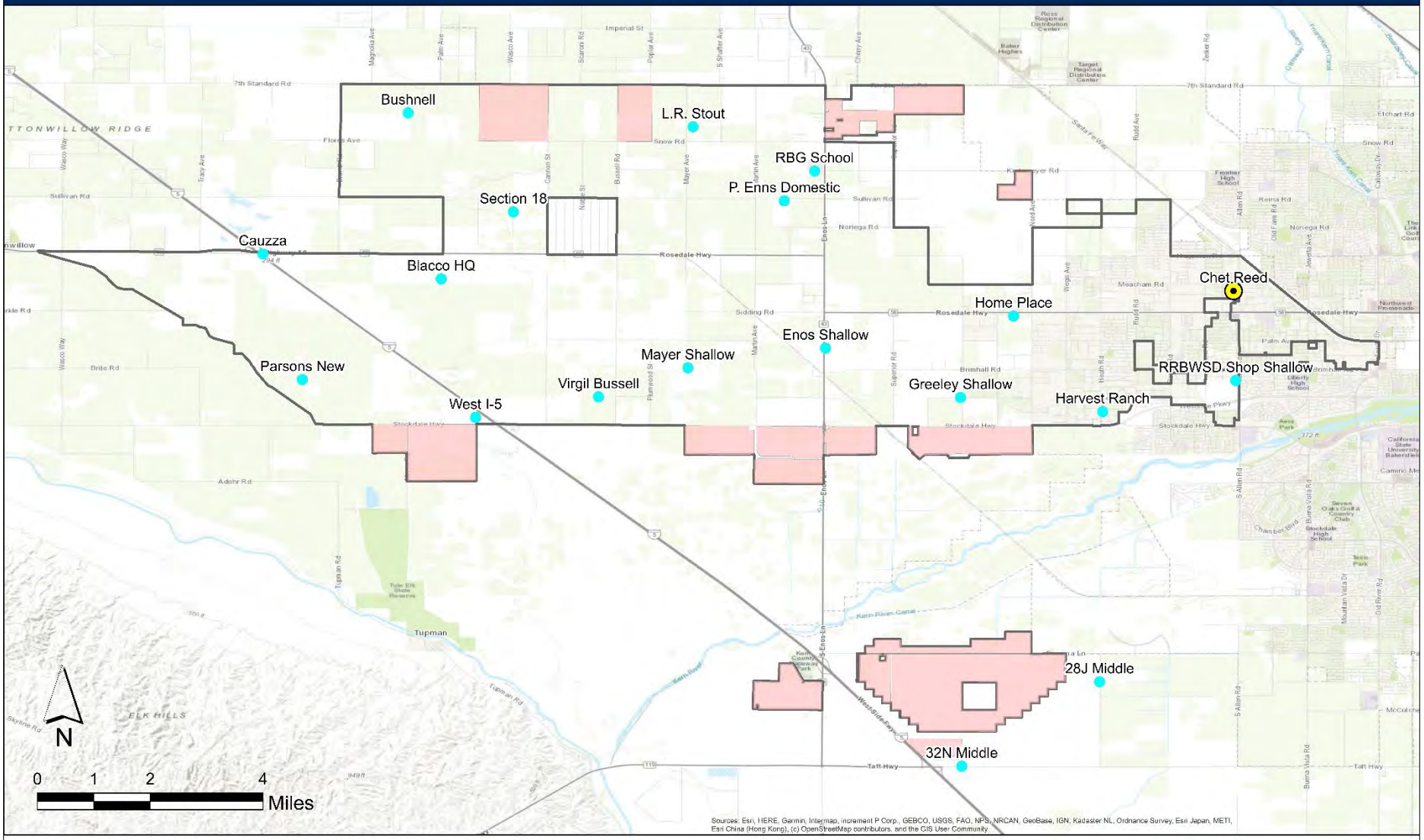
2023
2024
2025
2026
Measurement Date

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



Legend

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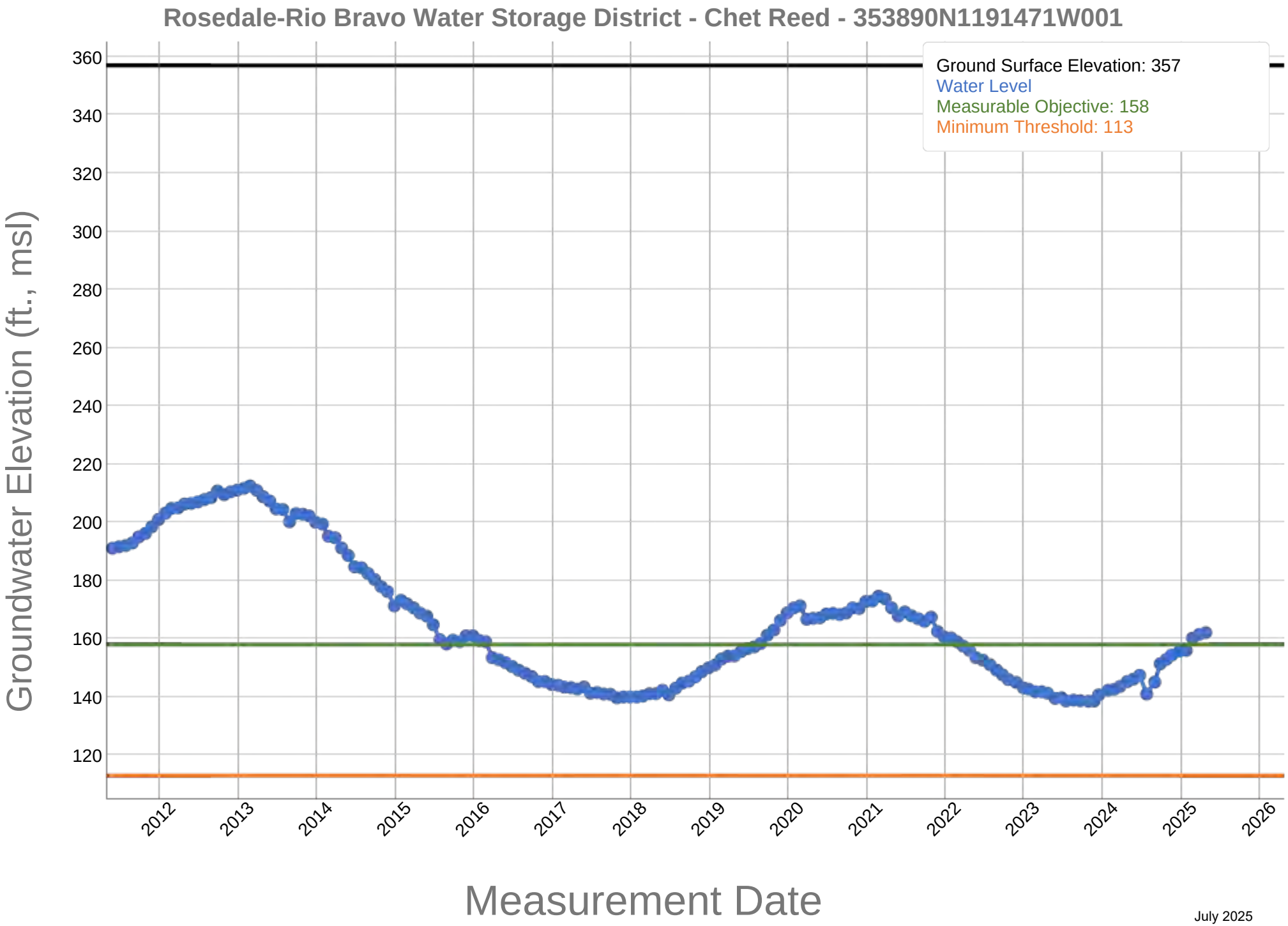
ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

July 2025


Rosedale-Rio Bravo Water Storage District - Chet Reed - 353890N1191471W001
Ground Surface Elevation: 357
Water Level
Measurable Objective: 158
Minimum Threshold: 113
Groundwater Elevation (ft., msl)
360
340
320
300
280
260
240
220
200
180
160
140
120
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
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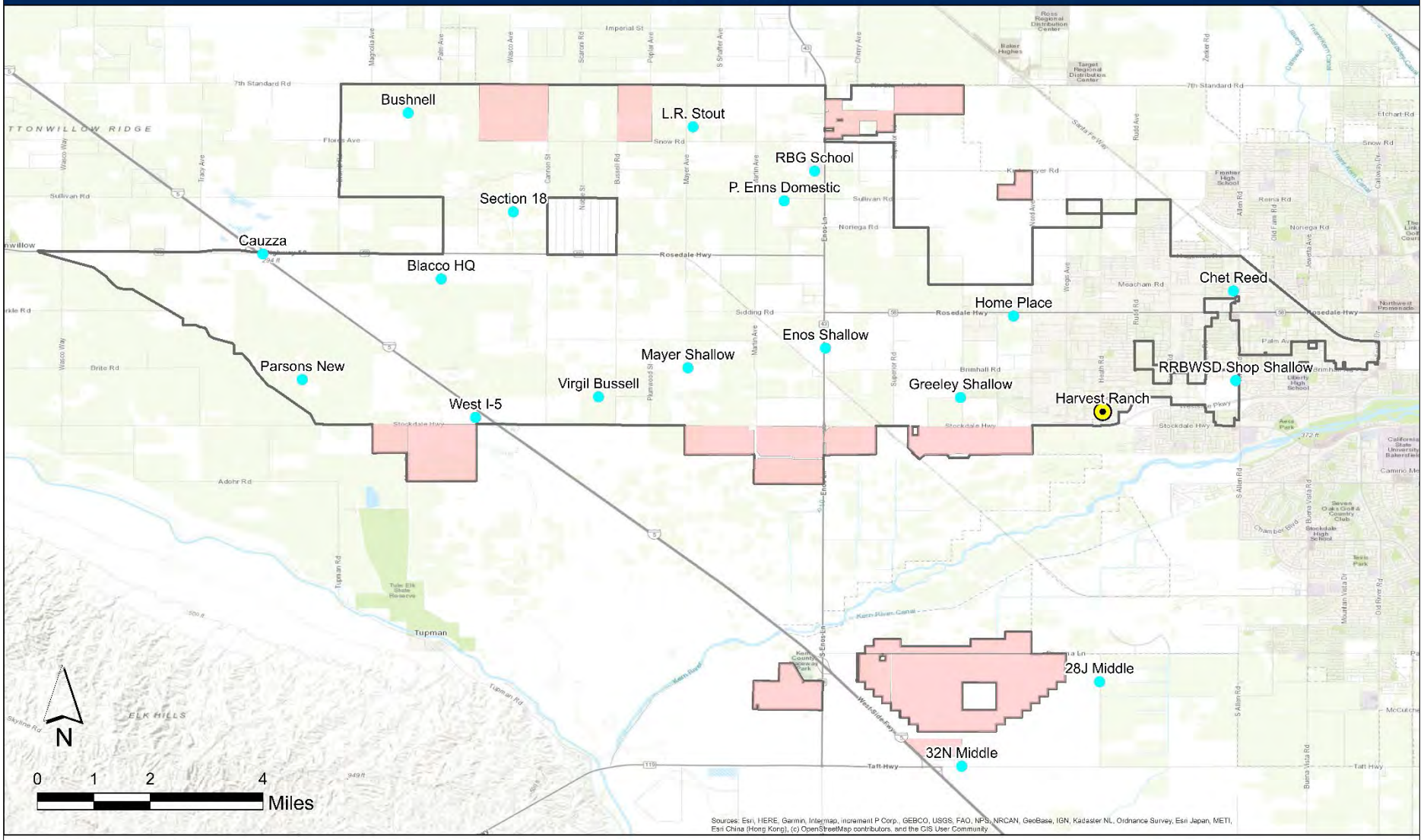
2023
2024
2025
2026
Measurement Date

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



Legend

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RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

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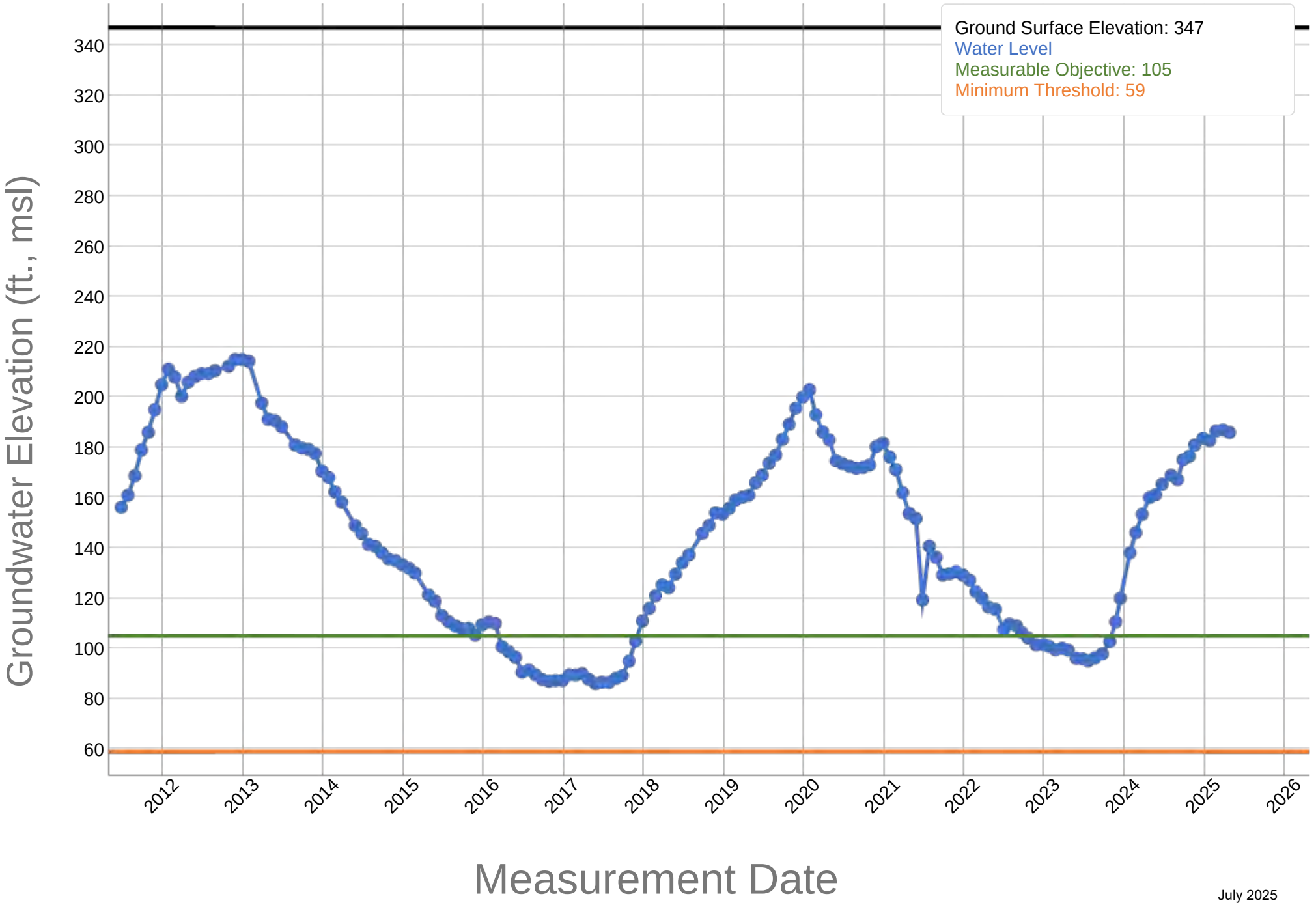
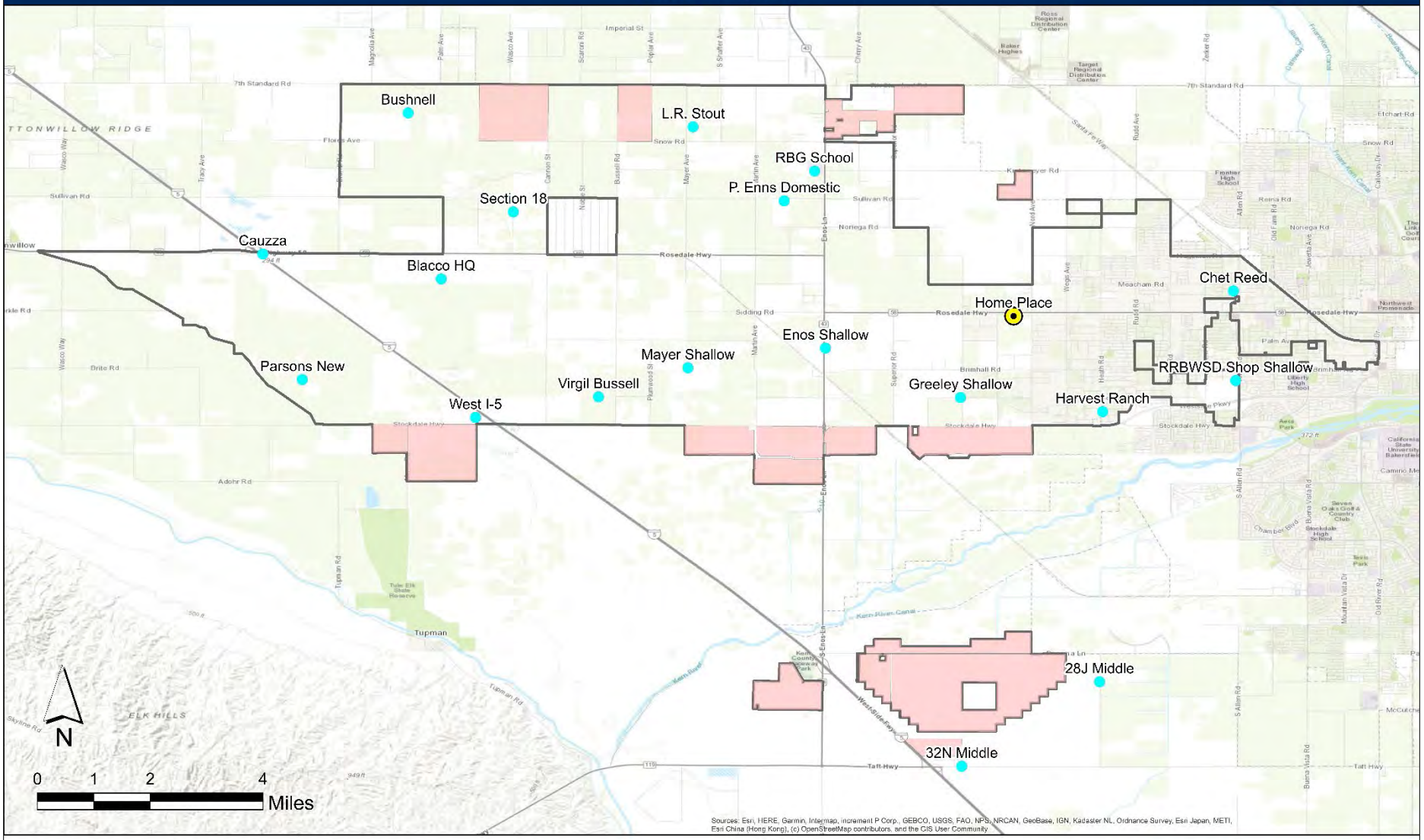
Rosedale-Rio Bravo Water Storage District - Manon Manor Mutual Water Co - 353634N1191766W001



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



Legend

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ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

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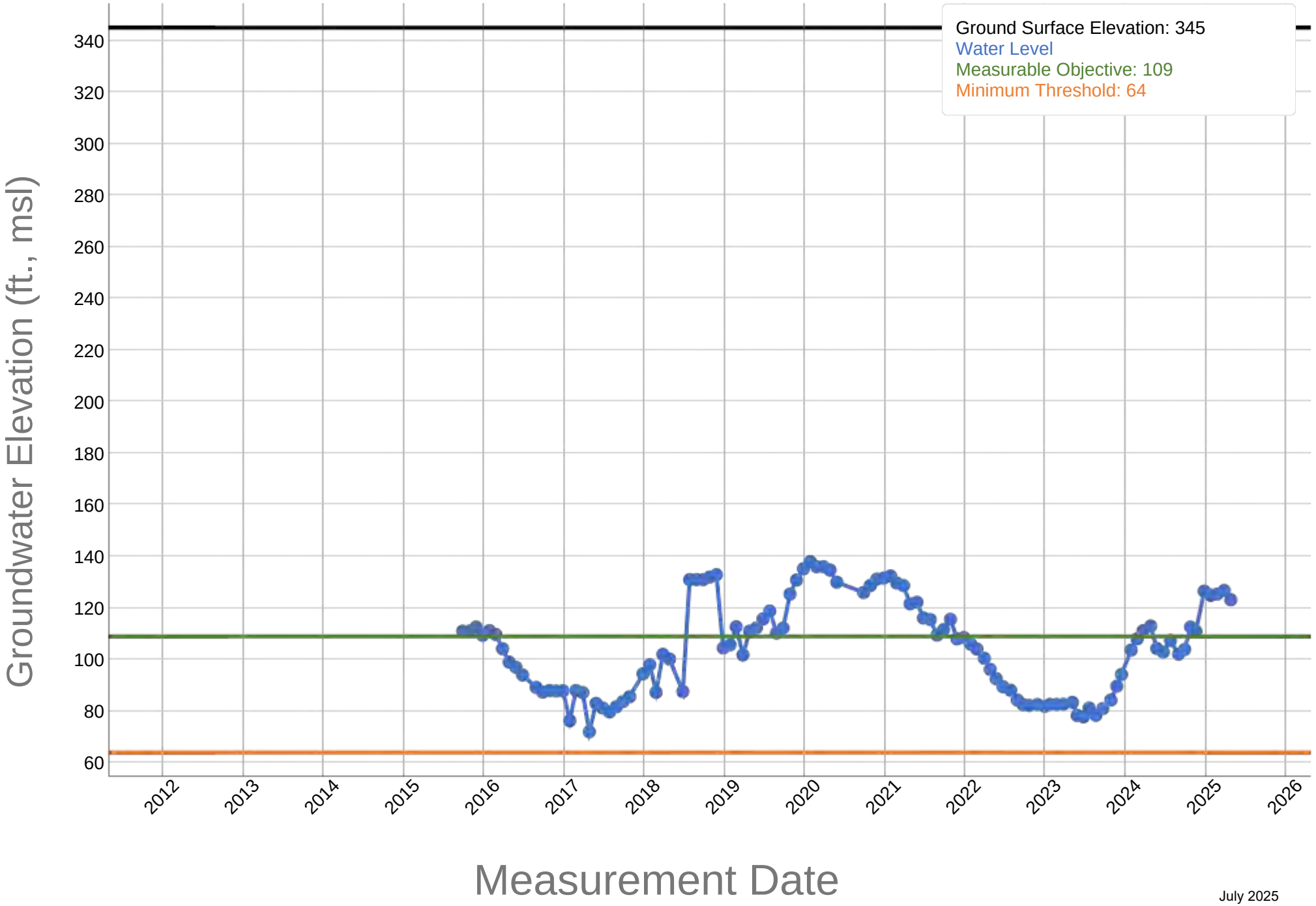
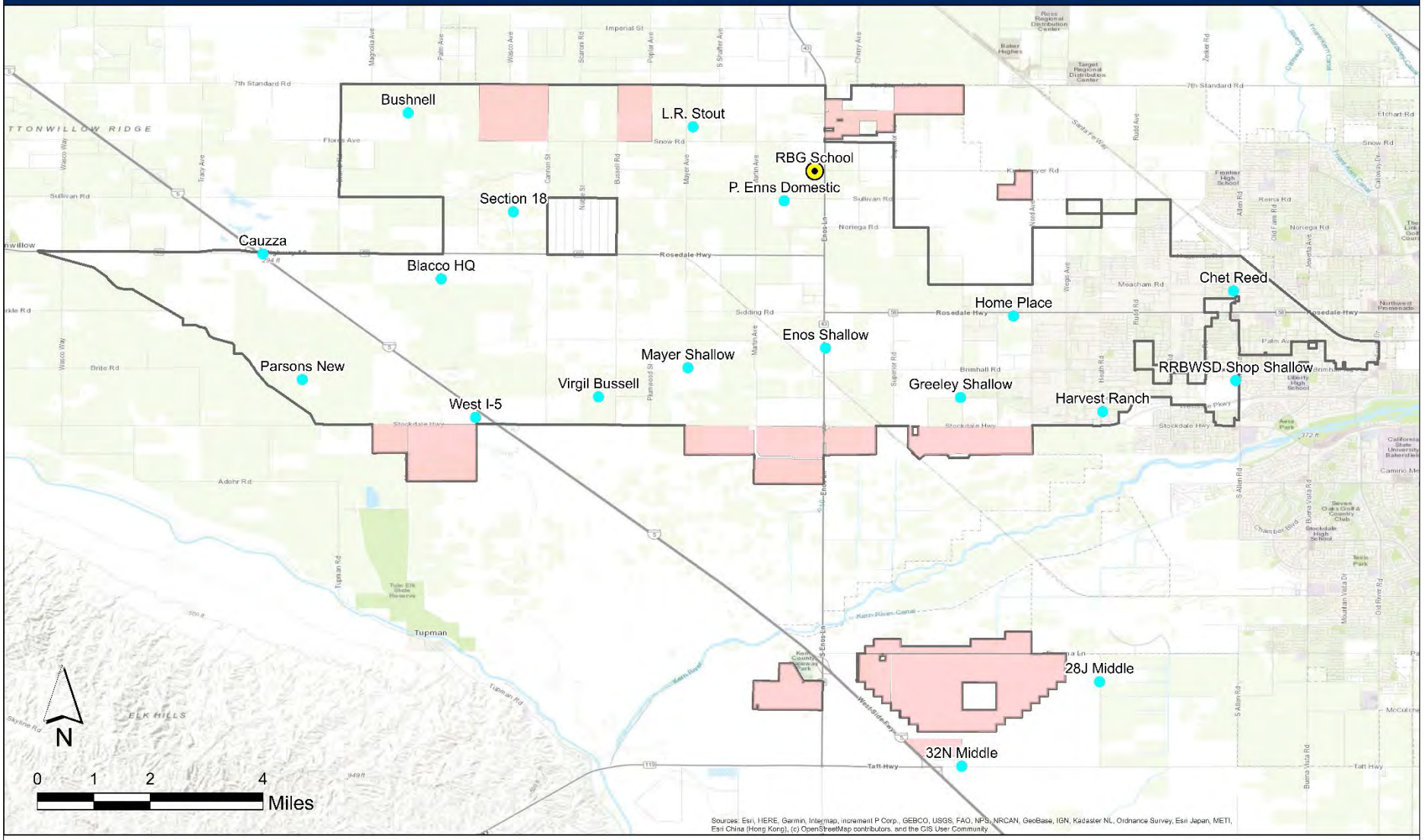
Rosedale-Rio Bravo Water Storage District - Home Place - 353824N1192035W001



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



Legend

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ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

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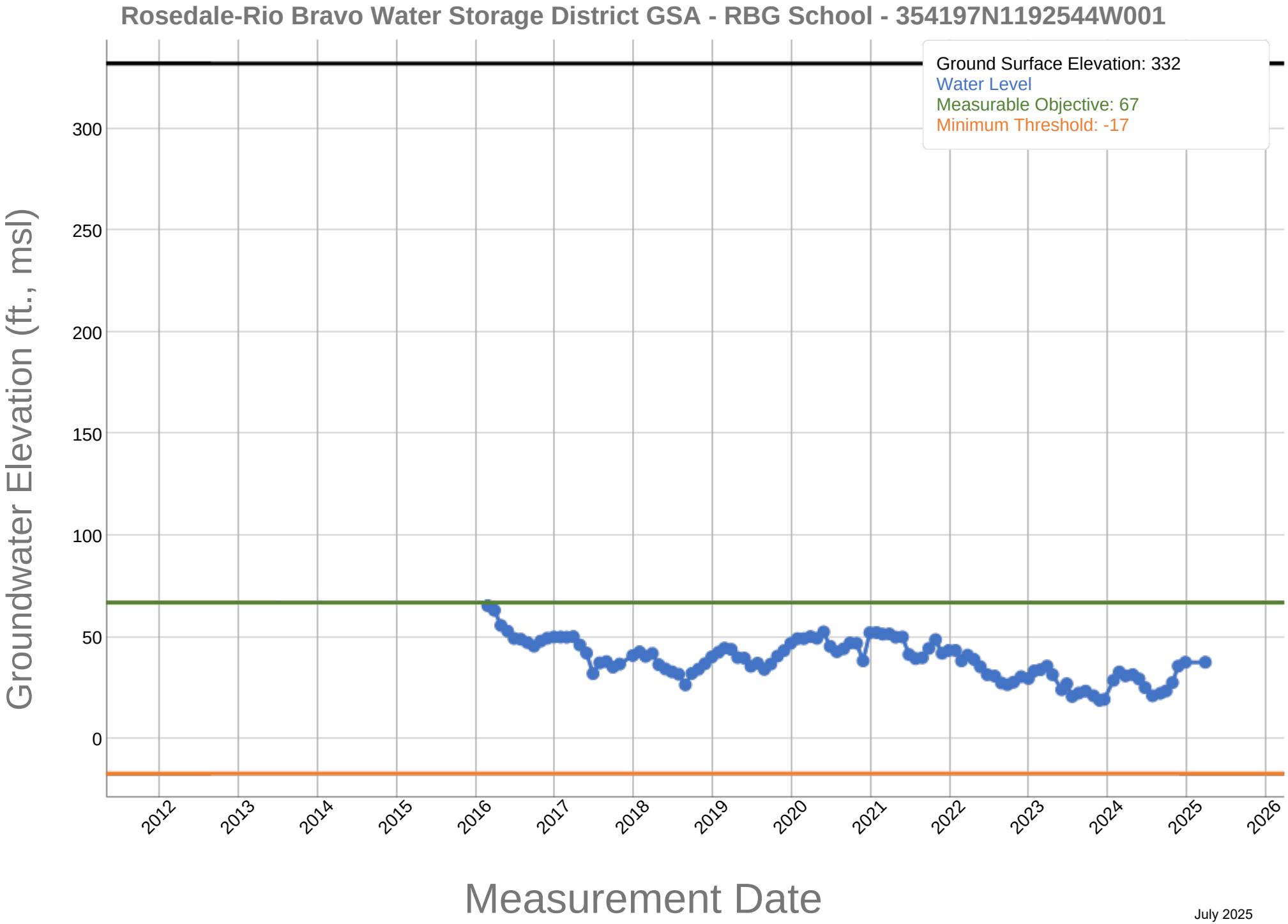
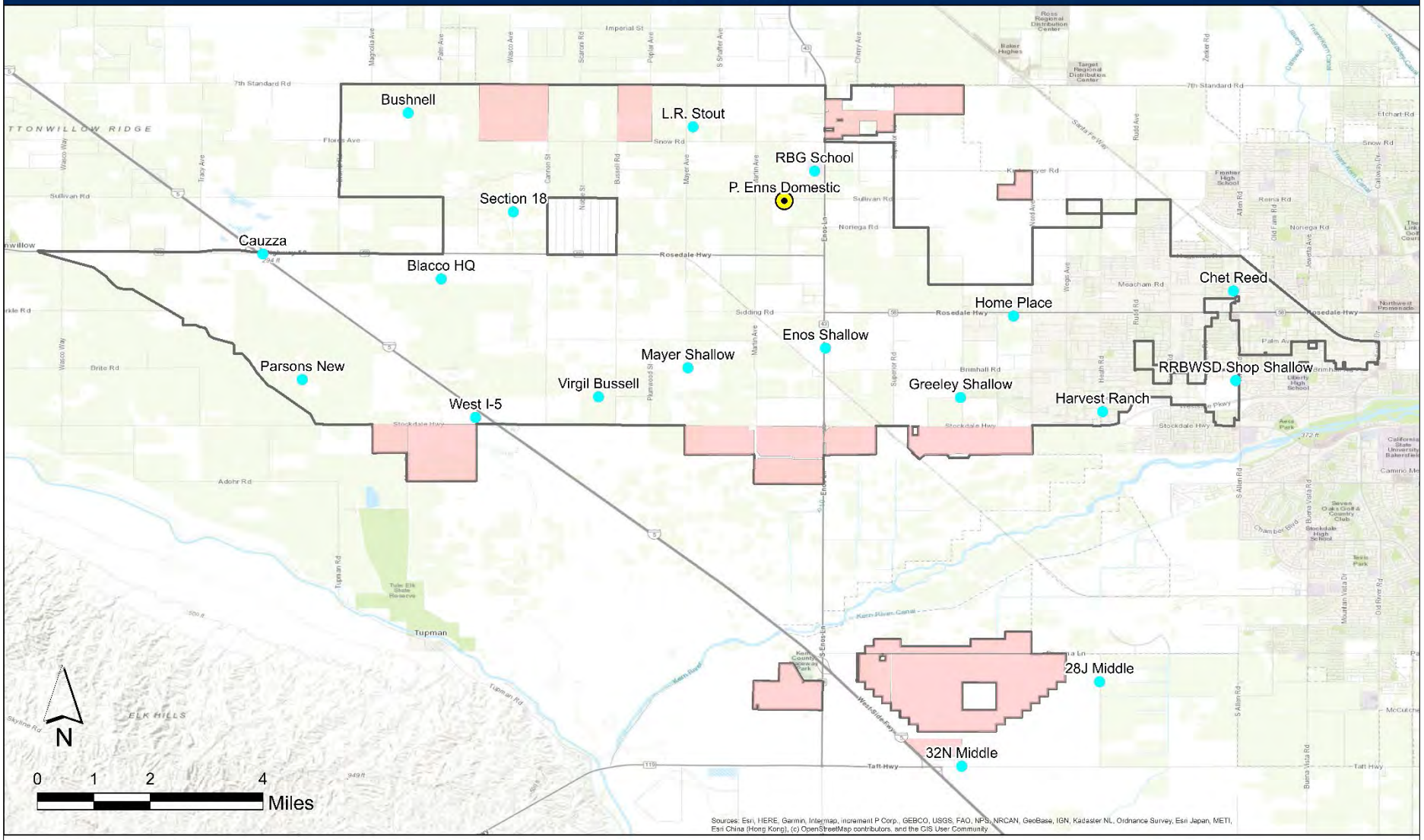
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

July 2025


Rosedale-Rio Bravo Water Storage District GSA - RBG School - 354197N1192544W001
Ground Surface Elevation: 332
Water Level
Measurable Objective: 67
Minimum Threshold: -17
Groundwater Elevation (ft., msl)
300
250
200
150
100
50
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Measurement Date

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



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RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

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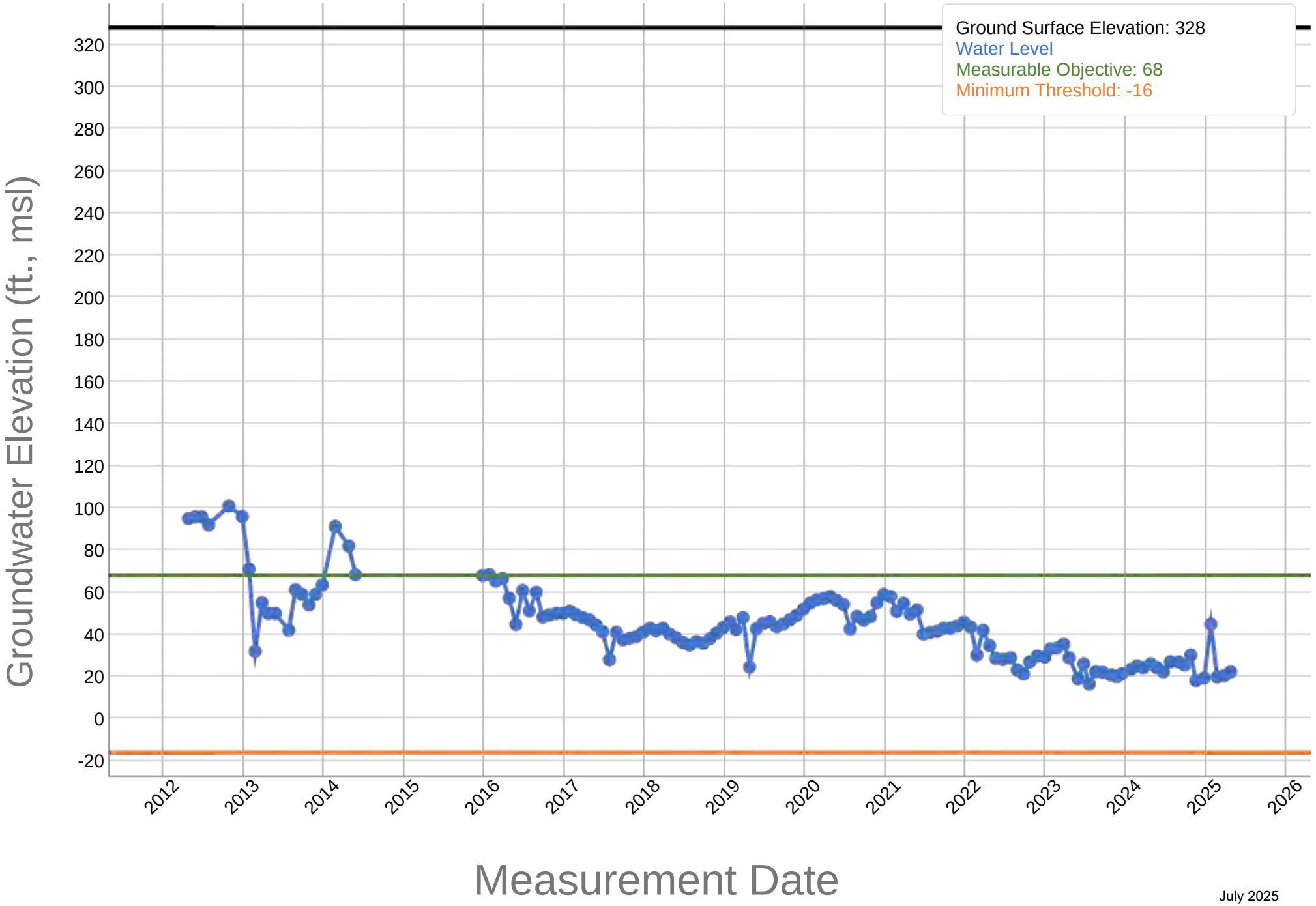
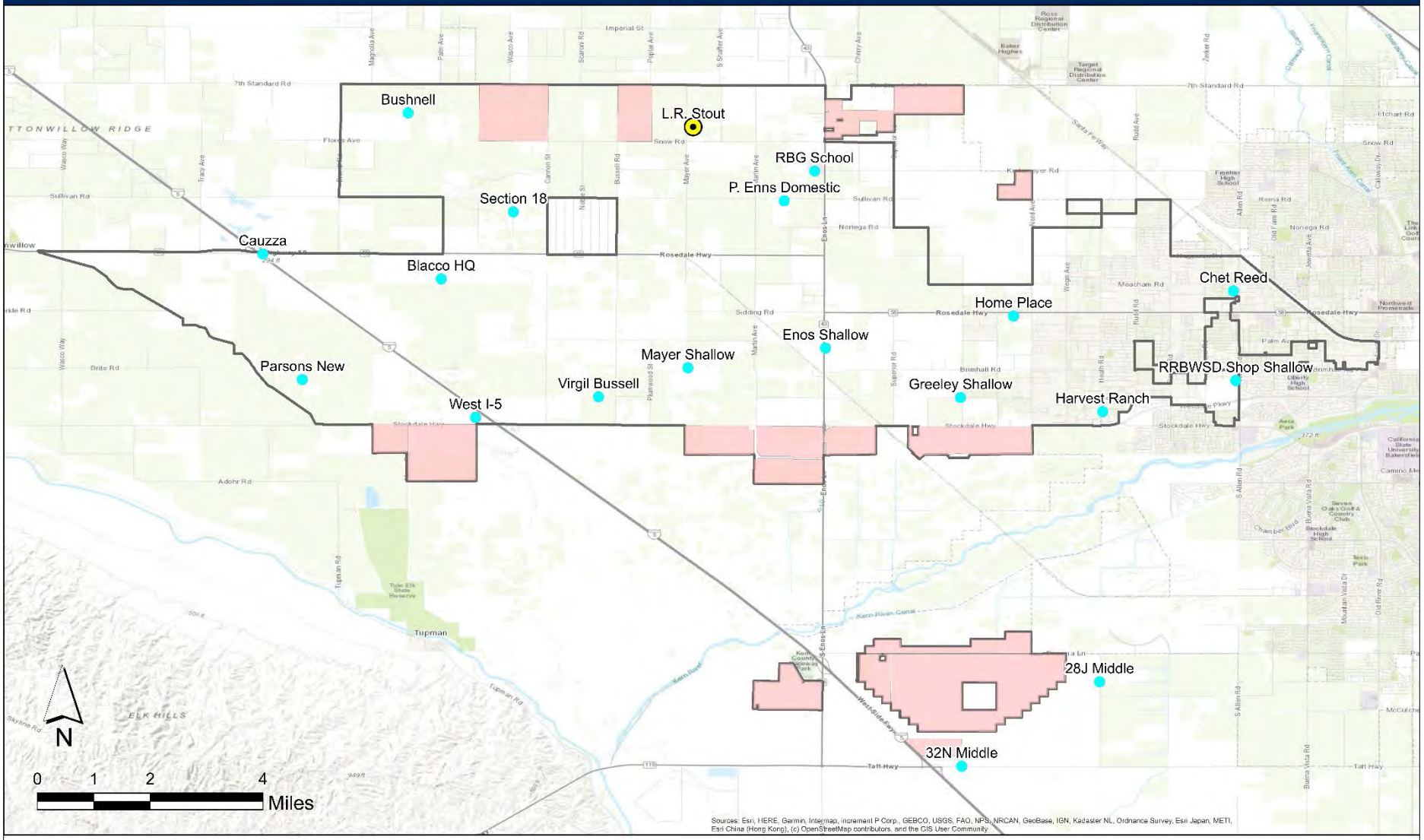
Rosedale-Rio Bravo Water Storage District - P. Enns Domestic - 354121N1192623W001



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



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ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

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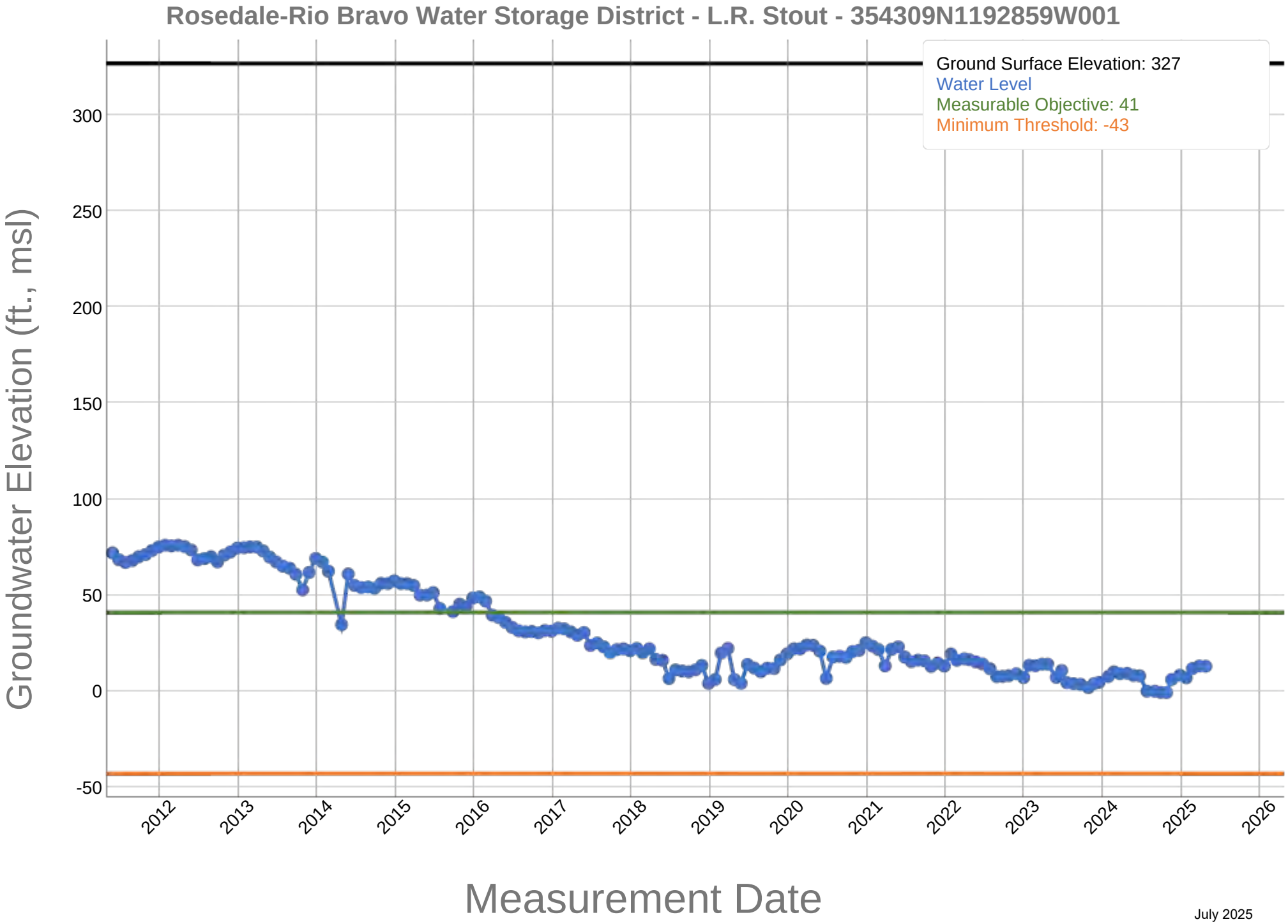
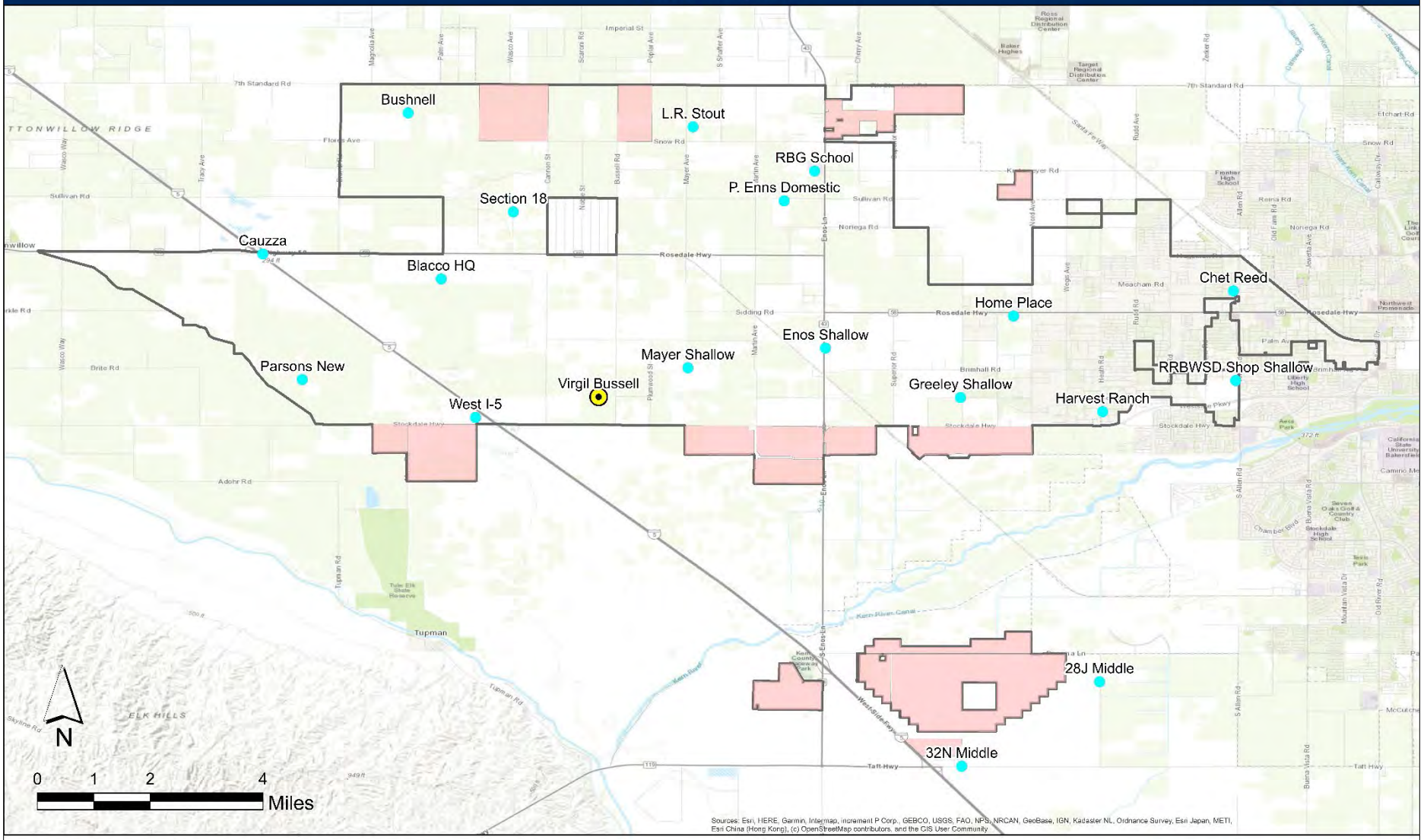
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

July 2025


Rosedale-Rio Bravo Water Storage District - L.R. Stout - 354309N1192859W001
Ground Surface Elevation: 327
Water Level
Measurable Objective: 41
Minimum Threshold: -43
Groundwater Elevation (ft., msl)
300
250
200
150
100
50
0
-50
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Measurement Date

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



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ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

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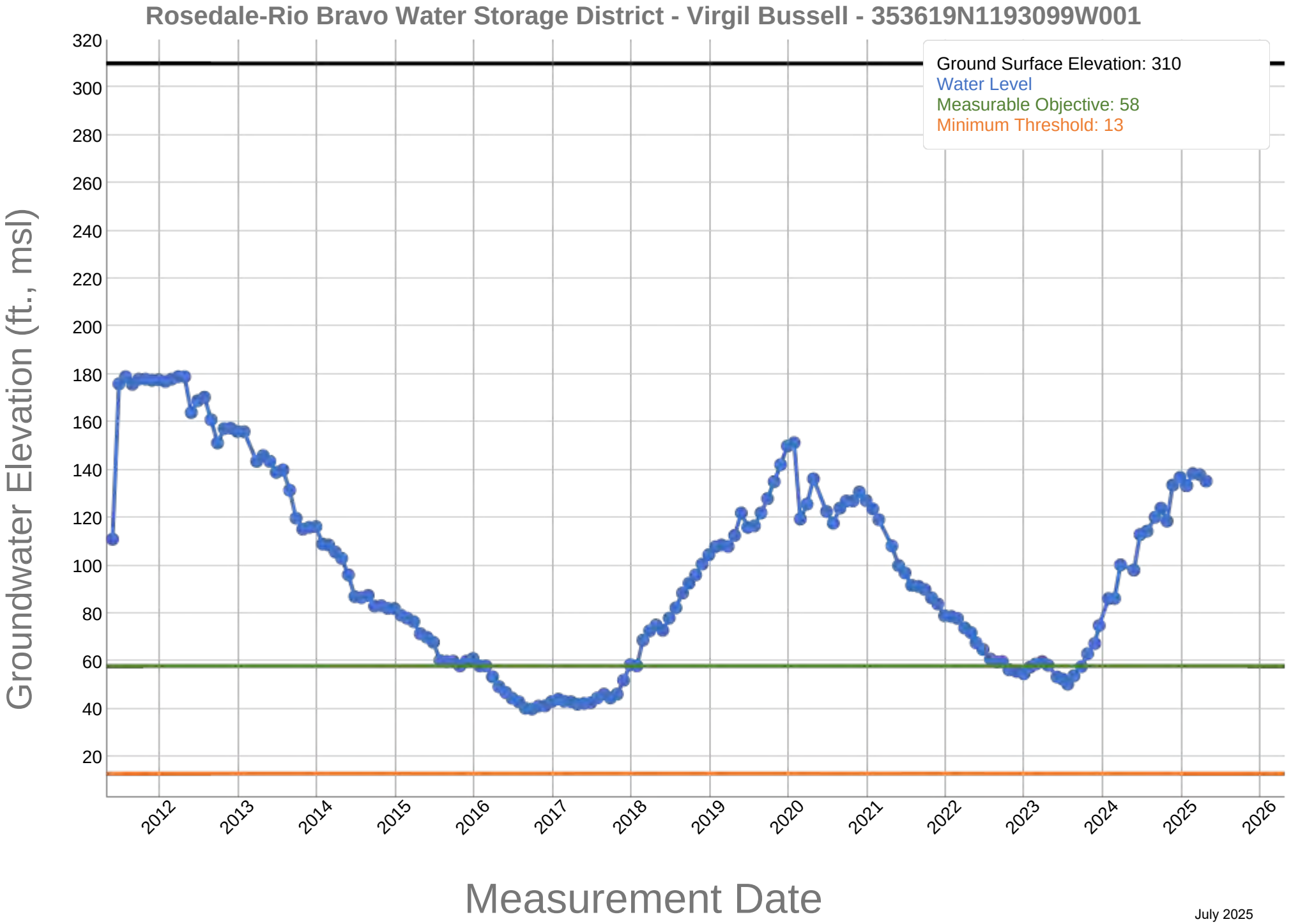
Rosedale-Rio Bravo Water Storage District - Virgil Bussell - 353619N1193099W001
Ground Surface Elevation: 310
Water Level
Measurable Objective: 58
Minimum Threshold: 13
Groundwater Elevation (ft., msl)
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
2012
2013
2014
2015
2016
2017
2018
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2021
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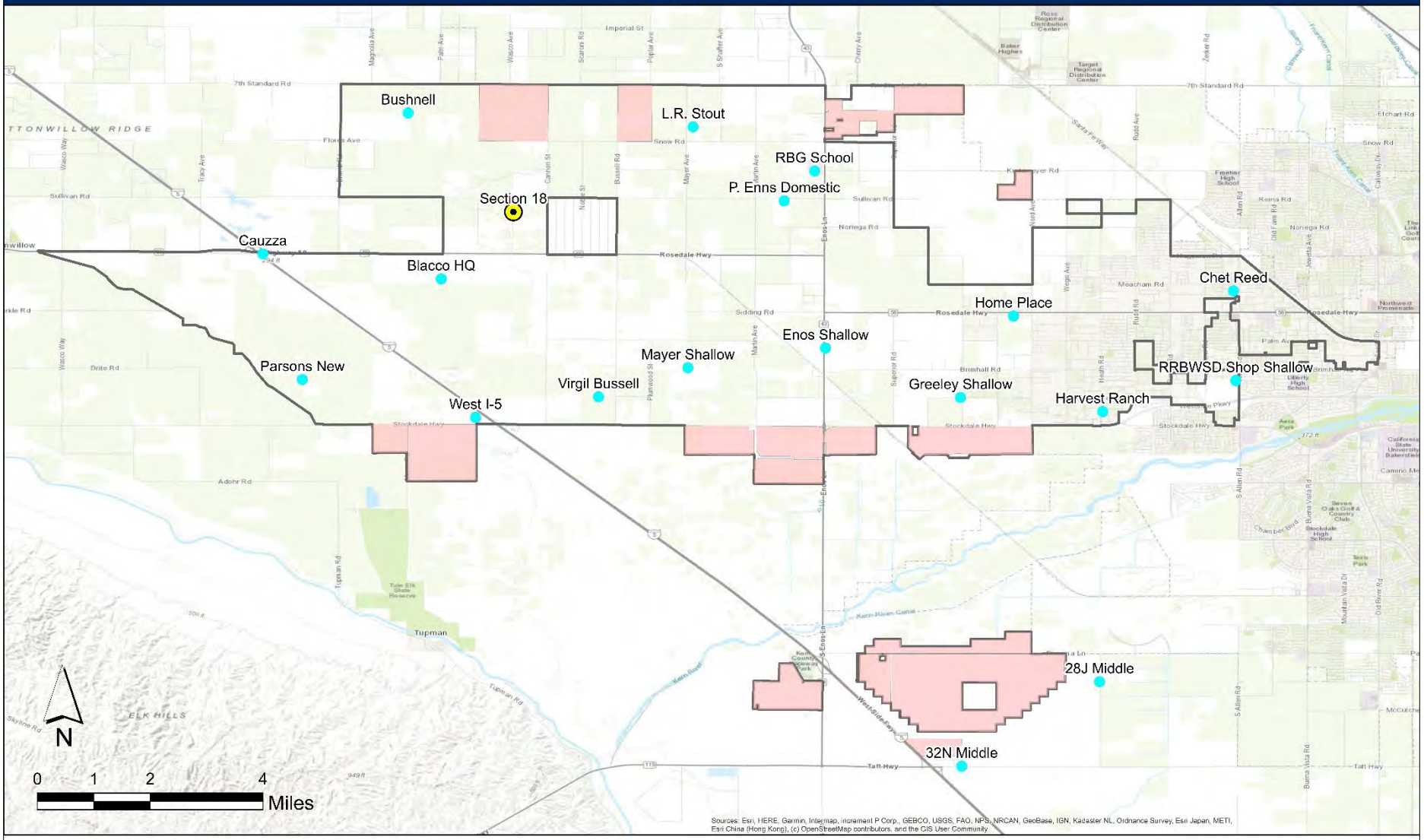
2024
2025
2026
Measurement Date

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



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GROUNDWATER SUSTAINABILITY AGENCY

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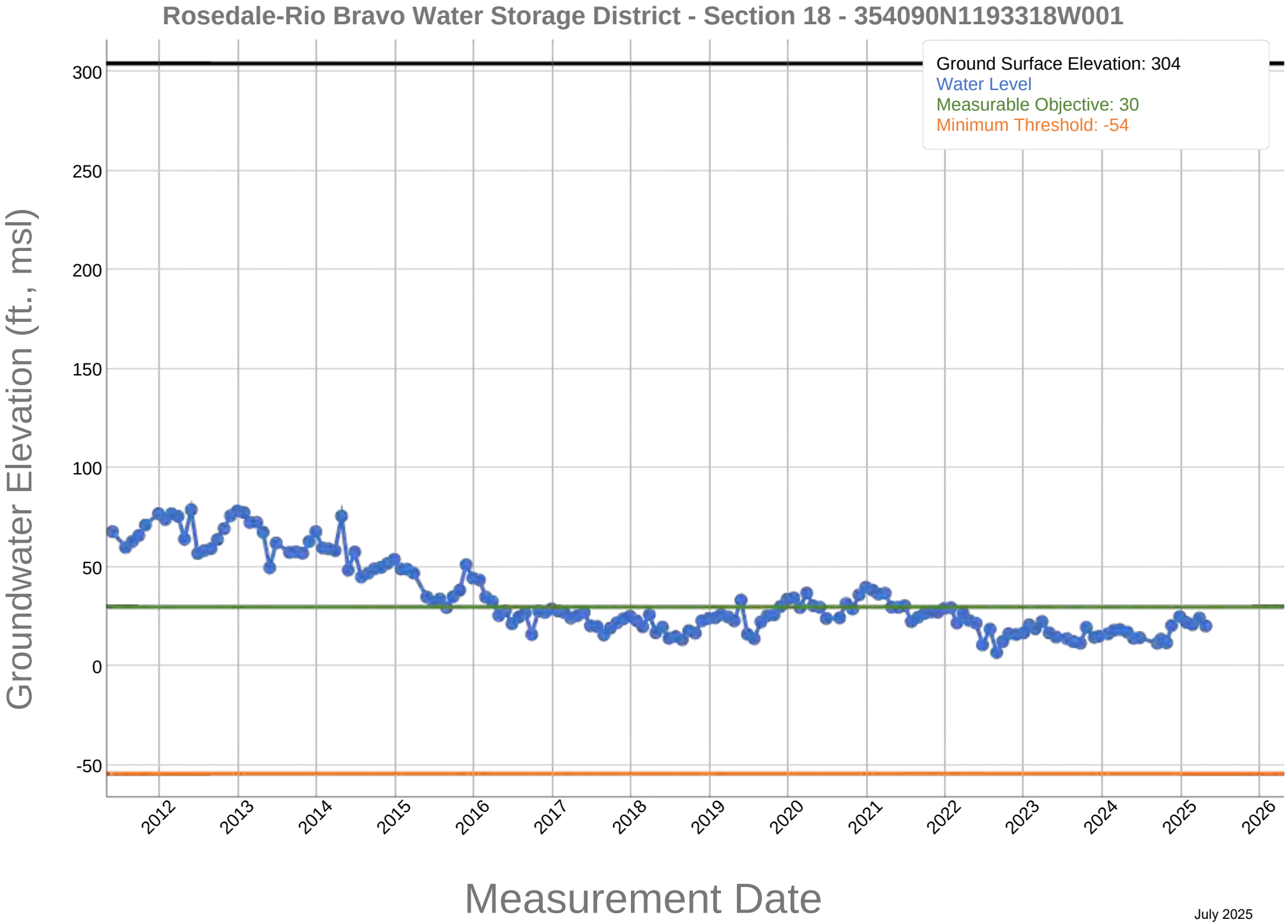
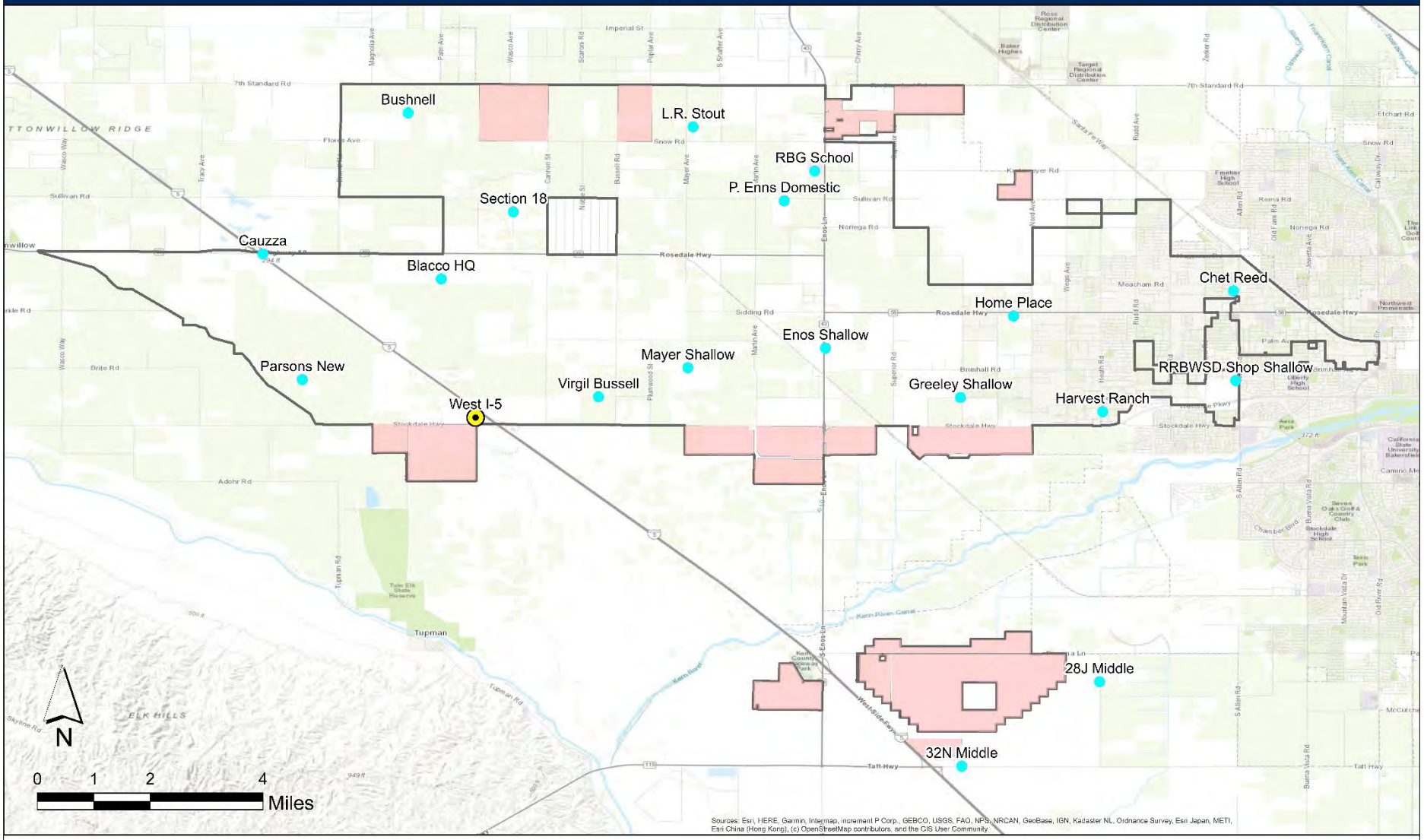

Rosedale-Rio Bravo Water Storage District - Section 18 - 354090N1193318W001
Ground Surface Elevation: 304
Water Level
Measurable Objective: 30
Minimum Threshold: -54
Groundwater Elevation (ft., msl)
300
250
200
150
100
50
0
-50
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Measurement Date

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



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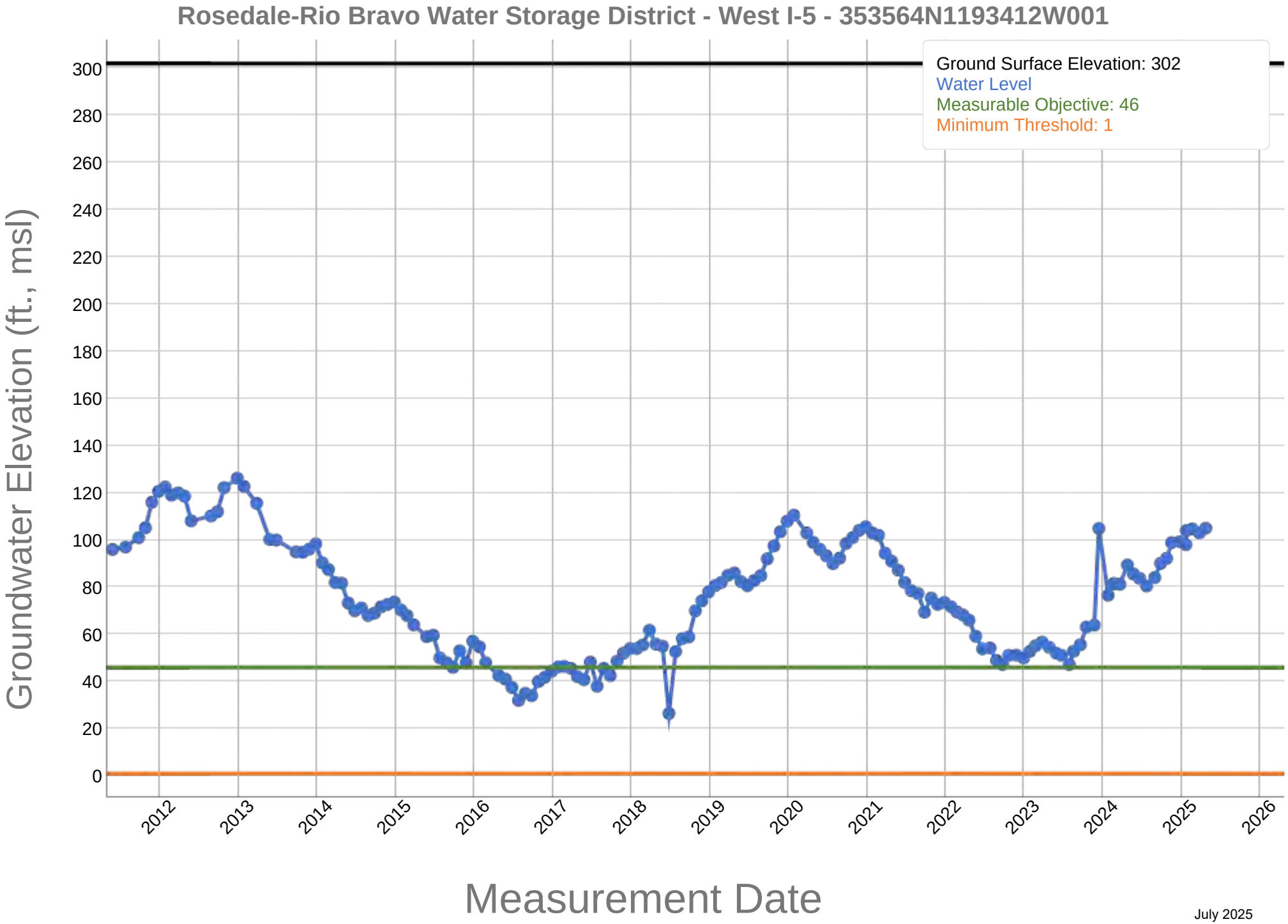
Rosedale-Rio Bravo Water Storage District - West I-5 - 353564N1193412W001
Ground Surface Elevation: 302
Water Level
Measurable Objective: 46
Minimum Threshold: 1
Groundwater Elevation (ft., msl)
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
2012
2013
2014
2015
2016
2017
2018
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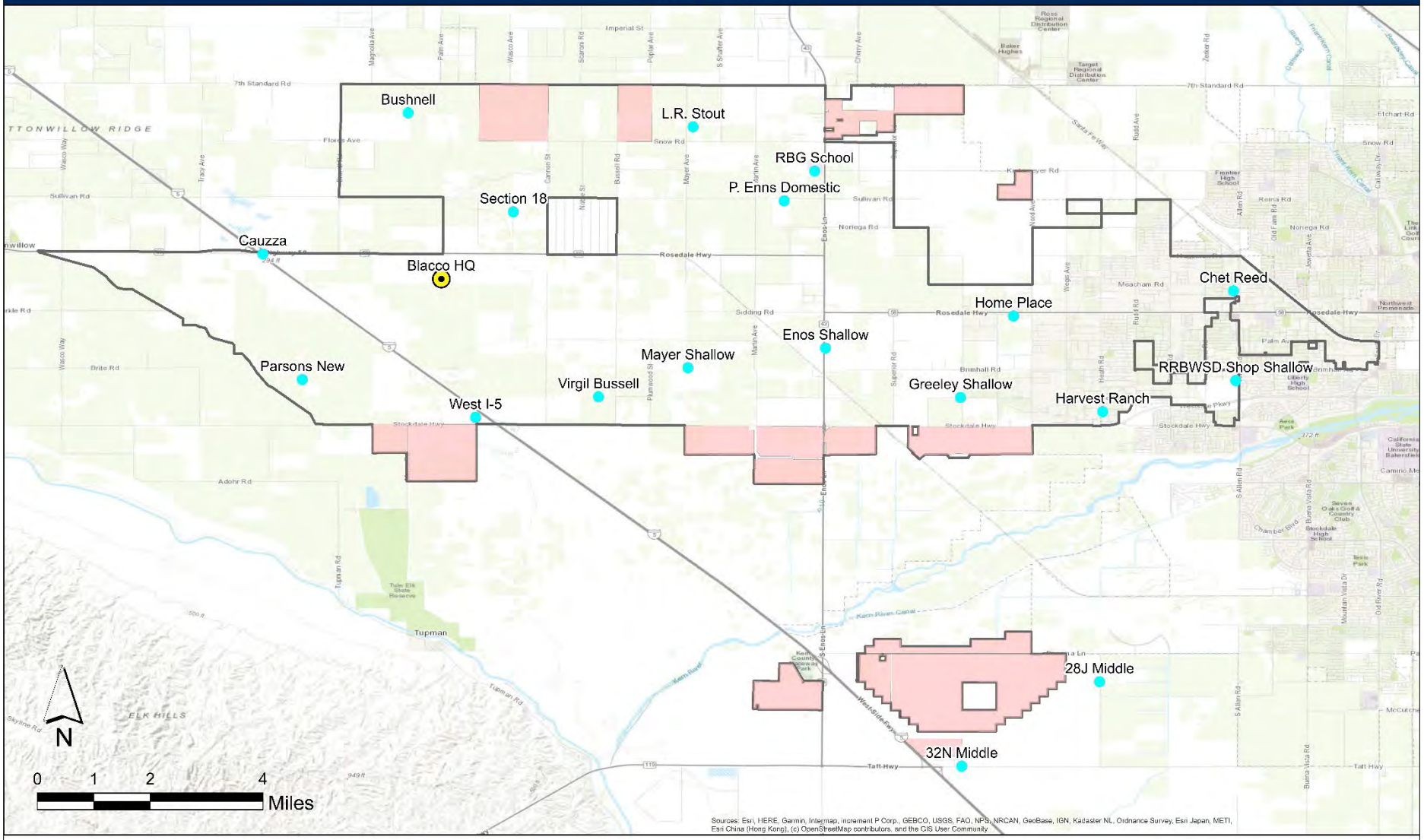
2023
2024
2025
2026
Measurement Date

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



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ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

RRBWSD GSA
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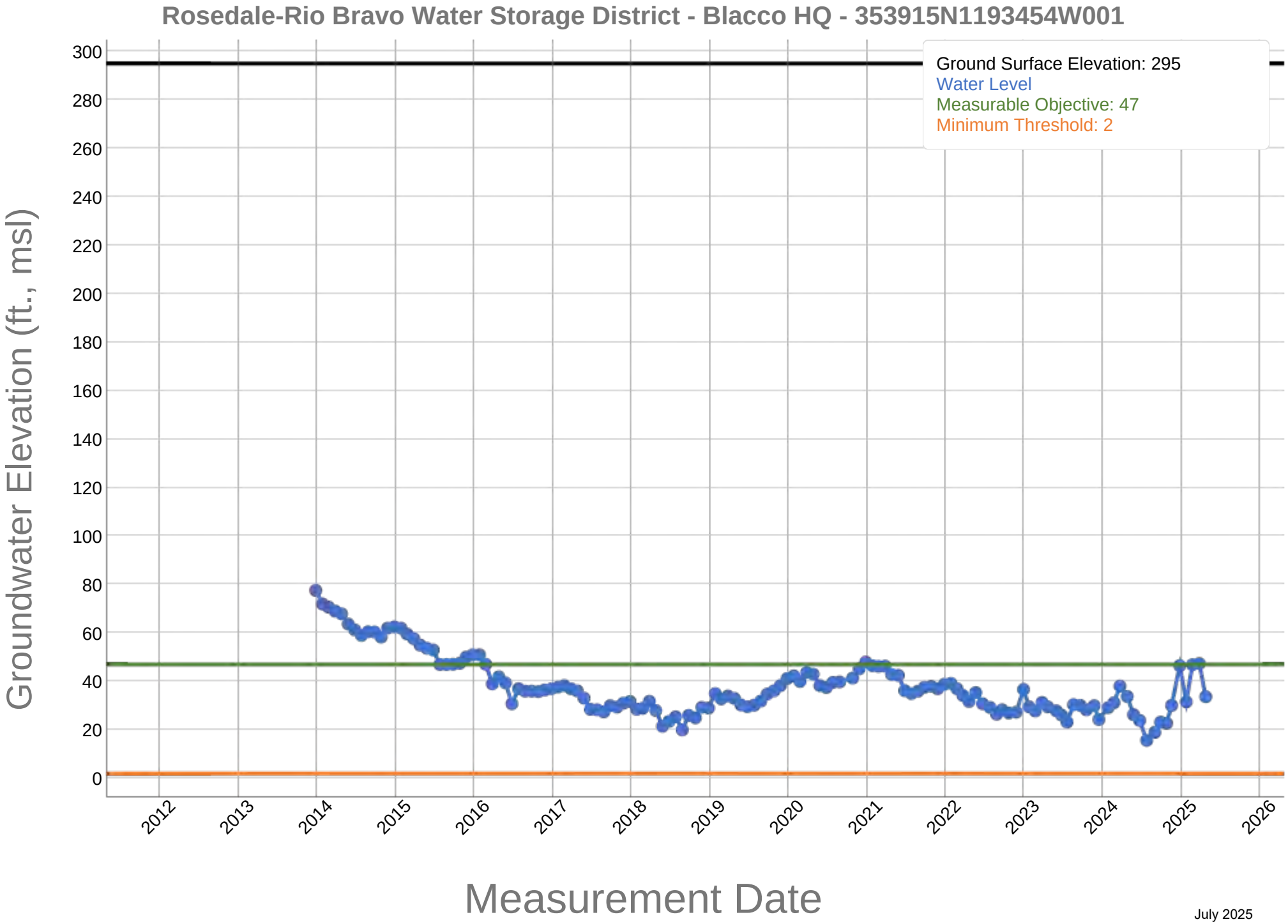
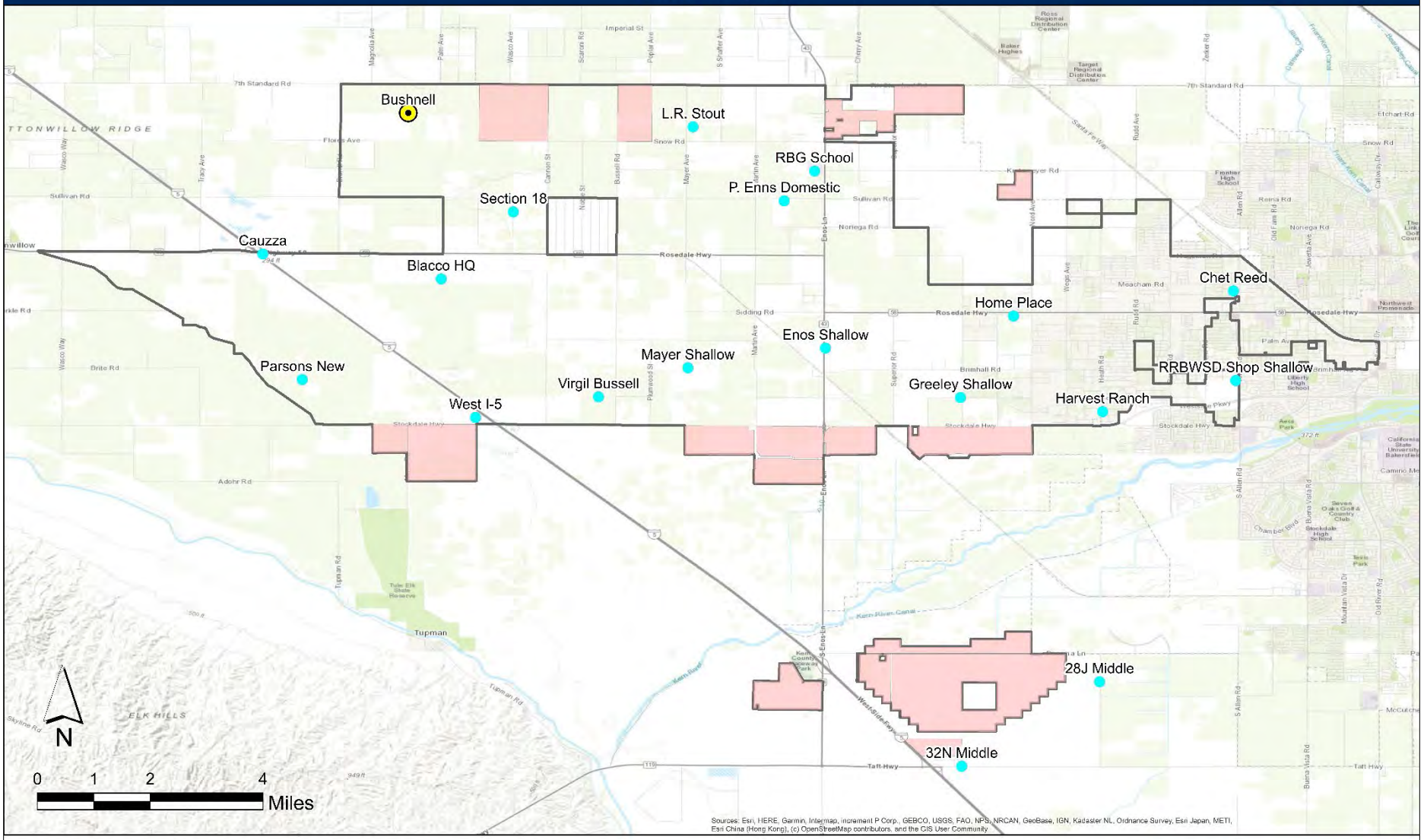
GROUNDWATER SUSTAINABILITY AGENCY

July 2025


Rosedale-Rio Bravo Water Storage District - Blacco HQ - 353915N1193454W001
Ground Surface Elevation: 295
Water Level
Measurable Objective: 47
Minimum Threshold: 2
Groundwater Elevation (ft., msl)
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Measurement Date

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



Legend

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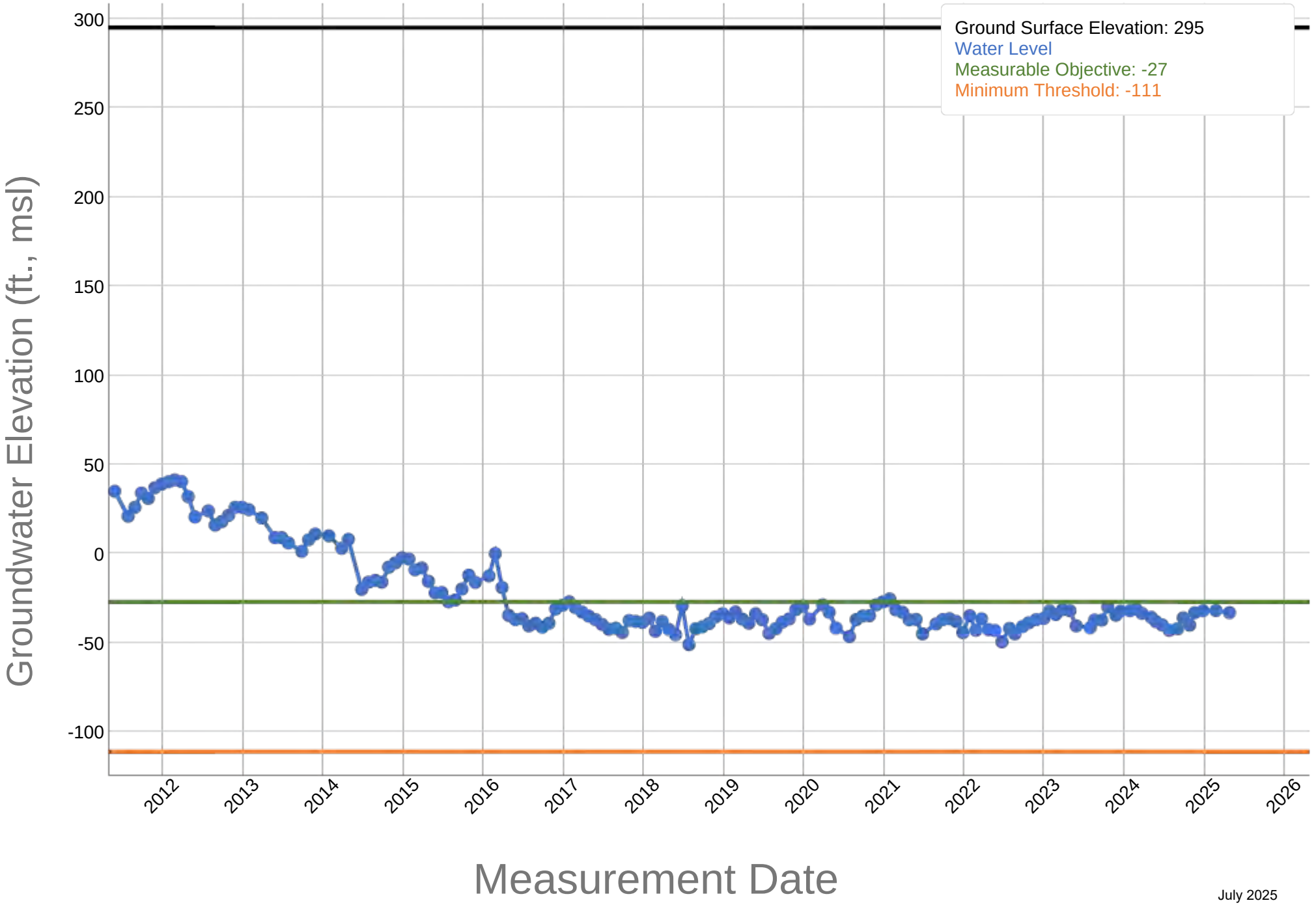
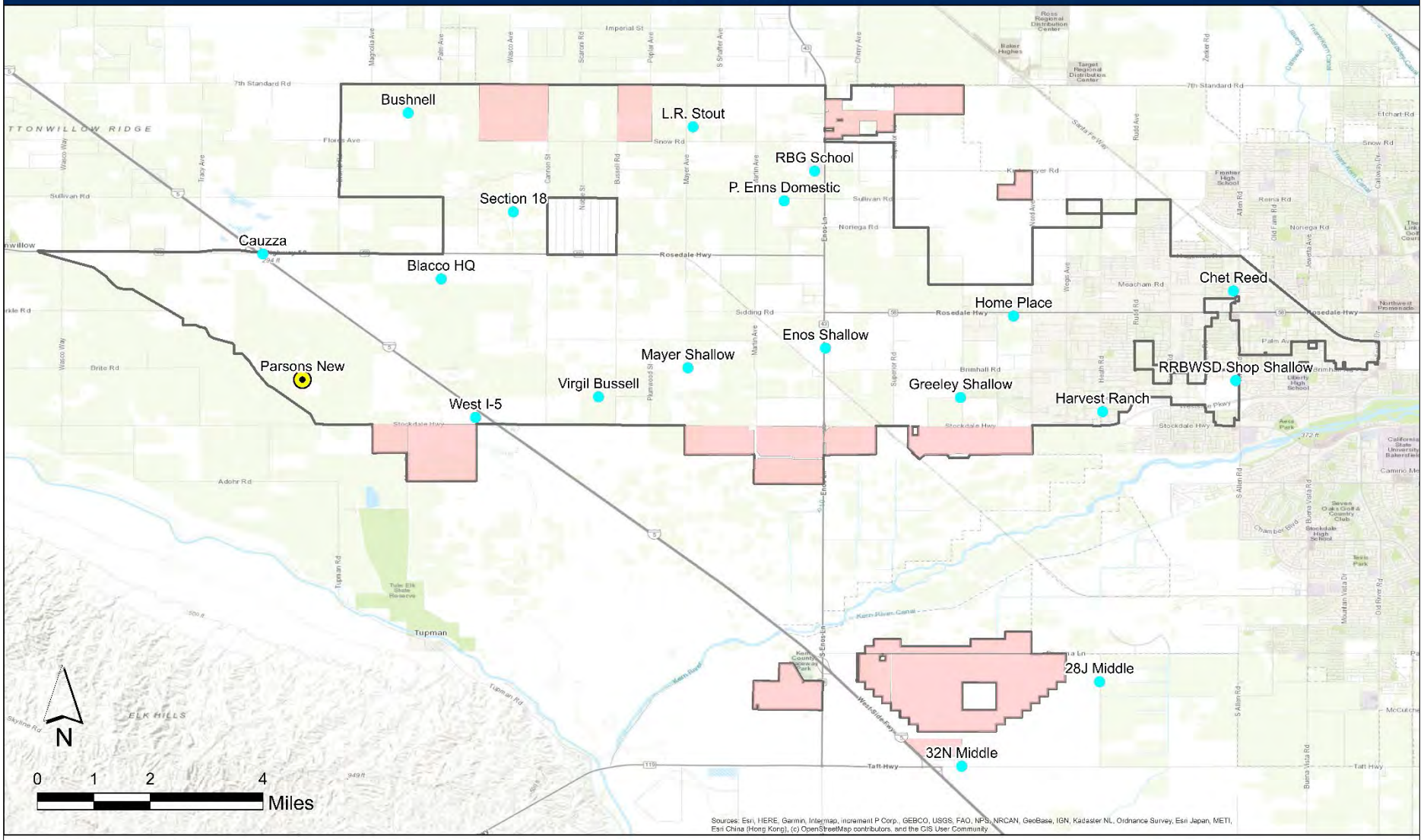
GROUNDWATER SUSTAINABILITY AGENCY

July 2025

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



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



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RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
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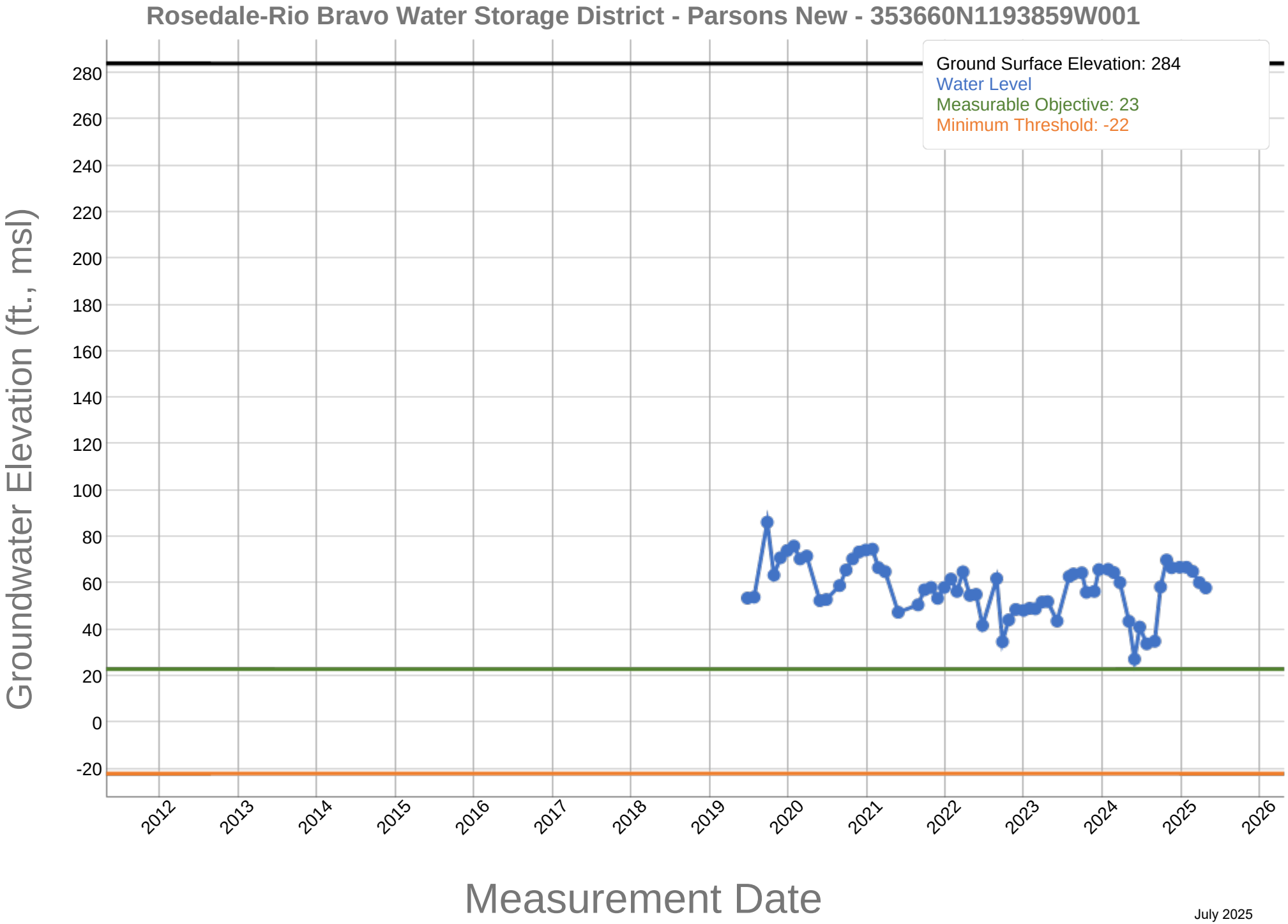
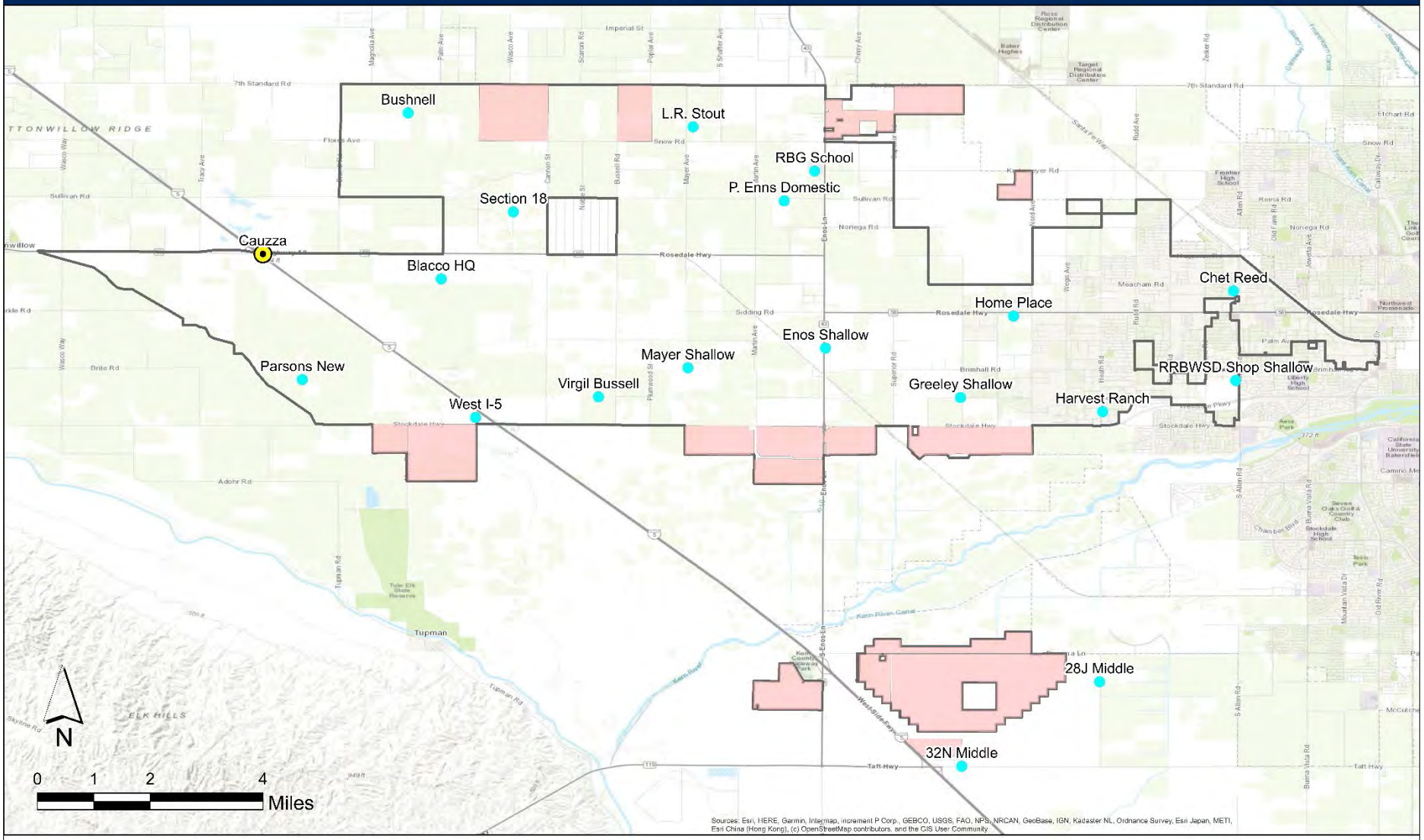
July 2025


Rosedale-Rio Bravo Water Storage District - Parsons New - 353660N1193859W001
Ground Surface Elevation: 284
Water Level
Measurable Objective: 23
Minimum Threshold: -22
Groundwater Elevation (ft., msl)
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
-20
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Measurement Date

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



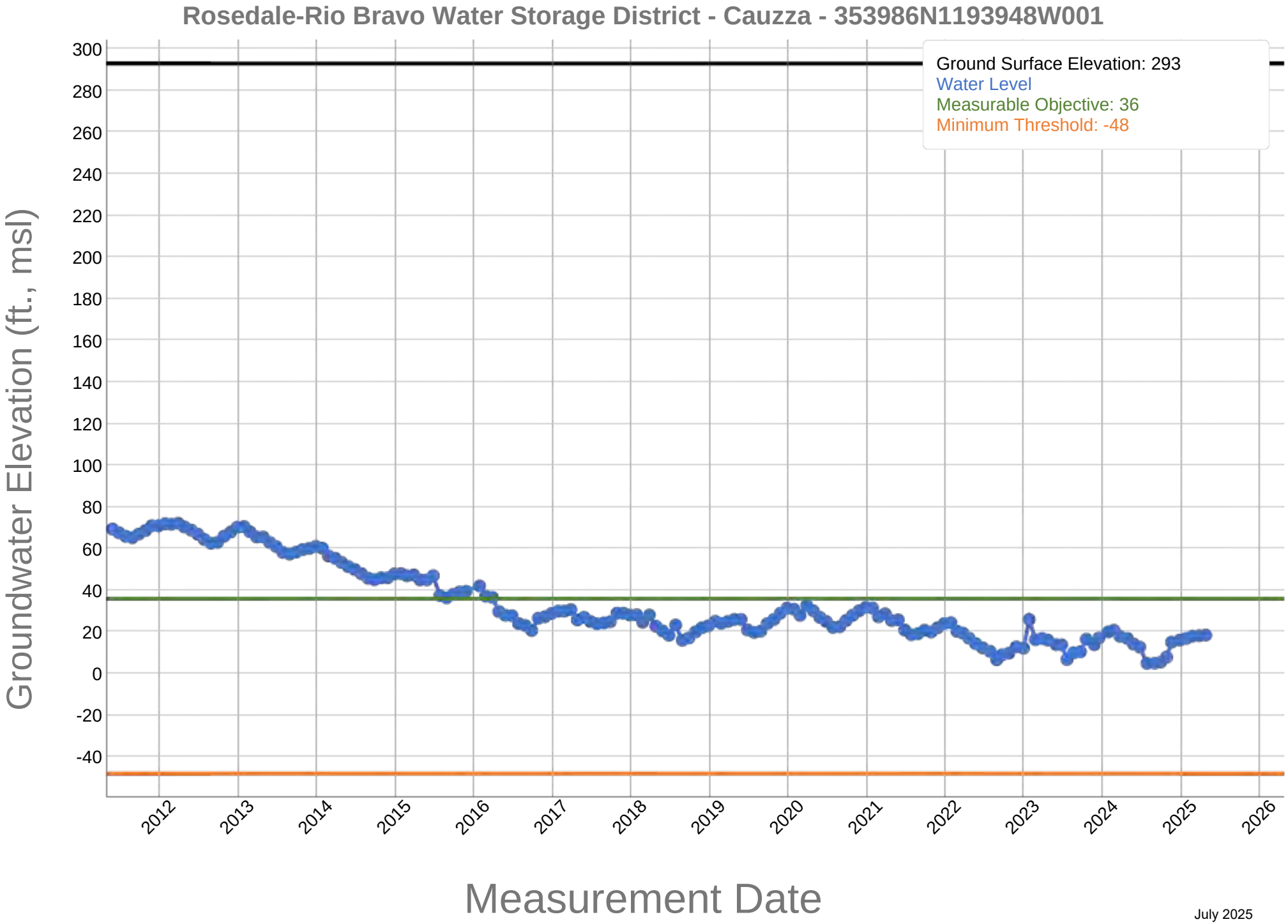
Legend

- Water Level Representative Monitoring Wells (RMWs)
- RRBWSD GSA White Lands
- RRBWSD GSA Boundary

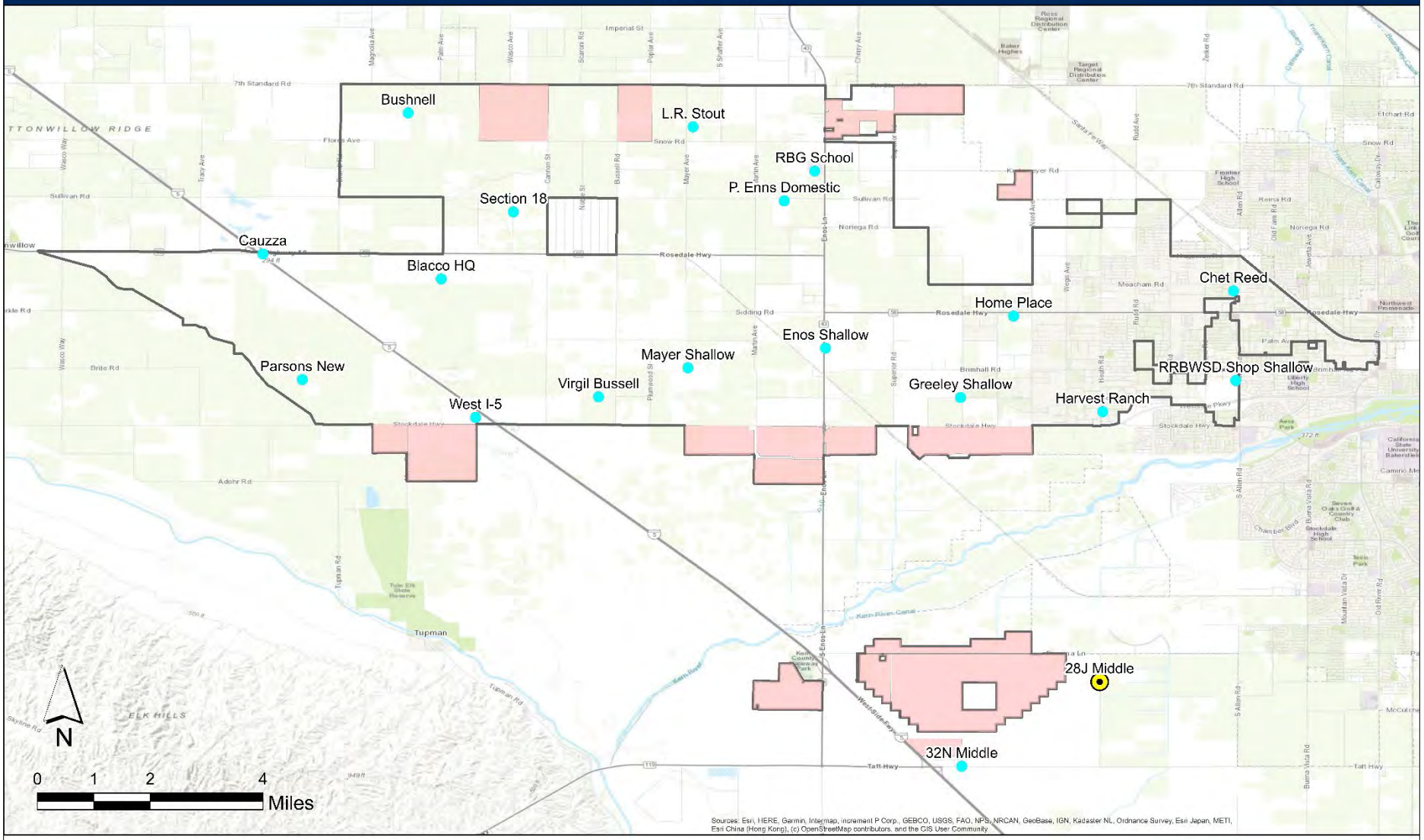
ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

July 2025


Rosedale-Rio Bravo Water Storage District - Cauzza - 353986N1193948W001
Ground Surface Elevation: 293
Water Level
Measurable Objective: 36
Minimum Threshold: -48
Groundwater Elevation (ft., msl)
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
-20
-40
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Measurement Date

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



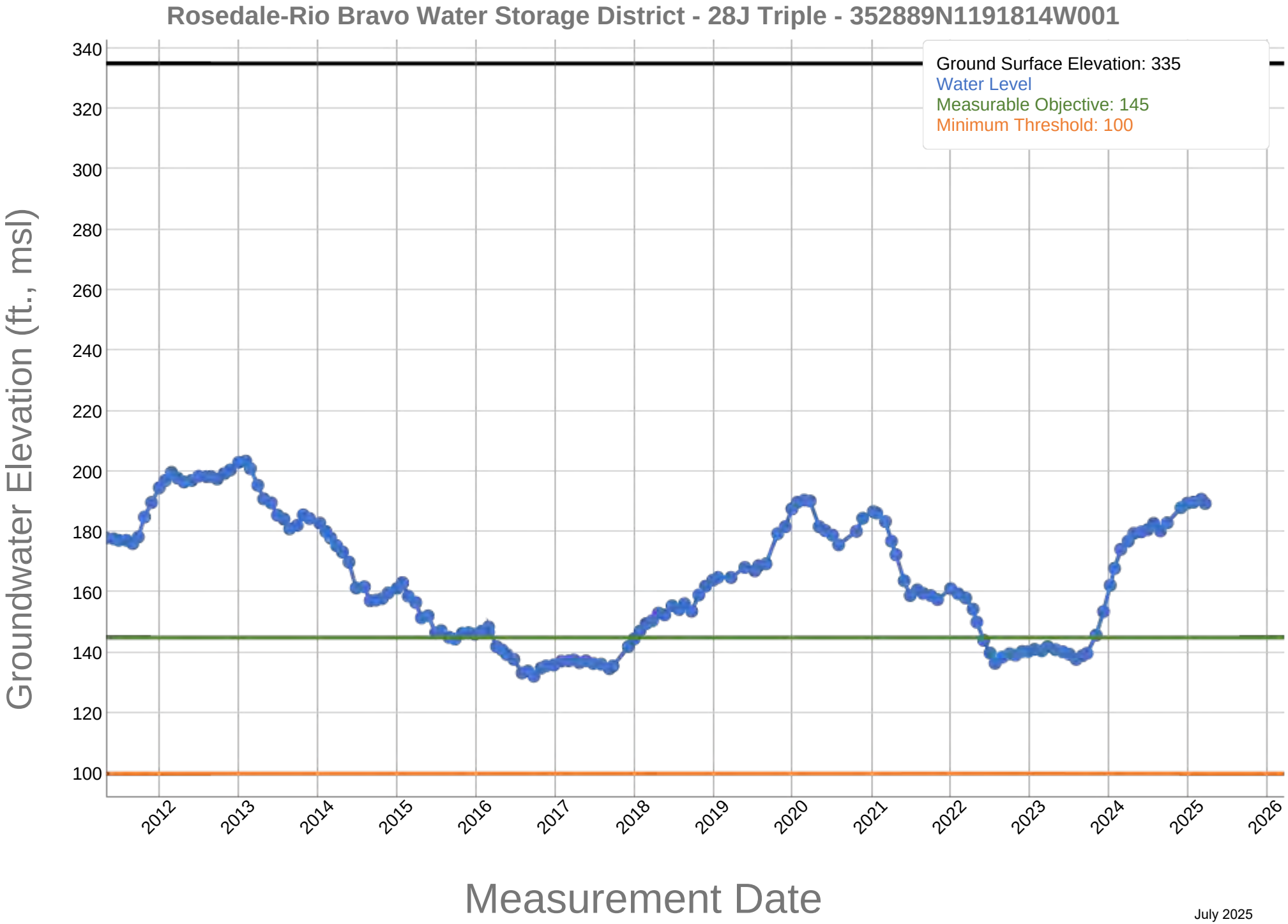
Legend

- Water Level Representative Monitoring Wells (RMWs)
- RRBWSD GSA White Lands
- RRBWSD GSA Boundary

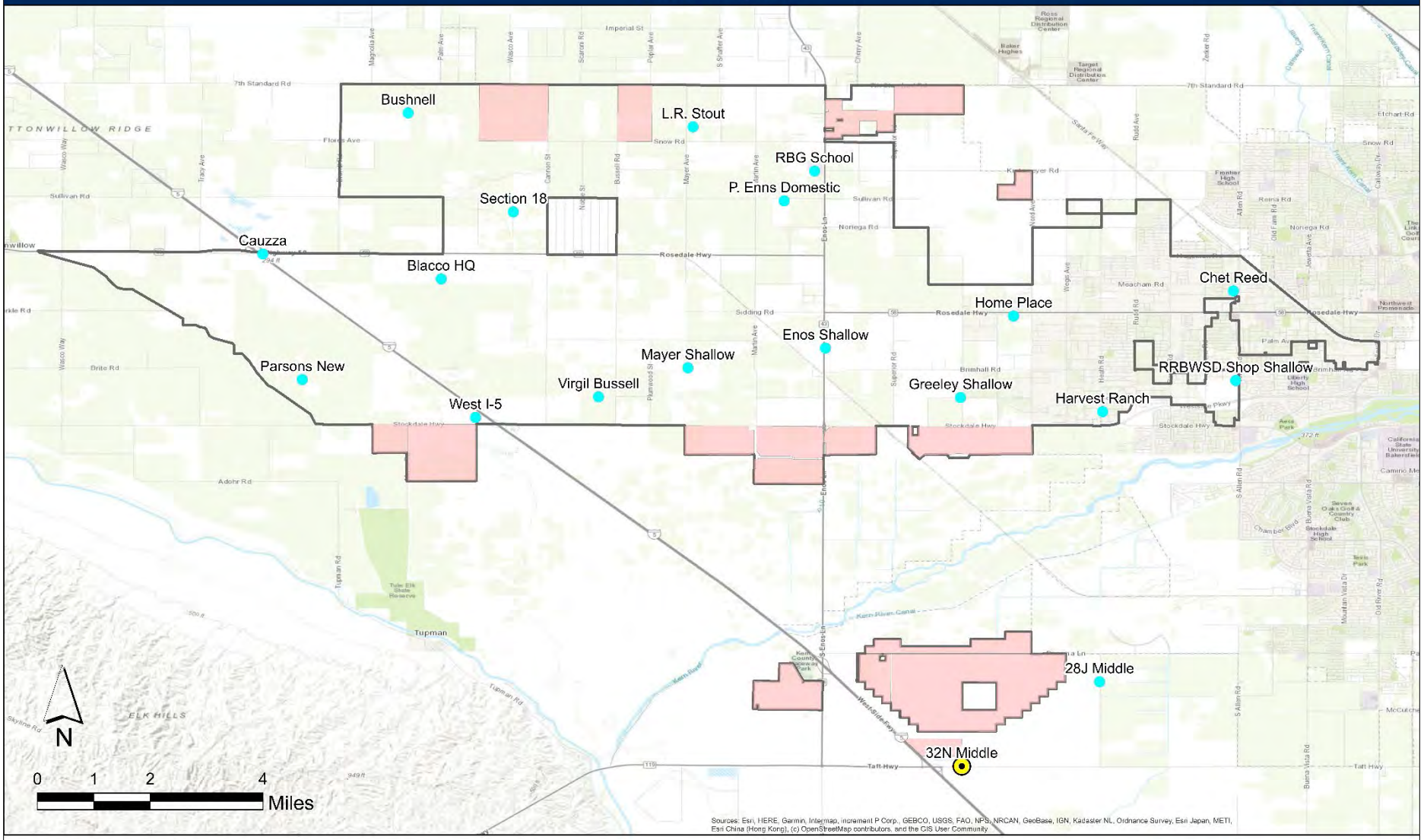
ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

July 2025


Rosedale-Rio Bravo Water Storage District - 28J Triple - 352889N1191814W001
Ground Surface Elevation: 335
Water Level
Measurable Objective: 145
Minimum Threshold: 100
Groundwater Elevation (ft., msl)
340
320
300
280
260
240
220
200
180
160
140
120
100
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Measurement Date

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



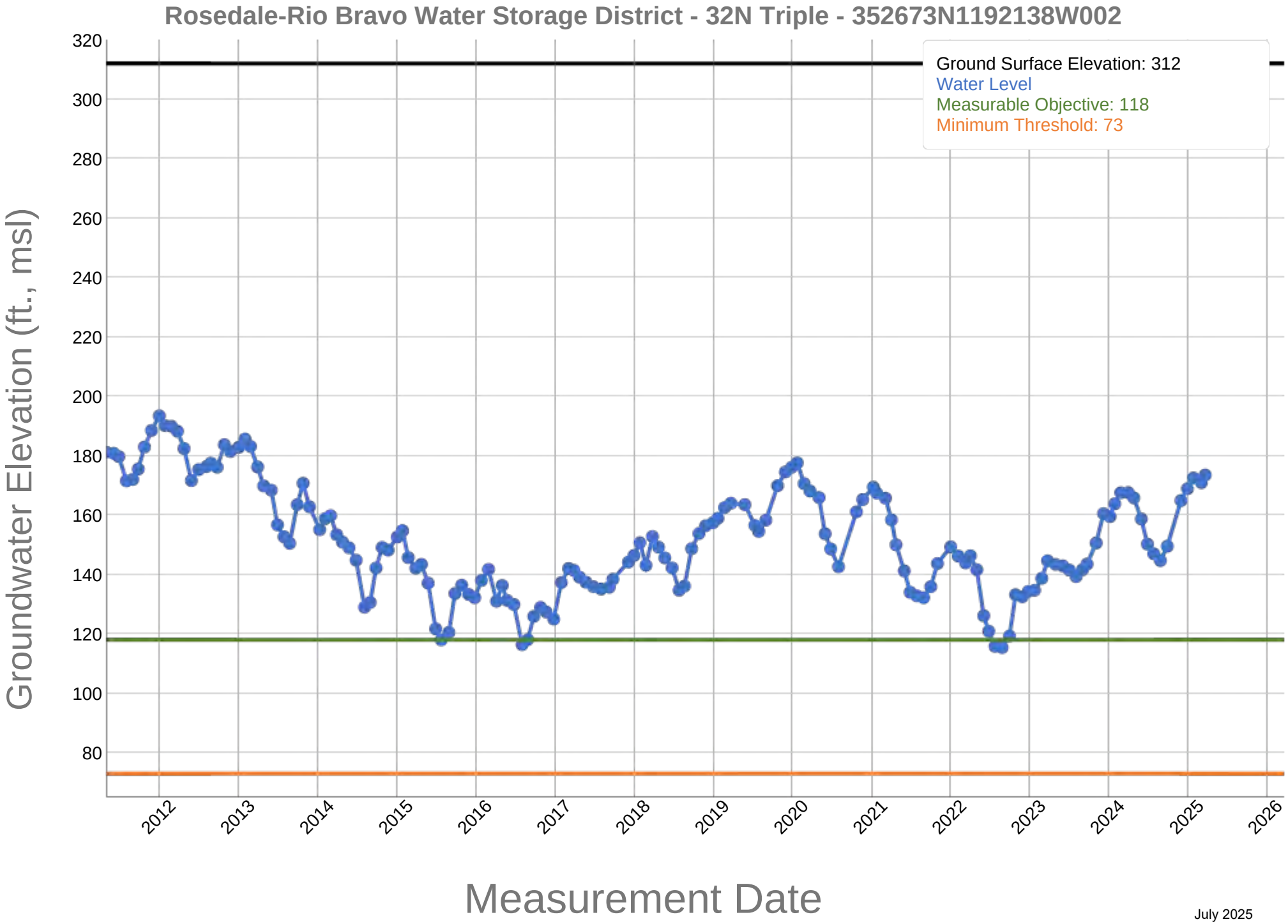
Legend

- Water Level Representative Monitoring Wells (RMWs)
- RRBWSD GSA White Lands
- RRBWSD GSA Boundary

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

RRBWSD GSA
ROSEDALE RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

July 2025


Rosedale-Rio Bravo Water Storage District - 32N Triple - 352673N1192138W002
Ground Surface Elevation: 312
Water Level
Measurable Objective: 118
Minimum Threshold: 73
Groundwater Elevation (ft., msl)
320
300
280
260
240
220
200
180
160
140
120
100
80
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Measurement Date