Vina Groundwater Sustainability Agency
308 Nelson Avenue,
Oroville, CA 95965
(530) 552-3592
VinaGSA@gmail.com

Rock Creek Reclamation District
P.O Box 1679
Oroville, CA 95965-1679
(530) 533-2855

Vina Groundwater Sustainability Agency (GSA) and Rock Creek Reclamation District Groundwater Sustainability Agency (GSA) Joint Board Meeting Agenda

Date: Wednesday, July 8, 2026
Time: 3:30 PM
Location: Chico City Council Chamber, 421 Main Street, Chico CA

Or Join the Vina GSA Board Meeting via Zoom
Meeting ID: 678 207 7386

Live streaming and recording of Vina GSA Board meetings are provided for viewing purposes only. Please note that in-person attendance is required for public participation. Streaming and recording services are subject to discontinuance if technical or other issues prevent effective meeting proceedings.

PUBLIC COMMENT INFORMATION:

Public comment will be accepted in-person at the meeting or may be submitted by email prior to the meeting to VINAGSAPUBLICCOMMENTS@CHICOCA.GOV. If you would like to address the Board at this meeting, you are requested to complete a speaker card and hand it to the Board Clerk prior to the conclusion of the staff presentation for that item. A time limit of three (3) minutes per speaker on all items and an overall time limit of thirty minutes for agenda items has been established. If more than 10 speaker cards are submitted for agenda items, the time limitation may be reduced to one and a half minutes per speaker.

When submitting public comments via email, please indicate the item number your comment corresponds to in the subject line. Comments submitted will be sent to the full GSA Board members electronically prior to the start of the meeting. Email comments will be acknowledged and read into the record by name only during the public comment period for each agenda item. Emailed comments received prior to the end of the meeting will be made part of the written record but not acknowledged at the meeting.

VINA GSA AND ROCK CREEK RECLAMATION DISTRICT GSA
JOINT BOARD MEETING AGENDA

July 8, 2026

1. VINA GROUNDWATER SUSTAINABILITY AGENCY (GSA) BOARD MEETING

1.1. Call To Order

1.2. Roll Call

2. ROCK CREEK RECLAMATION DISTRICT (RCRD) GSA BOARD MEETING

2.1. Call to Order

2.2. Roll Call

3. BUSINESS FROM THE FLOOR

Members of the public may address the Vina GSA and RCRD GSA Boards at this time on any matter not already listed on the agenda; comments are limited to three minutes. The Boards cannot take any action at this meeting on requests made under this section of the agenda.

4. JOINT VINA GSA/RCRD GSA BOARD MEETING AGENDA

4.1. ***Update on the Status and Anticipated Timeline for the Vina Groundwater Sustainability Plan (GSP) Periodic Evaluation**

Staff will provide an update on the anticipated topics and timelines over the next several months related to the Periodic Evaluation as well as a review of related webpages and interactive maps available to support the discussions. **(Verbal Report – Becky Fairbanks, SGM Grant Projects Manager)**

Requested Action: Accept as information.

4.2. ***North Sacramento River Corridor (NSRC) Interbasin Coordination Framework Update and Regional Interconnected Surface Water Initiative**

The Vina Subbasin participates in the North Sacramento River Corridor (NSRC) Interbasin Coordination (IBC) effort, a collaborative program among seven hydrologically connected subbasins in the Northern Sacramento Valley. Staff will present an update on the NSRC IBC Framework 5-Year Implementation Update, which guides regional coordination through the 2027 Periodic Evaluations and beyond. The presentation will also cover a proposed regional approach to interconnected surface water management, the corridor's current top coordination priority and a shared regulatory obligation across all seven NSRC subbasins. ***(Report – Dillon McGregor, GSA Program Manager and Christina Buck, Assistant Director, Butte County Water & Resources Conservation)***

Requested Action: Staff recommend that the Boards receive this report and provide feedback on the North Sacramento River Corridor Interbasin Coordination Framework 5-Year Implementation Update and the proposed regional Interconnected Surface Water approach.

4.3. ***Introduction to the Groundwater Level Strawman Proposal including discussion of the proposed 2027 Representative Monitoring Site (RMS) Monitoring Network and recent analysis of Groundwater Dependent Ecosystems (GDE) in the Vina Subbasin**

Staff will present an overview of the recently released Groundwater Level Sustainability Indicator strawman proposal (an initial draft created to jump-start discussion serving as a starting point for collaborate refinement). The presentation will also include relevant context including recent and historical groundwater level conditions, evaluation of the groundwater monitoring network, and recent analysis contributing to

characterization of Groundwater Dependent Ecosystems in the Vina Subbasin. The Board is asked to discuss and provide feedback on the monitoring network aspects of the strawman proposal. More in-depth discussion and input on Minimum Thresholds and Sustainable Management Criteria will occur in July. ***(Report – Christina Buck, Assistant Director, Butte County Water & Resources Conservation)***

Requested Action: Discussion and direction regarding changes to the Groundwater Level RMS network.

4.4. *Update and Discussion of Sustainable Yield, Groundwater Extraction and Change in Storage Calculations to Guide Periodic Evaluation Content Development

The Board will receive an overview of how sustainable yield, groundwater extraction, and change in groundwater storage have been estimated in the Vina Subbasin Groundwater Sustainability Plan and recent Annual Reports. The discussion will provide context for addressing Department of Water Resources comments through the upcoming Periodic Evaluation and will provide an opportunity for questions and Board input on the proposed approach going forward. ***(Report – Christina Buck, Assistant Director, Butte County Water & Resources Conservation)***

Requested Action: Provide feedback to staff.

5. ADJOURNMENT:

The Vina GSA/RCRD GSA Joint Board meeting will adjourn to the Vina GSA Meeting after tonight's Vina/RCRD GSA Joint Board Meeting.

*****RECONVENE TO VINA GSA BOARD MEETING*****

1. Vina Groundwater Sustainability Agency (GSA) Board Meeting

1.1 Call To Order

1.2 Roll Call

2. CONSENT AGENDA:

2.1 *Approval of the 6-10-26 Vina GSA Board Meeting Minutes.

Requested Action: Approve the 6-10-26 Vina GSA Board meetings minutes.

3. ITEMS REMOVED FROM CONSENT – IF ANY

4. REGULAR AGENDA:

4.1 *Consideration of Fiscal Year 2025-26 Annual Operations Budget Adjustment

The Vina Groundwater Sustainability Agency Board of Directors adopted the Fiscal Year 2025-26 Annual Operations Budget (Resolution 2025-01) on June 11, 2025. This item presents an adjustment to reflect grant activity not included in the adopted budget, including additional DWR SGM Round 2 Grant expenditures and the addition of the CalSIP stream gage grant. The adjustment has no effect on the operational budget or the SGMA regulatory fee ***(Report – Dillon McGregor, GSA Program Manager)***

Requested Action: Adopt Resolution No. 2026-04, Approving an Amendment to the Fiscal Year 2025-26 Annual Operations Budget and authorize the Chair to sign.

4.2 *Consideration of Fiscal Year 2026-27 Annual Operations Budget Adjustment

The Vina Groundwater Sustainability Agency Board of Directors adopted the Fiscal Year 2026-27 Annual Operations Budget (Resolution 2026-01) on June 10, 2026. This item presents an adjustment to add the

CalSIP stream gage grant, which was not included in the adopted budget. The adjustment has no effect on the operational budget or SGMA regulatory fee. ***(Report – Dillon McGregor, GSA Program Manager)***

Requested Action: Adopt Resolution No. 2026-05, Approving an Amendment to the Fiscal Year 2026-27 Annual Operations Budget, and authorize the Chair to sign.

4.3 ***Consideration of Resolution No. 2026-02 Setting Regulatory Sustainable Groundwater Management Act Fees for Fiscal Year 2026-27**

The Vina Groundwater Sustainability Agency (GSA) Board will consider adopting the SGMA regulatory fees for Fiscal Year 2026-27. At the June 10, 2026 Board meeting, the Board held adoption of the fee pending verification that the correct fee calculation methodology had been followed. The proposed fees have since been recalculated by Hansford Economic Consulting (HEC) in accordance with the 5-year outlook methodology authorized by Resolution No. 2025-02. Fee amounts are set forth in Attachment A. ***(Report – Dillon McGregor, GSA Program Manager)***

Requested Action: Adopt Resolution No. 2026-02, Setting Regulatory Sustainable Groundwater Management Act Fees for Fiscal Year 2026-27, and authorize the Chair to sign.

5. COMMUNICATIONS AND REPORTS

5.1 Program Manager Report **(Information Only - Dillon McGregor, GSA Program Manager)**

- RFP Selection Process Update
- Drought Resilience Plan Update
- Environmental Health

6. BOARD MEMBER REQUESTS FOR FUTURE ITEMS:

Board Members may propose topics, projects, or issues for inclusion on a future agenda. Proposals will be noted for consideration by the Chair and Program Manager, subject to feasibility and alignment with the Agency's priorities. No discussion or action will be taken on proposed items at this meeting.

7. ADJOURNMENT:

The Vina GSA Board meeting will adjourn to Closed Session after tonight's Vina GSA Board Meeting.

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1. CLOSED SESSION PUBLIC COMMENTS OR BOARD DISQUALIFICATIONS:

Members of the public may address the Board at this time on the closed session item only; comments are limited to three (3) minutes, or time limit as determined by the Chair.

2. ADJOURN TO CLOSED SESSION:

3. CLOSED SESSION

3.1 Call to Order

4. CLOSED SESSION AGENDA

4.1 PURSUANT TO GOVERNMENT CODE SECTION 54956.9(d)(1) - CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION – Butte County Superior Court #23CV02789 - Ronald R Titus, as Trustee of the 2005 Titus Trust et al vs Vina Groundwater Sustainability Agency

4.2 PURSUANT TO GOVERNMENT CODE SECTION 54956.9(d)(1) - CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION – Butte County Superior Court #22CV00321 - AquAlliance et al vs Vina Groundwater Sustainability Agency et al.

4.3 PURSUANT TO GOVERNMENT CODE SECTION 54956.9(d)(1) - CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION – Butte County Superior Court #24CV04275 - AquAlliance et al vs Vina Groundwater Sustainability Agency et al.

5. CLOSED SESSION ANNOUNCEMENT:

Report on any action taken during the closed session.

6. ADJOURNMENT:

The Vina GSA Closed Session will adjourn to a Vina GSA Regular Board Meeting on August 12, 2026, at 3:30 p.m. at the Chico City Council Chamber Building at 421 Main Street, Chico, CA and online via Zoom for viewing only.

*Materials included in agenda packet

Vina Groundwater Sustainability Agency
Agenda Transmittal

Subject: Periodic Evaluation and Plan Amendments Timeline Update

Contact: Becky Fairbanks	**Phone:** (530) 552-3587	**Meeting Date:** July 8, 2026	**Agenda Item: 4.1**

Summary

The Boards will receive an update on the status of the Vina Groundwater Sustainability Plan (GSP) Periodic Evaluation (PE) and Plan Amendments (PA), including anticipated topics, key milestones, and opportunities for stakeholder and public participation through January 2027. The presentation will provide an overview of recent and upcoming meetings related to Sustainable Management Criteria, groundwater recharge, and other GSP amendment topics, as well as the anticipated timeline for release of the Draft Periodic Evaluation and Plan Amendments.

Staff will also highlight resources available to support stakeholder engagement, including the PE and PA webpage, supporting technical documents, interactive groundwater maps, and the public comment form. These tools are intended to improve transparency and provide opportunities for interested parties to follow progress and provide feedback throughout the amendment process.

In addition, the Boards will receive a status update on the remaining Sustainable Groundwater Management (SGM) Grant-funded projects, including groundwater monitoring well installations, stream gage implementation, recharge feasibility studies, and related technical analyses currently underway. These projects provide important data and technical support for the Periodic Evaluation and GSP amendment process.

Requested Board Action: Accept as information.

Update on the Status and Anticipated Timeline for the Vina GSP Periodic Evaluation and Plan Amendments

Vina and Rock Creek Reclamation District GSA Joint Board Meeting
July 8, 2026

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Today's Agenda

01 PE & PA Status & Timeline

Overview of the Periodic Evaluation and Amendments process and key decision-making milestones through January 2027

02 Webpages & Tools

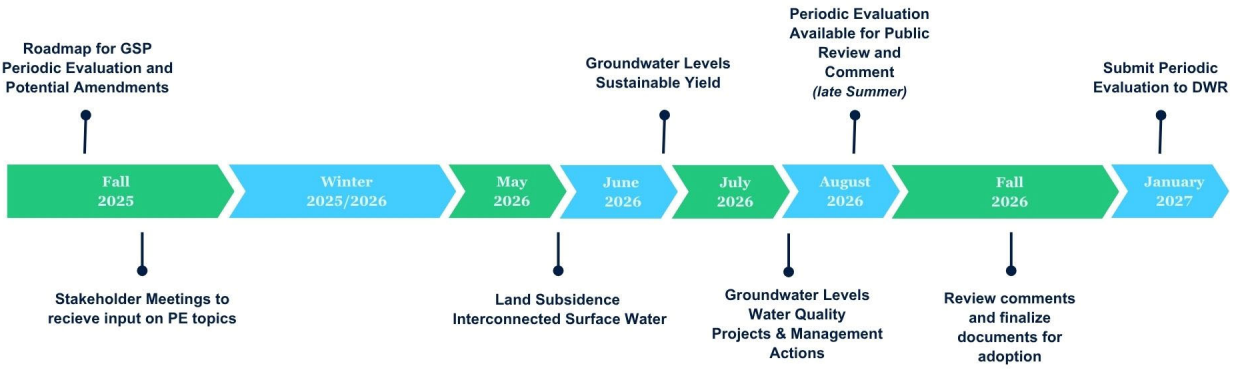
Resources to follow progress, submit comments, and access interactive maps and supporting documents

03 SGM Grant Project Updates

Status of remaining Sustainable Management Grant projects including well installations and recharge feasibility work

2

GSP Periodic Evaluation & Plan Amendments Timeline



The focus of the Periodic Evaluation is to address the Department of Water Resources' 6 Recommended Corrective Actions and provide a written assessment of GSP implementation. Once submitted, DWR will complete its Periodic Review of the Vina GSP and issue a determination of the status of the Plan: Approved, Incomplete, or Inadequate.

v. June 17, 2026

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Public Meetings

Previous Meetings

- May 7 – Subsidence Discussion
- May 8 – Legal Implications of Recharge Webinar
- May 18 – GDE Discussion
- May 21 – ISWs Discussion
- June 15 – Groundwater Recharge Workshop

Upcoming Meetings

- July 14 – Groundwater Levels Workshop
- September 2 – Draft PE & PA Workshop

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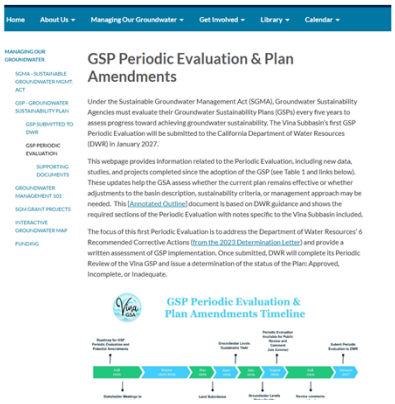
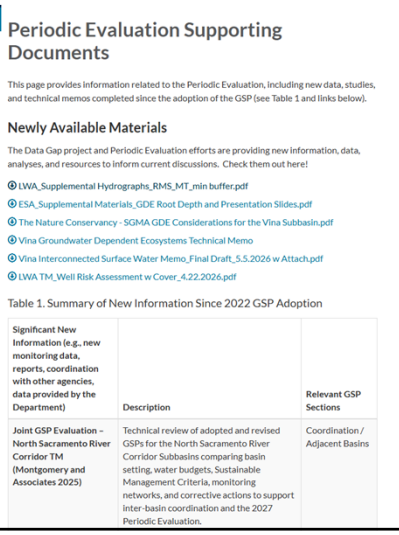
PE & PA Resources

PE & PA Webpage



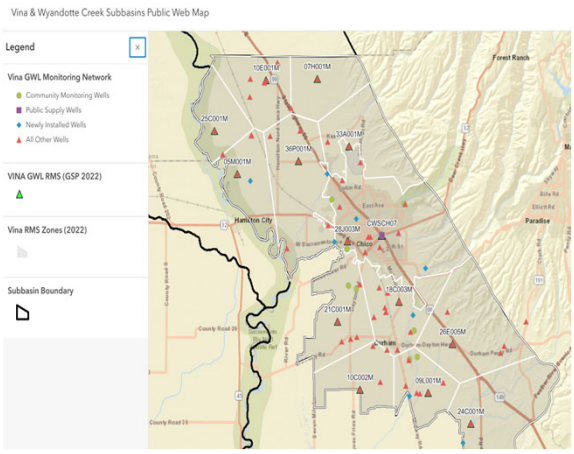
Supporting Documents



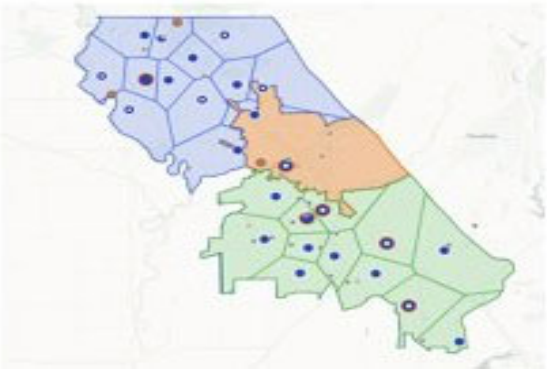
Comment Form

Interactive Maps Available

Interactive Groundwater Map – Vina GSA



Interactive Dashboard



Status of Remaining SGM Projects

- **Well Installations**
  - June - Filing for permits
  - July to August – construction, well completion reports, water sampling

- **Surface Water Supplies and Recharge Feasibility**
  - Surface Water Supplies – completed 3/31/26
  - Recharge Feasibility – completes 6/30/26
- **Legal Implications of Recharge**
  - May 8 – webinar
  - SGM Recharge feasibility analyses currently under review
    - Lindo Channel
    - South Vina Extension Water Supply Project
    - Ridge to Valley Water Supply

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Thank you

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Vina Groundwater Sustainability Agency
Agenda Transmittal

Subject: North Sacramento River Corridor Interbasin Coordination Update: Framework Progress and Regional Interconnected Surface Water Initiative

Contact: Dillon McGregor	**Phone:** (530) 552-3589	**Meeting Date:** July 8, 2026	**Agenda Item:** 4.2

The Vina Subbasin participates in the North Sacramento River Corridor (NSRC) Interbasin Coordination (IBC) effort, a collaborative program among seven hydrologically connected subbasins in the Northern Sacramento Valley. Staff will present an update on the NSRC IBC Framework 5-Year Implementation Update, which guides regional coordination through the 2027 Periodic Evaluations and beyond. The presentation will also cover a proposed regional approach to interconnected surface water management, the corridor's current top coordination priority and a shared regulatory obligation across all seven NSRC subbasins.

The following materials are included in this packet:

- Staff Report: NSRC Interbasin Coordination Update: Framework Progress and Regional Interconnected Surface Water Initiative
- Attachment A. Factsheet: North Sacramento River Corridor Interbasin Coordination Overview
- Attachment B. Interbasin Coordination Framework 5-Year Implementation Update
- Attachment C. Factsheet: Working Together on Interconnected Surface Water

You can find the Workplan for Regional Coordination and Collaboration to Address the Depletions of Interconnected Surface Water Sustainability Indicator in the Sacramento Valley document here.

Requested Action: Staff recommend that the Boards receive this report and provide feedback on the North Sacramento River Corridor Interbasin Coordination Framework 5-Year Implementation Update and the proposed regional Interconnected Surface Water approach.

308 Nelson Avenue, Oroville, CA 95965
(530) 552-3592 · VinaGSA@gmail.com

Vina Groundwater Sustainability Agency

STAFF REPORT

To: Vina GSA Board of Directors

From: Dillon McGregor, GSA Program Manager

Date: July 8, 2026

Subject: North Sacramento River Corridor Interbasin Coordination Update: Framework Progress and Regional Interconnected Surface Water Initiative

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Background: North Sacramento River Corridor Interbasin Coordination

California's Sustainable Groundwater Management Act (SGMA) requires local Groundwater Sustainability Agencies (GSAs) to develop and implement Groundwater Sustainability Plans (GSPs). Because the groundwater subbasins of the North Sacramento River Corridor (NSRC) are hydrologically connected, sharing boundaries, stream systems, and subsurface flows, effective SGMA implementation requires cross-boundary coordination.

The NSRC Interbasin Coordination (IBC) effort brings together GSAs from seven subbasins: Red Bluff, Antelope, Los Molinos, Corning, Vina, Colusa, and Butte. This effort is facilitated through the California Department of Water Resources' (DWR) Facilitation Support Services (FSS) program. The coordination effort is grounded in the Northern Sacramento Valley Inter-Basin Coordination Framework, first established between 2020 and 2022, which organizes collaborative work around five pillars:

1. Information Sharing;
2. Joint Analysis and Evaluation;
3. Coordination on Mutually Beneficial Activities;
4. Coordinated Communication and Outreach; and
5. Issue Resolution.

Each participating subbasin formally incorporated the framework into its GSP between 2021 and 2024, reflecting the shared recognition of the benefits of a collaborative, long-term approach to sustainable management of these hydrologically connected subbasins.

In preparation for the GSP Periodic Evaluations (PE) due to DWR in January 2027, the participating GSAs, with technical support from Montgomery & Associates completed a Joint GSP Evaluation that compared hydrogeologic conceptual models, water budgets, sustainable management criteria, and monitoring networks across subbasins. This work identified differences and data gaps at subbasin

boundaries, particularly around stream-aquifer interactions and cross-boundary groundwater flows and directly informed the 5-year implementation update of the North Sacramento Valley IBC Framework (attached). The effort was jointly funded through DWR SGM Grant program funds awarded to the Vina and Wyandotte Creek subbasins.

Two public webinars supporting public participation in the preparation of the PE process have been conducted. The first webinar was held in January 2026 and drew approximately 95 participants. This webinar introduced the Interbasin Coordination Framework, particularly the 5 Pillars, and provided updates on related work. A second webinar held June 16, 2026, provided an update on the IBC Implementation Coordination Framework, gathered feedback on its direction, and encouraged ongoing engagement with their respective GSAs.

Priority Regional Initiative: Interconnected Surface Waters

Regulatory Context

Under SGMA, each GSA must demonstrate that groundwater management does not result in undesirable results caused by depletions of interconnected surface waters (ISW), including rivers, streams, and other water bodies whose flows are influenced by groundwater pumping. ISW is one of six sustainability indicators that all GSPs must address. Upon its initial review of the NSRC subbasins' GSPs, DWR issued every subbasin a Recommended Corrective Action (RCA) related to ISW, underscoring both the regulatory significance of this topic and the shared nature of the challenge across the corridor.

Why Regional Coordination Is Essential

In the NSRC, hydrological connectivity is the rule, not the exception. The Sacramento River runs through the corridor and forms subbasin boundaries, while tributaries such as Butte Creek cross multiple subbasins. Groundwater and surface water interact throughout the region, and the effects of pumping on streamflow do not stop at subbasin lines. As a result, understanding whether management in one subbasin adversely affects neighboring subbasins, as SGMA requires, will benefit from a coordinated, regionally consistent approach.

Existing local groundwater models have limitations for regional ISW analysis, and existing regional tools require refinement. If each subbasin pursued ISW compliance independently, costs would be higher and results difficult to compare, making cross-boundary analysis more difficult. A coordinated approach produces commonly accessible tools and reduces cost to individual agencies.

The Proposed Regional ISW Work Plan

Consistent with Pillar 3- Coordination on Mutually Beneficial Activities of the Interbasin Coordination Framework, , the NSRC subbasins have designated ISW as a central priority regional technical activity for the 2026–2032 period. The Northern California Water Association (NCWA), contracting with MBK Engineers, is working with water managers to support a regional ISW approach. The proposed work is organized around three interrelated steps:

- **Regional Data Collection:** Field teams collect measurements along the Sacramento River, Feather River, Butte Creek, and other shared streams to improve understanding of how water moves between rivers and underground aquifers across subbasin boundaries.

- **Refined Regional Modeling:** Using collected data, technical teams would work with DWR to improve an existing regional groundwater-surface water model to better simulate how groundwater pumping affects streamflow across subbasin boundaries.
- **Local Policy Support:** Drawing on modeling results, a regional guidance document would provide each agency with options and examples for defining its own ISW sustainability standards, while preserving each GSA's full authority over its own decisions.

A draft ISW work plan describing these three steps has been developed and is currently under review by all participating GSAs. As part of this report, each GSA is engaged in reviewing the technical work plan and considering a coordinated approach that would establish the regional ISW effort as a shared priority direction for the NSRC IBC group. Funding has not yet been secured; future grant funding through Proposition 4 has been identified as a potential source. Coordinating with DWR on this effort is expected to reduce costs to individual subbasins and produce shared tools that are commonly accessible across the region.

The full work plan is available for review online. A fact sheet that describes this effort is attached to this memo (Attachment A).

Benefits of the Regional Approach

Participation in this coordinated ISW effort offers several benefits in meeting its SGMA obligations:

- Better information: A shared regional model provides more reliable, consistent data for ISW evaluations and cross-boundary impact assessments.
- Lower cost: Collaborative data collection and modeling costs significantly less than seven subbasins independently duplicating similar work.
- SGMA compliance support: The regional approach is designed to help each subbasin respond to its DWR Recommended Corrective Action on ISW
- Local authority preserved: This joint effort does not transfer any GSA's local authority. Shared information informs each GSA's decisions, and every agency sets its own sustainability criteria.

Next Steps and Timeline

MILESTONE	DESCRIPTION
Summer 2026	GSA boards are invited to review the draft, regional ISW work plan and IBC Framework 5-Year Implementation Update and share any significant questions or concerns; feedback will be carried back to the GSA IBC group, which includes representatives from each subbasin.
January 2027	GSP Periodic Evaluations due to DWR; each subbasin to incorporate the Framework five-year implementation update, including IBC commitments and ISW status in Periodic Evaluations.
2027–2032	Ongoing IBC activities per five-pillar framework; ISW modeling and policy support deliverables developed.

More information: https://www.buttecounty.net/2221/North-Sacramento-River-Corridor-Inter-Ba

RECOMMENDED ACTION

Staff recommend that the Committee receive this report and provide feedback on the North Sacramento River Corridor Interbasin Coordination Framework 5-Year Implementation Update and the proposed regional Interconnected Surface Water approach.

More information: https://www.buttecounty.net/2221/North-Sacramento-River-Corridor-Inter-Ba

Attachments:

Attachment A. Factsheet: North Sacramento River Corridor Interbasin Coordination Overview
Attachment B. Interbasin Coordination Framework 5-Year Implementation Update
Attachment C. Factsheet: Working Together on Interconnected Surface Water

Vina Groundwater Sustainability Agency

North Sacramento River Corridor Interbasin Coordination

NSRC IBC Framework Update and Regional Interconnected Surface Water Initiative

North Sacramento River Corridor Inter-Basin Coordination | Butte County, CA

Vina GSA & RCRD GSA Joint Board Meeting| July 8, 2026 | Dillon McGregor, Program Manager

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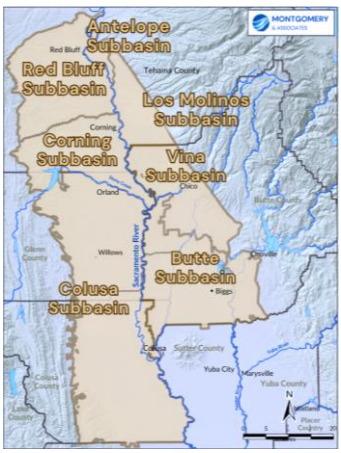
IBC Framework Re-cap

- During Groundwater Sustainability Plan (GSP) development leading up to 2022 submission of GSPs, 11 Northern Sacramento Valley subbasins prepared an Interbasin Coordination Report which established a mutually agreed upon framework for sustained coordination during GSP implementation
- **GSA Representatives** from 7 subbasins which form the **North Sacramento River Corridor** (Antelope, Butte, Colusa, Corning, Los Molinos, Red Bluff, and Vina) initiated focused discussions last fall to begin developing a **5-Year Update** to consistently **implement this regional framework** as a part of the state required GSP Periodic Evaluations due Jan 2027.
- Neighbor to neighbor interbasin coordination may be occurring in addition to these regional discussions.



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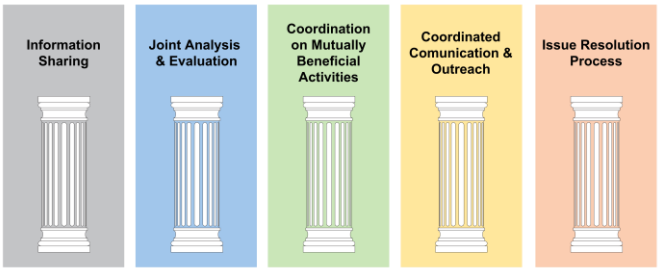
The 5-Pillar Coordination Framework

- The framework operates through **5 collaborative pillars** that GSAs have committed to
- The 5-Year Implementation Update details GSAs' priorities for advancing the Pillars through 2032



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Pillar 1 - Information Sharing

- Subbasin representatives meet **at least** annually to stay informed about changing conditions, exchange information, and collaborate on shared priorities
- GSAs share annual reports, monitoring data, water budgets, and modeling information, and work towards building shared data resources across boundaries

Pillar 2 - Joint Analysis & Evaluation

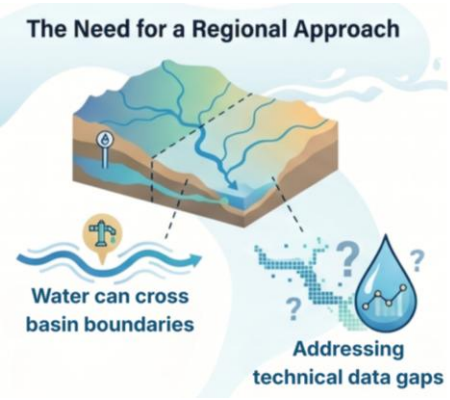
- Completed in 2025 to evaluate and compare contents of GSPs with a focus on gaining a common understanding of basin conditions at boundaries
- Identified key differences, data uncertainties, and assessed potential impacts of concerns related to groundwater interaction at the boundaries

4

Pillar 3 - Coordination on Mutually Beneficial Activities

Informed by DWR's Recommended Corrective Actions for all Subbasin GSPs, a regional priority rose to the top for this next 5-year period-- to develop a coordinated approach to interconnected surface waters, including shared monitoring and modeling strategies, and pursuit of grant funding

Additional areas for exploration include boundary flow analysis, joint monitoring to identify data gaps, and collaborative project development such as regional recharge opportunities



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Pillar 3 - Coordination on Mutually Beneficial Activities

FOCUS Interconnected Surface Waters (ISW): A Shared Challenge

SGMA REQUIRES LOCAL AGENCIES TO UNDERSTAND HOW GROUNDWATER PUMPING AFFECTS NEARBY RIVERS AND STREAMS (A RELATIONSHIP KNOWN AS ISW)

DWR ISSUED EVERY SUBBASIN IN THE NORTH SACRAMENTO RIVER CORRIDOR A RECOMMENDED CORRECTIVE ACTION (RCA) FOR ISW, MAKING IT A COMPLIANCE OBLIGATION FOR ALL 7 SUBBASINS

THIS VALLEY IS HYDROLOGICALLY CONNECTED, MEANING THE EFFECTS OF PUMPING ON STREAMFLOW DO NOT STOP AT SUBBASIN BOUNDARIES, PROMPTING A REGIONAL APPROACH

ADDRESSING ISW TOGETHER KEEPS COSTS LOWER AND PRODUCES TOOLS THAT ARE COMPATIBLE AND ACCESSIBLE ACROSS ALL 7 SUBBASINS

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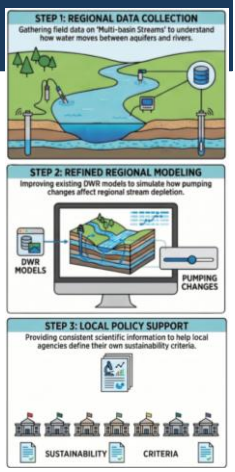
Pillar 3 - Coordination on Mutually Beneficial Activities

FOCUS What's Proposed



Regional Data Collection: Field teams would collect measurements along the Sacramento River, Feather River, Butte Creek, and other shared streams to improve understanding of how water moves between rivers and underground aquifers across the region.

Refined Regional Modeling: Using that data, technical teams would work with DWR to improve an existing regional model so they can better simulate how groundwater pumping affects streamflow across subbasin boundaries.

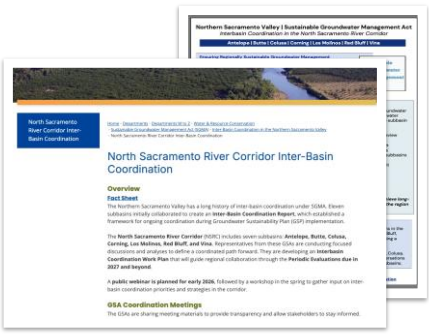
Local Policy Support: Drawing on the modeling results, a regional guidance document would provide each agency with options and examples to define its own sustainability standards – while each agency retains full authority over its own decisions.

7

Pillar 4 - Coordinated Communication & Engagement

Continued collaboration on regional-scale public engagement and communications that promote awareness, enhance public trust, and maintain knowledge

- Public Meetings
- Outreach and engagement materials (factsheets, etc.)
- Ongoing maintenance of interbasin coordination website with updates, meeting materials, and work products



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Pillar 5 - Issue Resolution Process

All participating subbasins have agreed to a shared process for identifying and resolving conflicts, following the framework established in the Northern Sacramento Valley Interbasin Coordination Report

The process can be activated as needed, ensuring that disputes have a clear, agreed upon pathway for resolution

With this 5-Year Implementation Update of the Framework, GSAs intend to use consistent language across their individual Periodic Evaluations when describing regional Interbasin Coordination

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What This Means for Vina

Better Information

A shared regional model gives Vina more reliable, consistent data for ISW evaluations, boundary flow analyses, and cross-boundary impact assessments than we could build alone.

Lower Cost

Collaborative data collection and modeling costs significantly less than seven subbasins independently duplicating the same work, with results that are actually comparable.

SGMA Compliance Support

The regional approach is designed to help each subbasin respond to its DWR Recommended Corrective Action on ISW, a direct compliance obligation for Vina's Periodic Evaluation.

Local Authority Preserved

This joint effort does not transfer any decision-making authority. Vina sets its own sustainability criteria. The regional work provides shared information to inform those decisions.

Vina has been an active participant in IBC since the framework's founding. This regional ISW effort is the natural next step.

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Vina Groundwater Sustainability Agency

Next Steps and Requested Action

Near Term

- GSA representatives continue meeting through summer 2026 to finalize the IBC Framework 5-Year Implementation Update
- Vina Board invited to review the framework update and ISW work plan later this summer
- Vina PE incorporates the framework update and IBC commitments (due January 2027)

Longer Term

- Regional ISW work plan (data collection, model refinement, and local policy guidance) developed 2027 to 2032
- ISW work expected to support Vina's compliance with its DWR Recommended Corrective Action
- Potential funding through Proposition 4 being explored

Requested Action: Receive this report and provide feedback on the NSRC IBC Framework 5-Year Implementation Update and the proposed regional Interconnected Surface Water approach.

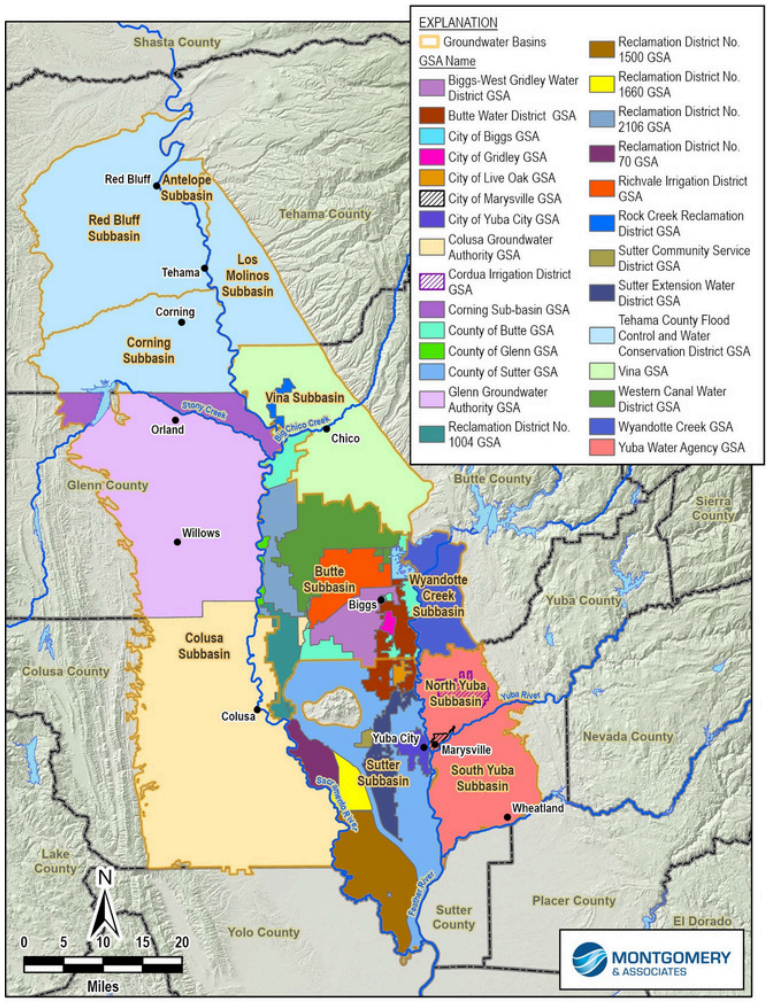
Northern Sacramento Valley | Sustainable Groundwater Management Act
Interbasin Coordination in the North Sacramento River Corridor

Antelope | Butte | Colusa | Corning | Los Molinos | Red Bluff | Vina

Ensuring Regionally Sustainable Groundwater Management

The California Sustainable Groundwater Management Act (SGMA) requires that Groundwater Sustainability Agencies (GSAs) develop and implement Groundwater Sustainability Plans (GSPs) to manage groundwater resources and conditions in each of the State's groundwater basins. One of the requirements for a GSP is that it does not adversely affect sustainable groundwater management in an adjoining groundwater basin or subbasin.

Sustainable Groundwater Management Act



Why Regional Coordination Matters

In the Northern Sacramento Valley, our groundwater subbasins are hydrologically connected – water management decisions and actions in one subbasin can affect neighboring subbasins.

The Department of Water Resources (DWR) reviews groundwater sustainability plans for:

- Relevant interbasin coordination efforts
- Alignment of thresholds and objectives
- Potential impacts to or from adjacent subbasins

Regional coordination also offers significant opportunities for:

- Joint learning and understanding
- Protecting shared water resources
- Reducing duplicative efforts
- Collaborative problem-solving

Through coordinated efforts, we can achieve long-term groundwater sustainability across the region while maintaining local control.

Who is Involved?

Collaborative efforts have been ongoing since the early phases of SGMA when 11 subbasins in the Northern Sacramento Valley (Antelope, Bowman, Butte, Colusa, Corning, Los Molinos, Red Bluff, Sutter, Vina, Wyandotte Creek, and Yolo) created an Interbasin Coordination Report outlining a framework for sustained coordination during GSP implementation.

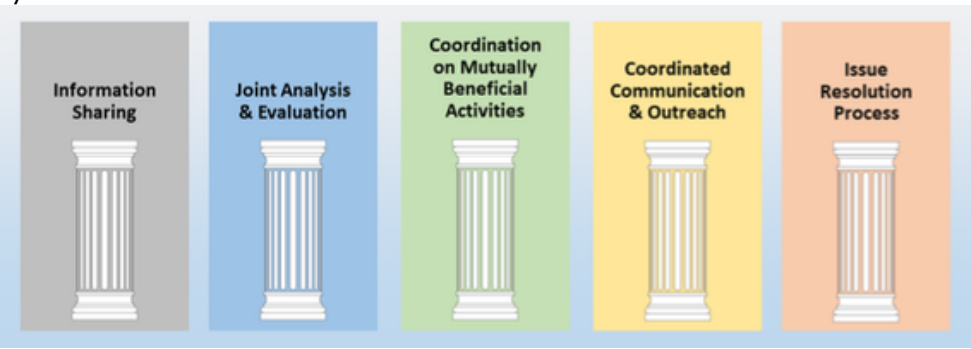
Seven of those subbasins make up the **North Sacramento River Corridor** (Antelope, Butte, Colusa, Corning, Los Molinos, Red Bluff, and Vina). The GSAs have delved into more focused conversations and analyses to outline a path forward for interbasin coordination across these seven subbasins.

www.buttecounty.net/2221/North-Sacramento-River-Corridor-Inter-Ba

Five Pillars of Coordination

The Interbasin Coordination Framework is based on a foundation of five "pillars" of collaboration – **Information sharing** ensures all subbasins stay informed about changing conditions and management approaches. Through **joint analysis and evaluation**, the GSAs developed a shared understanding of policies adopted across the region's GSPs; this analysis is complete and informing individual Periodic Evaluations. Under **coordination on mutually beneficial activities**, GSAs are pursuing joint projects and funding opportunities, with Interconnected Surface Water (ISW) management emerging as the region's current top coordination priority. **Coordinated communication and outreach** ensures consistent messaging to stakeholders and the public. Finally, an **issue resolution** process provides a pathway for addressing potential conflicts before they escalate.

5-Pillar Framework for Regional Coordination



Where We Are Now

With all GSPs approved by the State, implementation is underway. Through funding from DWR's SGM grant program, a technical analysis by Montgomery & Associates evaluated GSP contents across subbasins, identified boundary flow patterns, and analyzed differences in sustainability criteria between neighboring areas.

Building on this work, GSA representatives are now developing the **NSRC IBC Framework Five-Year Implementation Update**, which will guide regional coordination through the Periodic Evaluations due in 2027 and beyond. Key coordination priorities include understanding cross-boundary data gaps, regional modeling, interconnected surface water management, analyzing boundary flows, coordinating on state-required Recommended Corrective Actions, and exploring opportunities for joint projects.

What's Coming Next

GSA representatives will continue meeting through summer 2026 to finalize the NSRC IBC Framework Five-Year Implementation Update.

In January 2026, the GSAs held a public webinar to provide an overview of coordination activities and share progress on the Five Pillars. A public meeting is planned for June 2026 to present updates on the IBC effort and the ISW Technical Work Plan, and to hear from the community.

The implementation framework update guides coordination over the next five years through 2032, supporting each subbasin's path to sustainability while maintaining local control.

How to Get Involved

- **Receive Updates** – Sign up for your GSA's interested parties list.
- **Contact Your GSA** – Talk to your GSA representative
- **Attend Meetings** – Attend public meetings and GSA Board meetings

Subbasin *(with website links)*	GSA(s)
Antelope	Tehama County Flood Control and Water Conservation District (FCWCD)
Butte	Biggs-West Gridley WD, Butte County, Butte WD, City of Biggs, City of Gridley, Colusa Groundwater Authority, Glenn County, RD 1004, RD 2106, Richvale ID, Western Canal WD
Los Molinos	Tehama County FCWCD
Red Bluff	Tehama County FCWCD
Corning (Corning | Tehama)	Corning Sub-basin GSA, Tehama County FCWCD
Colusa (Glenn | Colusa)	Glenn Groundwater Authority; Colusa Groundwater Authority
Vina (Vina | RCRD)	Rock Creek Reclamation District, Vina GSA

North Sacramento River Corridor I Regional Interbasin Coordination

DRAFT Interbasin Coordination Framework 5-Year Implementation Update

This 5-year update advances coordinated regional implementation of the Northern Sacramento Valley Interbasin Coordination Framework's Five Pillars through the Periodic Evaluation/Plan Amendment process and over the subsequent 5 years between 2026–2032. The update focuses on topics relating to regionally-scaled coordination among subbasins in the North Sacramento River Corridor, including Red Bluff (5-021.50), Antelope (5-021.54), Los Molinos (5-021.56), Corning (5-021.51), Vina (5-021.57), Colusa (5-021.52), and Butte (5-021.70), and identifies each GSA's commitments to implement the Framework over that period. Interbasin coordination on specific boundary topics is ongoing and will occur on a neighbor-to-neighbor basis.

This project builds on work completed from 2020-2022 to develop the Northern Sacramento Valley Inter-Basin Coordination Report which established an Interbasin Coordination Framework for SGMA implementation. Additional background information on North Sacramento Valley regional interbasin coordination can be found at the following website: https://www.buttecounty.net/1234/Inter-Basin-Coordination

Interbasin Coordination Five Pillars	Scope of Activities	Implementation	Deliverables
Pillar 1. Information-sharing a. Inform each other on changing conditions (i.e., surface water cutbacks, land use changes, policy changes that inform groundwater management) b. Share annual reports and interim progress reports c. Share data and technical information and work towards building shared data across and/or along basin boundaries (e.g., monitoring data, water budgets, modeling inputs and outputs, and Groundwater Dependent Ecosystems)	• Convene at least one regional meeting annually with GSA Coordination representatives (and more often, as warranted) • Ongoing informal outreach to neighbors • Continue to use other existing collaborative venues to report out progress and coordinate, as needed (e.g., Northern Sacramento Valley IRWM, NCWA Groundwater Task Force, etc.)	**Timeline** • Near-term (Periodic Evaluation, January 2027) • At least annually through next Periodic Evaluation term (2027-2032) **Responsible Parties** • Consensus Building Institute (CBI) (facilitation through 2026) • GSAs **Funding Source(s)** • Facilitation Support Services (through 2026) • In kind GSA representative time	• Agendas and associated materials for formal meetings posted to regional interbasin coordination website • 2025 GSP Annual Reports: 5-021.57 Vina 5-02.70 Butte 5-021.50 Red Bluff 5-021.54 Antelope 5-021.56 Los Molinos 5-021.51 Corning 5-021.52 Colusa
Pillar 2. Joint analysis & evaluation a. Evaluate and compare contents of GSPs with a focus on establishing	Inter-basin Coordination Analysis and Modeling Project	**Timeline** • Completed in 2025	North Sacramento River Corridor Results • Webinar Recording

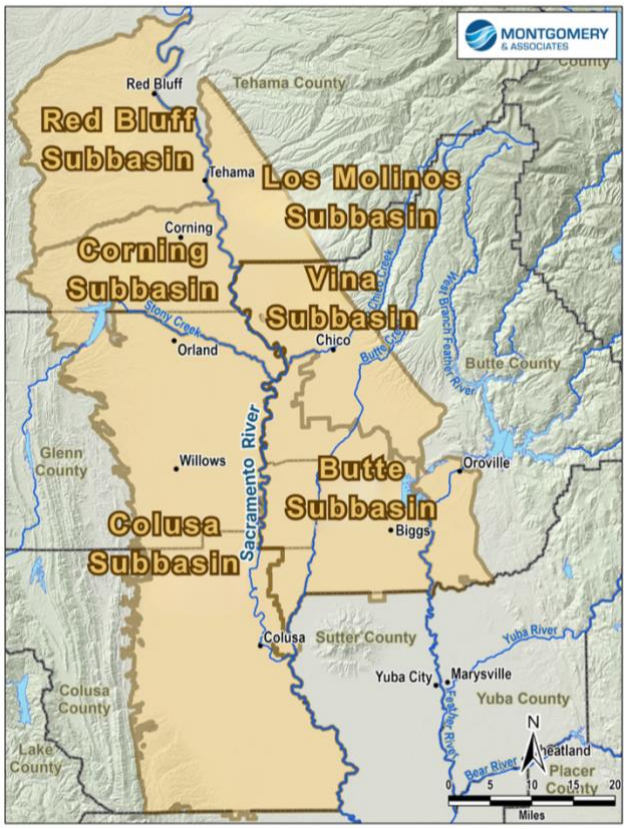
Interbasin Coordination Five Pillars	Scope of Activities	Implementation	Deliverables
a common understanding of basin conditions at boundaries b. Identify significant differences, uncertainties, and potential issues of concern related to groundwater interaction at the boundaries c. Engage in analysis and evaluation of SMCs between GSPs to assess impacts and identify significant differences and possible impacts between subbasins that could potentially lead to undesirable results	• Evaluated and compared contents of GSPs in the North Sacramento River region with a focus on establishing a common understanding of basin conditions at boundaries. • Identified significant differences, uncertainties, and potential issues of concern related to groundwater interaction at the boundaries. • Analyzed SMCs between GSPs to identify significant differences and possible impacts between Subbasins that could potentially lead to undesirable results. • Updated Butte Basin Groundwater Model and use the revised model to compute subbasin flows and stream-aquifer interaction flows at subbasin boundaries.	**Responsible Parties** • Butte County contracted with Montgomery & Associates, technical consultant **Funding Source(s)** • DWR SGMA Implementation Funding (awarded to Vina and Wyandotte Creek Subbasins)	• Presentation Slides • Technical Memo Interbasin Flow Evaluation with Regional Model • Webinar Recording • Presentation Slides • Technical Memo
Pillar 3. Coordination on mutually beneficial activities a. Communicate, coordinate, and collaborate on mutually beneficial activities, which could include joint monitoring, joint reporting, regional modeling, and other efforts to address data gaps at subbasin boundaries b. Collectively pursue funding and collaborate on mutually agreed upon projects and management actions that provide benefits across boundaries c. Leverage existing collaboratives	Priority Activity (2026-2032): • Interconnected surface waters (ISW): develop and seek funding for a regional approach to interconnected surface waters that considers coordinated monitoring and modeling to consistently respond to Recommended Corrective Actions that each subbasin received. https://data.ca.gov/dataset/sgma-depletions-of-interconnected-surface-water/resource/38c8ab75-f8b3-4c00-aabb-38db84cccc94 Areas of Interest for Ongoing Exploration: • Boundary flow analysis and modeling: model-based boundary flow analysis to better understand, quantify, and predict how water flows across basin boundaries and if the actions of one subbasin are affecting flow in another. Preparing for the analysis will include a discussion of the use of existing models and the possible coordination on shared modeling tools, when possible. • Monitoring: Discuss monitoring networks with a focus on shared boundaries, identification of data gaps in groundwater level, water quality, and subsidence data. • Joint project implementation: Leverage resources and pursue funding opportunities to implement projects that could offer regional solutions, noting the potential to consider mutually beneficial projects, such as recharge, among others.	**Timeline** • Document progress in the 2027 Periodic Evaluations (PE) related to ISW • Long-term (through the next Periodic Evaluation in 2032) **Responsible Parties** • Northern California Water Association (NCWA) contracting with MBK Engineers, technical consultant, GSA consultants working on PEs • Coordination with the Department of Water Resources regarding regional modeling tools **Funding Source(s)** • Northern California Water Association (NCWA)	• Northern Sacramento Valley ISW Work Plan Factsheet • Additional work products TBD overtime within areas of interest for ongoing exploration

Interbasin Coordination Five Pillars	Scope of Activities	Implementation	Deliverables
		• GSAs through technical consultants (SGM implementation funding) • Possible future grant funding through Proposition 4	
Pillar 4. Coordinated communication and outreach a. Coordinate and collaborate on regional-scale public engagement and communication strategies that promote awareness on groundwater sustainability, enhance public trust, and maintain institutional knowledge b. Maintain list of GSA/subbasin staff contacts and websites	• Create a list of GSA/subbasin staff contacts and websites • Develop informational materials that could be distributed across the region within each of the subbasins' using existing communication mechanisms and venues; update materials periodically to reflect ongoing implementation activities. • Continue to utilize the regional interbasin coordination webpage hosted by Butte County to post information and work products related to regional interbasin coordination activities. • Utilize existing regional venues to coordinate communications and outreach, including: 1) NCWA Groundwater Task Force; 2) NSV IRWM, and others, as warranted. • Periodically host public workshops coordinated through Pillar 1 GSA meetings.	**Timeline** • Near Term (By 2027) • Long-term (through the next Periodic Evaluation in 2032) **Responsible Parties** • CBI (through 2026) • GSA representatives **Funding Source(s)** • Facilitation Support Services (through 2026) • In-kind website administration (Butte County) • In-kind staff time and venue use	• GSA Directory with points of contacts for each subbasin • General Factsheet • Public webinar recording and slide deck (January 28, 2026)
Pillar 5. Issue-resolution process a. Establish and follow an agreed-upon process for identifying and resolving conflicts between GSAs	• GSAs confirmed the approach described in the Sacramento Valley Inter-Basin Coordination Report (See Appendix D on pages 37-38) • GSAs will continue to implement this framework and can activate an issue resolution process on an as-needed basis. • GSAs will use consistent language in the subbasins respective Periodic Evaluations describing regional Interbasin Coordination in the North Sacramento River Corridor.	**Timeline** • Ongoing **Responsible Parties** • CBI (through 2026) • GSA Coordination Group meetings (see Pillar 1) **Funding Source(s)** • Facilitation Support Services (through 2026) • In-kind staff time	

Working Together on Interconnected Surface Waters

A State Requirement and a Regional Opportunity

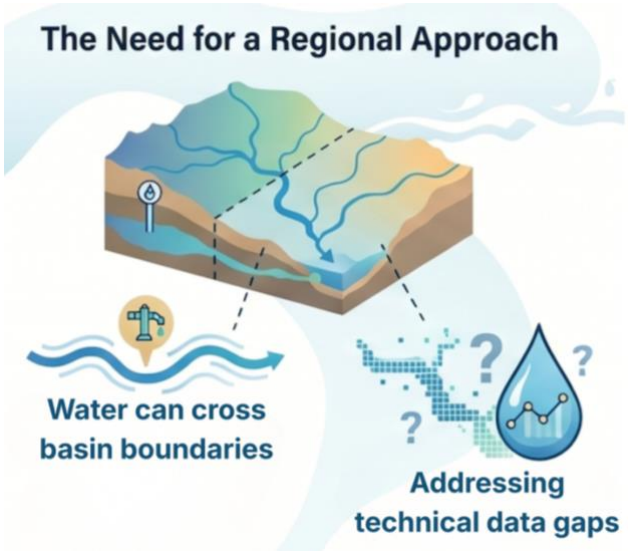
California's Sustainable Groundwater Management Act (SGMA) requires local agencies to understand how groundwater pumping affects nearby rivers and streams – a relationship known as Interconnected Surface Waters, or ISW. In its first review of local Groundwater Sustainability Plans, the Department of Water Resources issued every subbasin in the North Sacramento River Corridor a Recommended Corrective Action for ISW -- one of the six SGMA sustainability indicators each subbasin must manage. Addressing this requirement is essential for maintaining SGMA compliance and keeping groundwater management under local control.



Why a Regional Approach?

In this valley, hydrological connectivity is the rule, not the exception. The Sacramento River runs through the corridor and forms subbasin boundaries, while tributaries like Butte Creek cross multiple subbasins.

Groundwater and surface water interact throughout the region, and the effects of pumping on streamflow do not stop at subbasin lines. Understanding those effects (and demonstrating that management in one subbasin does not adversely affect neighboring subbasins, as SGMA requires), demands a regional approach.



Regional Tools for a Robust Understanding

A shared regional groundwater-surface water model is the most effective path forward, but getting there requires work. Existing local models have limitations for regional ISW analysis, and existing regional tools need refinement. Targeted data collection is needed to fill gaps and build confidence in model results. If each subbasin pursued this independently, the cost would be higher and the methods would likely be incompatible – making cross-boundary analysis harder, not easier. Coordinating with DWR reduces costs to individual subbasins and produces tools that are commonly accessible across the region.

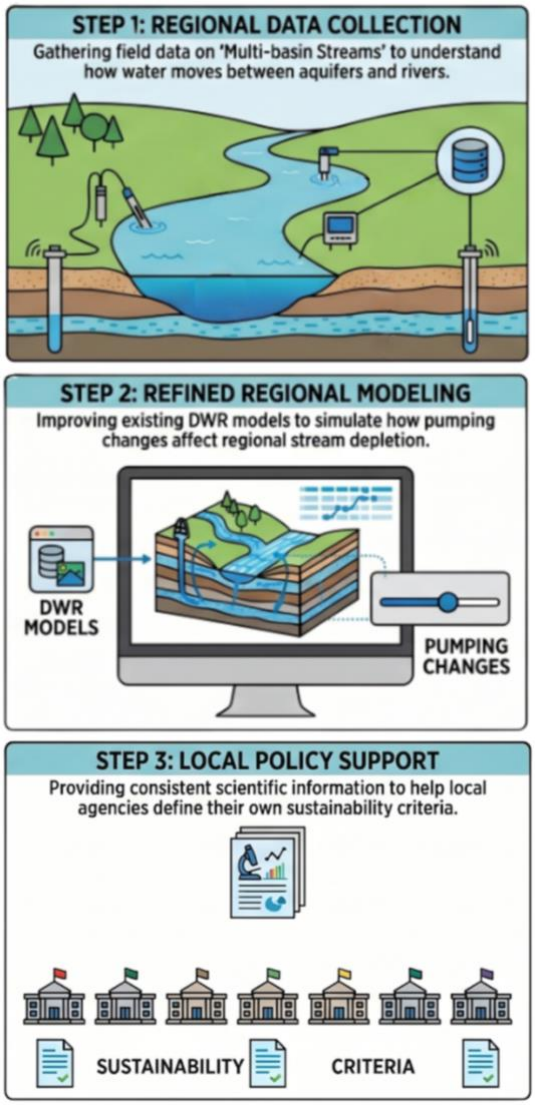
Value in Working Together

Better information	Lower cost	Local authority stays local
A shared regional model gives each subbasin more reliable, consistent data for ISW evaluations, boundary flow analyses, and cross-boundary impact assessments.	Collaborative data collection and modeling costs far less than seven subbasins duplicating the same work independently.	This joint effort does not take away any GSA's local authority. It provides shared information to inform each GSA's decisions – every agency sets its own sustainability criteria.

What Is Being Proposed?

The local water managers are exploring a joint technical work plan to collect data, refine regional models, and develop consistent information each agency can use to meet its state-required obligations. The effort is built around three interrelated steps:

1) **Regional Data Collection**: Field teams will collect measurements along the Sacramento River, Feather River, Butte Creek, and other shared streams to improve understanding of how water moves between rivers and underground aquifers across the region.
2) **Refined Regional Modeling**: Using that data, technical teams will work with DWR to improve an existing regional model so they can better simulate how groundwater pumping affects streamflow across subbasin boundaries.
3) **Local Policy Support**: Drawing on the modeling results, a regional guidance document will provide each agency with options and examples to define its own sustainability standards – while each agency retains full authority over its own decisions.



Where Things Stand

An ISW work plan describing these three steps in greater detail is in draft form and under review by local water managers. It has not been formally adopted, and funding has not yet been secured.

Getting Involved. Local GSA boards will decide whether to move forward with this approach. If they do, this work is expected to support each subbasin's compliance obligations in 2027 and beyond. Your voice matters in that process.

This effort advances Pillar 3 of the Northern Sacramento Valley Interbasin Coordination Framework – Coordination on Mutually Beneficial Activities – the regional structure that guides collaboration among the seven NSRC subbasins since 2022. Visit the website to learn more.

https://www.buttecounty.net/2221/North-Sacramento-River-Corridor-Inter-Ba

Vina Groundwater Sustainability Agency
Agenda Transmittal

Subject: Introduction to the Groundwater Level Strawman Proposal and consideration of the proposed 2027 Representative Monitoring Site (RMS) Network

Contact: Christina Buck	**Phone:** (530) 552-3593	**Meeting Date:** July 8, 2026	**Agenda Item: 4.3**

Staff will present an overview of the Groundwater Level Sustainability Indicator strawman proposal (an initial draft created to jump-start discussion serving as a starting point for collaborate refinement), which was released June 18, 2026. The presentation will also include relevant context including recent and historical groundwater level conditions, evaluation of the groundwater monitoring network, and topics such as Groundwater Dependent Ecosystems in the Vina Subbasin. The Boards are asked to discuss and provide feedback on the monitoring network aspects of the strawman proposal. More in-depth discussion and decisions on Minimum Thresholds and Sustainable Management Criteria will occur in August. ***(Christina Buck, Asst. Director Butte County Water and Resource Conservation)***

On June 24, 2026, the Vina Stakeholder Advisory Committee (SHAC) was provided with the same information (see attached memo and slides) and asked to provide feedback on the proposed 2027 RMS network described in the Groundwater Level Strawman Proposal. Although it was not an action item with a formal recommendation, there was a consensus from all SHAC members expressing support for increasing the number of wells designated as RMS wells, as described in the strawman proposal. Through discussion, the following additional comments were made by SHAC members:

- Expanding the RMS network will help provide more accurate estimates for change in storage of groundwater
- The wells assigned Local Management Levels (LML) rely on the results of the recently completed Groundwater Dependent Ecosystem Analysis. Multiple members of the SHAC expressed concerns with the findings and assumptions of the analysis.
- Dislike for the LML because they do not have any real “teeth,” such as demand reduction consequences
- Support for the LML as a starting point, but would like to see it applied to more RMS wells and not just the five identified in the strawman proposal. A few SHAC members agreed with the idea of expanding the number of wells assigned an LML.
- Consider using LML in sensitive areas whether for consideration of large number of domestic wells, GDEs, or inter-basin boundary differences
- A question was posed concerning the cost implications of raising the current Minimum Thresholds

Staff confirmed that further discussion of the LMLs and potential changes to Minimum Thresholds will be an item for SHAC discussion and potential recommendation at their next meeting on July 22, 2026.

Potential Action: Approve proposed changes to the Groundwater Level RMS network, or provide direction to staff

Attachments:
1. Staff Memo with attached Groundwater Level Sustainability Indicator Strawman Proposal
2. Presentation Slides

Vina Groundwater Sustainability Agency
308 Nelson Avenue, Oroville, CA 95965
(530) 552-3592 · VinaGSA@gmail.com

MEMORANDUM

To: All Stakeholders

From: Christina Buck, Assistant Director, Butte County Department of Water and Resource Conservation [providing technical staff support to the Vina GSA]

Date: June 18, 2026

Subject: Consideration of a Strawman Proposal: Approach to Addressing the Groundwater Level Sustainability Indicator in the Periodic Evaluation in Response to DWR Recommended Corrective Actions

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Background

The Vina Groundwater Sustainability Plan (GSP) was adopted in December 2021 by the Vina Groundwater Sustainability Agency (GSA) and Rock Creek Reclamation District GSA and subsequently reviewed and approved by the California Department of Water Resources (DWR) in July 2023. DWR approved the GSP and found that the plan substantially complied with SGMA and the GSP Regulations, while also identifying Recommended Corrective Actions (RCAs) to be considered by the GSAs for the first Periodic Evaluation or addressed through amendments to the GSP. The first Periodic Evaluation is due in January 2027.

This memo and the attached strawman proposal are provided to support stakeholder discussion regarding how the GSAs could address 1) DWR's RCAs related to chronic lowering of groundwater levels, and 2) incorporate new information developed to address data gaps as described in the 2022 GSP. A "strawman" proposal is an initial draft created to jump-start discussion and identify potential weaknesses or areas for improvement, serving as a starting point for collaborative refinement. Staff is using this approach with the different topics of the RCAs and it is intended to provide a reasonable starting point with supporting information to give the Boards and stakeholders enough information and detail to be able to weigh various options and provide recommended direction. Viewpoints in the subbasin regarding the groundwater level sustainability indicator vary widely from strongly held opinions that the 2022 GSP minimum thresholds (MTs) are too low and would result in unacceptable impacts to domestic well users and the environment (such as deeply rooted Valley Oaks) while other equally strongly held opinions recognize the MTs as an element of an adopted and approved GSP with no DWR requirement for change. Given these widespread perspectives, the

strawman proposal provides details around the potential development of a middle of the road option between no change and a comprehensive MT revision.

There are essentially two key choices for the GSA Boards to consider:

1. **Whether or not to revise the RMS monitoring network.** This directly influences the assessment of impacts on beneficial users, as requested in the RCA. Consideration of revising the monitoring network is driven by 1) Replacement of at least two RMS wells in the Vina South Management Area (due to frequent questionable measurements and/or location outside of the subbasin) and, 2) Improved representativeness of the network based on new information available since the adoption of the 2022 GSP.
2. **Whether or not to make changes to the SMC (MT etc.).** This goes beyond the scope of the RCA, but the GSA may want to consider some changes in light of the new data and information available and due to some stakeholder expressed concerns regarding impacts to domestic wells and groundwater dependent ecosystems. In addition, there are inter-subbasin differences in MT levels between Vina and neighboring subbasins near subbasin boundaries.

Purpose of this Memo

The purpose of this memo is to solicit input on a strawman proposal for addressing groundwater level RCAs in the 2027 Periodic Evaluation and any possible associated GSP amendments. Board direction from the Joint GSA Board meeting on December 10, 2025, requested staff to bring back more information regarding potential changes to the Groundwater Level network. The strawman proposal makes strategic updates to the groundwater level Representative Monitoring Site (RMS) network, assigns Sustainable Management Criteria (SMC) (including MTs and Measurable Objectives) to any new RMS wells by utilizing the 2022 GSP methodology, documents the resulting potential impacts to beneficial uses and users, and introduces a local management level approach for consideration of groundwater dependent ecosystem (GDE)-areas.

The proposed approach is intended to acknowledge the 2022 GSP as an adopted and DWR-approved plan, while also acknowledging required 5-Year Periodic Evaluations and DWR's continuing oversight role and possible needs for adaptive management. The RCAs provide an opportunity to use new information developed since GSP adoption to improve documentation, refine the monitoring network, and clarify how groundwater level SMC relate to domestic wells, environmental users, and public water systems.

Why are we reconsidering aspects of the Groundwater Level Sustainability Indicator?

The 2022 GSP was adopted after a significant public process and was approved by DWR. DWR's approval also included RCAs providing direction to provide sufficient information regarding the "potential impacts to various beneficial uses and users of groundwater related to the chronic lowering of groundwater level minimum thresholds". Since GSP adoption, the GSAs have developed new information (funded by the SGM Grant program) to help better

understand beneficial users in the subbasin, including an updated domestic well inventory, additional analysis of existing monitoring wells, and technical work related to groundwater dependent ecosystems. This information is being developed in response to DWR's request for further documentation and to address data gaps described in the 2022 GSP, and to document that currently the subbasin is avoiding undesirable results. The Periodic Evaluation is the time to assess whether new information and responsiveness to DWR's RCAs warrant any changes to the groundwater level monitoring network or SMC or whether documentation of these topics is sufficient.

Why consider a change to the Groundwater Level RMS network?
Representative Monitoring Site (RMS) wells are the specific wells used to measure groundwater levels against the GSP's Sustainable Management Criteria, including MTs, Measurable Objectives (MOs), and Interim Milestones (IMs) for the Groundwater Level Sustainability Indicator. In plain terms, these are the wells used to answer the question: **Are groundwater levels staying within the range the GSP says is acceptable and reflective of sustainable groundwater management?** Because RMS wells determine regulatory and compliance significance, they need to be reliable, representative, and useful for evaluating conditions that matter to beneficial users. Since adoption of the GSP, three of the RMS wells have been identified as regularly having questionable measurements or missing data (23N01W10E001M, 20N02E09L001M, 21N01E21C001M) and one of the wells is located just outside of the southern subbasin boundary (20N01E10C002M). Removing these wells from the GWL RMS network would lead to the need to supplement the network with additional wells to fill the gaps. Butte County staff, providing technical support to the GSA, conducted a monitoring network evaluation to identify additional existing wells that may provide improved spatial coverage and better alignment with domestic well depths.

It is not the intent to update the RMS network simply to make the network larger. Rather, the purpose is to make the network more representative and more reflective of conditions in relation to beneficial users. Expanding the network is also responsive to stakeholder feedback received in Fall 2025, where all groups expressed interest in transparency around RMS selection; domestic well and environmental stakeholders emphasized protectiveness, while agricultural stakeholders emphasized data-driven decision-making and flexibility. See Attachment B for more detailed summary of stakeholder feedback regarding the groundwater level sustainability indicator.

Relevant Context

Groundwater levels are a central SGMA sustainability indicator and are also used to understand several other sustainability indicators, including reduction of groundwater storage and linkages of land subsidence to groundwater level change. The 2022 GSP focused Groundwater Level SMC on protecting domestic well reliability and managing long-term groundwater level declines through implementation of projects and management actions. While DWR approved the GSP, as previously referenced, they also identified groundwater level issues that should be addressed and evaluated in the first Periodic Evaluation.

Current 2022 GSP Approach

The 2022 GSP identified 17 groundwater level RMS wells across the Vina North, Vina Chico, and Vina South Management Areas. These RMS wells have been assigned Groundwater Level sustainability indicator MTs, MOs, and IMs. The 2022 GSP approach used domestic well reliability as a key basis for Groundwater Level MTs and generally set MTs by using a graphing method setting MTs in relation to domestic well depths within a representative area (RMS polygon).

Since adoption of the GSP, additional review has identified several RMS wells that may warrant removal or replacement due to questionable measurements, missing data, or boundary location. At the same time, Butte County has a robust broad network of groundwater level monitoring wells within the Vina Subbasin that can be evaluated for possible inclusion of wells with historical data as additional or replacement RMS wells.

DWR Recommended Corrective Action Related to Groundwater Levels

DWR approved the Vina Subbasin GSP in July 2023 and identified RCAs to be considered as part of the first Periodic Evaluation.

Provided below is Recommended Corrective Action 3, as stated in the Determination Letter:

Provide sufficient information regarding criteria used to identify significant and unreasonable conditions, undesirable results, and the potential impacts to various beneficial uses and users of groundwater related to the chronic lowering of groundwater level minimum thresholds. The GSAs should address the following items:

a. *Revise the definition of undesirable results and language pertaining to significant and unreasonable lowering of groundwater level to remove the non-dry year condition or discuss how extractions and recharge will be managed as necessary to ensure that reductions in groundwater levels or storage during dry years are offset by increases in groundwater levels or storage during other years within the sustainable management criteria for the chronic lowering of groundwater levels.*
b. *Provide information on impacts to domestic wells during projected conditions where minimum thresholds are exceeded but undesirable results do not occur and also quantify domestic wells that will be impacted by the proposed minimum threshold. Furthermore, the GSAs should evaluate the impacts of proposed minimum thresholds on other beneficial uses and users, such as public and small water systems and environmental users and users.*
c. *Evaluate how the proposed minimum thresholds for the chronic lowering of groundwater levels may impact other sustainability indicators (e.g., groundwater storage, depletion of interconnected surface water, etc.).*

New Information Available Since the 2022 GSP

Since adoption of the 2022 GSP, the GSAs, Butte County staff, and consultant teams have developed new information directly relevant to groundwater levels and beneficial uses and users within the scope of the Data Gap Identification and Data Improvement Project funded through the SGM Grant program awarded to the Vina GSA in 2024. New relevant information includes

the following technical memos and reports (available at https://www.vinagsa.org/periodic-evaluation-supporting-documents):

- **Groundwater level monitoring network evaluation**. Butte County staff, providing technical support to the GSA, evaluated the existing monitoring network based on access reliability, measurement history and data quality, well construction, alignment with local domestic well depths, domestic well density, and geographic distribution. This evaluation identified wells that appear suitable for RMS designation, wells that could be considered, and wells that should not be used as RMS.
  - Periodic Evaluation Supporting Documents – Butte County Evaluation
- **Domestic well survey and risk assessment**. Larry Walker Associates (LWA) refined the domestic well inventory used during development of the 2022 GSP using the Online System for Well Completion Reports (OSWCR) and manual review of location information. Using this information, LWA then estimated domestic wells at risk at existing MTs.
  - Periodic Evaluation Supporting Documents – Domestic Well Survey & Risk Assessment
- **GDE technical study**. Environmental Science Associates (ESA), a subconsultant on the LWA team, conducted a technical study to refine the GSP's evaluation and understanding of likely groundwater dependent ecosystems (GDEs) within the Subbasin using depth-to-groundwater and rooting depth thresholds.
  - Periodic Evaluation Supporting Documents – GDE Technical Study
- **Shallow groundwater network evaluation**. Several efforts have developed and utilized shallow groundwater data, stream gages, AEM information, model results, and other lines of evidence related to understanding regional shallow groundwater conditions relevant to GDEs and interconnected surface water.
  - Periodic Evaluation Supporting Documents – Monitoring Network Assessment using AEM Data
  - Periodic Evaluation Supporting Documents – LWA TM Groundwater Monitoring Network Enhancements
- **Inter-basin coordination and neighboring subbasin comparisons**. Regional coordination and the Joint GSP Evaluation Tech Memo provide context for how neighboring subbasins have approached monitoring networks, SMC, and MTs.
  - Periodic Evaluation Supporting Documents – Joint Groundwater Sustainability Plan Evaluation (Sacramento River Corridor)
  - North Sacramento River Corridor Inter-Basin Coordination | Butte County, CA

Local Management Level (LML)

As a middle-of-the-road option between maintaining the existing MT framework without change and undertaking a comprehensive revision to MTs, staff is introducing the concept of Local Management Levels (LMLs) for discussion. The concept is informed, in part, by the approach used in the Yuba Subbasins' Groundwater Sustainability Plan (GSP), but the description below is provided as an example of how this other basin has defined and used LMLs, not as a direct proposed methodology for the Vina Subbasin (for application to Vina, see the strawman in Attachment A).

In the Yuba Subbasins GSP, Local Management Levels are locally defined, non-regulatory management triggers that are separate from, and generally set above, the Sustainable

Groundwater Management Act (SGMA) MT. Yuba characterized LMLs as the lowest groundwater levels that are locally preferred for management purposes, while recognizing that groundwater levels below an LML may not necessarily constitute significant and unreasonable conditions under SGMA. In other words, the LML does not define an undesirable result; instead, it serves as an earlier warning point intended to prompt evaluation and adaptive management before groundwater levels decline to the regulatory MT.

Yuba's LML approach appears to have been motivated primarily by local groundwater management considerations, including the desire to provide an early management trigger in a conjunctively managed basin and to account for shallow domestic well vulnerability. If groundwater levels approach or fall below an LML, the Yuba GSP does not require a fixed automatic response. Instead, it establishes a response framework in which the condition is flagged, the cause is investigated, the advisory committee is consulted, and the GSAs determine appropriate follow-up actions. These actions may include increased monitoring, coordination with local agencies or water managers, additional study, alternate water supplies, recharge, or localized management changes.

For the Vina Subbasin strawman, staff is introducing the LML concept as a possible way to more clearly define adaptive management under different observed groundwater level conditions, particularly in areas where stakeholders have raised concerns regarding groundwater dependent ecosystems (GDEs). Under this concept, LMLs could provide a local warning trigger without requiring a comprehensive revision to the MTs. For example, in GDE-sensitive areas, an LML could be set at a defined level below the MO, such as 10-20 feet below the MO, recognizing that the MO represents the groundwater level condition the GSAs are seeking to maintain over time. Reaching the LML in these areas would not define an undesirable result, but it would trigger investigation, monitoring, evaluation, and consideration of appropriate adaptive management actions already in the GSP and as directed by the GSA Boards. It should be noted this would be added as a precautionary adaptive management step, not in response to an observed problem in the subbasin. Current groundwater conditions are above historical lows throughout the subbasin and groundwater level trends in several very shallow wells with historical data show relatively stable conditions over the past 15 or more years.

Matrix of Options and Considerations – Groundwater Level Sustainability Indicator

The GSAs may consider a range of potential approaches for addressing Groundwater Level Recommended Corrective Actions (RCAs) in the Periodic Evaluation. The strawman proposal is a middle of the road option, one of a potential range of options that fall between a "limited change approach" that leaves the monitoring network and Sustainable Management Criteria (SMC) unchanged and a "comprehensive change approach" that broadly revises MTs. The table below is intended to frame the policy and technical tradeoffs for discussion and incorporates both key policy decisions: **1. Whether or not to revise the RMS monitoring network, and 2. Whether or not to make changes to the SMC (MT etc.).**

Table 1. Matrix of Options and Considerations

Approach Option	What it would do	Advantages	Key Considerations
No Monitoring Network or SMC Change ("Option 3" on December 10, 2025 Board agenda).	Retain the 2022 GSP groundwater level RMS network and SMC with limited narrative updates; document new information and continue monitoring. Quantify/describe impacts to domestic wells, and other beneficial uses/users including small water systems. Explain how the current network is limited in representing groundwater conditions relative to GDEs (includes only two shallow wells).	Maintains the 2022 GSP approach and avoids reopening technical and policy decisions. Lowest near-term effort.	May not adequately address DWR RCA 3. Does not resolve Butte County staff analysis that some 2022 GSP RMS wells have data quality concerns (specifically, wells with numerous questionable measurements), are located outside of the subbasin, or have limitations in how accurately the well represents conditions in the polygon. This Option may be viewed as insufficient by DWR. Does not take into consideration stakeholders' input and concerns about potential impacts to domestic wells and GDEs.
Targeted Refinement Approach (Strawman Proposal, see Attachment A)	Make strategic RMS network updates; assign MTs and MOs to new RMS wells using the 2022 GSP comparable methodology; quantify domestic well impacts by proposed RMS polygon; adjust impact analysis by explicitly adjusting for ground surface elevation changes across a polygon; and establish a 'Local Management Level' in GDE-sensitive areas to trigger additional evaluation and adaptive management.	Establishes more representative wells and polygons. Addresses key components of DWR RCA 3 while maintaining continuity with the adopted GSP. Provides a concrete response to GDE concerns without revisiting basin-wide MTs. Creates an early-warning management tool tied to the MO. LML could be defined and clarified to remove the threat of it being a new regulatory hook.	Approach does take into consideration some stakeholders' concerns regarding potential impacts to domestic wells and GDEs by identifying triggers for further evaluation, although some stakeholders may maintain that this option doesn't go far enough in protecting domestic wells and GDEs. Other stakeholders may be concerned that LMLs could become de facto regulatory thresholds. Could be documented in Periodic Evaluation or the GSP could be amended to reflect changes.

Approach Option	What it would do	Advantages	Key Considerations
Expand the RMS network and change the methodology of setting MTs utilizing approach of neighboring subbasins, which effectively raises MTs ("Option 2" previously discussed conceptually during the Fall 2025 stakeholder meetings)	Make strategic RMS network updates; Revise groundwater level MTs to historical low groundwater elevations minus a 20- to 25-foot buffer, while also updating the RMS network to address concerns regarding potential impacts to domestic wells and potentially GDEs. This is conceptually similar to approaches adopted in neighboring subbasin GSPs (ex. Corning, Colusa, Butte subbasin).	Provides a more protective threshold than the 2022 GSP approach and may better address concerns from domestic well and environmental stakeholders. More reproducible MT method because it is tied to observed historical low conditions with a defined buffer. Helps address differences between adjacent subbasin MTs and alleviates concerns that management of one basin does not impact another.	GSP amendment would be needed. Would represent a significant policy shift from the 2022 GSP and requires amending the GSP. May require substantial technical updates of analyses, descriptions, hydrographs, and technical appendices in the GSP as well as other current potential amendments being considered. Substantially addresses the RCA, but it goes well beyond the requirements of the RCA by changing management approach of the subbasin. Would be opposed by stakeholders who believe the adopted GSP remains appropriate.

Requested Input and Next Steps

This memo and strawman proposal are provided to prompt discussion, stakeholder input, and Board consideration of the groundwater level approach for the Periodic Evaluation and any associated GSP amendments. The strawman proposal approach includes actions to show clear progress by updating the Groundwater Level RMS network, documenting beneficial user impacts, clarifying representativeness and data gaps, and adding a 'Local Management Level' concept for GDE-sensitive areas, while maintaining continuity with the core 2022 GSP groundwater level SMC approach.

Stakeholders may wish to consider the following questions as they review the strawman proposal:

- Should Local Management Levels (LML) be used in GDE-sensitive areas, and are 10-20 feet below the MO the appropriate starting point for those local management triggers?
- What additional information, maps, or tables would help stakeholders and the Boards evaluate the tradeoffs?

The Vina Stakeholder Advisory Committee and the Vina GSA and Rock Creek Reclamation District GSA Boards will consider this topic as part of the 2027 Periodic Evaluation process at upcoming meetings in June, July and August.

Comments and questions may be directed to cbuck@buttecounty.ca.gov.

Attachments

A. Groundwater Level Strawman Proposal
B. Stakeholder Feedback received during Fall 2025 Meetings

Groundwater Level Strawman Proposal for Discussion

The following strawman proposal is intended to frame and support discussion and solicit stakeholder input. A 'strawman' proposal is meant to kickstart discussion, identify weaknesses, and generate additional ideas and this is one proposed approach for the 2027 Periodic Evaluation and any associated GSP amendments. It is a starting point and is not written as final GSP or Periodic Evaluation language. The details of this strawman proposal can be explored using this linked dashboard:

Link: 2027 RMS Dashboard

A similar dashboard was originally created by the Agricultural Groundwater Users of Butte County (AGUBC). The Dashboard has been revised and adapted by the Larry Walker Associates team to reflect the strawman proposal described below. It is very useful for exploring the data and visualizing the network and graphs of groundwater level data.

Proposed Groundwater Level Strawman Approach Overview

The strawman proposal is intended to respond to the California Department of Water Resources (DWR) Recommended Corrective Action (RCA) 3 while maintaining continuity with the adopted and DWR-approved 2022 GSP and introducing additional consideration of groundwater dependent ecosystems. It has the following main components:

- Change the Groundwater Level RMS network from 17 wells to 29 wells (keeping 11, removing six, and adding 18) to make the network more representative of conditions relative to beneficial users (domestic wells, and shallow groundwater relevant to potential groundwater dependent ecosystems).
- Consistent with the 2022 GSP approach, assign representative areas to RMS wells using three management areas (North, Chico, South).
- Carry forward adopted 2022 GSP Minimum Threshold (MT), Measurable Objective (MO), and 2027 Interim Milestone (IM) values for RMS wells retained from the 2022 network.
- Assign MT, MO, and 2027 IM values to new RMS wells using a method developed to align the resulting values with the general range and intent of the SMC levels established in the 2022 GSP.
- Quantify domestic well sensitivity at the MT by polygon, management area, and Subbasin total, including results with and without a ground-surface-elevation adjustment.
- Introduce the concept of developing a Local Management Level (LML) of 10-20 feet below the existing MO in Groundwater Dependent Ecosystem (GDE) sensitive areas as local adaptive management trigger to create the option of developing early actions the GSAs may take if conditions reach the LML before an exceedance of the MT.

1. Proposed 2027 Groundwater Level RMS Network

The proposed 2027 Groundwater Level RMS network would change the Groundwater Level RMS network from 17 wells to 29 RMS well across representative polygons defined in the Vina

North and Vina South Management Areas. This would retain 11 wells from the 2022 network, remove six wells, and add 18. Consistent with the 2022 GSP approach, the proposed strawman would use a polygon approach within Vina Subbasin Management Areas. Under this method, the Vina North Management Area includes 13 RMS (and associated polygons), the Vina Chico Management Area is one integrated management area polygon with four California Water Service-Chico (Cal Water) wells serving as the RMS (consistent with the 2022 GSP), and the Vina South Management Area includes 12 RMS (and associated polygons).

The single polygon approach in the Vina Chico management area recognizes that Chico is served by a municipal water supplier, Cal Water, and can be represented as one area. This is consistent with the approach taken in the 2022 GSP.

Table 1 summarizes proposed 2027 RMS wells and representative polygons in each management area. Table 2 (at the end of the document) lists the specific RMS wells and their characteristics (well name, location, well depth, screening intervals).

Table 1. Summary of Proposed 2027 groundwater level RMS network

Management area / network	RMS polygons	RMS Well Count	Notes
North	13	13	Includes three RMS wells physically located in Chico but assigned to the North network; their representative polygons are clipped to the North.
Chico	1	4	Four Cal Water wells (same as in 2022 GSP), with removal of well 28J003 (due to age of well which shows evidence of actively caving in). Management area treated as a whole (no polygons)
South	12	12	Twelve RMS wells in the South Management Area for SMC evaluation.
Subbasin total	26	29	Method for strawman SMC and domestic-well impact tables.

2. Assign Comparable 2022 SMC for New RMS Wells

The SMC are assigned to the proposed 2027 RMS network using two approaches. First, for RMS wells retained from the 2022 GSP, the adopted 2022 GSP MT, MO, and 2027 IM values are carried forward unchanged. Second, for wells that are new to the RMS network, SMC are calculated using a method developed to maintain consistency with the adopted 2022 GSP SMC framework. This method was developed to assign MT, MO, and 2027 IM values that are generally comparable to the range, spacing, and groundwater-level relationships reflected in the adopted 2022 GSP SMC.

Under this comparability method, the average spring groundwater level (ASGWL) is calculated for each well as the mean of groundwater elevation measurements in February, March, and April, excluding questionable measurements, across the available DWR record. For each management area, the average offset between the ASGWL and the adopted 2022 GSP MT, MO, and 2027 IM values is calculated using retained 2022 RMS benchmark wells. These management-area offsets are then applied to each new 2027 RMS well based on its assigned representative area within the RMS network, such as the north or south area, rather than solely on the well's physical location. This approach is intended to provide internally consistent SMC

values for newly added RMS wells while maintaining continuity with the adopted 2022 GSP framework.

Table 3 lists the proposed MT, MO and IM for each RMS well based on the methodology described above.

3. Domestic Well Impact Evaluation

DWR RCA 3 asks the GSAs to "quantify domestic wells that will be impacted by the proposed minimum threshold…and evaluate impacts of proposed minimum thresholds on other beneficial uses and users, such as public and small water systems and environmental uses and users." The following updates will be made to the domestic well impact assessment using the proposed 2027 RMS network. Results are presented by RMS polygon, by Management Area, and as a Subbasin total.

The domestic well count is strictly presented as a sensitivity analysis at a hypothetical at-MT condition the basin has never reached and not as a forecast of future dry wells. Groundwater conditions are currently on average about 71 feet above MT levels (according to the 2025 Annual Report). The analysis estimates how many domestic wells would have well-bottom elevations above the applicable MT under the hypothetical at-MT condition if groundwater levels were at the MT level in each polygon. Given all other SMC criteria (established MOs and IMs), it should be noted that it is not the intent of the GSAs to manage groundwater levels to MT conditions. On the contrary, the GSAs will manage groundwater levels to the MOs, which are well above the MTs. It should also be noted that groundwater levels do not decline uniformly across the basin (as the analysis suggests), and thus most wells identified in the sensitivity analysis would not necessarily require mitigation.

Table 4 shows domestic well counts with and without a ground-surface-elevation adjustment. Without the adjustment, a domestic well is counted if its well-bottom elevation is above the applicable polygon Minimum Threshold (MT). With the adjustment, wells located at a higher ground surface elevation than the Representative Monitoring Site (RMS) well are evaluated using an adjusted MT that accounts for that elevation difference; wells located lower than the RMS well are not adjusted downward.

This approach helps account for higher-elevation areas, including the eastern edge and foothill-transition areas, where a lower-elevation RMS well may not fully represent local conditions. Table 4 summarizes results by RMS polygon, management area, and Subbasin total. Figure 1 shows the proposed 2027 RMS polygons, domestic well counts, and wells above the MT using the elevation-adjusted method.

4. Public Water Systems, Small Water Systems, and Other Beneficial Users

The DWR RCA also states that the PE should describe how groundwater level SMC relate to public water systems and small water systems. Where possible, small water systems will be identified, mapped and compared to MTs to assess impacts. This information will be included in the Periodic Evaluation.

5. Environmental Users and GDE-Sensitive Local Management Levels

The GDE Technical Study provides a new foundation for considering environmental users than was available during development of the 2022 GSP. The study identified likely GDEs under typical spring conditions, documented that likely GDEs are concentrated in the northwestern

portion of the Subbasin, and found that groundwater connectivity throughout the Subbasin varies significantly by season and drought condition. It is worth noting that some stakeholders have called into question several aspects of the study's conclusions, specifically expressing concern with the magnitude of reduction and spatial distribution of reclassified GDES that exclude GDE sites and species. Other stakeholder comments expressed concern that the study was overly inclusive and inflated potential impacts to GDEs.

All parties agree uncertainty remains in characterizing the dependency of deep-rooted vegetation (such as Valley Oaks) on regional groundwater. The varied stakeholder response to this uncertainty ranges from a precautionary approach to a "monitor, investigate and adapt" approach. In the Vina subbasin, the risk to vegetative health of groundwater level declines in identified shallow monitoring wells is not well understood or established. This is due to historically limited shallow groundwater data, but also the lack of baseline vegetation health data. Questions remain regarding how dependent unirrigated, deep-rooted trees in the Chico urban forest are on shallow groundwater; to the extent they are dependent on shallow groundwater, a key question relevant to the GSAs is to what extent does groundwater pumping driven changes in water levels in the principal aquifer have the potential to impact them verses more localized conditions such as shallow perched water or nearby recharge from creeks or local drainages and changes in water availability driven by drought. There is not sufficient information/data to tease apart causation of vegetation stress due to drought impacts that reduce precipitation derived available soil moisture (an undeniably important source of water for unirrigated vegetation) and declines in groundwater levels that also occur during dry years. Management of groundwater needs to consider these complicating factors, and fortunately in the Vina subbasin management is not responding to observed negative impacts to unirrigated/native vegetation, but is seeking to put appropriate monitoring in place so that if observed conditions change driven by future pumping and/or hydrologic conditions, these relationships are better understood and appropriate adaptive management activities can occur.

Therefore, in areas identified by the GDE Technical Study as likely GDE areas or areas where shallow groundwater conditions may be important to GDE health, the GSAs could establish a non-regulatory Local Management Level (LML). GDE-sensitive areas where additional local management attention may be warranted are identified particularly along the Sacramento River corridor and in the City of Chico area where appropriate. The LML concept would remain a non-regulatory management overlay rather than a MT or undesirable result criterion. The LML would be set at 10-20 feet below the applicable MO for the relevant RMS well. This is intended to formalize the concept that the Subbasin is intended to be managed toward MOs, not allowed to decline to MTs before management action occurs. The MTs for the five selected RMS wells range from 61 feet to 67 feet below the MOs (9E001, 27L001, 36P001, 20K001, and 32E001).

Five 2027 RMS sites identified as representing regional shallow groundwater conditions and that are located in GDE-sensitive areas are identified on Figure 2. These are the RMS wells that would have identified LMLs since they are appropriate for comparing groundwater conditions to groundwater dependent ecosystem characteristics. It is important to note that other groundwater level RMS wells do not necessarily represent shallow groundwater conditions supporting GDEs and therefore comparing their MTs or observed groundwater levels to rooting depths of GDEs is not applicable.

If groundwater levels reach or fall below an LML in a GDE-sensitive area, the GSAs would investigate/evaluate local conditions. Potential actions may include:

- Conducting additional GDE field monitoring, including evaluation of vegetation condition, canopy health, species composition, regeneration, invasive species, and other indicators of ecological condition;

- Evaluating shallow groundwater conditions and available NDVI or other remote-sensing information to determine whether observed changes appear related to groundwater levels, surface water conditions, applied water, land use change, drought, pests, invasive species, or other factors;
- Increasing the frequency of shallow groundwater monitoring in the area, where appropriate;
- More actively pursuing recharge projects in the area to support shallow groundwater conditions, where feasible and consistent with water availability, landowner participation, permitting, and funding;
- Evaluating temporary irrigation or other support for high-priority GDEs during drought, where legally, practically, and financially feasible;
- Coordinating with resource agencies, neighboring subbasins, the City of Chico, landowners, and other affected parties where GDEs, urban canopy, or surface water systems extend beyond a single GSA management decision.

  Figure 2 shows likely GDEs from the GDE Technical Study, RMS wells that are also identified as wells representing shallow groundwater conditions, and proposed LML locations at five RMS wells.

6. Adaptive Management and Future Refinement

The 2022 GSP acknowledges and describes data gaps relevant to the GSAs' management of the subbasin and describes an adaptive management approach. The GSAs would continue to adaptively manage the Subbasin and reconsider aspects of the GSP as needed as additional monitoring data, stakeholder input, regional coordination, and DWR feedback become available. This approach recognizes that the 2027 Periodic Evaluation is an important milestone, but not the final opportunity to refine the GSP. Each 5 year periodic evaluation requires the GSAs to self assess implementation considering current conditions and new information and is an opportunity to respond and revisit plan elements, monitoring, and projects and management actions as needed.

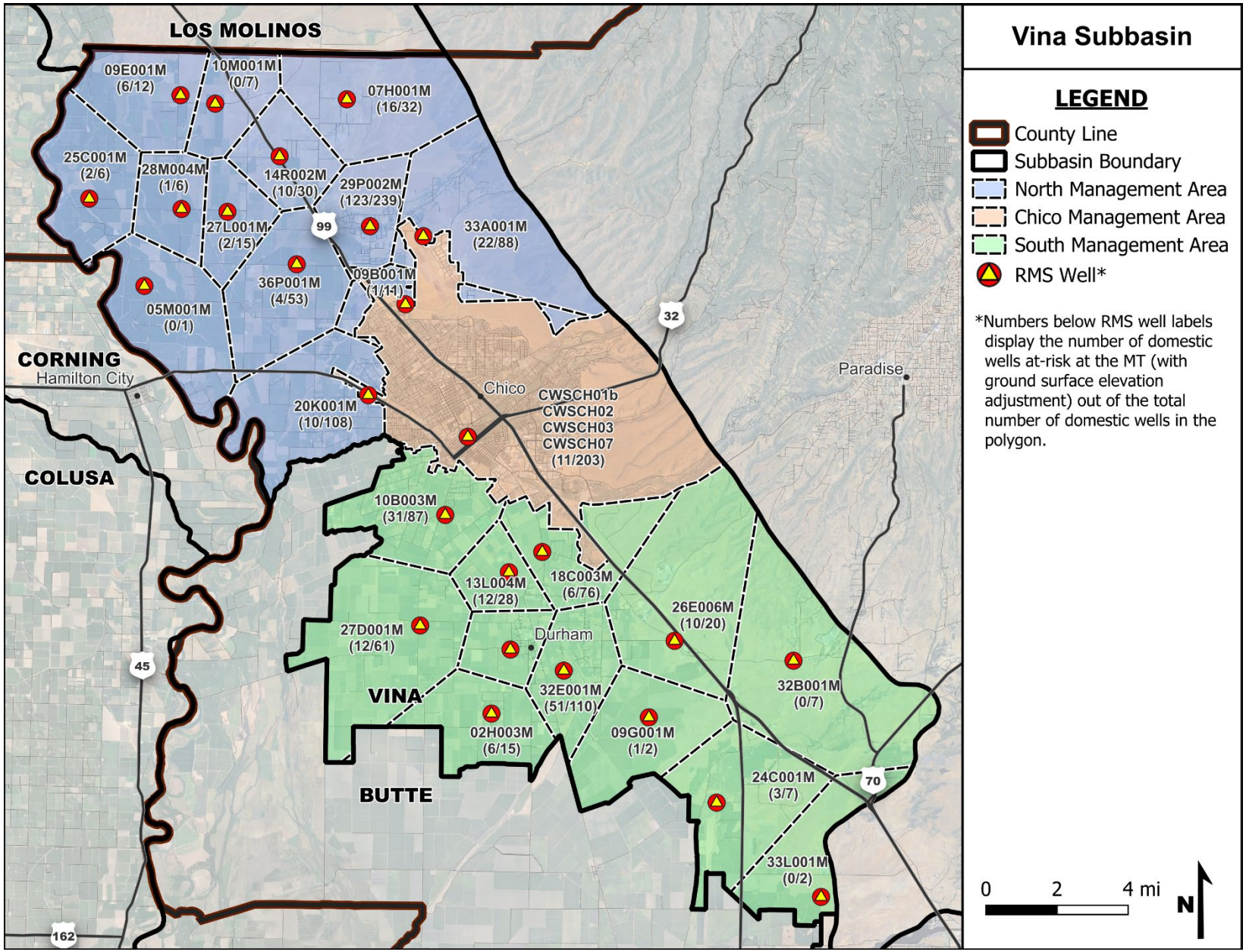


Figure 1. Vina Groundwater Level Monitoring Network RMS wells showing RMS zones, with number of domestic wells with depths above the MT (with ground surface elevation adjustment) and total domestic well count

Table 2. Proposed 2027 RMS wells in Vina Subbasin.

Index	RMS Well	SWN	Site Code	MA	Latitude	Longitude	Well Depth (ft)	Top Perforation (ft amsl)	Bottom Perforation (ft amsl)
1	25C001M	23N02W25C001M	398222N1220401W001	North	39.82220	-122.0401	243		
2	36P001M	23N01W36P001M	397972N1219297W001	North	39.79720	-121.9297	165		
3	05M001M	22N01W05M001M	397871N1220100W001	North	39.78711	-122.0100	200		
4	07H001M	23N01E07H001M	398648N1219049W002	North	39.86482	-121.9049	195	115	195
5	09E001M	23N01W09E001M	398651N1219930W001	North	39.86510	-121.9930	110		
6	28M004M	23N01W28M004M	398188N1219912W003	North	39.81877	-121.9912	207	120	165
7	10M001M	23N01W10M001M	398619N1219746W001	North	39.86194	-121.9746	220	90	200
8	27L001M	23N01W27L001M	398180N1219669W001	North	39.81800	-121.9669	102	65	102
9	14R002M	23N01W14R002M	398411N1219399W001	North	39.84105	-121.9399	183		
10	29P002M	23N01E29P002M	398133N1218913W001	North	39.81332	-121.8913	265		
11	33A001M	23N01E33A001M	398097N1218630W001	North[1]	39.80970	-121.8631	506	53	506
12	20K001M	22N01E20K001M	397445N1218905W001	North[1]	39.74450	-121.8905	110		
13	09B001M	22N01E09B001M	397818N1218718W001	North[1]	39.78180	-121.8718	156	84	156
14	CWSCH01b		397284N1218374W001	Chico	*39.72849*	*-121.8375*	>600		
15	CWSCH02		397284N1218374W002	Chico	*39.72849*	*-121.8375*	>600		
16	CWSCH03		397284N1218374W003	Chico	*39.72849*	*-121.8375*	>600		
17	CWSCH07		397284N1218374W004	Chico	*39.72849*	*-121.8375*	<600		
18	24C001M	20N02E24C001M	395812N1217026W001	South	39.58120	-121.7026	155	124	134
19	18C003M	21N02E18C003M	396820N1217970W003	South	39.68200	-121.7970	240	130	200
20	26E006M	21N02E26E006M	396468N1217263W004	South	39.64680	-121.7263	179	105	150
21	10B003M	21N01E10B003M	396963N1218486W001	South	39.69630	-121.8486	525	320	503
22	27D001M	21N01E27D001M	396511N1218607W001	South	39.65110	-121.8607	112		
23	13L004M	21N01E13L004M	396735N1218144W003	South	39.67348	-121.8144	353	240	340
24	25K001M	21N01E25K001M	396420N1218128W001	South	39.64200	-121.8128	93		
25	02H003M	20N01E02H003M	396158N1218221W001	South	39.61576	-121.8222	201	70	180
26	32E001M	21N02E32E001M	396339N1217845W001	South	39.63383	-121.7845	184	62	92
27	09G001M	20N02E09G001M	396154N1217391W001	South	39.61546	-121.7391	202	130	180

Index	RMS Well	SWN	Site Code	MA	Latitude	Longitude	Well Depth (ft)	Top Perforation (ft amsl)	Bottom Perforation (ft amsl)
28	32B001M	21N03E32B001M	396396N1216634W001	South	39.63958	-121.6634	57	13	57
29	33L001M	20N03E33L001M	395435N1216466W001	South	39.54357	-121.6467	101	13	101

1. RMS well is located in Chico MA but is representative of a portion of North MA.

Table 3. 2027 RMS zones and Sustainable Management Criteria (SMC) (explore on the Dashboard)

Index	RMS Well	MA	MT	MO	IM 2027	SMC Source[2]	Average GWL (ft amsl)	MA Average GWL-MT Difference (ft)	MA Average GWL-MO Difference	MA Average GWL-IM Difference	RMS Polygon Acreage
1	25C001M	North	50	130	130	2022 GSP					5,850
2	36P001M	North	45	108	110	2022 GSP					7,088
3	05M001M	North	31	115	116	2022 GSP					7,541
4	07H001M	North	72	136	140	2022 GSP					8,272
5	09E001M	North	68	135	136	Comparable	159	91	24	22	5,311
6	28M004M	North	51	118	120	Comparable	142	91	24	22	3,359
7	10M001M	North	71	138	140	Comparable	162	91	24	22	3,522
8	27L001M	North	55	121	123	Comparable	146	91	24	22	3,166
9	14R002M	North	66	132	134	Comparable	157	91	24	22	3,975
10	29P002M	North	61	127	129	Comparable	152	91	24	22	3,896
11	33A001M	North[1]	72	125	128	2022 GSP					9,963
12	20K001M	North[1]	48	115	117	Comparable	139	91	24	22	8,147
13	09B001M	North[1]	46	113	115	Comparable	137	91	24	22	1,966
14	CWSCH01b	Chico	85	106	107	2022 GSP					29,718
15	CWSCH02	Chico	85	105	108						
16	CWSCH03	Chico	85	108	109						
17	CWSCH07	Chico	85	95	97						
18	24C001M	South	18	77	81	2022 GSP					7,861
19	18C003M	South	65	130	132	2022 GSP					5,244

Index	RMS Well	MA	MT	MO	IM 2027	SMC Source[2]	Average GWL (ft amsl)	MA Average GWL-MT Difference (ft)	MA Average GWL-MO Difference	MA Average GWL-IM Difference	RMS Polygon Acreage
20	26E006M[3]	South	36	95	97	2022 GSP[3]					11,480
21	10B003M	South	10	64	67	Comparable	102	92	30	28	6,650
22	27D001M	South	23	84	87	Comparable	115	92	30	28	10,825
23	13L004M	South	21	82	85	Comparable	113	92	30	28	2,713
24	25K001M	South	21	83	85	Comparable	113	92	30	28	2,748
25	02H003M	South	11	73	75	Comparable	103	92	30	28	5,200
26	32E001M	South	30	91	93	Comparable	122	92	30	28	4,534
27	09G001M	South	25	87	89	Comparable	117	92	30	28	6,521
28	32B001M	South	133	195	197	Comparable	225	92	30	28	14,225
29	33L001M	South	26	87	90	Comparable	118	92	30	28	5,186

1. RMS well is located in Chico MA but is representative of a portion of North MA.
2. Wells with source 'Comparable' are calculated by (1) calculating average spring groundwater level, (2) calculating average difference between 2022 RMS wells' average spring groundwater levels and SMCs, and (3) taking the difference between calculations (1) and (2).
3. 2022 GSP had 26E005. 26E006 has been selected to be more representative, but the same 2022 GSP SMC are assigned.

Table 4. Domestic well counts per RMS zone with well depths above the MT for elevation adjusted and not adjusted

Index	RMS Well	MA	MT (ft amsl)	Total Domestic Wells	Domestic Wells above MT (elevation adjusted)	Domestic Wells above MT (no adjustment)	Difference
1	25C001M	North	50	6	2	2	0
2	36P001M	North	45	53	4	9	5
3	05M001M	North	31	1	0	0	0
4	07H001M	North	72	32	16	19	3
5	09E001M	North	68	12	6	6	0
6	28M004M	North	51	6	1	1	0
7	10M001M	North	71	7	0	1	1
8	27L001M	North	55	15	2	2	0
9	14R002M	North	66	30	10	12	2
10	29P002M	North	61	239	123	128	5
11	33A001M	North[1]	72	88	22	56	34
12	20K001M	North[1]	48	108	10	10	0
13	09B001M	North[1]	46	11	1	2	1
14	CWSCH01b	Chico	85	203	11	30	19
15	CWSCH02	Chico					
16	CWSCH03	Chico					
17	CWSCH07	Chico					
18	24C001M	South	18	7	3	4	1
19	18C003M	South	65	76	6	9	3
20	26E006M	South	36	20	10	10	0
21	10B003M	South	10	87	31	32	1
22	27D001M	South	23	61	12	13	1
23	13L004M	South	21	28	12	12	0
24	25K001M	South	21	27	9	10	1
25	02H003M	South	11	15	6	6	0
26	32E001M	South	30	110	51	53	2
27	09G001M	South	25	2	1	1	0
28	32B001M	South	133	7	0	0	0
29	33L001M	South	26	2	0	2	2
Vina North Total				608	197	248	51
Chico Total				203	11	30	19
Vina South Total				442	141	152	11
Subbasin Total				1253	349	430	81

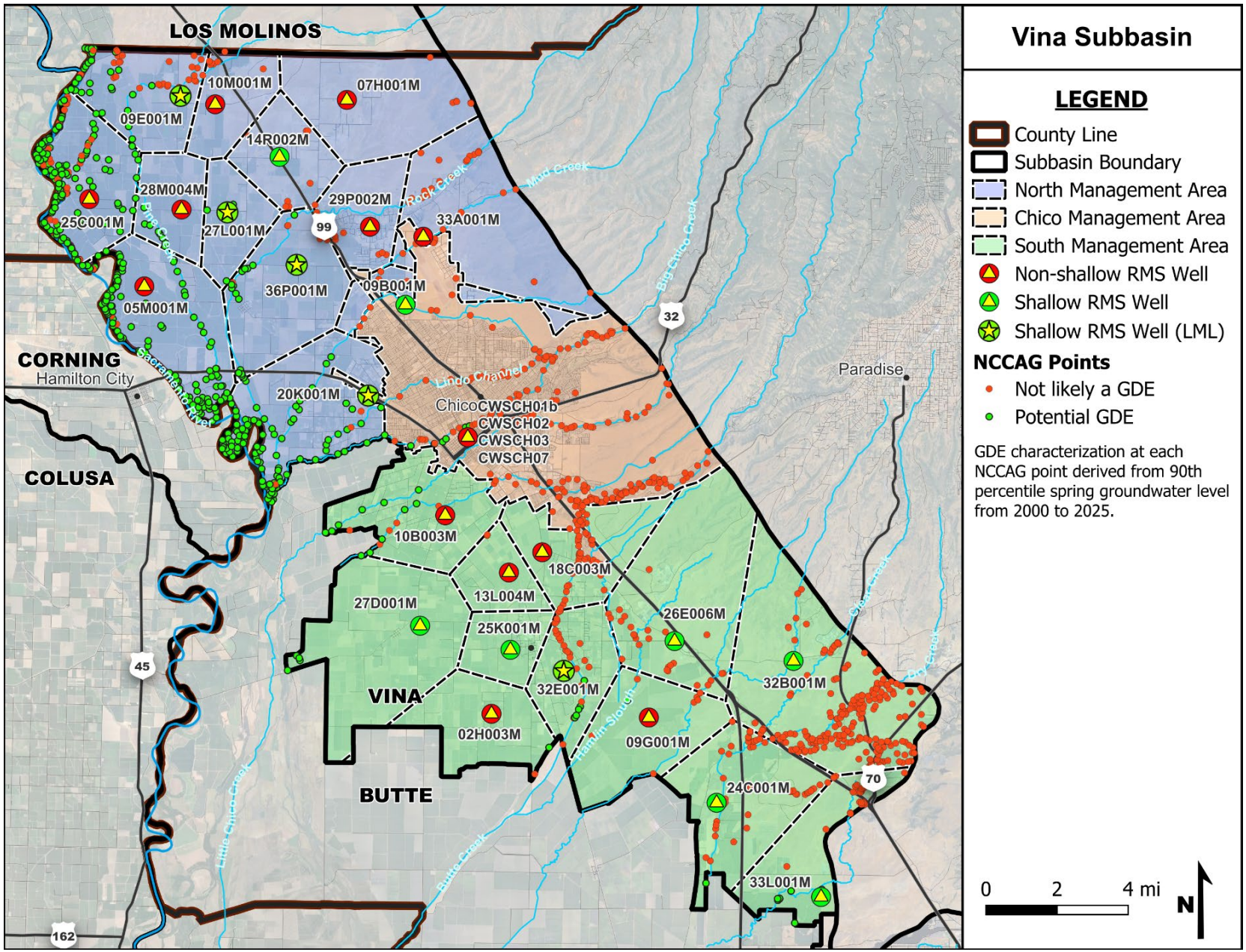
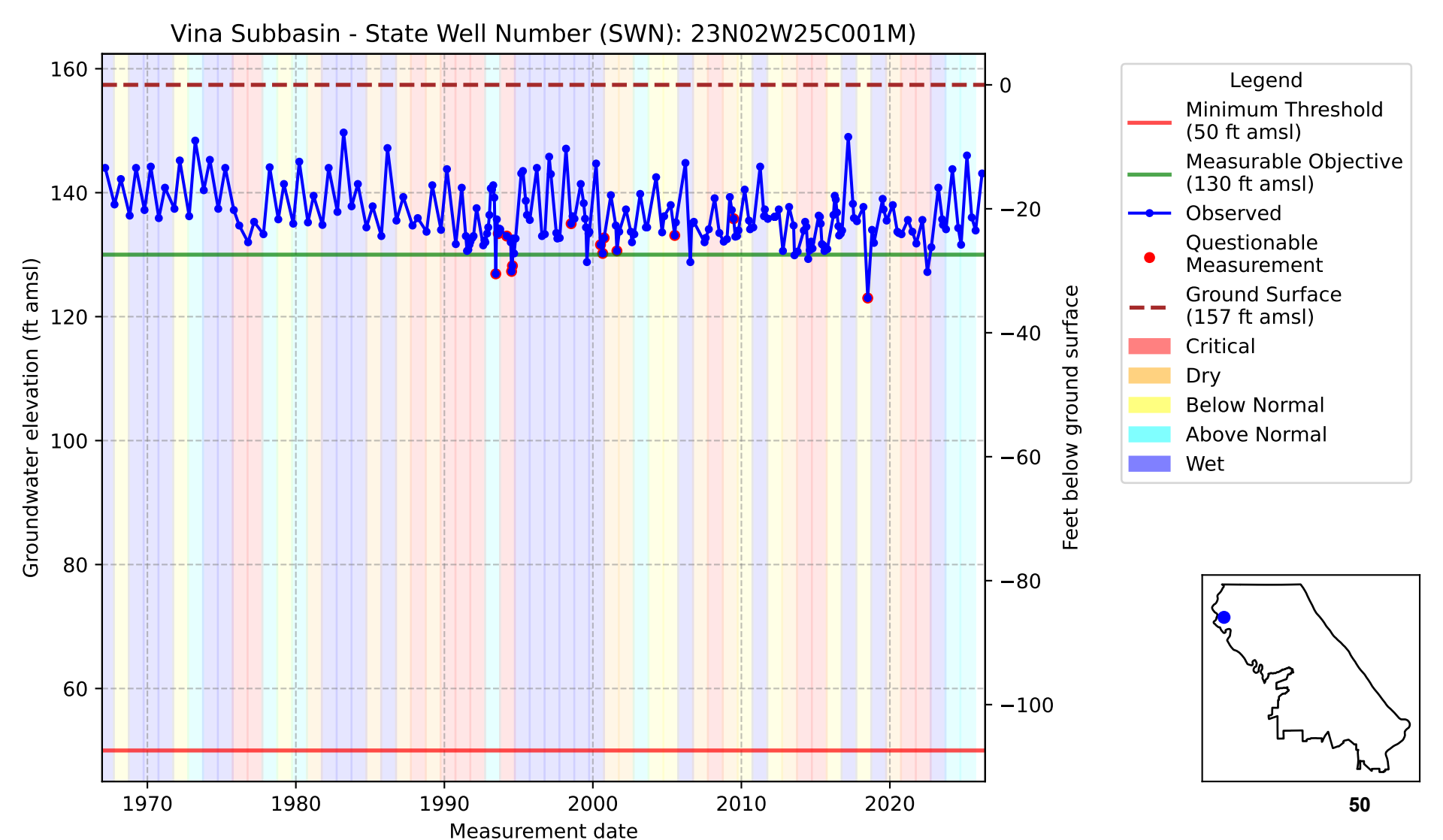
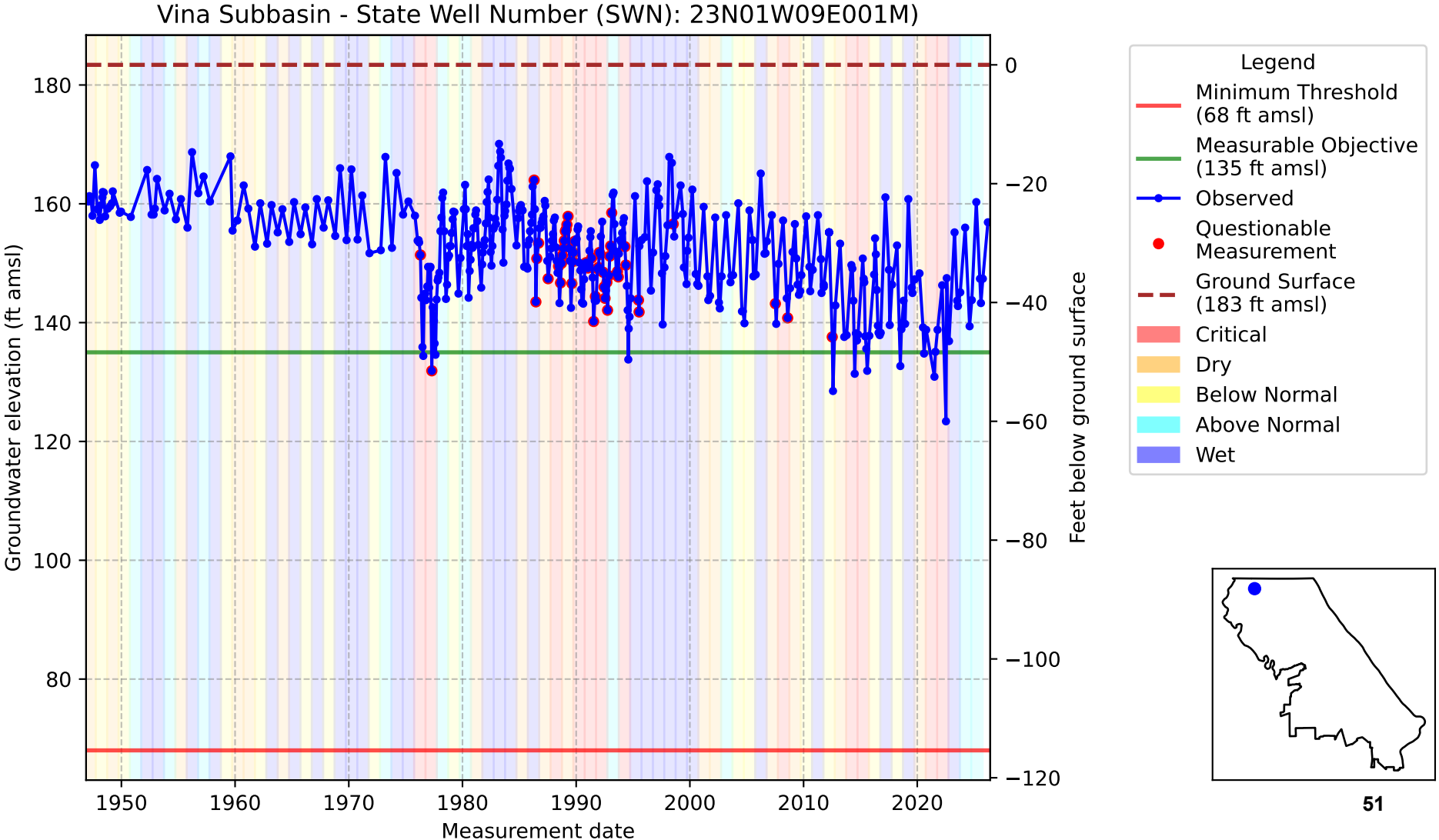
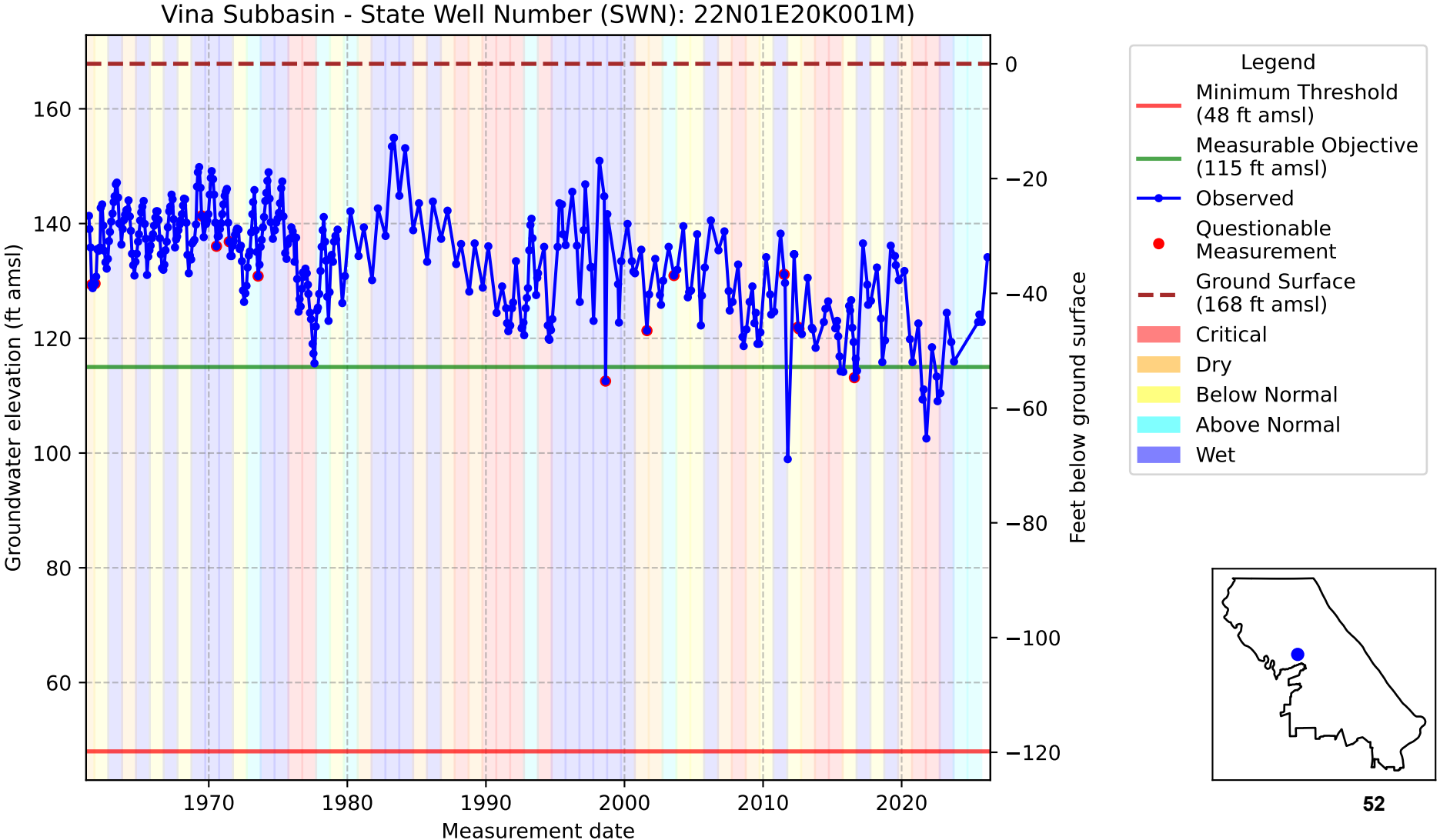


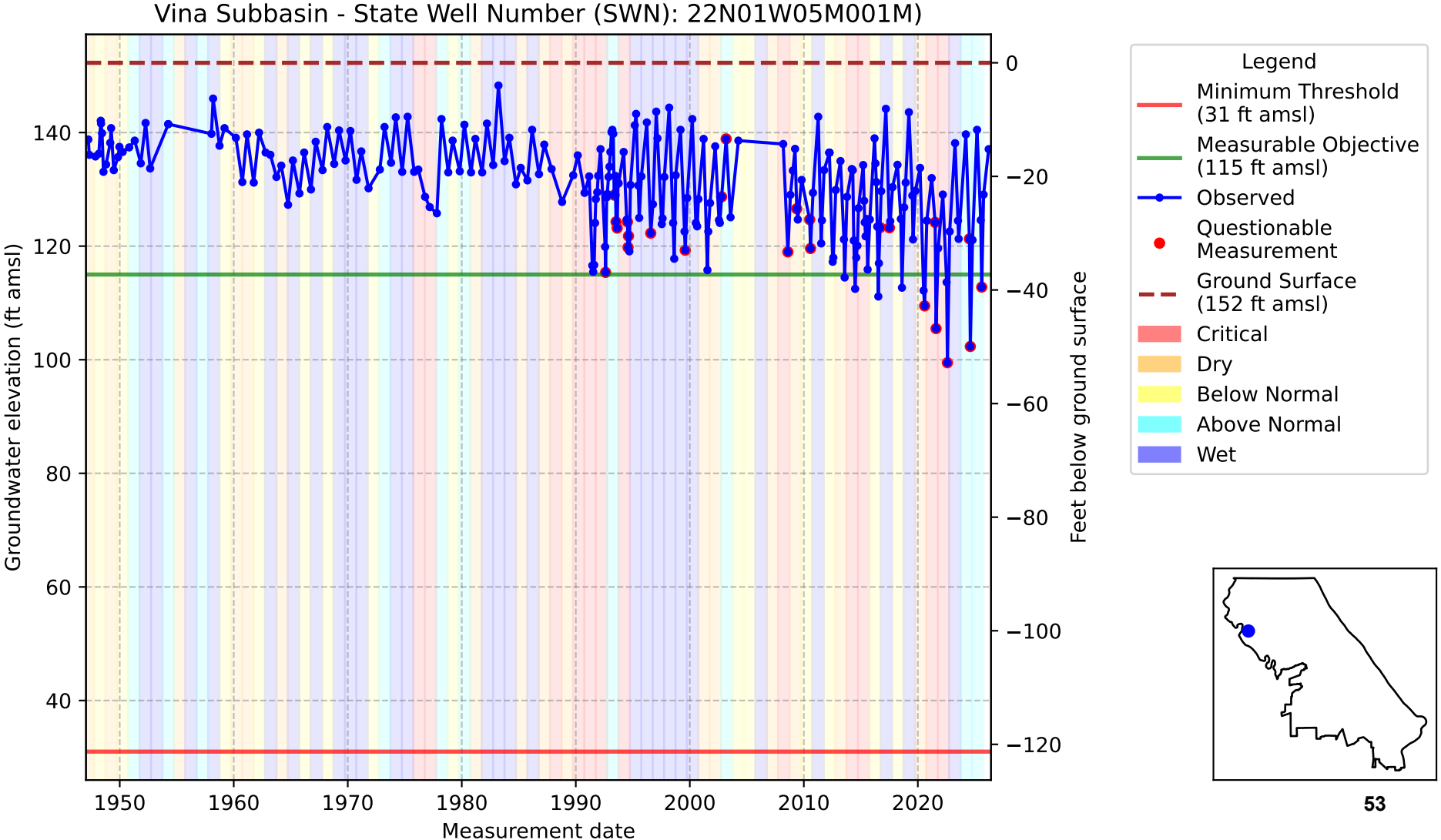
Figure 2. Vina Groundwater Level RMS Monitoring Network showing RMS zones, wells identified as shallow RMS wells, and RMS wells assigned an LML.

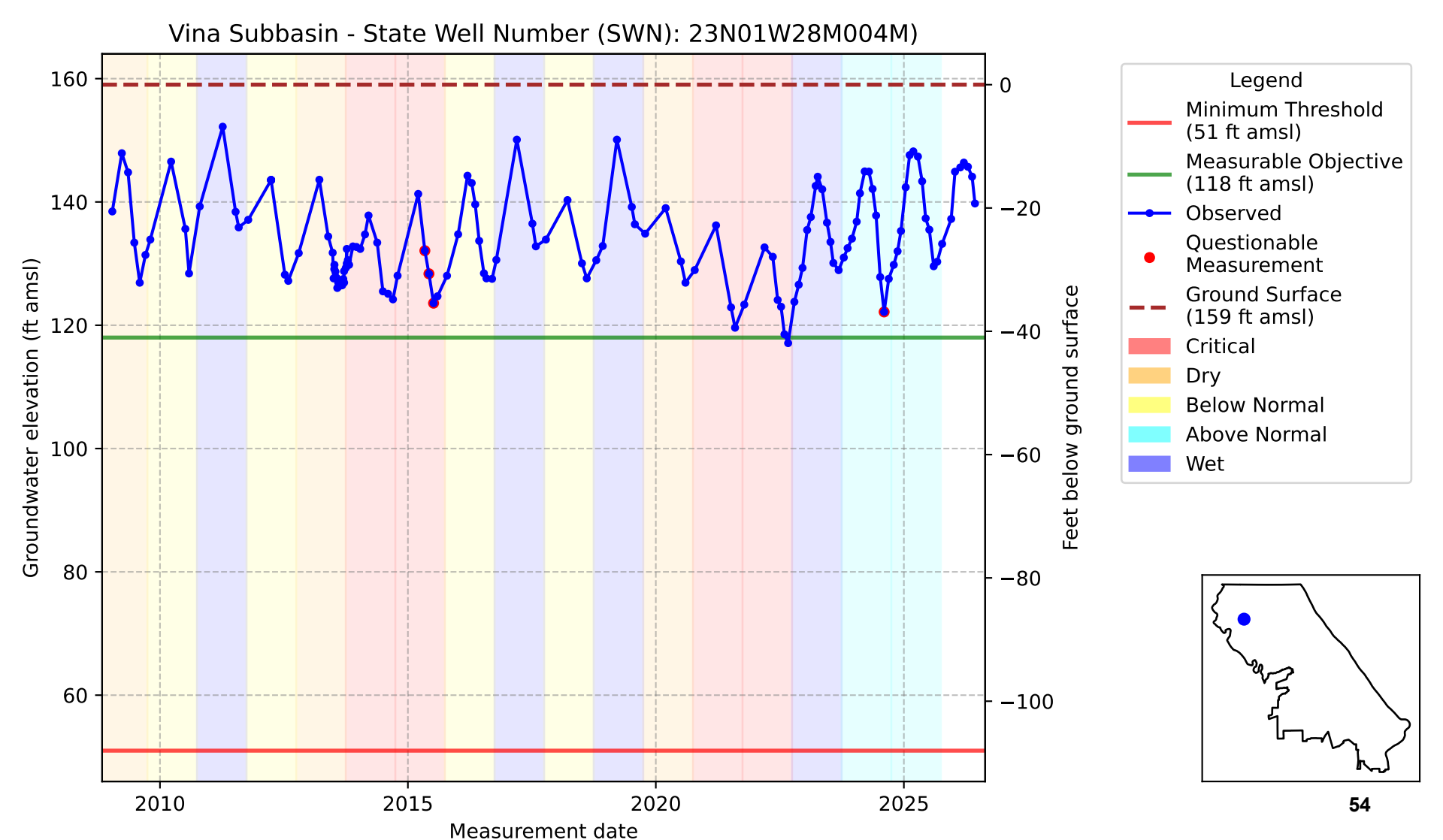
Hydrographs – 2027 RMS Network with 2022 GSP or Comparable MT

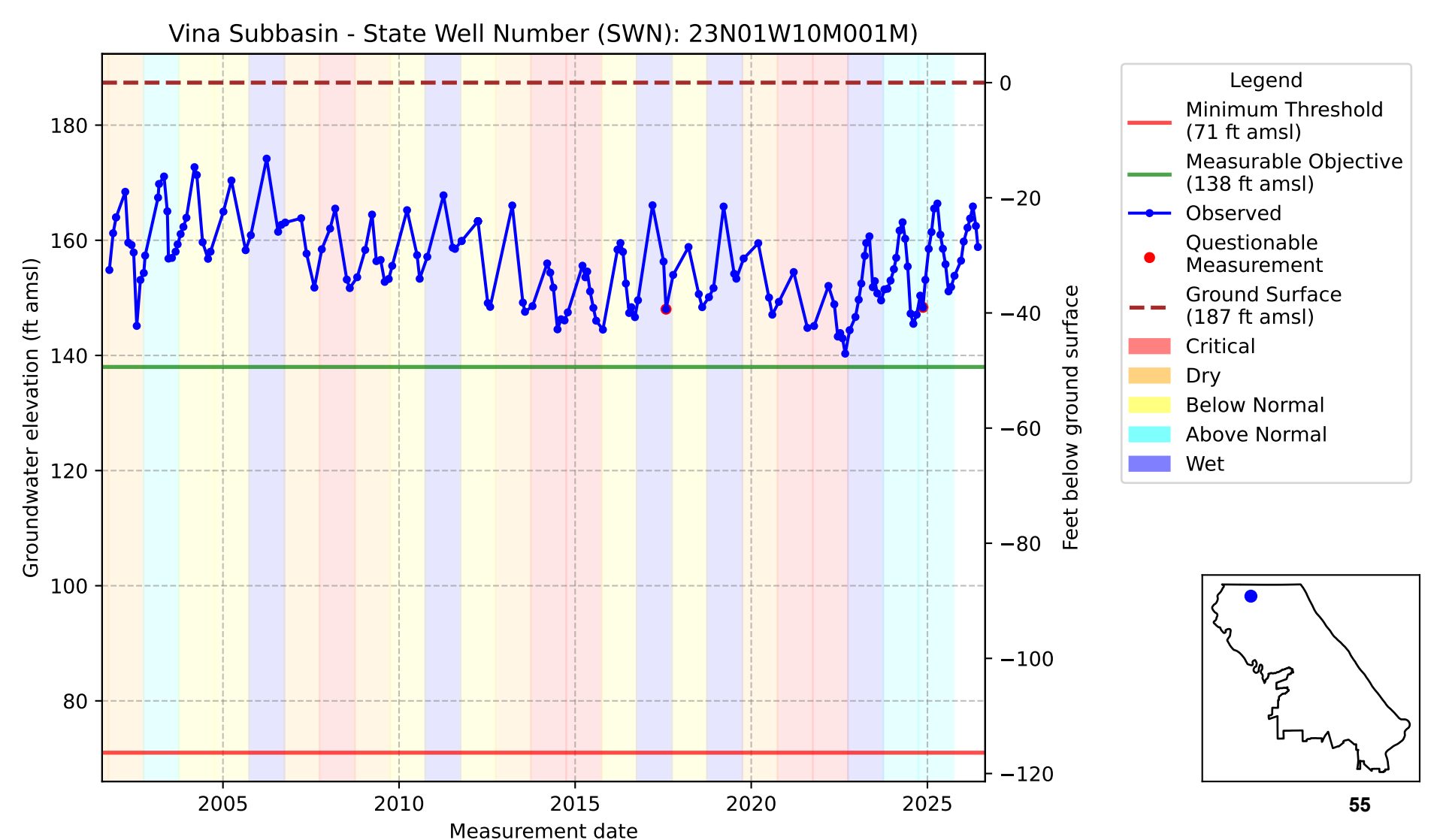

Vina Subbasin - State Well Number (SWN): 23N02W25C001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
160
140
120
100
80
60
0
−20
−40
−60
−80
−100
1970
1980
1990
2000
2010
2020
Legend
Minimum Threshold (50 ft amsl)
Measurable Objective (130 ft amsl)
Observed
Questionable Measurement
Ground Surface (157 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
50

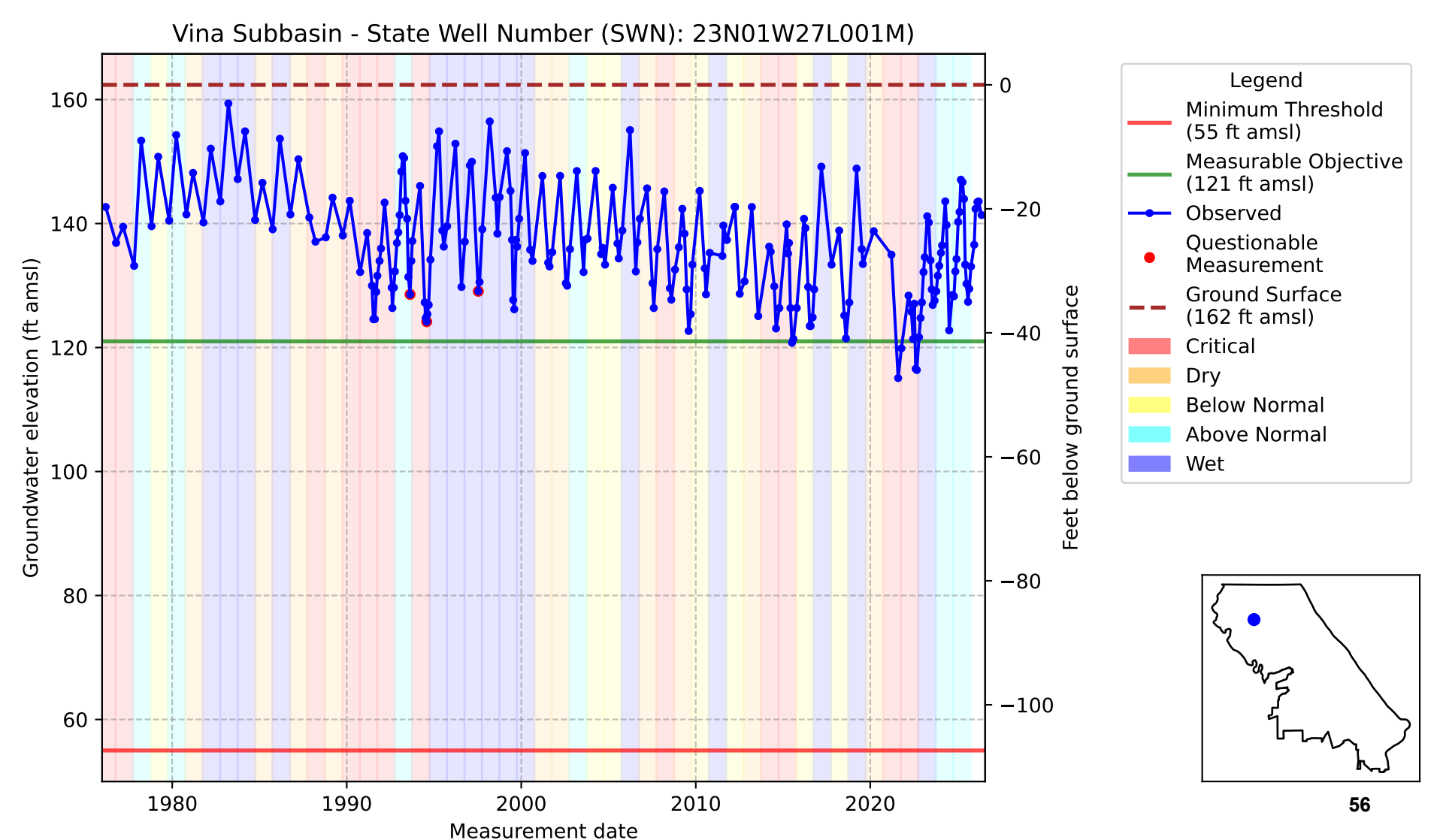

Vina Subbasin - State Well Number (SWN): 23N01W09E001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
180
160
140
120
100
80
0
−20
−40
−60
−80
−100
−120
1950
1960
1970
1980
1990
2000
2010
2020
Legend
Minimum Threshold (68 ft amsl)
Measurable Objective (135 ft amsl)
Observed
Questionable Measurement
Ground Surface (183 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
51

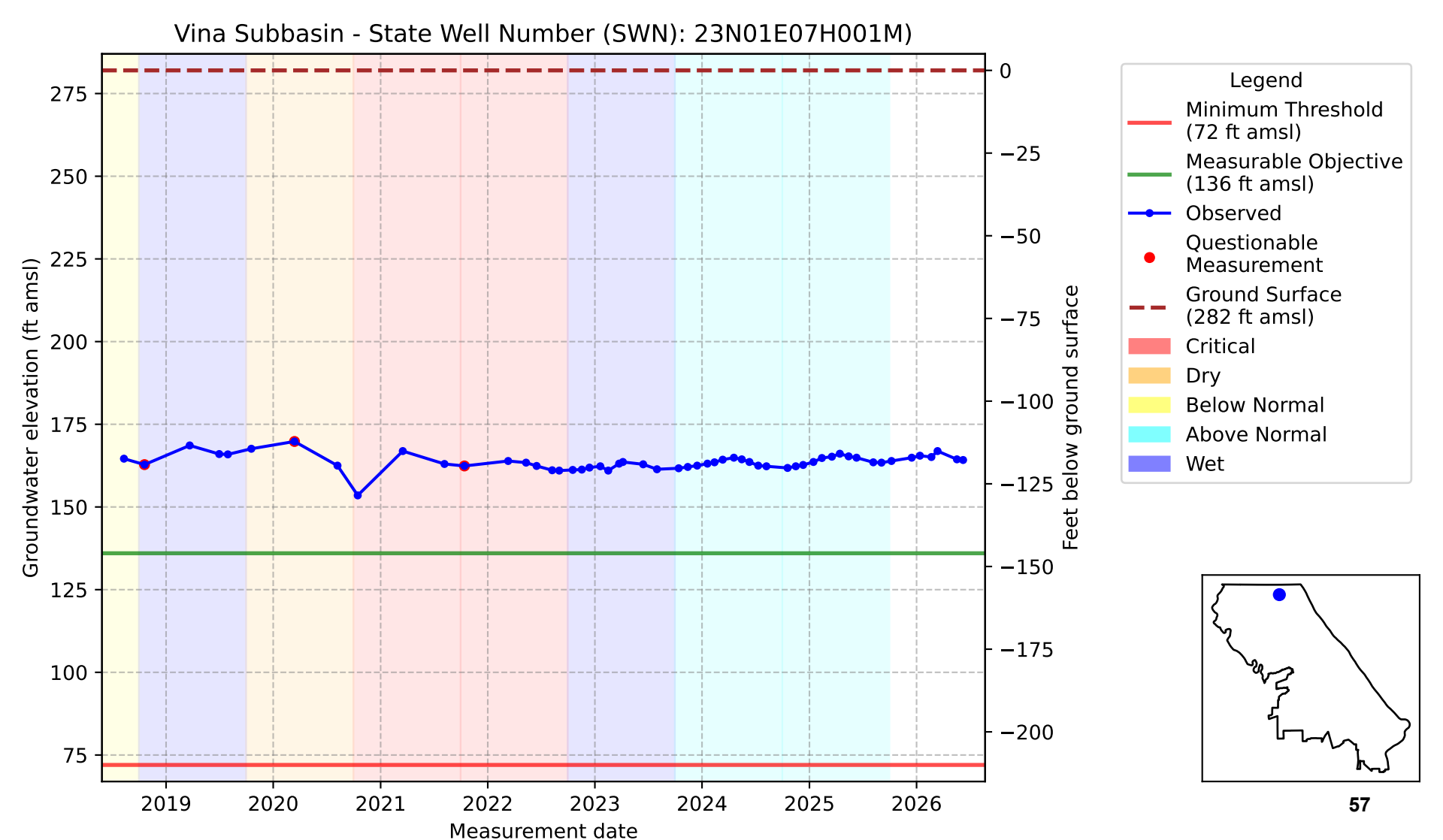

Vina Subbasin - State Well Number (SWN): 22N01E20K001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
160
140
120
100
80
60
0
−20
−40
−60
−80
−100
−120
1970
1980
1990
2000
2010
2020
Legend
Minimum Threshold (48 ft amsl)
Measurable Objective (115 ft amsl)
Observed
Questionable Measurement
Ground Surface (168 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
52

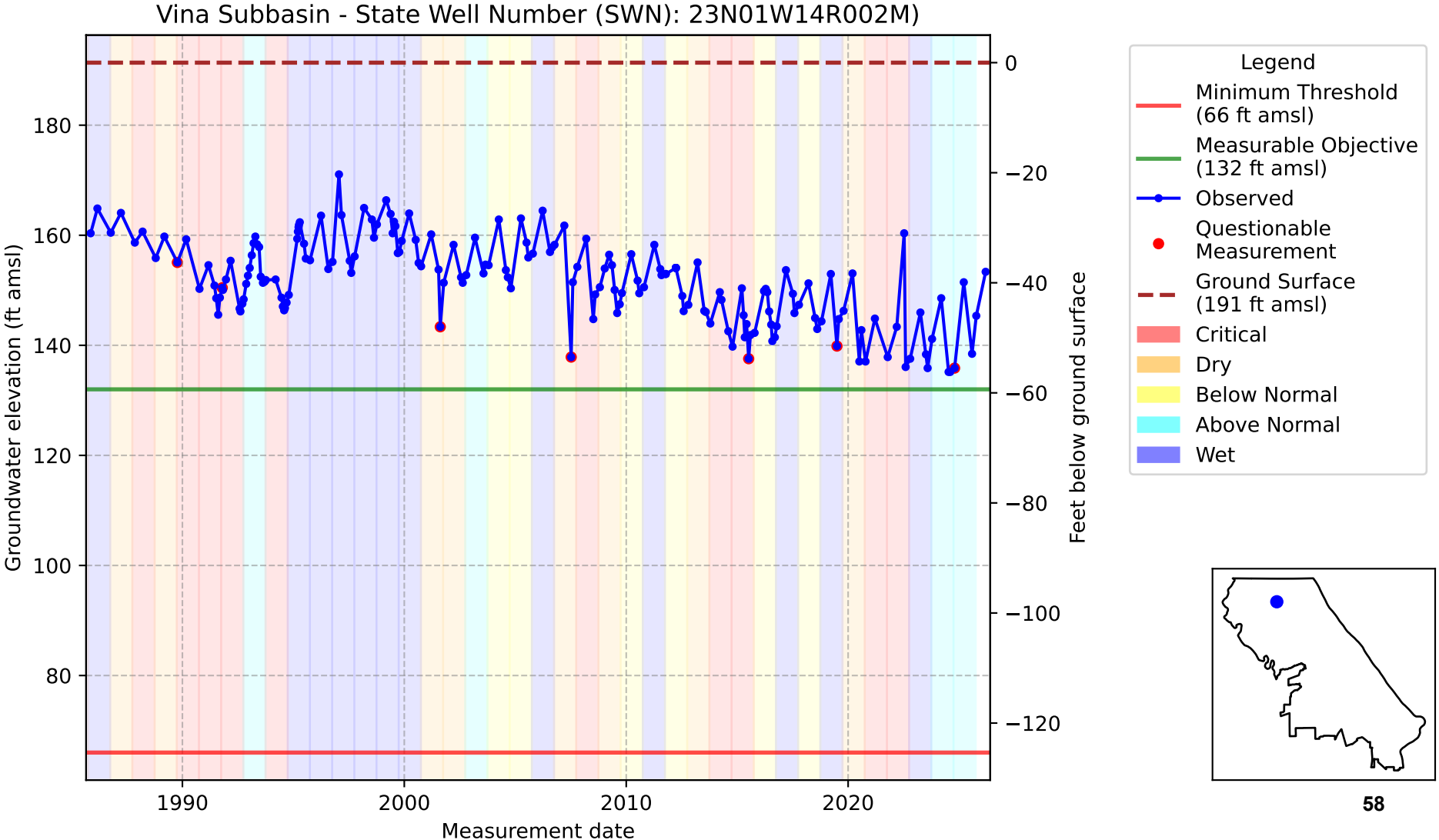

Vina Subbasin - State Well Number (SWN): 22N01W05M001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
140
120
100
80
60
40
0
−20
−40
−60
−80
−100
−120
1950
1960
1970
1980
1990
2000
2010
2020
Legend
Minimum Threshold (31 ft amsl)
Measurable Objective (115 ft amsl)
Observed
Questionable Measurement
Ground Surface (152 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
53

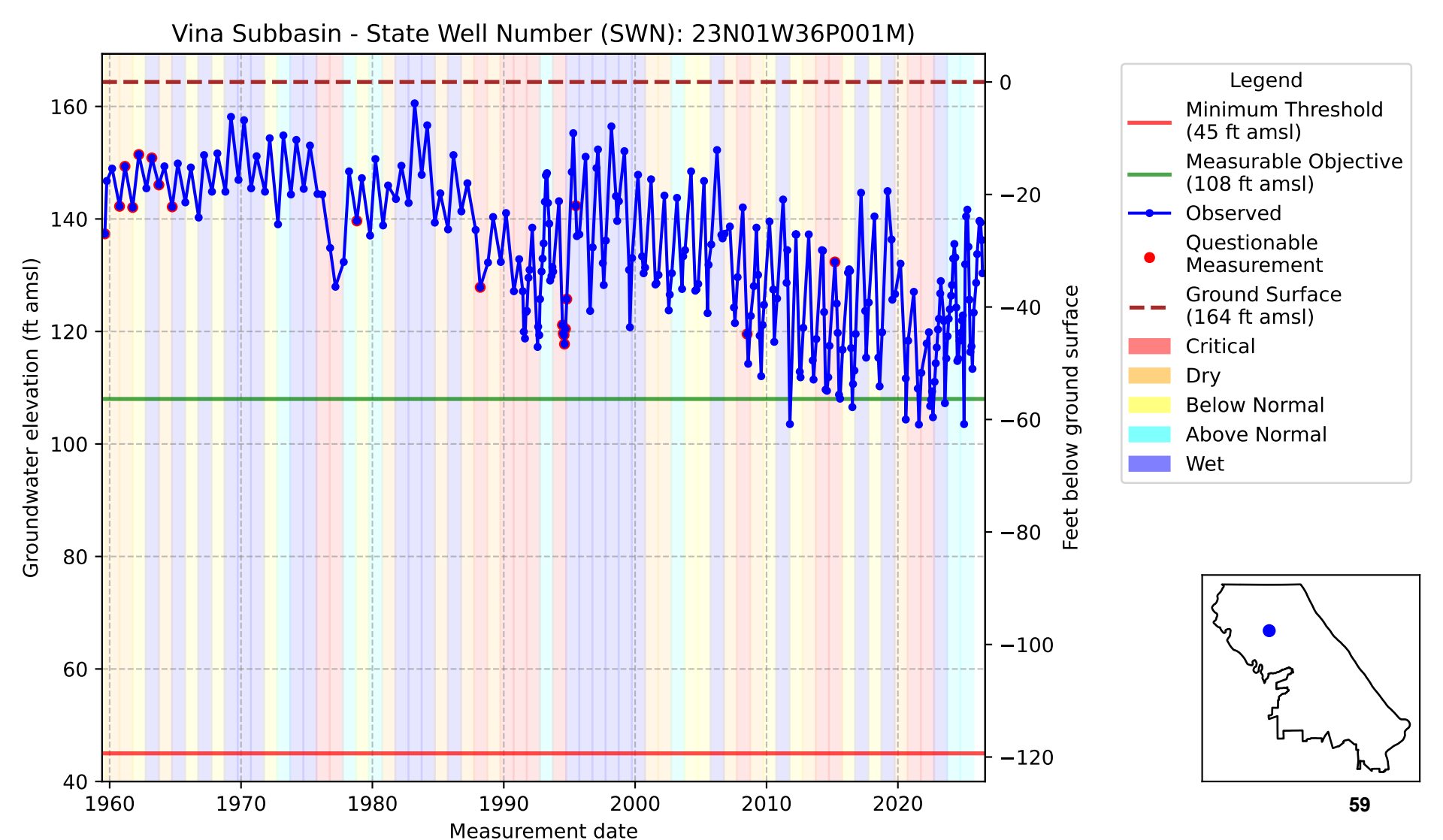

Vina Subbasin - State Well Number (SWN): 23N01W28M004M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
160
140
120
100
80
60
0
−20
−40
−60
−80
−100
2010
2015
2020
2025
Legend
Minimum Threshold (51 ft amsl)
Measurable Objective (118 ft amsl)
Observed
Questionable Measurement
Ground Surface (159 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
54

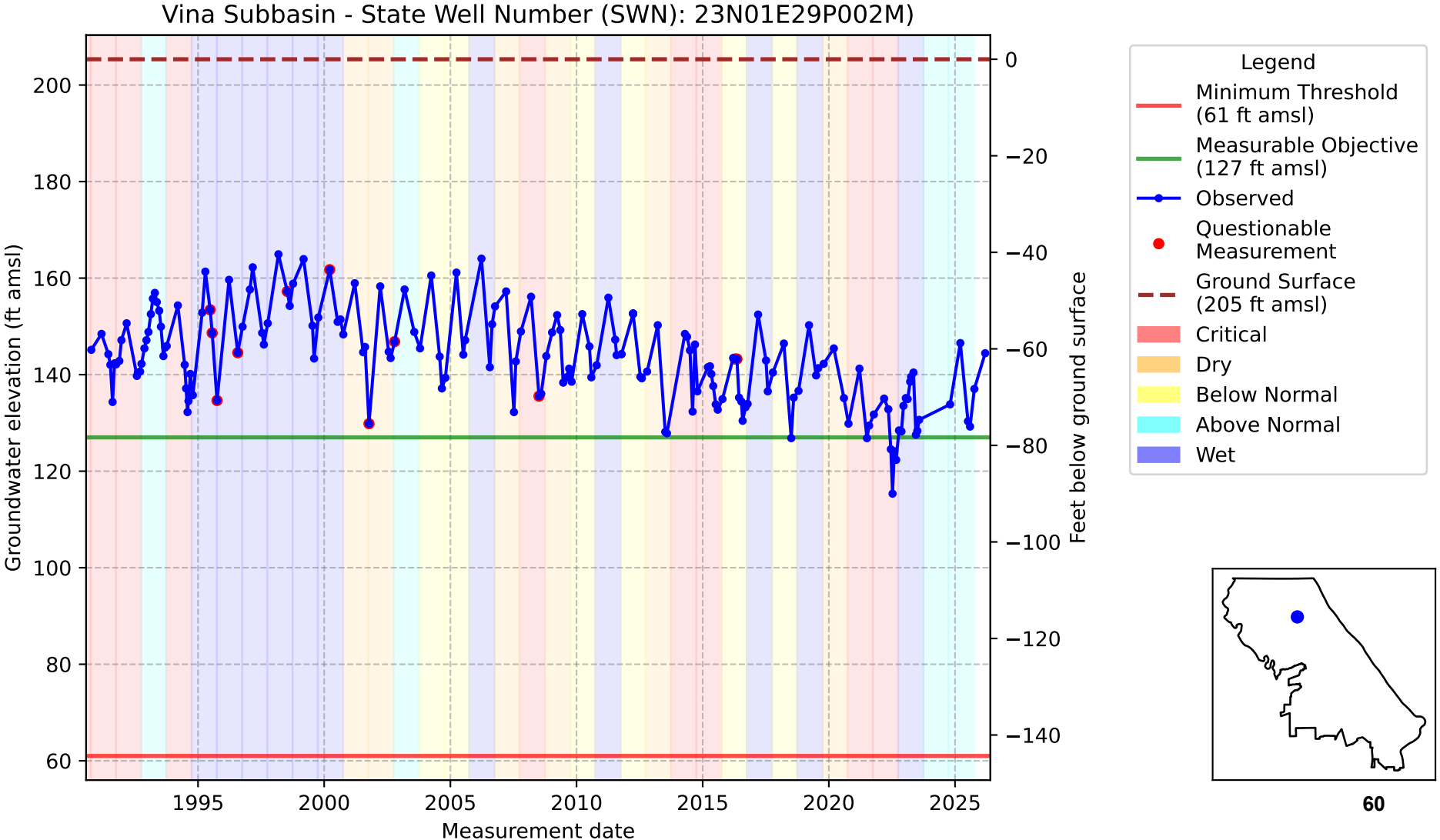

Vina Subbasin - State Well Number (SWN): 23N01W10M001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
180
160
140
120
100
80
0
−20
−40
−60
−80
−100
−120
2005
2010
2015
2020
2025
Legend
Minimum Threshold (71 ft amsl)
Measurable Objective (138 ft amsl)
Observed
Questionable Measurement
Ground Surface (187 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
55

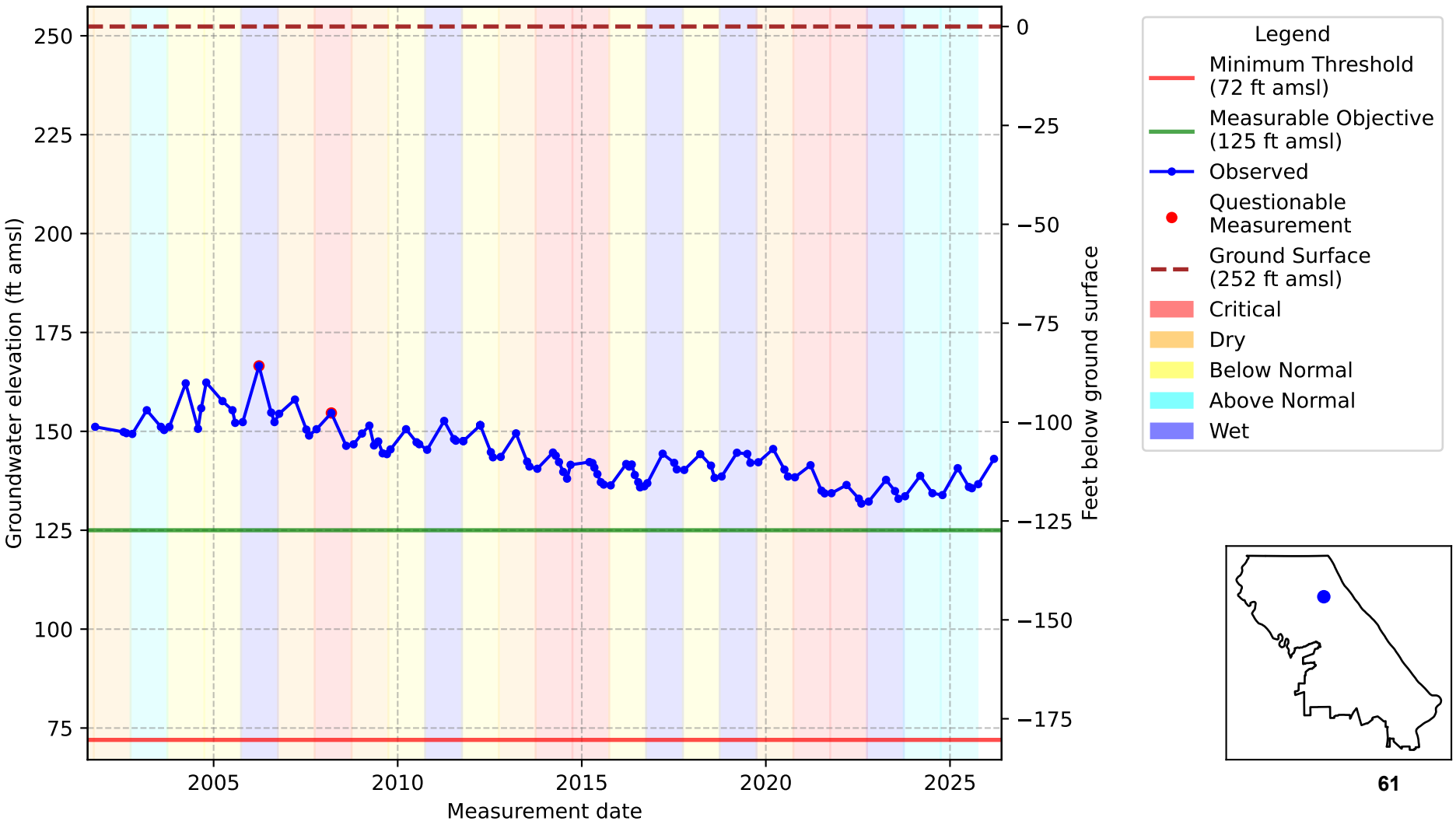

Vina Subbasin - State Well Number (SWN): 23N01W27L001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
160
140
120
100
80
60
0
−20
−40
−60
−80
−100
1980
1990
2000
2010
2020
Legend
Minimum Threshold (55 ft amsl)
Measurable Objective (121 ft amsl)
Observed
Questionable Measurement
Ground Surface (162 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
56

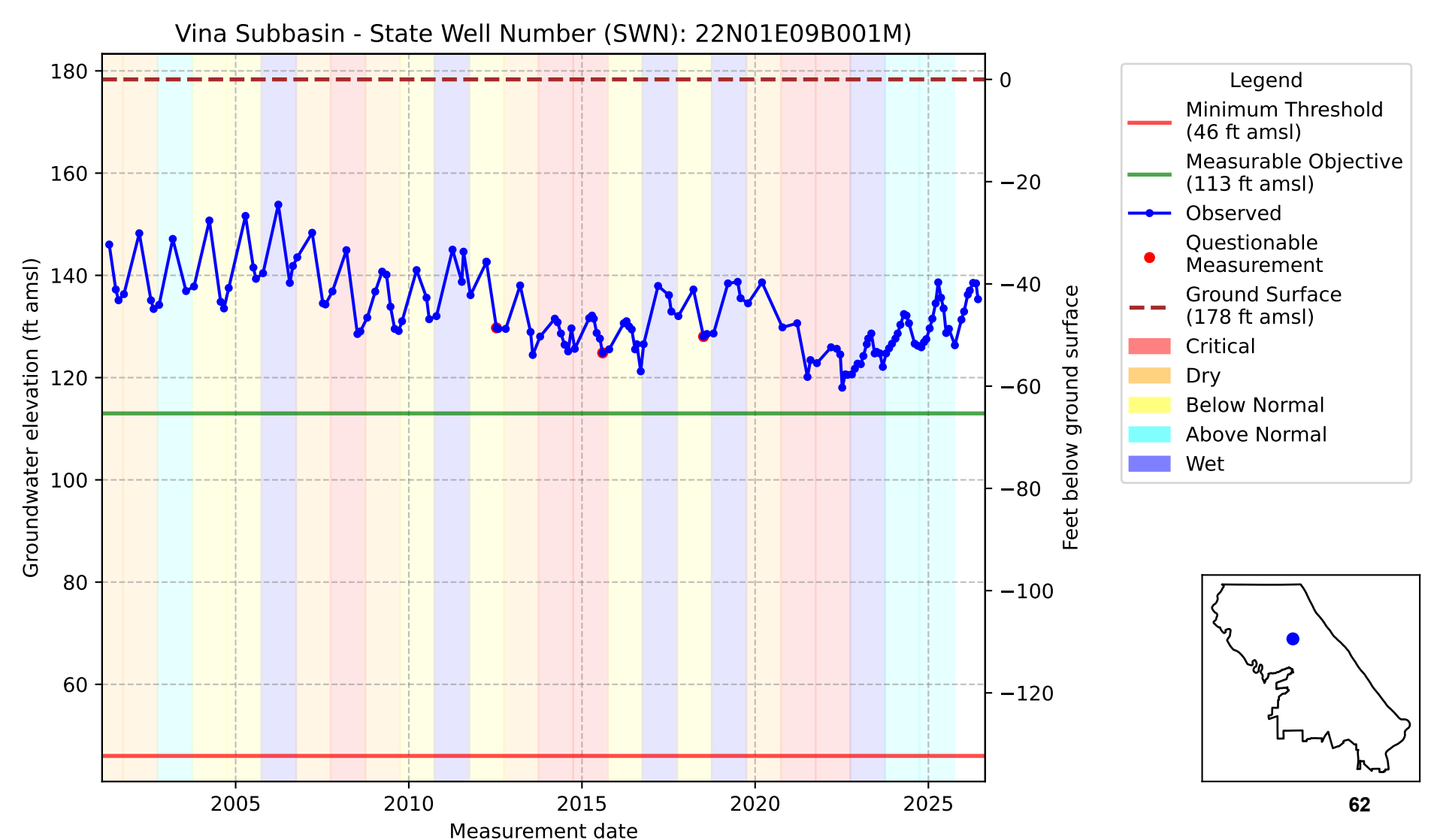

Vina Subbasin - State Well Number (SWN): 23N01E07H001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
275
250
225
200
175
150
125
100
75
0
−25
−50
−75
−100
−125
−150
−175
−200
2019
2020
2021
2022
2023
2024
2025
2026
Legend
Minimum Threshold (72 ft amsl)
Measurable Objective (136 ft amsl)
Observed
Questionable Measurement
Ground Surface (282 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
57

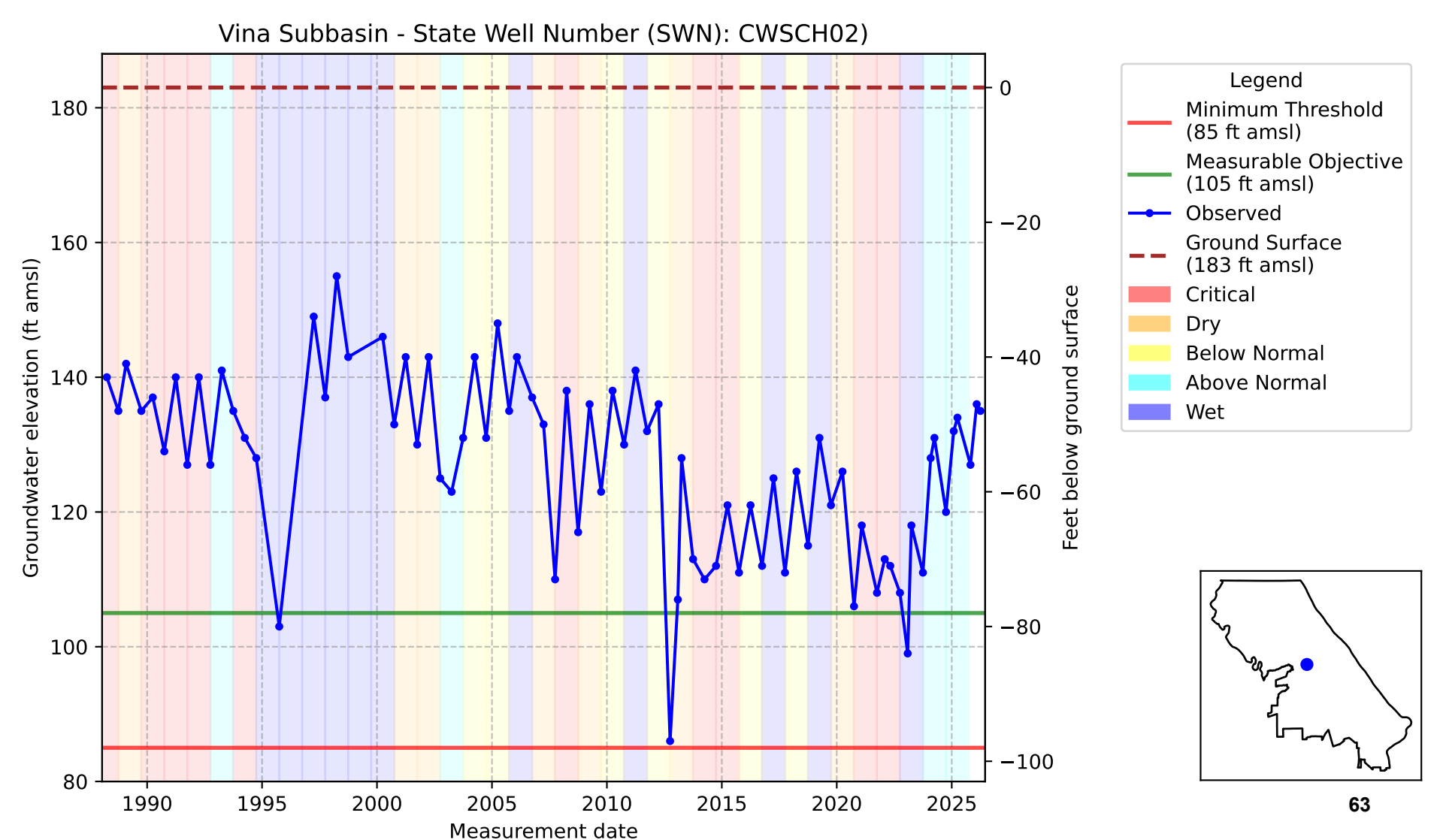

Vina Subbasin - State Well Number (SWN): 23N01W14R002M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
180
160
140
120
100
80
0
−20
−40
−60
−80
−100
−120
1990
2000
2010
2020
Legend
Minimum Threshold (66 ft amsl)
Measurable Objective (132 ft amsl)
Observed
Questionable Measurement
Ground Surface (191 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
58

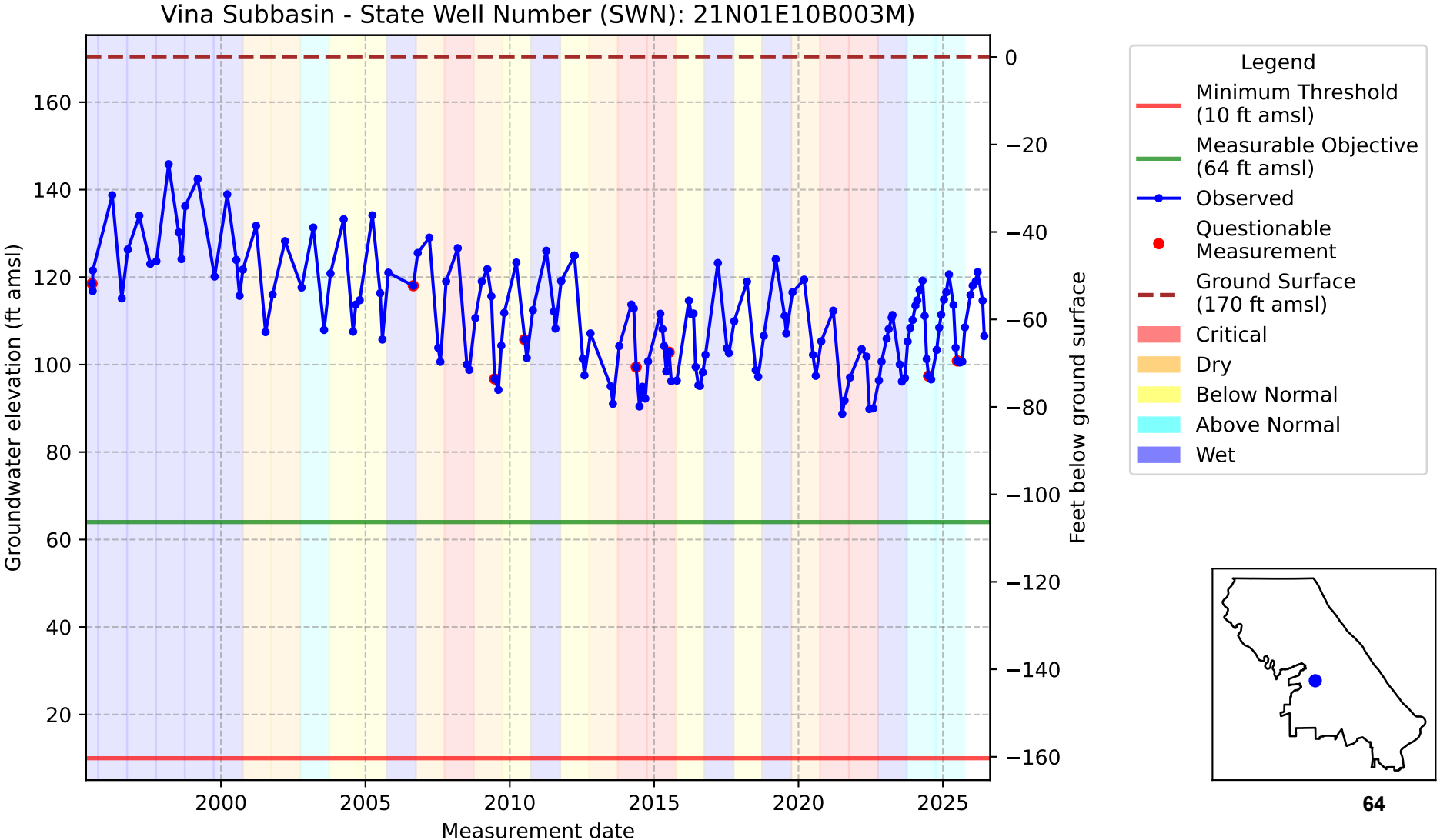

Vina Subbasin - State Well Number (SWN): 23N01W36P001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
160
140
120
100
80
60
40
0
−20
−40
−60
−80
−100
−120
1960
1970
1980
1990
2000
2010
2020
Legend
Minimum Threshold (45 ft amsl)
Measurable Objective (108 ft amsl)
Observed
Questionable Measurement
Ground Surface (164 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
59

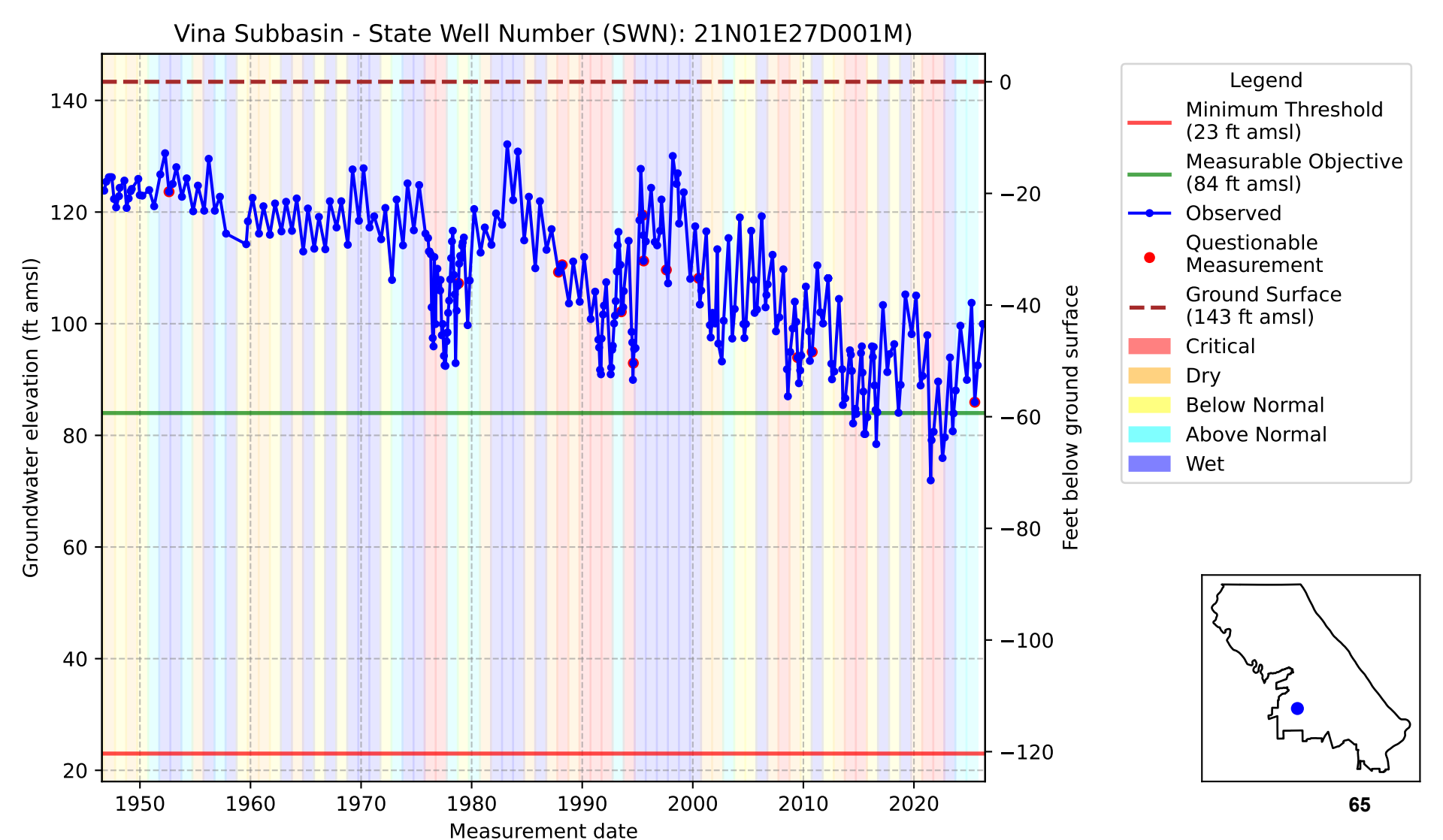

Vina Subbasin - State Well Number (SWN): 23N01E29P002M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
200
180
160
140
120
100
80
60
0
−20
−40
−60
−80
−100
−120
−140
1995
2000
2005
2010
2015
2020
2025
Legend
Minimum Threshold (61 ft amsl)
Measurable Objective (127 ft amsl)
Observed
Questionable Measurement
Ground Surface (205 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
60

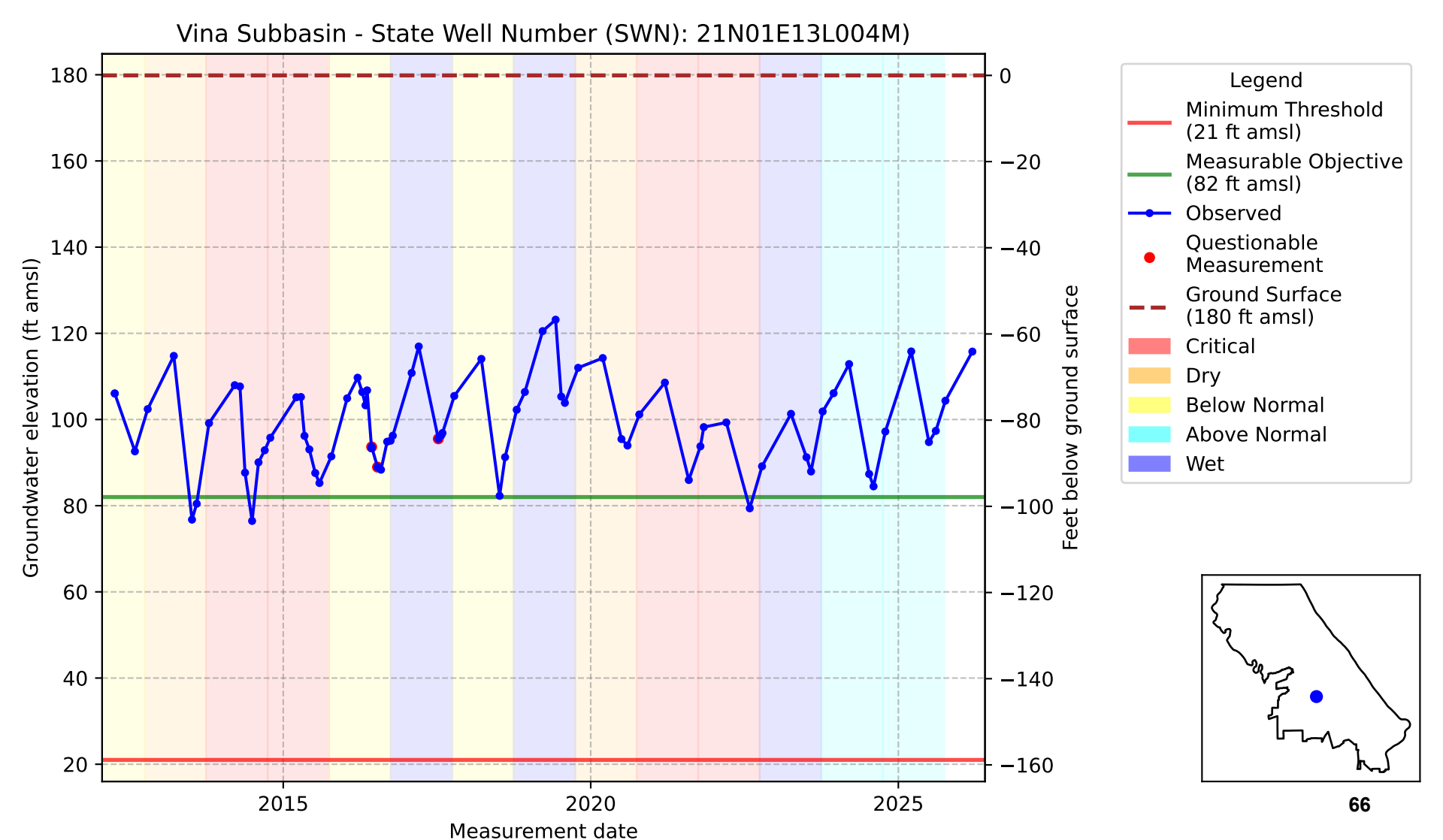

Vina Subbasin - State Well Number (SWN): 23N01E33A001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
250
225
200
175
150
125
100
75
0
−25
−50
−75
−100
−125
−150
−175
2005
2010
2015
2020
2025
Legend
Minimum Threshold (72 ft amsl)
Measurable Objective (125 ft amsl)
Observed
Questionable Measurement
Ground Surface (252 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
61

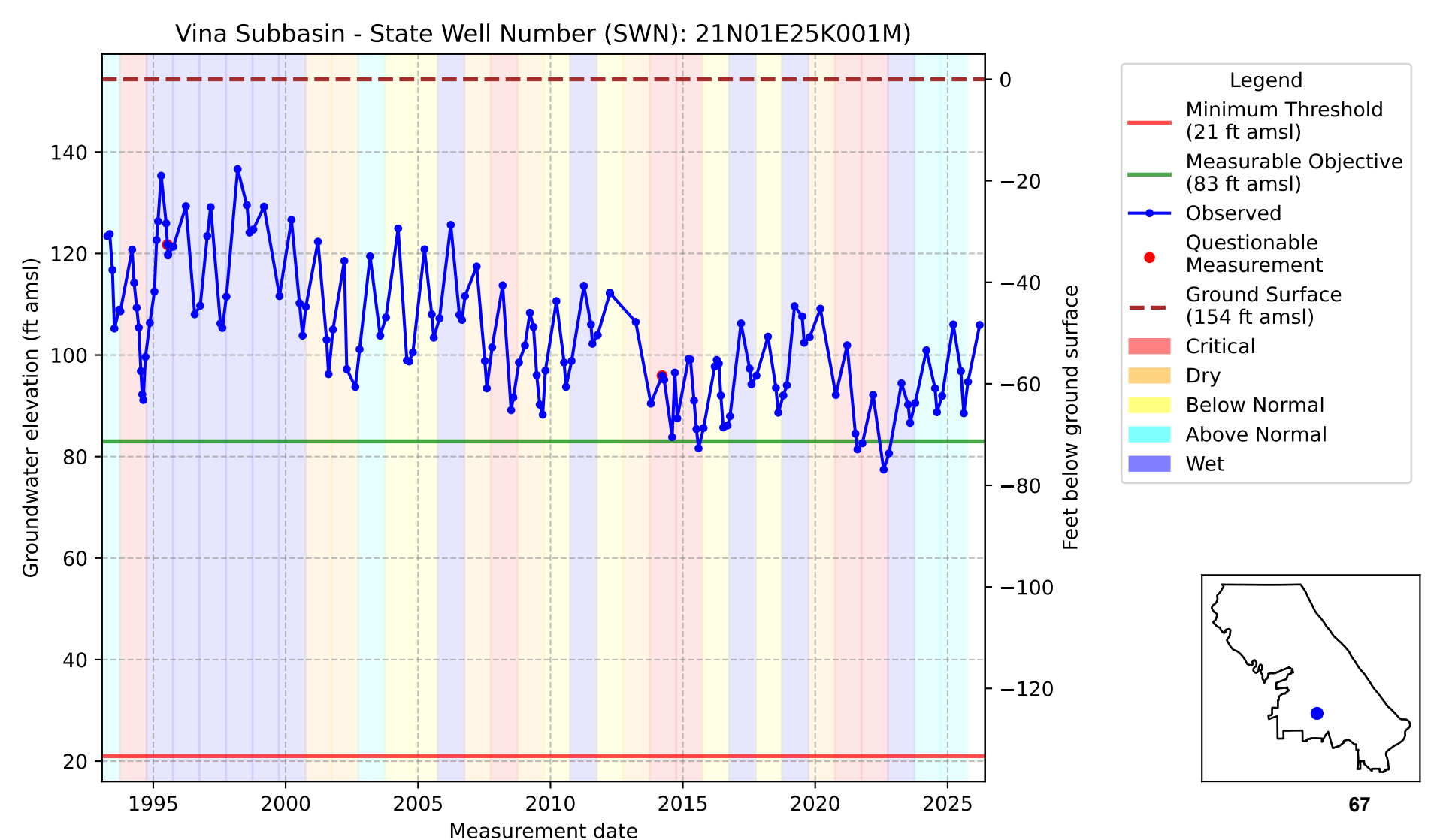

Vina Subbasin - State Well Number (SWN): 22N01E09B001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
180
160
140
120
100
80
60
0
−20
−40
−60
−80
−100
−120
2005
2010
2015
2020
2025
Legend
Minimum Threshold (46 ft amsl)
Measurable Objective (113 ft amsl)
Observed
Questionable Measurement
Ground Surface (178 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
62

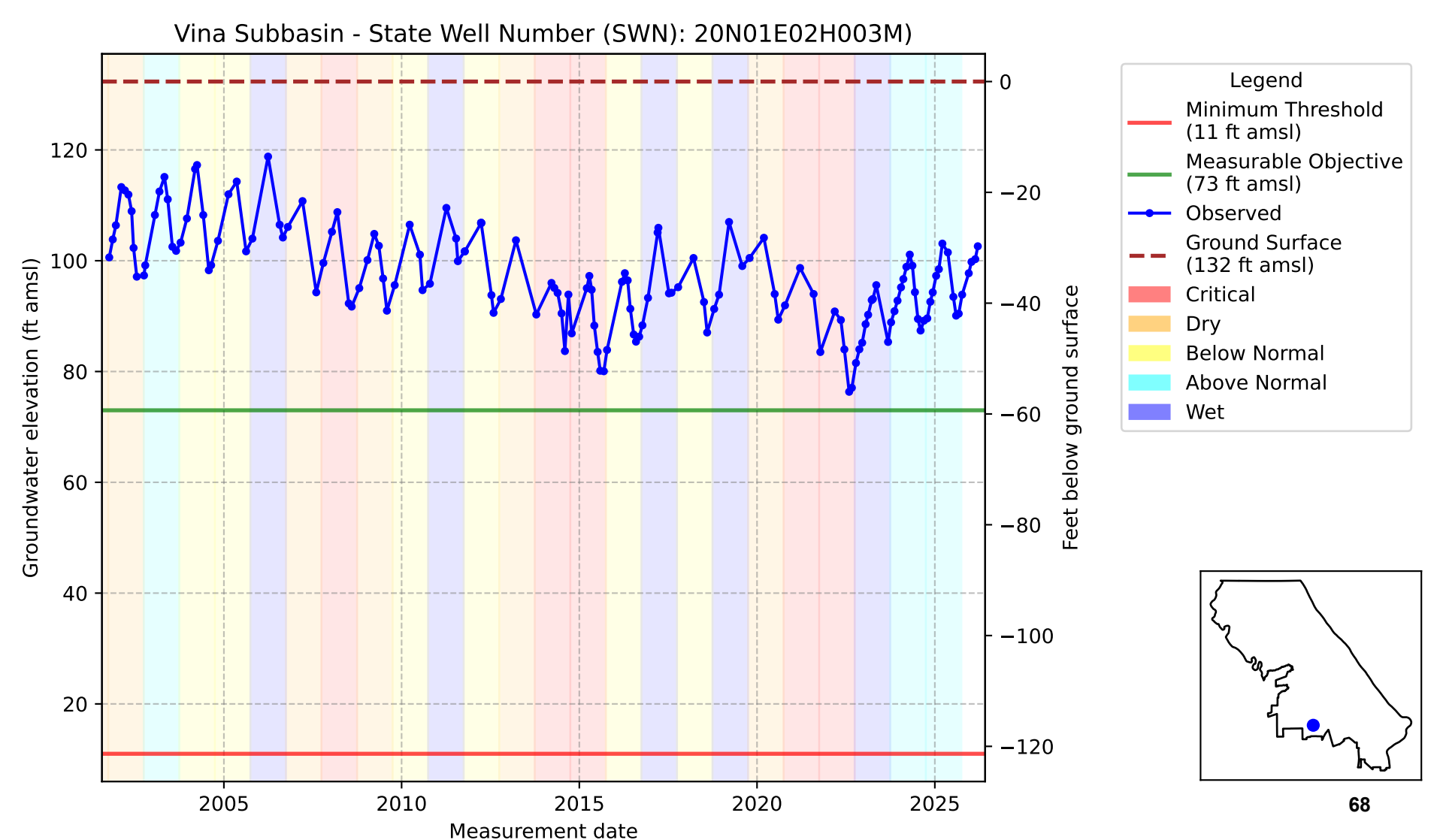

Vina Subbasin - State Well Number (SWN): CWSCH02)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
180
160
140
120
100
80
0
−20
−40
−60
−80
−100
1990
1995
2000
2005
2010
2015
2020
2025
Legend
Minimum Threshold (85 ft amsl)
Measurable Objective (105 ft amsl)
Observed
Ground Surface (183 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
63

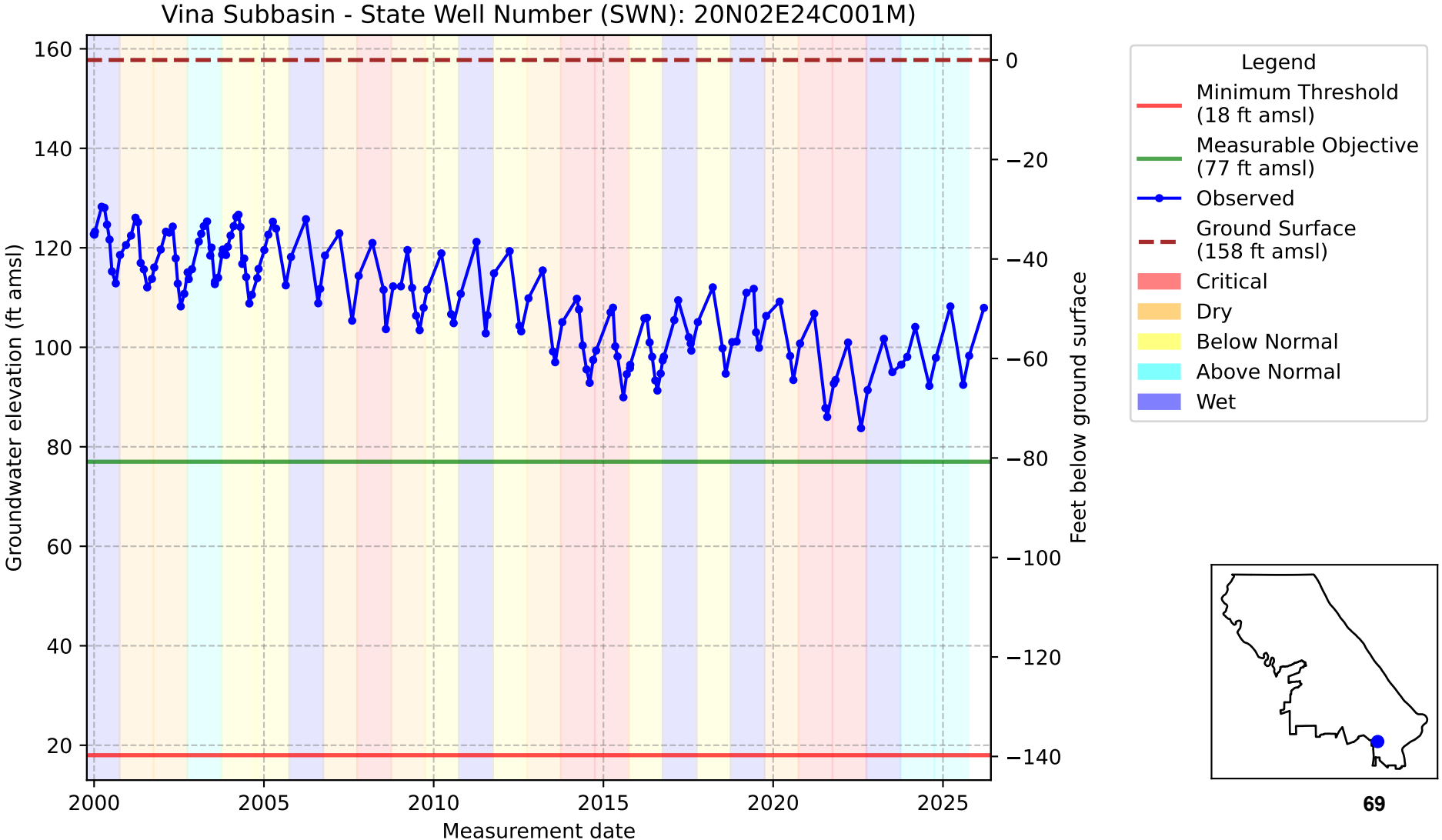

Vina Subbasin - State Well Number (SWN): 21N01E10B003M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
160
140
120
100
80
60
40
20
0
−20
−40
−60
−80
−100
−120
−140
−160
2000
2005
2010
2015
2020
2025
Legend
Minimum Threshold (10 ft amsl)
Measurable Objective (64 ft amsl)
Observed
Questionable Measurement
Ground Surface (170 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
64

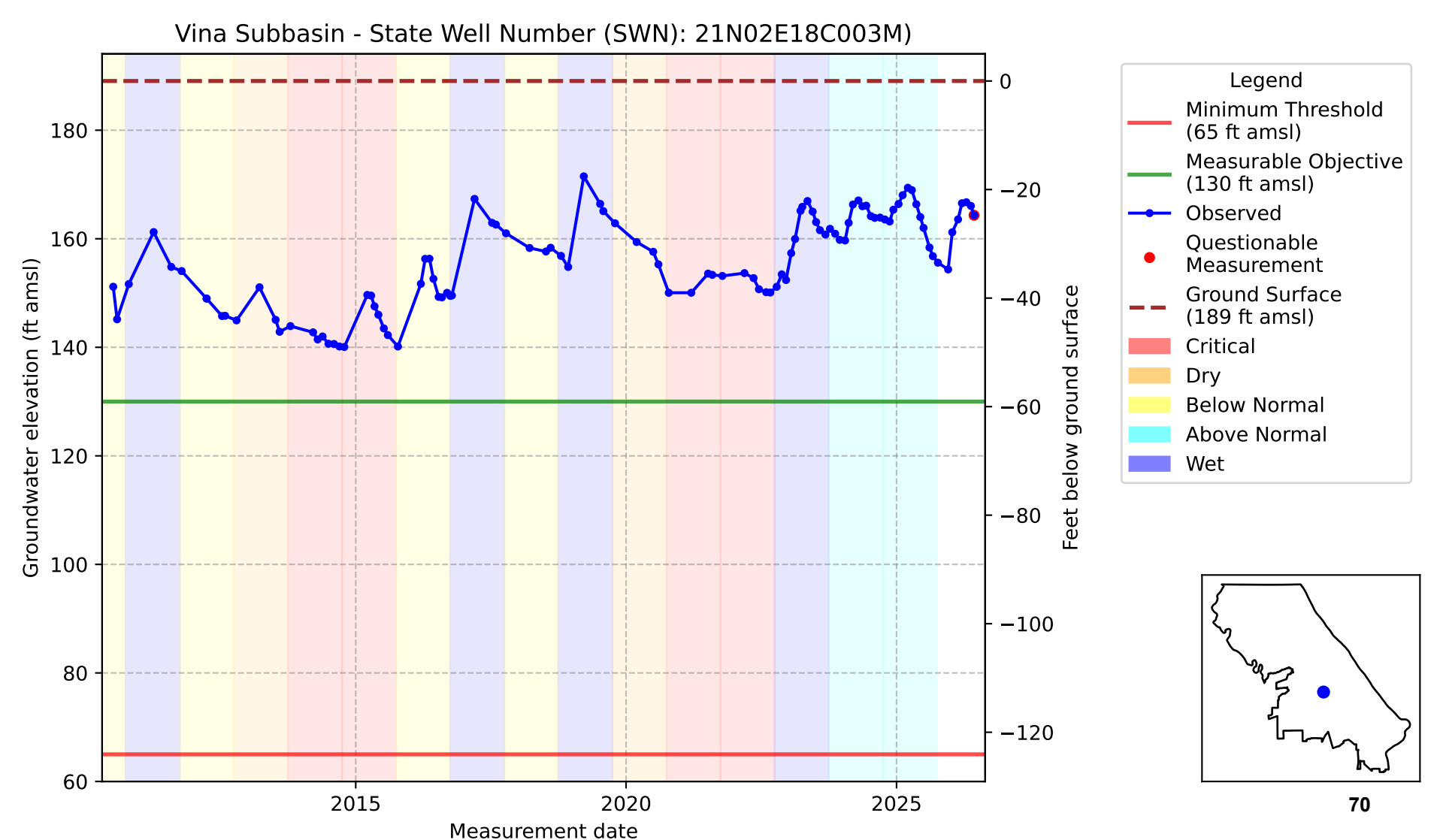

Vina Subbasin - State Well Number (SWN): 21N01E27D001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
140
120
100
80
60
40
20
0
−20
−40
−60
−80
−100
−120
1950
1960
1970
1980
1990
2000
2010
2020
Legend
Minimum Threshold (23 ft amsl)
Measurable Objective (84 ft amsl)
Observed
Questionable Measurement
Ground Surface (143 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
65

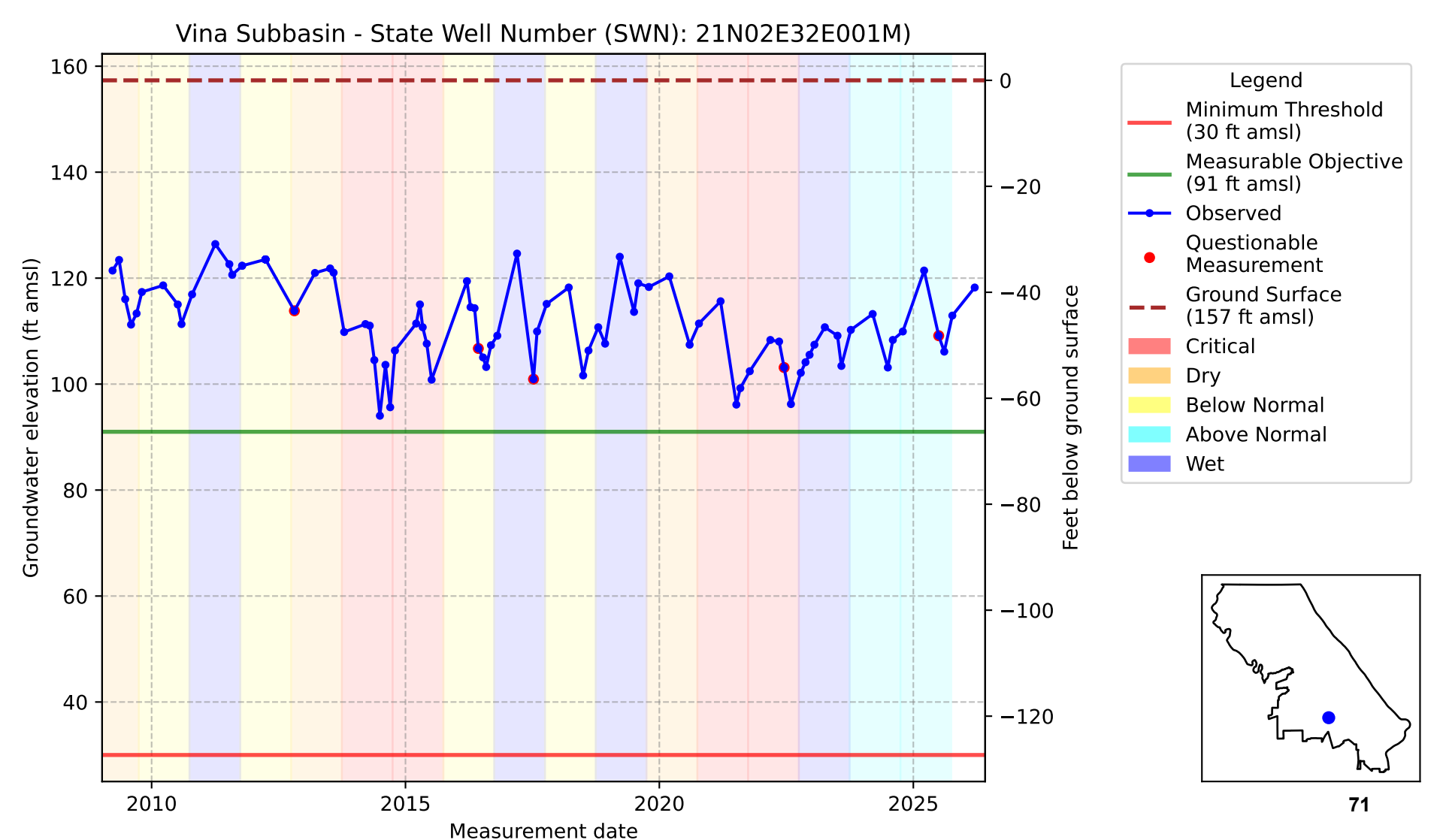

Vina Subbasin - State Well Number (SWN): 21N01E13L004M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
180
160
140
120
100
80
60
40
20
0
−20
−40
−60
−80
−100
−120
−140
−160
2015
2020
2025
Legend
Minimum Threshold (21 ft amsl)
Measurable Objective (82 ft amsl)
Observed
Questionable Measurement
Ground Surface (180 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
66

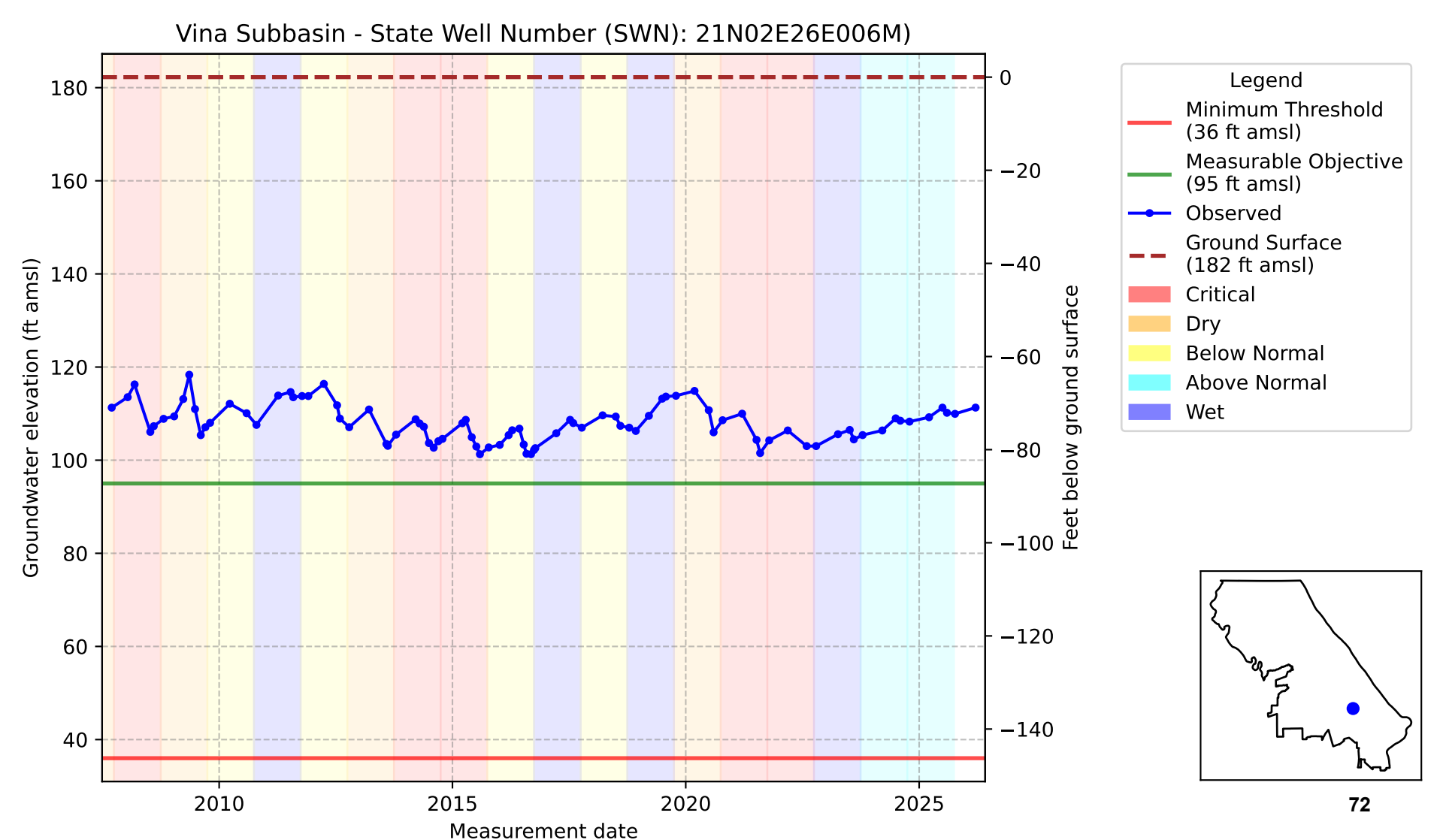

Vina Subbasin - State Well Number (SWN): 21N01E25K001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
140
120
100
80
60
40
20
0
−20
−40
−60
−80
−100
−120
1995
2000
2005
2010
2015
2020
2025
Legend
Minimum Threshold (21 ft amsl)
Measurable Objective (83 ft amsl)
Observed
Questionable Measurement
Ground Surface (154 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
67

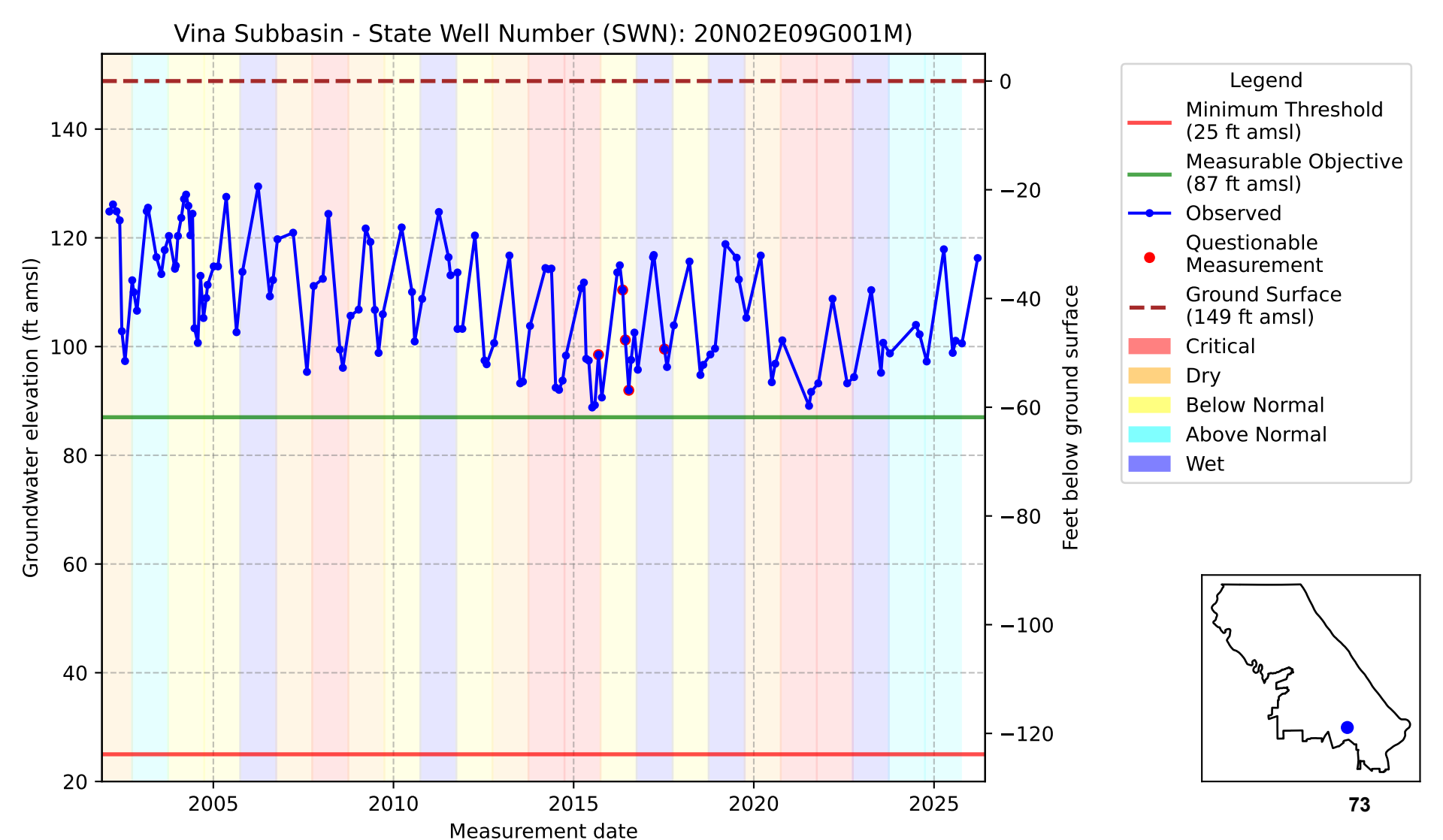

Vina Subbasin - State Well Number (SWN): 20N01E02H003M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
120
100
80
60
40
20
0
−20
−40
−60
−80
−100
−120
2005
2010
2015
2020
2025
Legend
Minimum Threshold (11 ft amsl)
Measurable Objective (73 ft amsl)
Observed
Ground Surface (132 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
68


Vina Subbasin - State Well Number (SWN): 20N02E24C001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
160
140
120
100
80
60
40
20
0
−20
−40
−60
−80
−100
−120
−140
2000
2005
2010
2015
2020
2025
Legend
Minimum Threshold (18 ft amsl)
Measurable Objective (77 ft amsl)
Observed
Ground Surface (158 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
69


Vina Subbasin - State Well Number (SWN): 21N02E18C003M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
180
160
140
120
100
80
60
0
−20
−40
−60
−80
−100
−120
2015
2020
2025
Legend
Minimum Threshold (65 ft amsl)
Measurable Objective (130 ft amsl)
Observed
Questionable Measurement
Ground Surface (189 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
70


Vina Subbasin - State Well Number (SWN): 21N02E32E001M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
160
140
120
100
80
60
40
0
−20
−40
−60
−80
−100
−120
2010
2015
2020
2025
Legend
Minimum Threshold (30 ft amsl)
Measurable Objective (91 ft amsl)
Observed
Questionable Measurement
Ground Surface (157 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
71


Vina Subbasin - State Well Number (SWN): 21N02E26E006M)
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
180
160
140
120
100
80
60
40
0
−20
−40
−60
−80
−100
−120
−140
2010
2015
2020
2025
Legend
Minimum Threshold (36 ft amsl)
Measurable Objective (95 ft amsl)
Observed
Ground Surface (182 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
72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Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
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120
100
80
60
40
20
0
−20
−40
−60
−80
−100
−120
2005
2010
2015
2020
2025
Legend
Minimum Threshold (25 ft amsl)
Measurable Objective (87 ft amsl)
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Questionable Measurement
Ground Surface (149 ft amsl)
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Dry
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Above Normal
Wet
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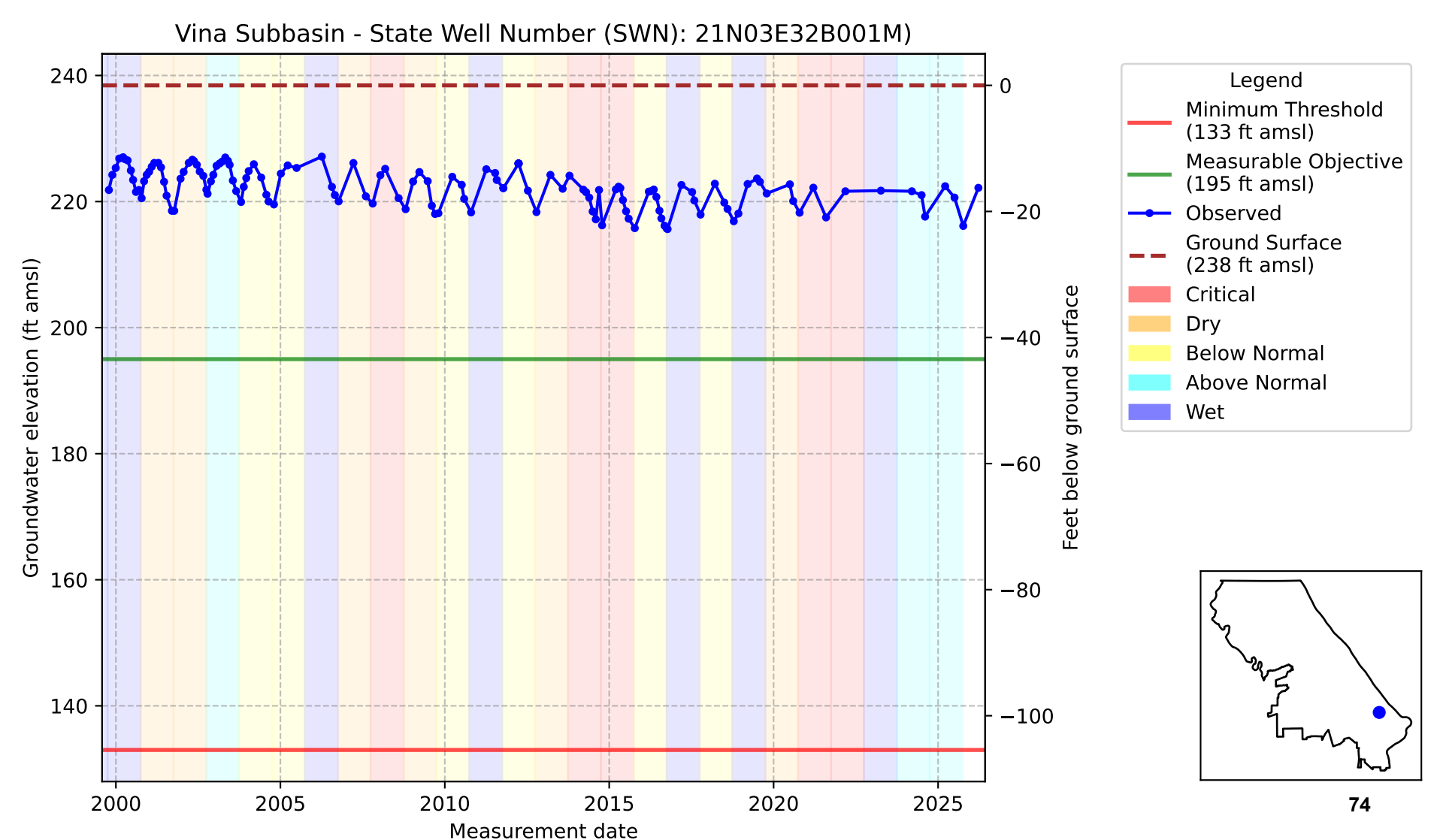
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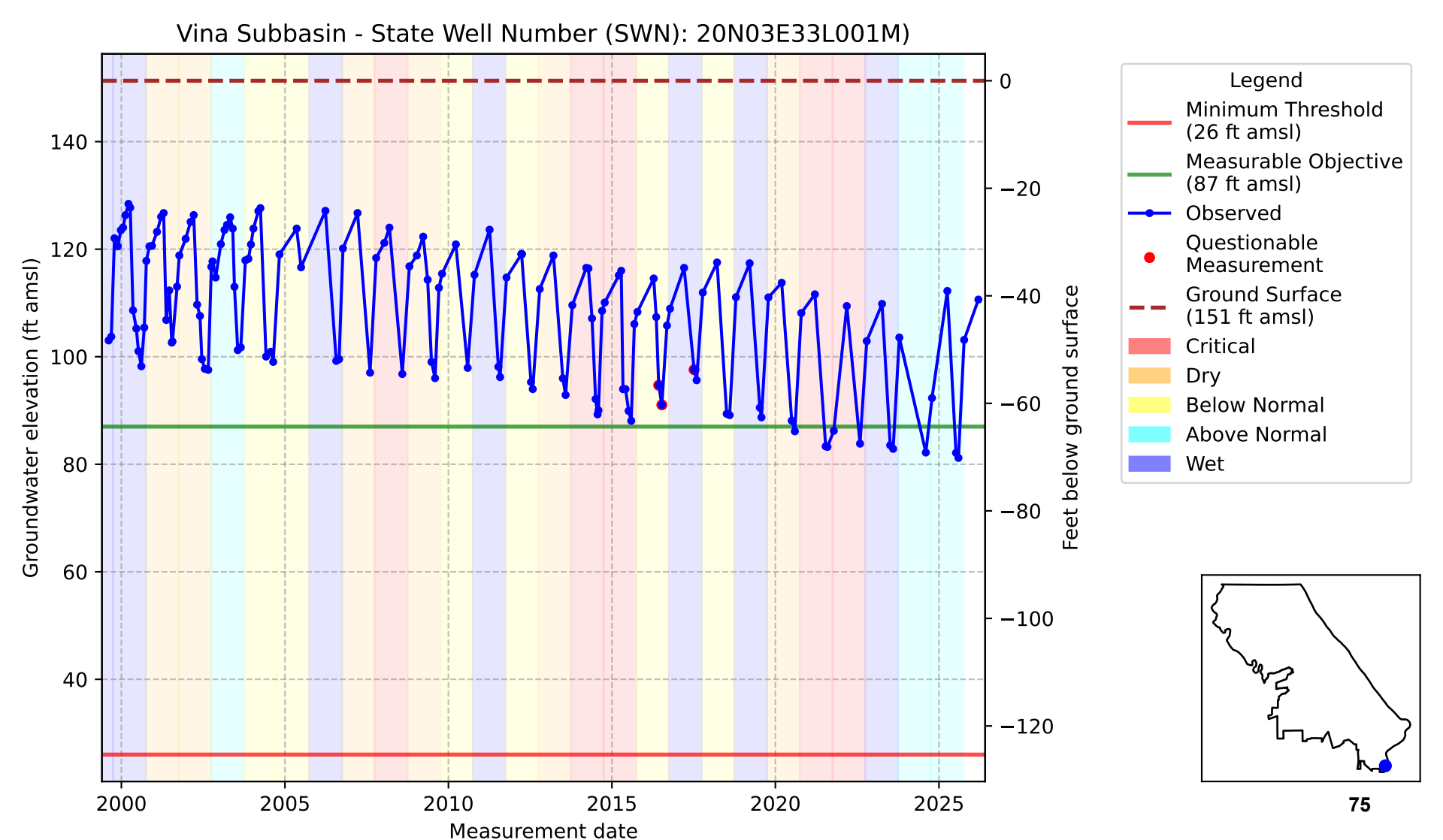
Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
240
220
200
180
160
140
0
−20
−40
−60
−80
−100
2000
2005
2010
2015
2020
2025
Legend
Minimum Threshold (133 ft amsl)
Measurable Objective (195 ft amsl)
Observed
Ground Surface (238 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
74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Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
140
120
100
80
60
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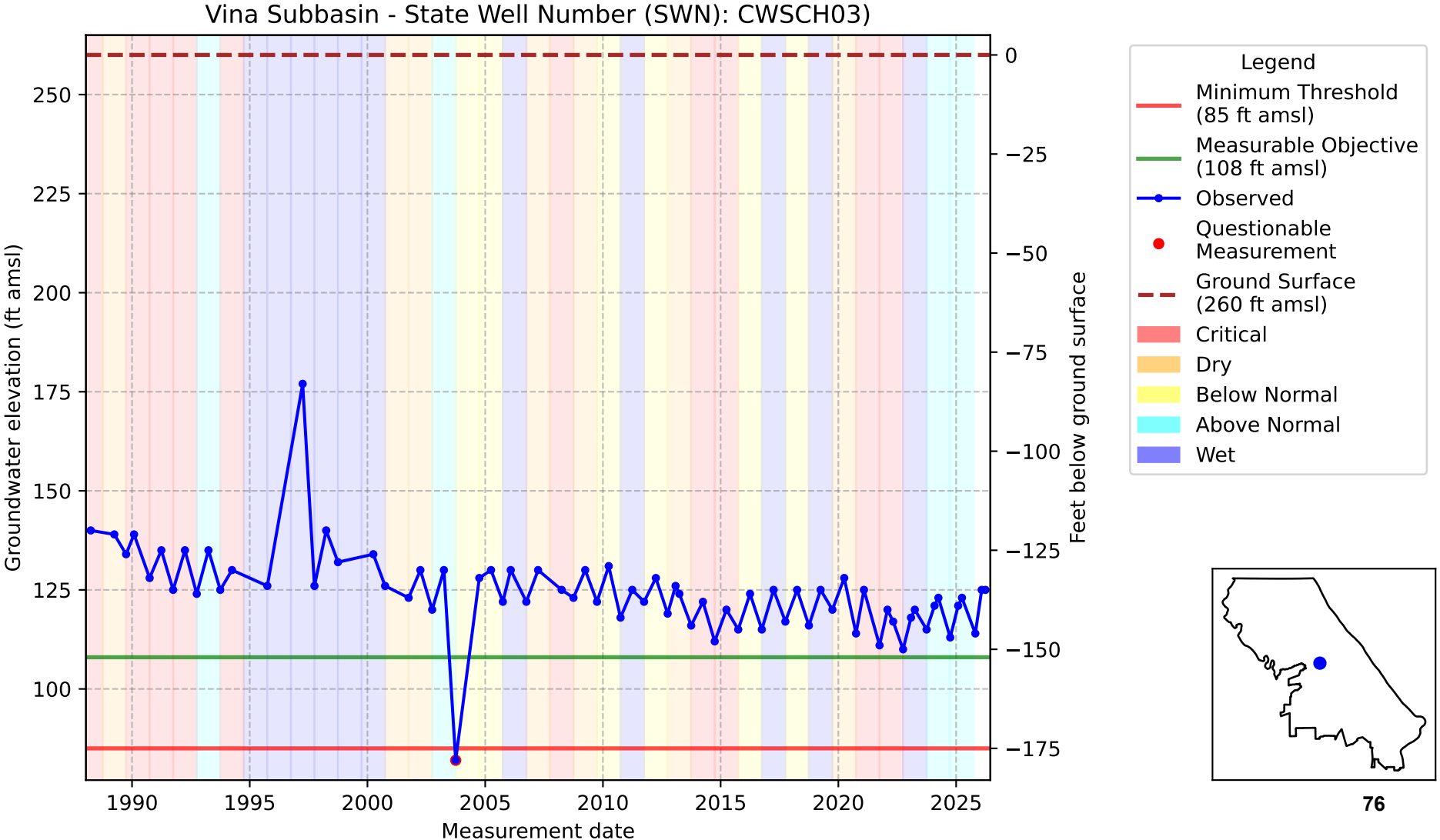
0
−20
−40
−60
−80
−100
−120
2000
2005
2010
2015
2020
2025
Legend
Minimum Threshold (26 ft amsl)
Measurable Objective (87 ft amsl)
Observed
Questionable Measurement
Ground Surface (151 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
75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Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
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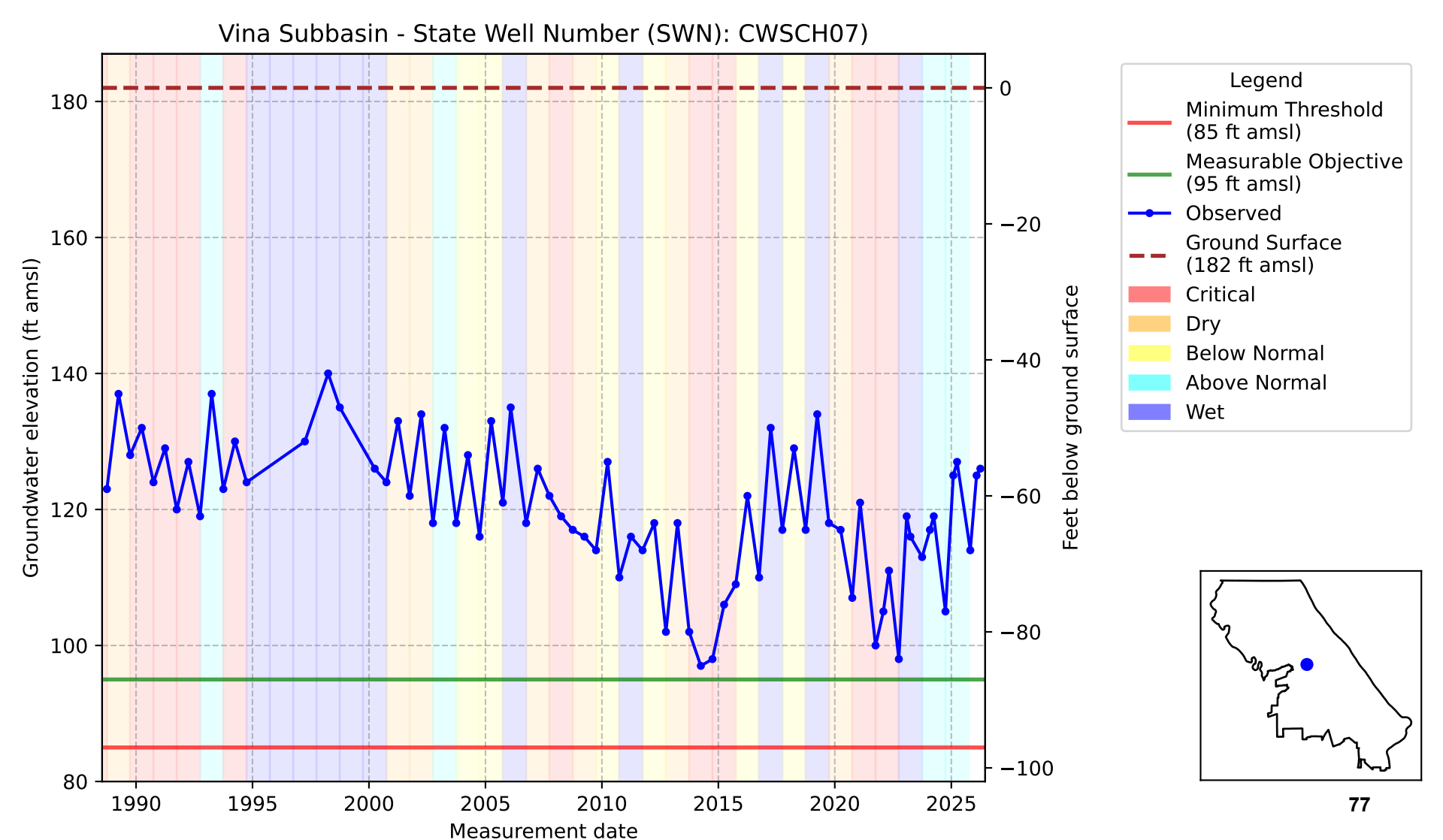
200
175
150
125
100
0
−25
−50
−75
−100
−125
−150
−175
1990
1995
2000
2005
2010
2015
2020
2025
Legend
Minimum Threshold (85 ft amsl)
Measurable Objective (108 ft amsl)
Observed
Questionable Measurement
Ground Surface (260 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
76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Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
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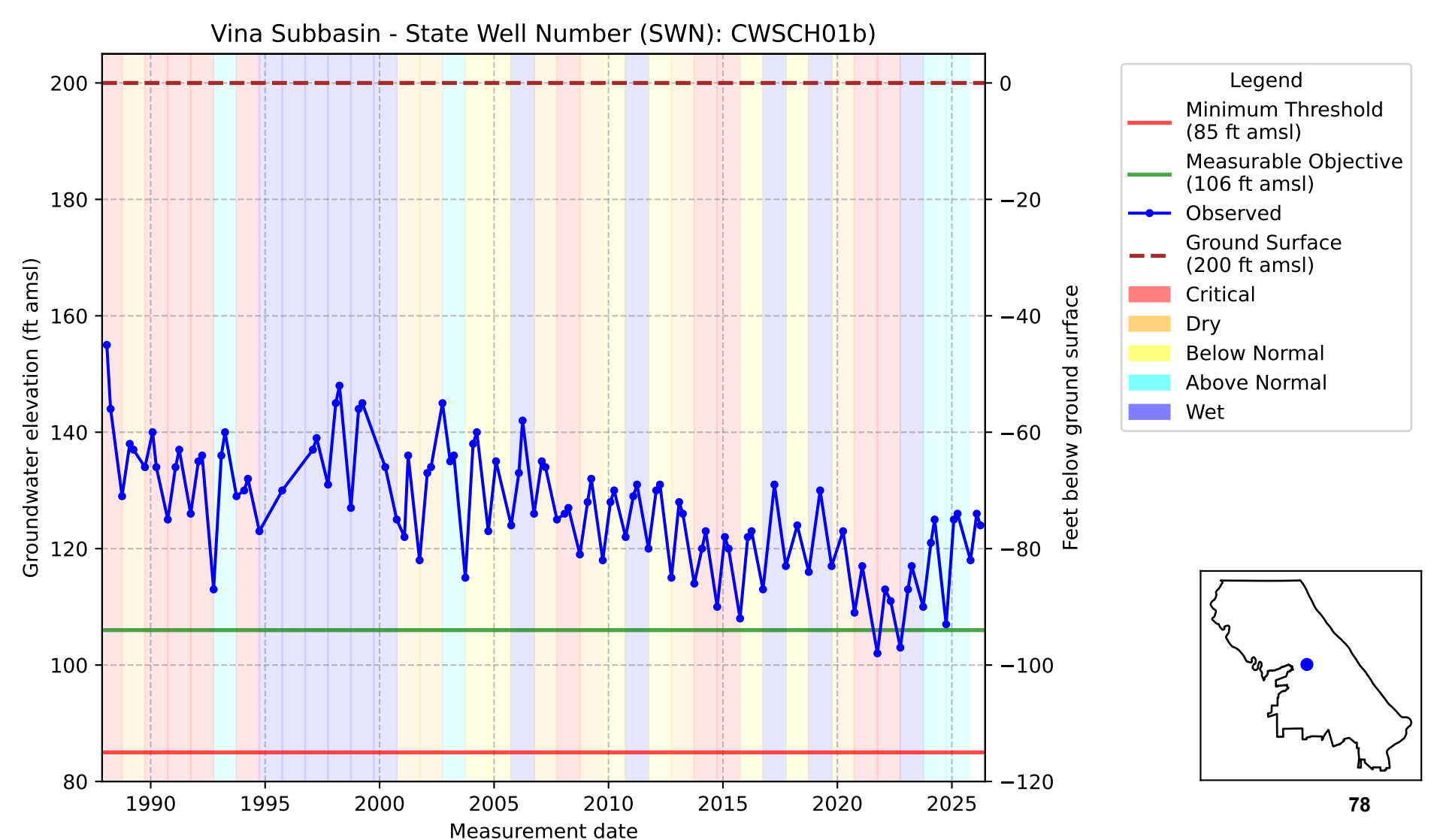
160
140
120
100
80
0
−20
−40
−60
−80
−100
1990
1995
2000
2005
2010
2015
2020
2025
Legend
Minimum Threshold (85 ft amsl)
Measurable Objective (95 ft amsl)
Observed
Ground Surface (182 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet
77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Groundwater elevation (ft amsl)
Feet below ground surface
Measurement date
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160
140
120
100
80
0
−20
−40
−60
−80
−100
−120
1990
1995
2000
2005
2010
2015
2020
2025
Legend
Minimum Threshold (85 ft amsl)
Measurable Objective (106 ft amsl)
Observed
Ground Surface (200 ft amsl)
Critical
Dry
Below Normal
Above Normal
Wet

Stakeholder Feedback received during Fall 2025 Meetings

Complete Meeting Summaries from the Fall 2025 stakeholder meetings are available in the Vina GSA Board and Rock Creek Reclamation District GSA, December 10, 2025 packet materials. The staff memo summary is included below.

To: Vina GSA Board and Rock Creek Reclamation District GSA
From: Becky Fairbanks, GSA Project Manager
Date: December 10, 2025
Subject: GSP Periodic Evaluation Stakeholder Meetings Feedback

Purpose

This Staff Memo provides a summary of the four stakeholder meetings that were conducted this Fall, including an overview of the content that was presented at those meetings, features of stakeholder discussions, analysis of the similarities and differences in feedback that was received across the groups, and requests direction on next steps.

Background

The Vina Groundwater Sustainability Agency (GSA) and Rock Creek Reclamation District GSA voted to approve the Vina Groundwater Sustainability Plan (GSP) in December 2021 and submitted to the California Department of Water Resources in January 2022. The GSP was approved by DWR in July 2023. As part of its review and approval, DWR provided six specific Recommended Corrective Actions (RCAs), including addressing data gaps. DWR communicated an expectation that the GSA would work to address these items by the first required periodic evaluation of the GSP. The Vina GSA also received funding through the Sustainable Groundwater Management (SGM) Round 2 grant program to support this work, including monitoring network improvements, domestic well data collection, and preparing the GSP Periodic Evaluation and any Plan Amendments.

The Sustainable Groundwater Management Act (SGMA), requires the Vina GSA complete the periodic evaluation of the Vina GSP by January 2027. As part of this process, the Vina GSA hosted a series of stakeholder meetings this Fall to gather preliminary feedback on potential technical approaches for Groundwater Levels Sustainable Management Criteria and Interconnected Surface Waters Sustainable Management Criteria.

Members of the Butte County Local Expert Group (LEG), and individuals and organizations representing environmental users, domestic well owners, and agricultural groundwater users were each invited to meet with GSA staff and technical consultants in small group venues on October 14, October 27, and November 13, 2025. The purpose of these meetings was to:

(1) Provide informational updates on groundwater sustainability planning and management activities, with a particular focus on the approach to groundwater level (GWL) and interconnected surface water (ISW) sustainable management criteria (SMC) for the upcoming GSP Periodic Evaluation, and
(2) Dedicate space to hear each individual stakeholder group's input, thoughts, concerns, and priorities on those topics.

Each of the four groups received the same informational presentation and were asked to weigh in on the same questions, to inform and shape the GSAs' approach to the GSP Periodic Evaluation.

Summary of Stakeholder Meetings

Between October 14 and November 13, 2025, four stakeholder meetings were held to solicit input on developing the Vina GSP Periodic Evaluation. Separate sessions were conducted with the Local Expert Group, Environmental Groups, Domestic Well Users, and Agricultural Users to share updates on GSP implementation, discuss key data updates, and gather input on proposed refinements to Sustainable Management Criteria for groundwater levels and interconnected surface waters.

The presentations provided an overview of the data gap analysis, DWR's corrective actions, and the ongoing efforts to update the domestic well inventory and refine the Representative Monitoring Site (RMS) networks. Stakeholders were shown updated well maps and proposed groundwater level and ISW monitoring networks, including options for recalculating Minimum Thresholds (MTs) using new data. The discussion also covered the proposed process and timeline for developing ISW and Groundwater Dependent Ecosystem (GDE) SMCs by 2026, as well as the next steps toward incorporating feedback into the GSP Periodic Evaluation due in 2027. Attachment 1 contains the meeting materials provided to each group. An agenda and meeting materials were sent in advance of the meeting.

Stakeholder Discussion Questions

The following questions were posed to each group:

- What reactions or questions do you have about the updated domestic well inventory and proposed Groundwater Level RMS Network?
- What are your thoughts on the two options for setting the Minimum Thresholds (MTs)?
    - Option 1: Recalculate using the updated domestic well inventory and RMS well locations, or
    - Option 2: Set based on historical minimum groundwater levels minus an agreed-upon buffer.
- What are your reactions or suggestions regarding the development of a Domestic Well Mitigation program as part of the Periodic Evaluation work?
- What reactions or questions do you have about the proposed ISW RMS Network?
- Do you have any recommended adjustments or additional considerations for the ISW network?
- What are your thoughts on the proposed approach and timeline for developing ISW SMCs?

Local Expert Group Meeting – October 14, 2025

The Local Expert Group (LEG) discussion differed from the other three meetings and focused on technical refinements to the proposed monitoring networks and SMC methodologies, including more discussion of initial model results. Members provided detailed feedback on how to better represent domestic well conditions, integrate ISW and GDE considerations, and improve the clarity and usability of model outputs for both technical audiences and the public.

Key points of discussion included the importance of selecting monitoring wells that reflect conditions experienced by shallow domestic wells, evaluating the use of historical minimum water levels with an added buffer to establish MTs, and determining the GSA's potential role in mitigating impacts to domestic wells. The group also emphasized improving visual tools and communication materials to clearly depict stream connectivity, disconnection thresholds, and groundwater–surface water interactions.

LEG Recommendations and Considerations:

- Ensure RMS wells selected for groundwater level monitoring are representative of domestic well conditions.
- Consider including multi-completion well 23N01W31M002M (600 ft) in the RMS network.
- Consider using historical minimum groundwater levels plus a buffer when setting MTs.
- Clarify the GSA's approach and potential commitment to mitigating dry wells.
- Include discussion of stream conditions and connectivity when presenting water balance information.
- Recognize that ISW/GDE monitoring may not capture effects on the urban canopy.
- Incorporate cross-section graphics to visually demonstrate where and when stream disconnection occurs.
- Simplify model graphics—consider using "budgeted diagram" formats to improve clarity and avoid overestimating conditions.

Environmental Stakeholder Meeting – October 27, 2025

The environmental stakeholders emphasized the importance of incorporating ecological perspectives into the GSP updates, particularly in setting SMCs for groundwater levels and ISWs. Participants urged the GSA to ensure that environmental thresholds—not just domestic well data—inform MTs, emphasizing protection for valley oaks, blue oaks, and other groundwater-dependent vegetation will also lead to protection of domestic wells.

Participants discussed gaps in The Nature Conservancy's (TNC) GDE mapping, noting it excludes urban forests and oak woodlands that rely on shallow groundwater. They encouraged the GSA to coordinate with local data sources such as Cal FIRE, the Forest Health Collaborative, and Butte County's Habitat Conservation Plan to strengthen the environmental dataset. Participants also expressed strong interest in combined stakeholder discussions and broader public involvement, as well as enhanced collaboration with neighboring GSAs.

Environmental Group Recommendations and Considerations:

- Raise Minimum Thresholds to provide stronger protection for GDEs and ISWs.
- Use ecological indicators—such as valley oaks—as proxies when setting MTs and developing SMCs.
- Evaluate rooting depths of groundwater-dependent vegetation (including urban forests) to establish environmentally protective thresholds.
- Expand or refine GDE mapping to include valley oak woodlands and urban canopy areas not captured by current TNC datasets.
- Consider using valley oak trees or other keystone species as biological monitoring points.
- Increase opportunities for integrated public and stakeholder meetings rather than holding isolated group discussions.

- Continue communication and transparency in responding to prior environmental comment letters and technical input.

Domestic Well Users Meeting – October 27, 2025

The discussion with domestic well users centered on how groundwater level management and MT methodologies directly affect residential well reliability. Participants expressed strong concern that 2022 GSP MTs are too low to protect domestic wells and groundwater-dependent vegetation. There was consensus that wells should be protected from going dry and that the GSA should develop a mitigation program and more proactive communication with at-risk well owners.

Participants also asked for greater transparency in how the RMS network is established and how wells are classified by depth. Many favored using historical minimums (rather than the 2022 GSP inflection-point graphing method) to set MTs, paired with triggers or action levels to prompt early response before undesirable results occur. Funding and equity concerns were emphasized, with several participants calling for a financial mechanism to support well deepening or replacement similar to agricultural assistance programs.

Domestic Well User Recommendations and Considerations:

- Raise MTs to better protect shallow domestic wells and avoid any wells going dry.
- Favor setting MTs using historical minimum levels rather than approaches that allow levels to drop below historic lows.
- Include triggers or early-warning levels to prompt GSA action before MTs are reached.
- Increase the number of shallow wells included in the RMS network; consider recruiting more volunteer wells for monitoring.
- Notify domestic well owners in areas where groundwater levels approach MTs.
- Establish a domestic well mitigation program to assist with repair, deepening, or replacement when wells are impacted.
- Coordinate with Environmental Health on upcoming ordinance updates that may affect well replacement setbacks.
- Recognize the disproportionate impacts on domestic users compared with agricultural and development sectors and consider equity in mitigation funding.
- Provide continued opportunities for public input, including meetings scheduled at more accessible times for working residents.

Agricultural Stakeholder Meeting – November 13, 2025

The Agricultural Representatives discussion centered on the implications of proposed updates to the Representative Monitoring Site (RMS) networks, Sustainable Management Criteria (SMC), and the domestic well inventory. Participants sought clarity on why RMS updates are needed if the current GSP was approved by DWR, and asked detailed questions about representativeness, data reliability, and how RMS wells are selected and validated. There was strong interest in ensuring the GSA maintains flexibility—both in MT methodologies and in future plan amendments—to avoid locking the basin into restrictive criteria before data gaps are fully addressed.

Participants also emphasized the importance of evaluating economic impacts of any new MTs or mitigation programs, noting that agricultural operations depend on predictable groundwater access. While supportive of domestic well protection, they asked for more detail on the purpose, scope, and funding responsibilities of any future well mitigation program. For ISW, several participants expressed concern about moving forward given existing data gaps, recommending the GSA proceed carefully and ensure decisions can be revisited as monitoring improves.

Agricultural Group Recommendations and Considerations:

- Clearly explain why RMS updates are needed in relation to what is required from DWR.
- Provide narrative descriptions of proposed changes before seeking detailed feedback and decision making.
- Ensure RMS wells are truly representative of subbasin conditions and verify their suitability (depth, historical data, reliability).
- Establish or maintain MTs that provide flexibility to farmers given relatively good groundwater conditions present in the subbasin, even having gone through the recent historic drought.
- Consider retaining current GWL MTs while identifying the number of wells at risk, rather than recalculating MTs immediately.
- Evaluate the economic impacts of potential MT changes and any mitigation program, particularly for agricultural operations.
- Clarify the purpose, responsibilities, and funding sources for any potential domestic well mitigation program.
- Consider limiting mitigation responsibility to wells constructed after a certain year and requiring well registration, as other basins have done.
- Proceed cautiously with ISW SMC development given existing data gaps; ensure decisions can be adjusted in future evaluations as new data may warrant adjustments.
- Continue coordination with neighboring subbasins, especially regarding ISW connectivity and model calibration.

Vina GSA Stakeholder Advisory Committee Feedback:

Minimum Thresholds and RMS Network

The Vina GSA Stakeholder Advisory Committee (SHAC) is a conglomerate of the representatives from each of the various beneficial users and stakeholders in the Vina Subbasin. During the four stakeholder meetings, the corresponding SHAC representative(s) was invited to attend the stakeholder meeting to gain insight into their user group's concerns and perspectives.

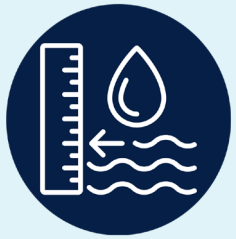
The SHAC received the summary of Stakeholder Meetings' Recommendations and Considerations detailed in this Memo at their December 3, 2025 meeting and were asked to provide additional feedback based on the various perspectives of each stakeholder group to share with the Board. SHAC expressed broad support for continuing to evaluate all three MT-setting approaches presented by staff: 1) recalculating MTs using the updated domestic well inventory and revised RMS polygons, 2) applying a historical-minimum with buffer approach, and 3) considering retention of the current MTs and monitoring network as a reference point. Members emphasized that additional data and side-by-side comparisons will be critical to making informed decisions.

Several members noted the value of comparing Vina's MTs with those in neighboring subbasins to help identify discrepancies and ensure consistency where appropriate. While some SHAC members highlighted that GSAs ultimately manage to Measurable Objectives (MOs) and Interim Milestones (IMs), others expressed concern that the existing MTs may not sufficiently protect domestic well owners. The committee also discussed data limitations in the domestic well inventory, with some members recommending efforts to improve well information, including the potential for a well registry.

Domestic Well Mitigation Program Framework

The SHAC supported staff further exploring options for a Domestic Well Mitigation Program, including reviewing approaches taken by neighboring basins. Members noted the importance of clearly defining the GSA's role relative to Butte County's existing mitigation program to ensure the effort remains aligned with SGMA's intent and avoids duplicating responsibilities. It should be noted that the County's Drought Resilience and Outreach Project program, which includes a well mitigation program, is a temporary short-term program that is funded by the State Water Resources Control Board for domestic well owners that have been impacted specifically by drought, meet low-income disadvantage community requirements, and/or located within burn-scar/disaster recovery areas.
While some members underscored that private well owners retain responsibility for maintaining their wells, others felt a GSA-level mitigation program could still be appropriate if groundwater conditions or MT methodologies contribute to avoidable impacts. Members also indicated that development of any program should be informed by a more complete domestic well inventory and consideration of agricultural well data.

Groundwater Level Strawman and Consideration of Expanded RMS Network



Vina and Rock Creek Reclamation District GSA Boards

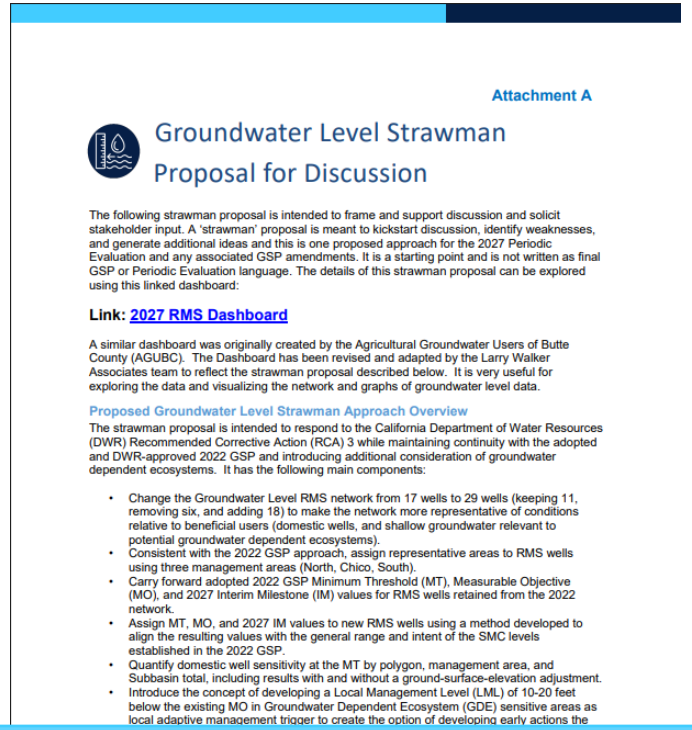
July 8, 2026

Presentation by: Christina Buck, Ph.D.
Assistant Director, Butte County Water and Resource Conservation
[Providing technical staff support to the Vina GSA]

Today

- Introduction to the Groundwater Level Sustainability Indicator Strawman
- Review the main strawman elements and how they connect to other sustainability indicators.
- Provide historical context on groundwater conditions in the Vina Subbasin
- Definition of terms: “groundwater” and perched groundwater
- Highlight RMS network changes for Board Consideration

Goal today: lay the groundwork for further discussion and refinements of the GWL Strawman. Receive initial feedback on proposed changes to the RMS network



Attachment A

Groundwater Level Strawman
Proposal for Discussion

The following strawman proposal is intended to frame and support discussion and solicit stakeholder input. A ‘strawman’ proposal is meant to kickstart discussion, identify weaknesses, and generate additional ideas and this is one proposed approach for the 2027 Periodic Evaluation and any associated GSP amendments. It is a starting point and is not written as final GSP or Periodic Evaluation language. The details of this strawman proposal can be explored using this linked dashboard:

Link: 2027 RMS Dashboard

A similar dashboard was originally created by the Agricultural Groundwater Users of Butte County (AGUBC). The Dashboard has been revised and adapted by the Larry Walker Associates team to reflect the strawman proposal described below. It is very useful for exploring the data and visualizing the network and graphs of groundwater level data.

Proposed Groundwater Level Strawman Approach Overview

The strawman proposal is intended to respond to the California Department of Water Resources (DWR) Recommended Corrective Action (RCA) 3 while maintaining continuity with the adopted and DWR-approved 2022 GSP and introducing additional consideration of groundwater dependent ecosystems. It has the following main components:

- Change the Groundwater Level RMS network from 17 wells to 29 wells (keeping 11, removing six, and adding 18) to make the network more representative of conditions relative to beneficial users (domestic wells, and shallow groundwater relevant to potential groundwater dependent ecosystems).
- Consistent with the 2022 GSP approach, assign representative areas to RMS wells using three management areas (North, Chico, South).
- Carry forward adopted 2022 GSP Minimum Threshold (MT), Measurable Objective (MO), and 2027 Interim Milestone (IM) values for RMS wells retained from the 2022 network.
- Assign MT, MO, and 2027 IM values to new RMS wells using a method developed to align the resulting values with the general range and intent of the SMC levels established in the 2022 GSP.
- Quantify domestic well sensitivity at the MT by polygon, management area, and Subbasin total, including results with and without a ground-surface-elevation adjustment.
- Introduce the concept of developing a Local Management Level (LML) of 10-20 feet below the existing MO in Groundwater Dependent Ecosystem (GDE) sensitive areas as local adaptive management trigger to create the option of developing early actions the

What is a Strawman Proposal?

An initial draft created to jump-start discussion and identify potential weaknesses or areas for improvement, serving as a starting point for collaborative refinement.

GWL Strawman Introduction

There are essentially two key choices for the GSA Boards to consider:

1. Revise the RMS monitoring network?
This directly influences the assessment of impacts on beneficial users, as requested in the Recommended Corrective Actions (RCA).

1) Replace at least two RMS wells in the Vina South Management Area (due to frequent questionable measurements and/or location outside of the subbasin) and,
2) Improve representativeness of the network based on new information available since the adoption of the 2022 GSP.

2. Make changes to the Sustainable Management Criteria (MT etc.)?
Goes beyond the scope of the RCA, but may be considered in light of new information and some stakeholder concerns

Connections to Storage, Subsidence, and Interconnected Surface Water

Groundwater level RMS monitoring network is referenced by more than one SGMA sustainability indicator in the 2022 GSP

- **Groundwater storage:** storage change estimates rely on groundwater level changes across the monitoring network.
- **Land subsidence:** groundwater levels can help interpret subsidence risk and changes in aquifer-system stress

Recent Board-approved amendments identify the Groundwater Level RMS network as the locations for Land Subsidence RMS.

Change in Storage Calculations

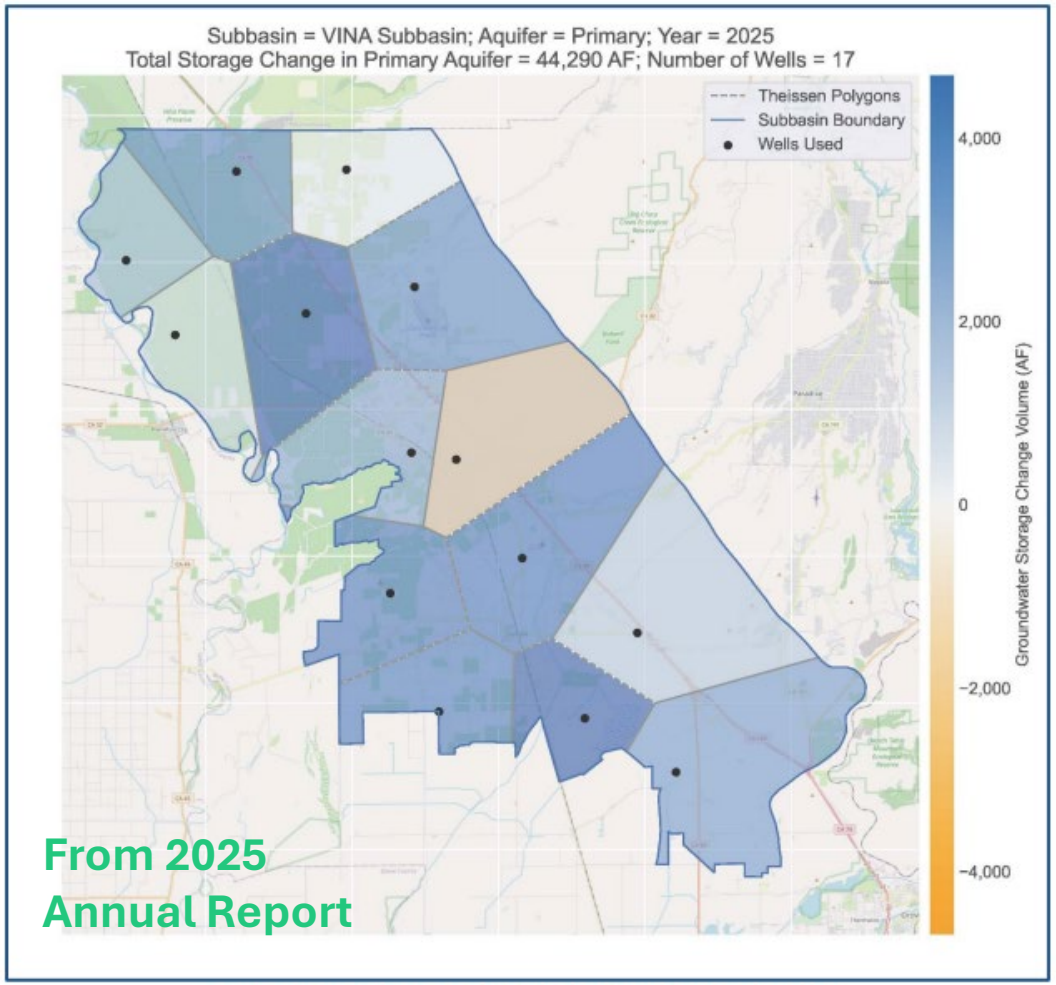
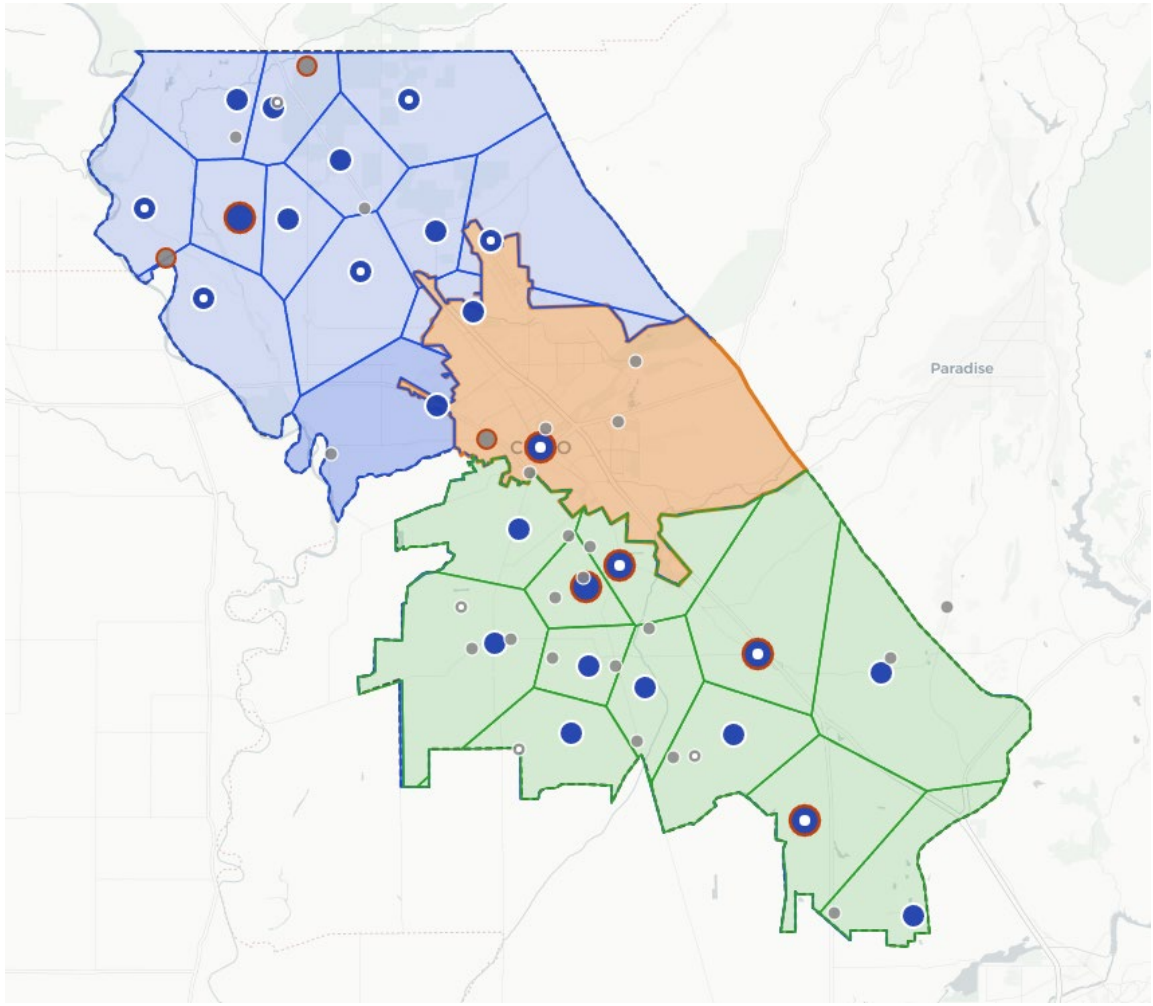


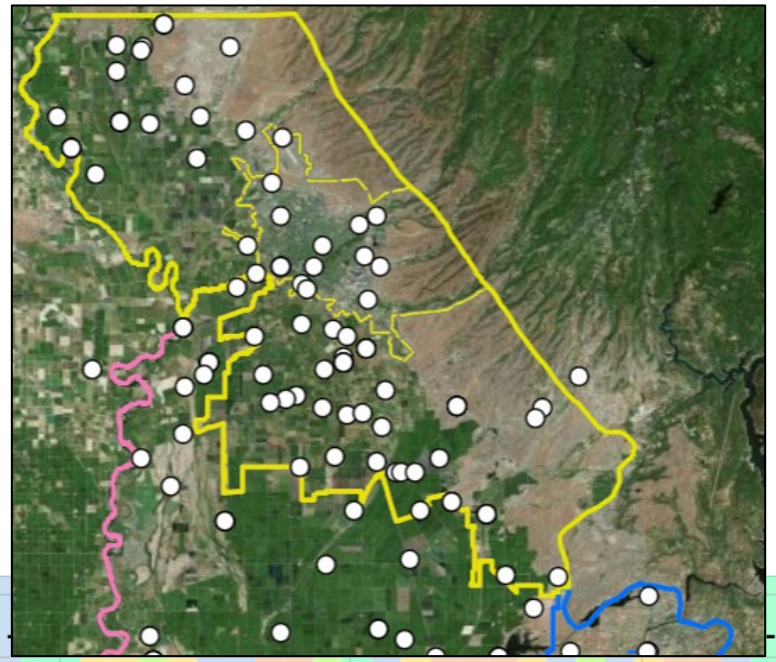
Figure 4-2. Vina Subbasin Change in Groundwater Storage from Spring 2024 to Spring 2025

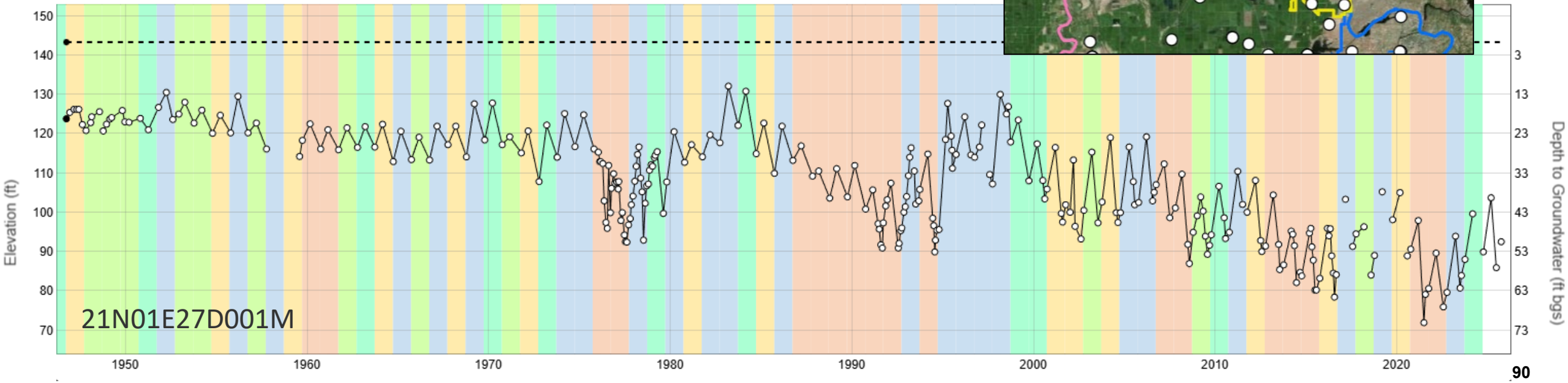


Historical Context: Monitoring and Conditions

Groundwater levels respond to wet and dry cycles and long-term pumping/recharge patterns

- Vina has a long record of groundwater level monitoring by County and DWR staff
- Groundwater levels generally decline during dry periods and rise during wet periods, but not uniformly everywhere.
- Reached new historical lows in 2022 in some monitoring wells
- Groundwater levels have come up since then



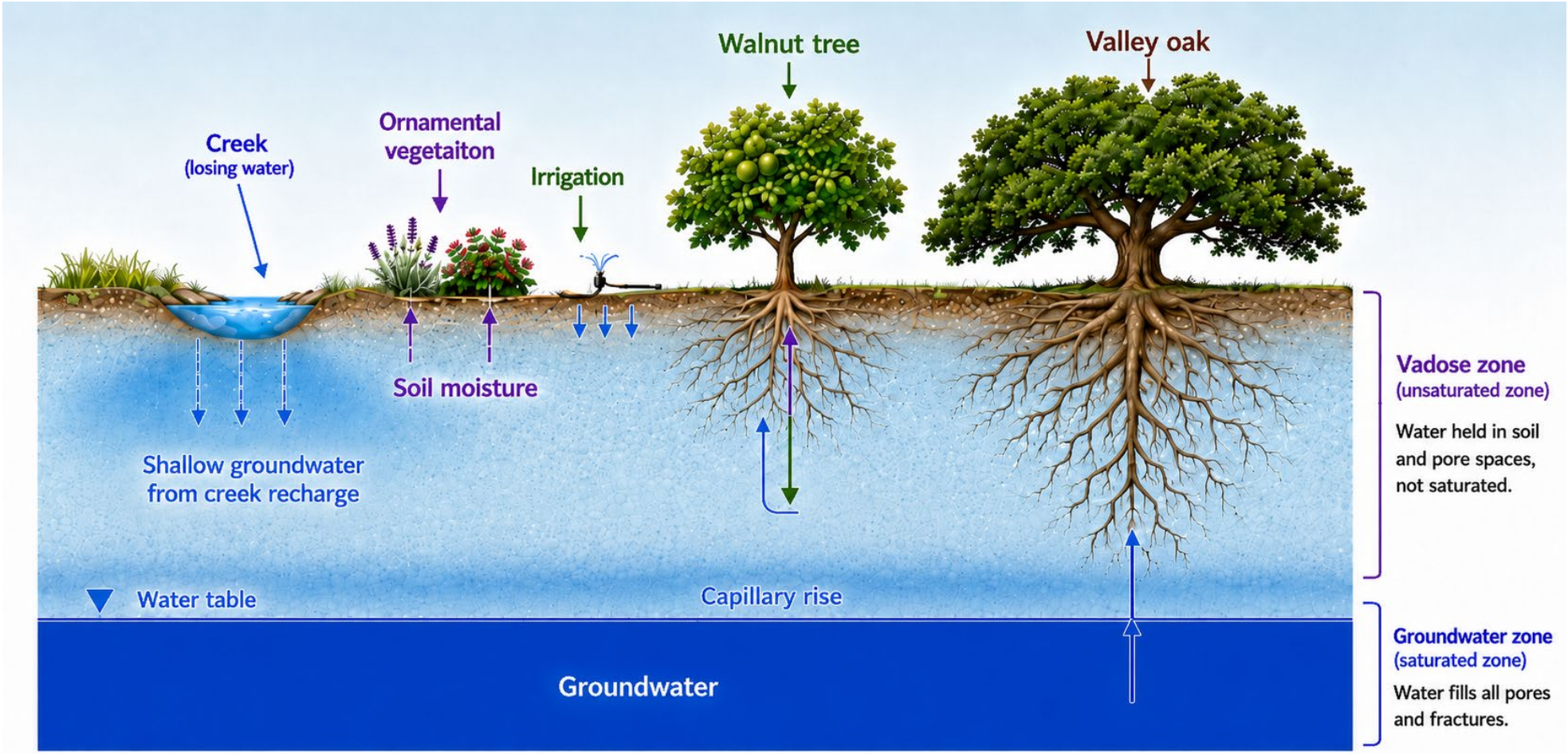


Groundwater vs. Water Underground

Not all water below land surface is “groundwater”

SGMA Definition:
“Groundwater” means water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water that flows in known and definite channels.

USGS definition:
Groundwater is water that exists underground in saturated zones beneath the land surface. The upper surface of the saturated zone is called the water table.

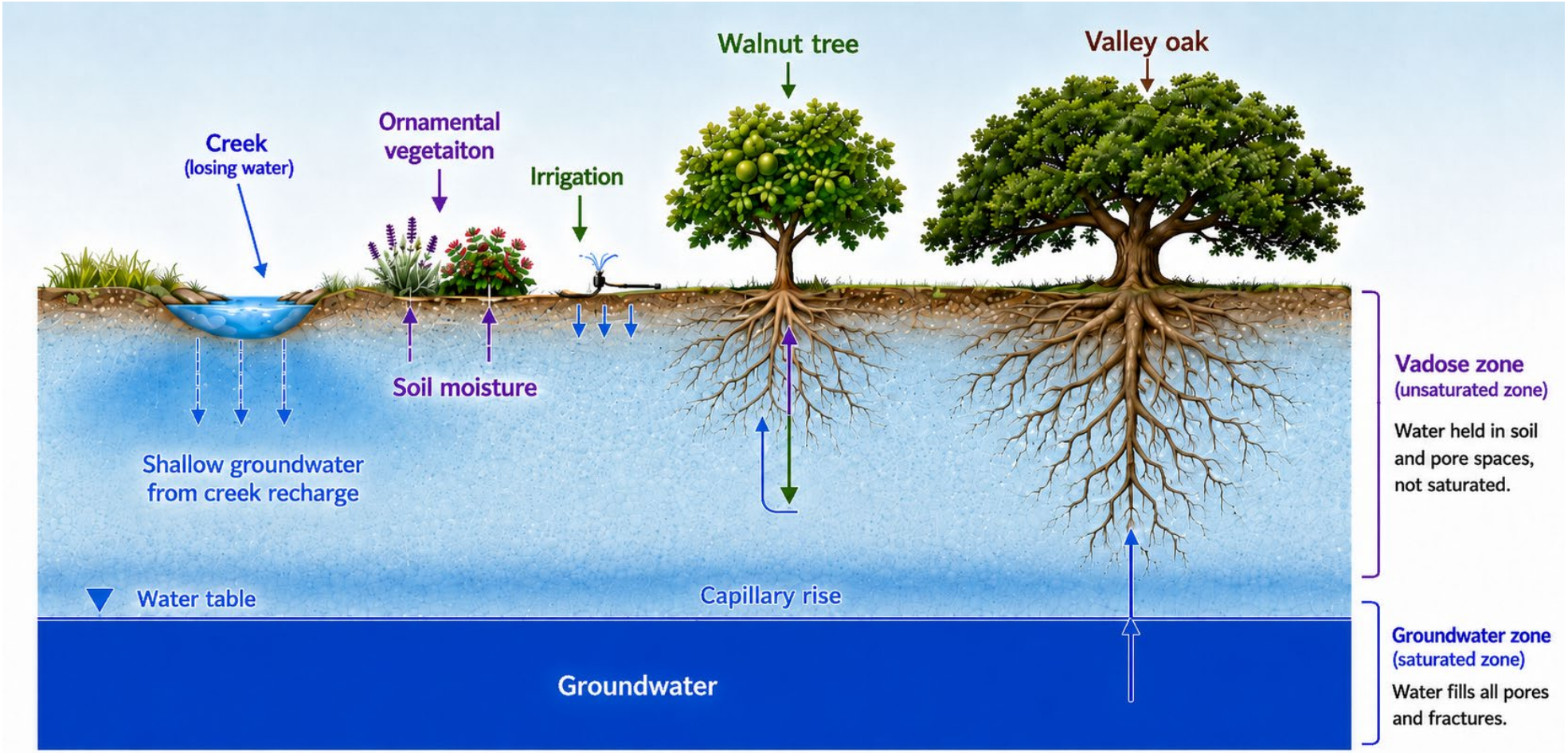


Groundwater vs. Water Underground

Not all water below land surface is “groundwater”

Other water sources available to vegetation:

- Soil moisture: water held in the root zone after rain or irrigation.
- Shallow or perched water: localized water that may sit above a less-permeable layer (i.e. clay).
- Water soaking into the ground from a creek, stream, or other drainage



Perched and Shallow Groundwater Concepts

Localized shallow water can be important for vegetation, but may not represent the "principal aquifer" or regional groundwater conditions

- Perched groundwater can form where water is held above a clay or other low-permeability layer (e.g., cemented lahar).
- Shallow groundwater may be seasonal, localized, or influenced by creeks, drainages, irrigation, or recharge.

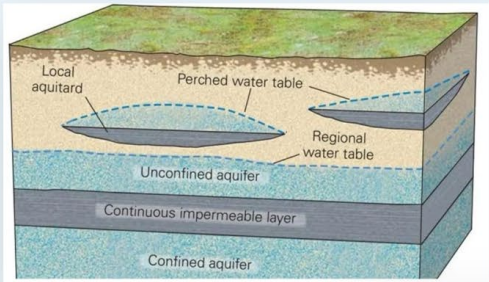
Perched Groundwater Systems

VINA GSA GRANT

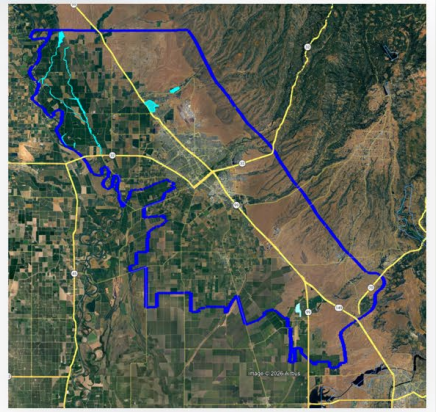
COMPONENT 5

Site N3 — Groundwater Level Response

Conceptual Model

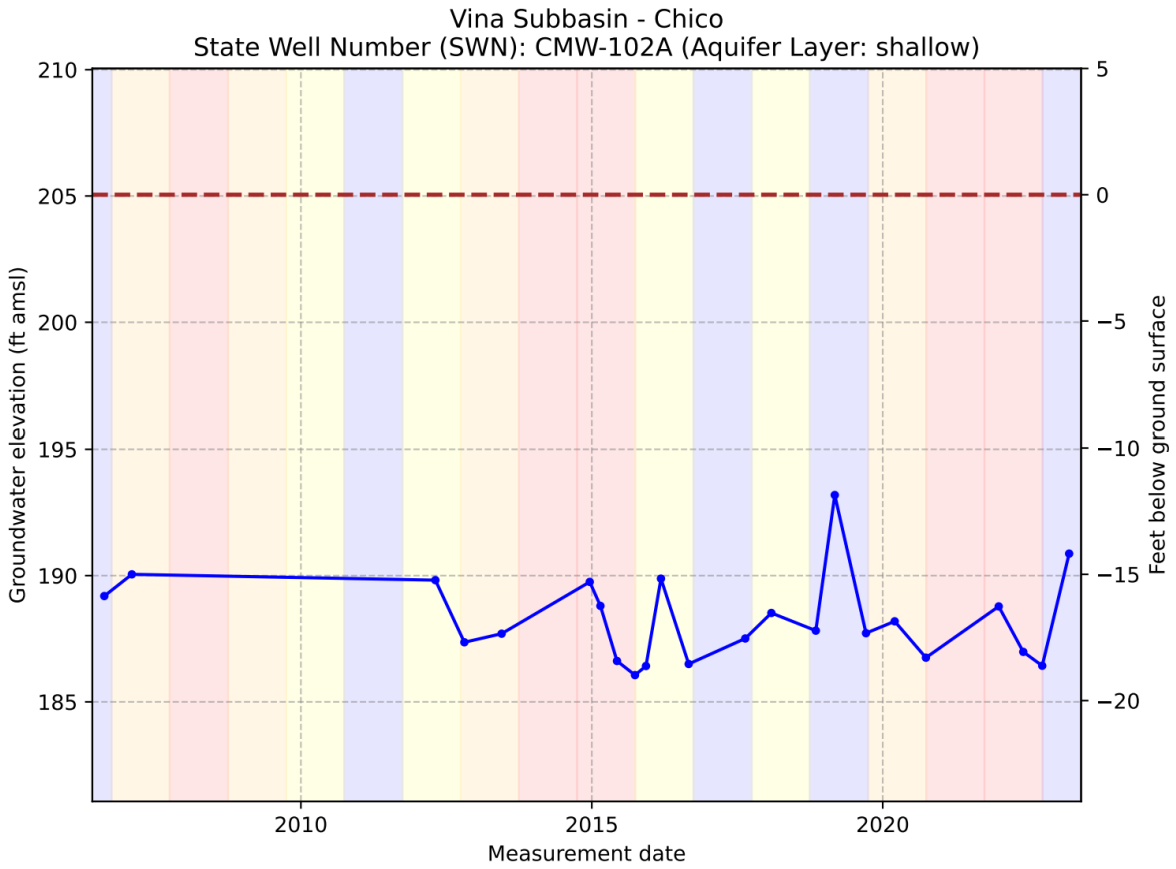


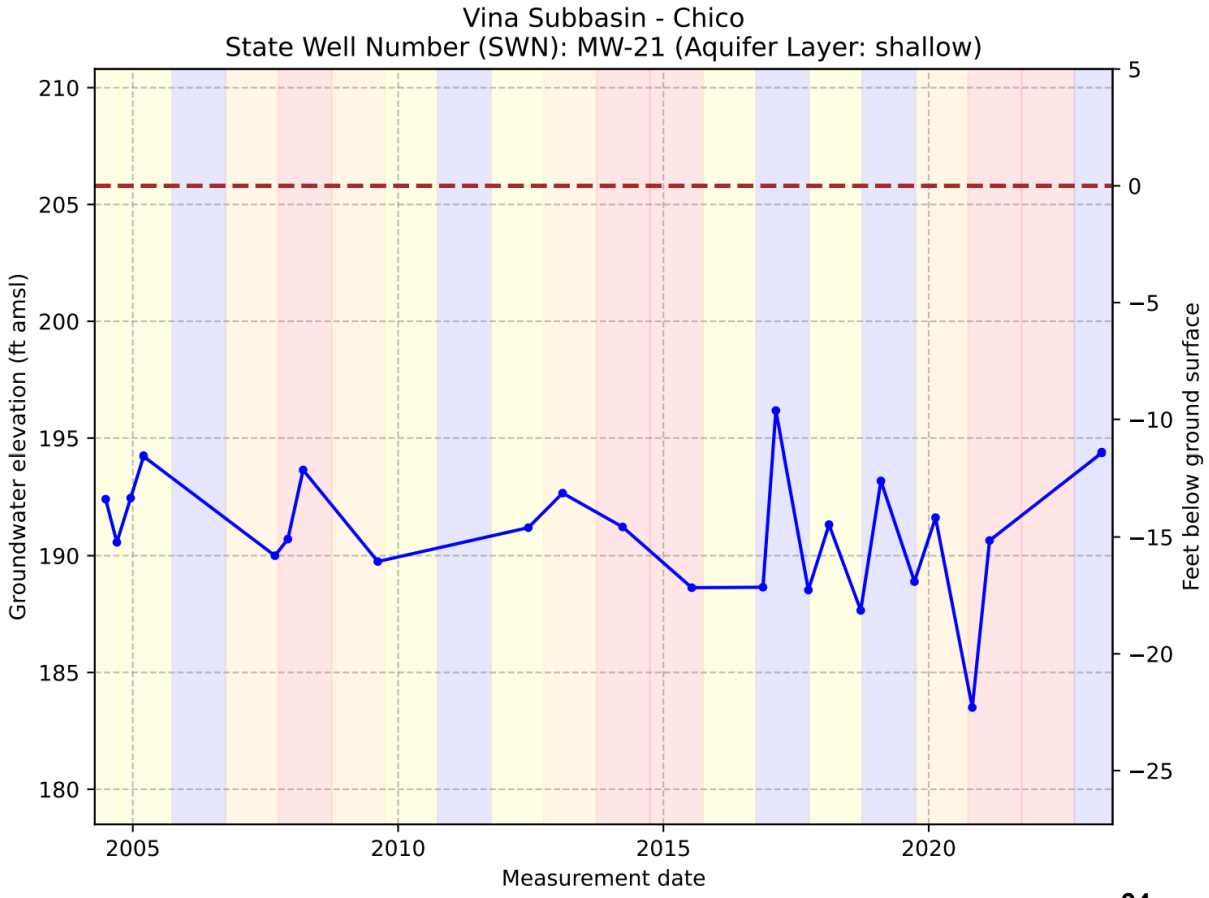
Shallow perched water tables exist above the regional aquifer in portions of the Subasin. These must be characterized before recharge projects can be designed, as they constrain infiltration and surface water management.



Example: City of Chico - North and South of Big Chico Creek

Good news – shallow groundwater in the heart of Chico has been relatively stable through wet and dry cycles

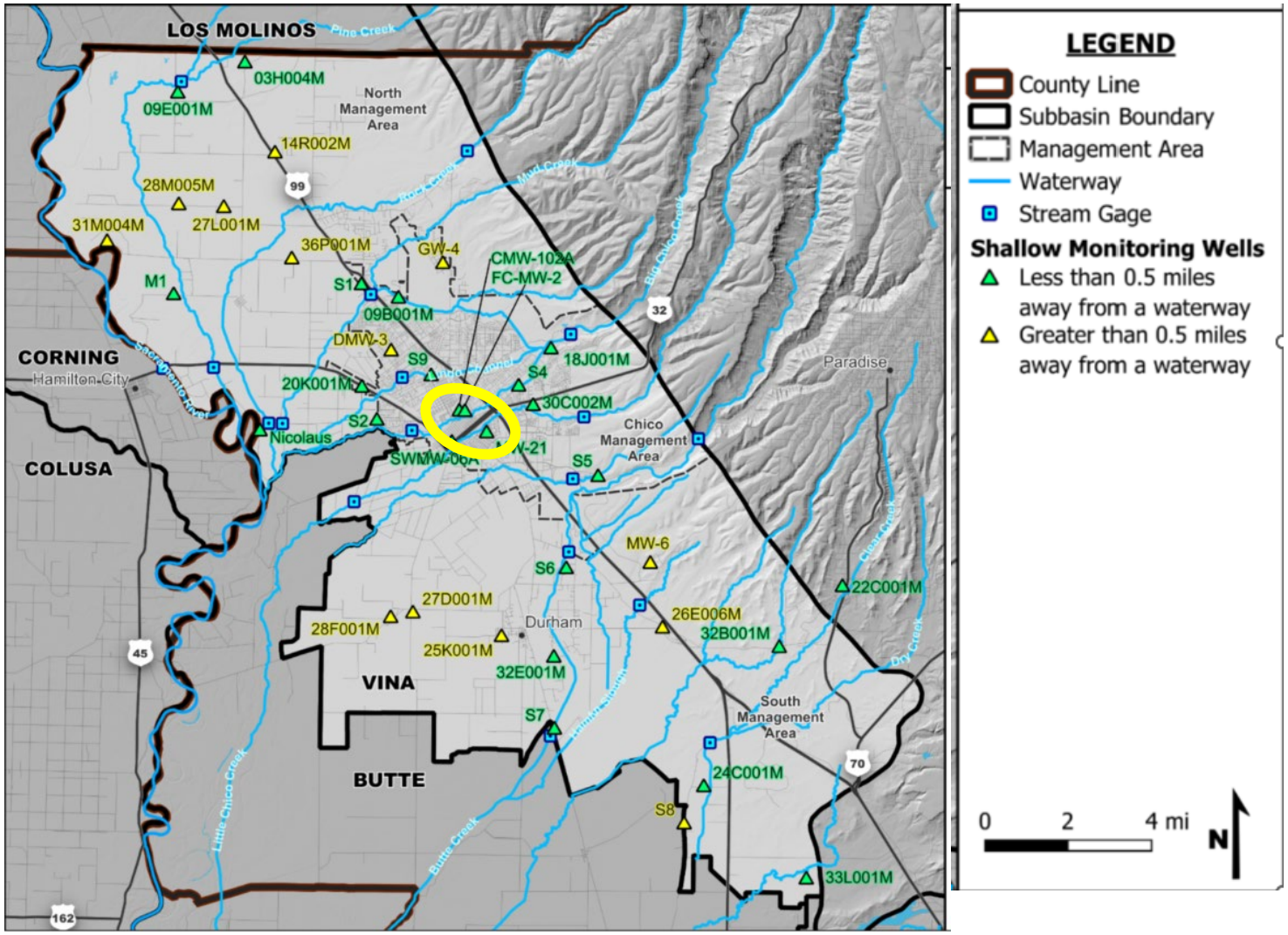




Data Gap Project identified informative monitoring wells relative to regional shallow groundwater conditions

Three categories of wells:

1. Existing DWR monitoring wells with historical data
2. Existing monitoring wells with historical data from other programs (ex. Nitrate monitoring program in Chico)
3. New wells to be installed with SGM grant funds to expand shallow monitoring data set



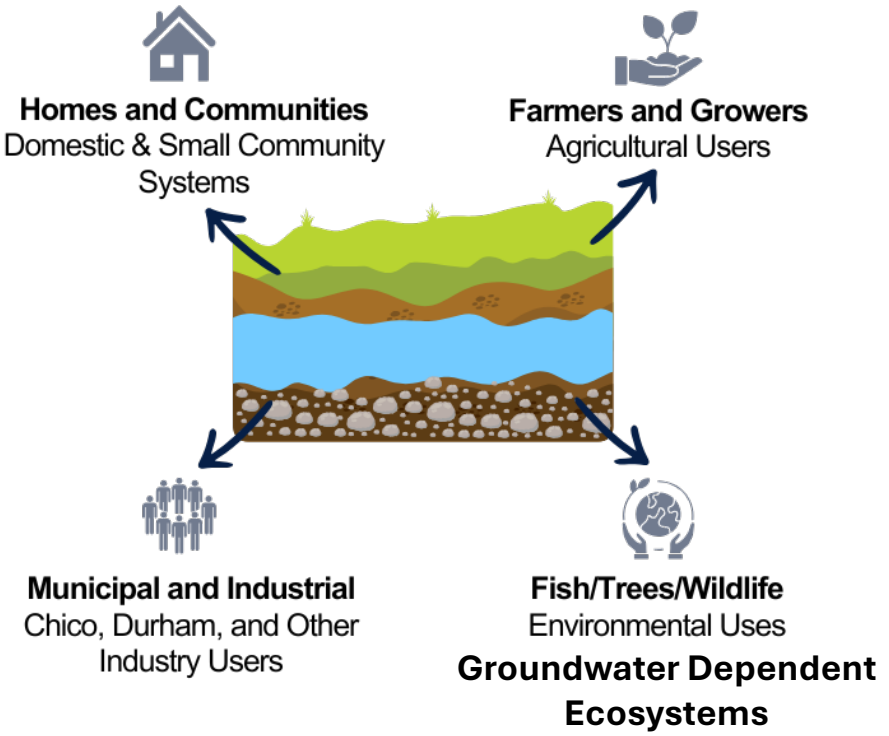
One Location Can Have Different Depth-to-Water Conditions

Well construction controls what part of the aquifer a measurement represents

- A very shallow monitoring well may track conditions relevant to vegetation or interconnected surface water.
- A domestic well may be screened deeper and reflect household water reliability concerns.
- A municipal or irrigation well may be much deeper and reflect regional supply conditions relevant to deeper wells.

What are we trying to protect?

"Beneficial Uses and Users"

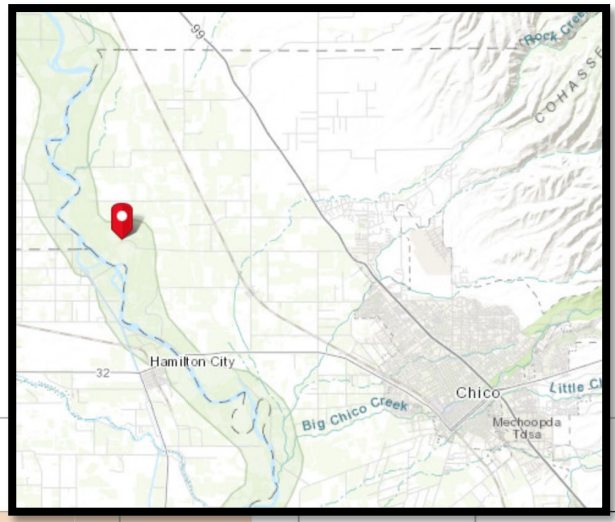


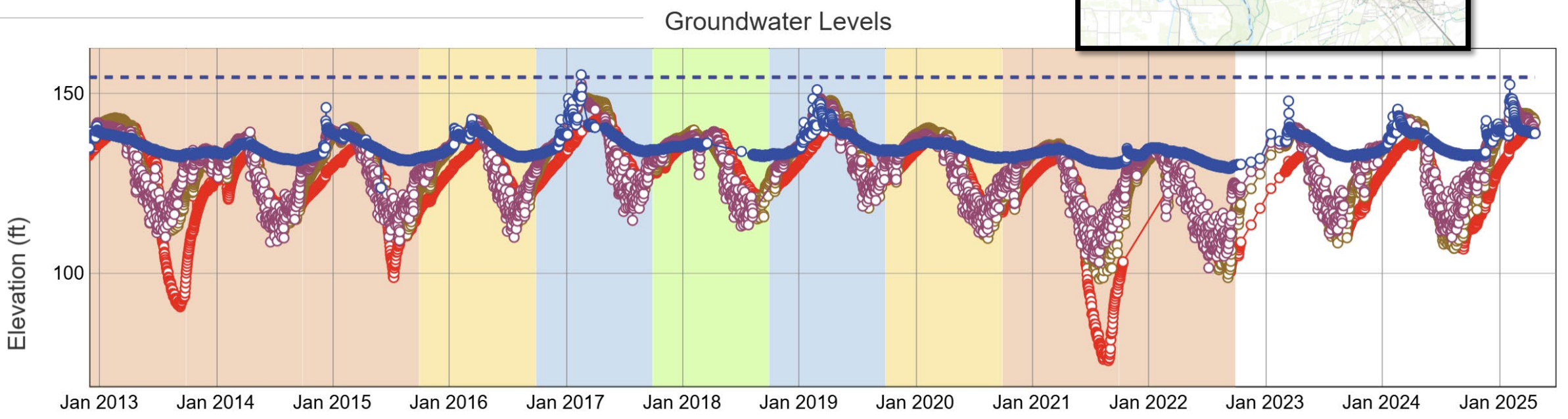
Different water-bearing zones can tell different stories at the same location.

One Location Can Have Different Depth-to-Water Conditions: Near Sacramento River

- WSE 398028N1220294W001 : 969.0 - 1030.0
- WSE 398028N1220294W002 : 545.0 - 600.0
- WSE 398028N1220294W003 : 140.0 - 201.0
- WSE 398028N1220294W004 : 66.0 - 76.0

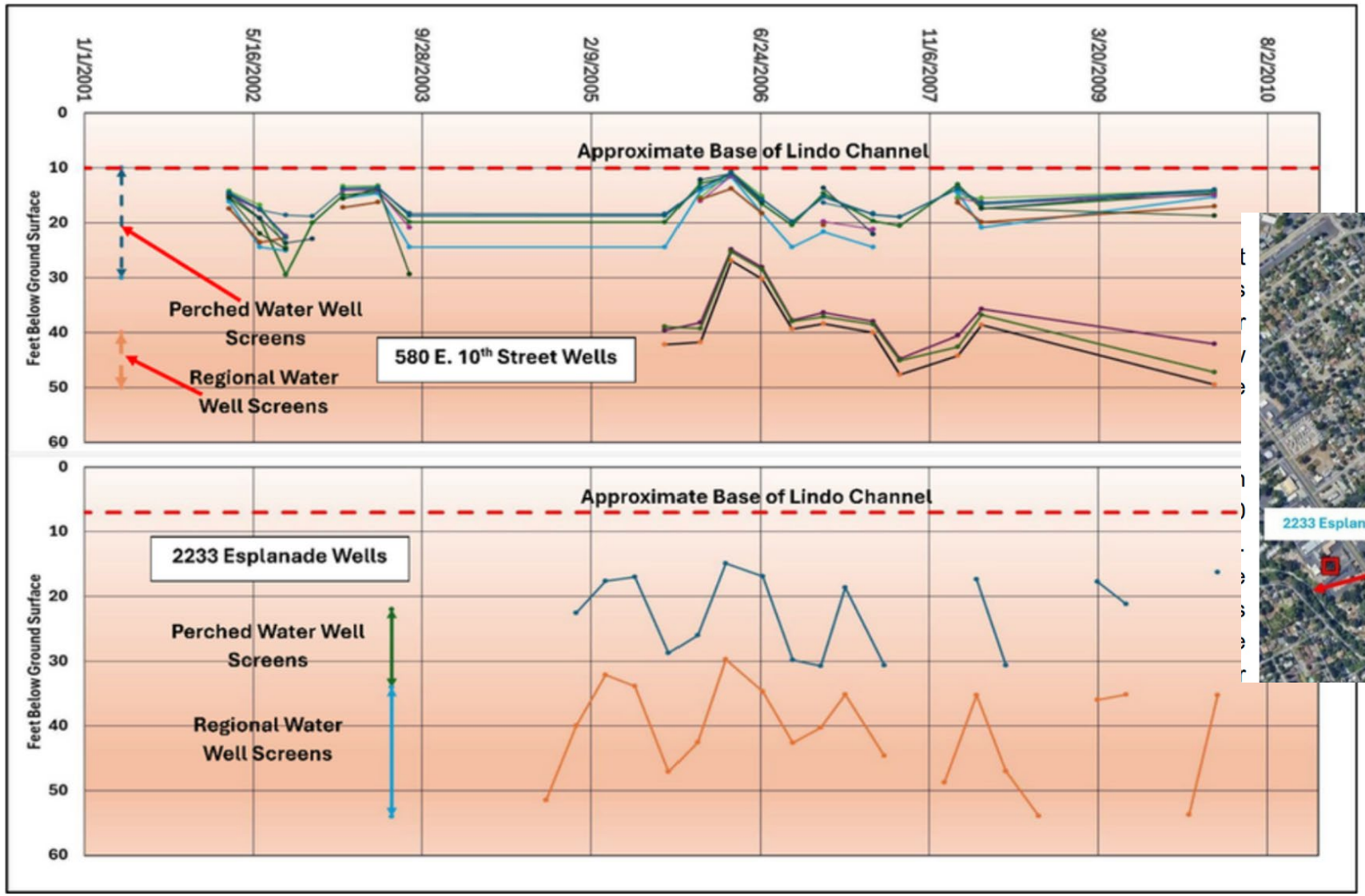
Approx. 0.9 miles from Sac. River





Different water-bearing zones can tell different stories at the same location.

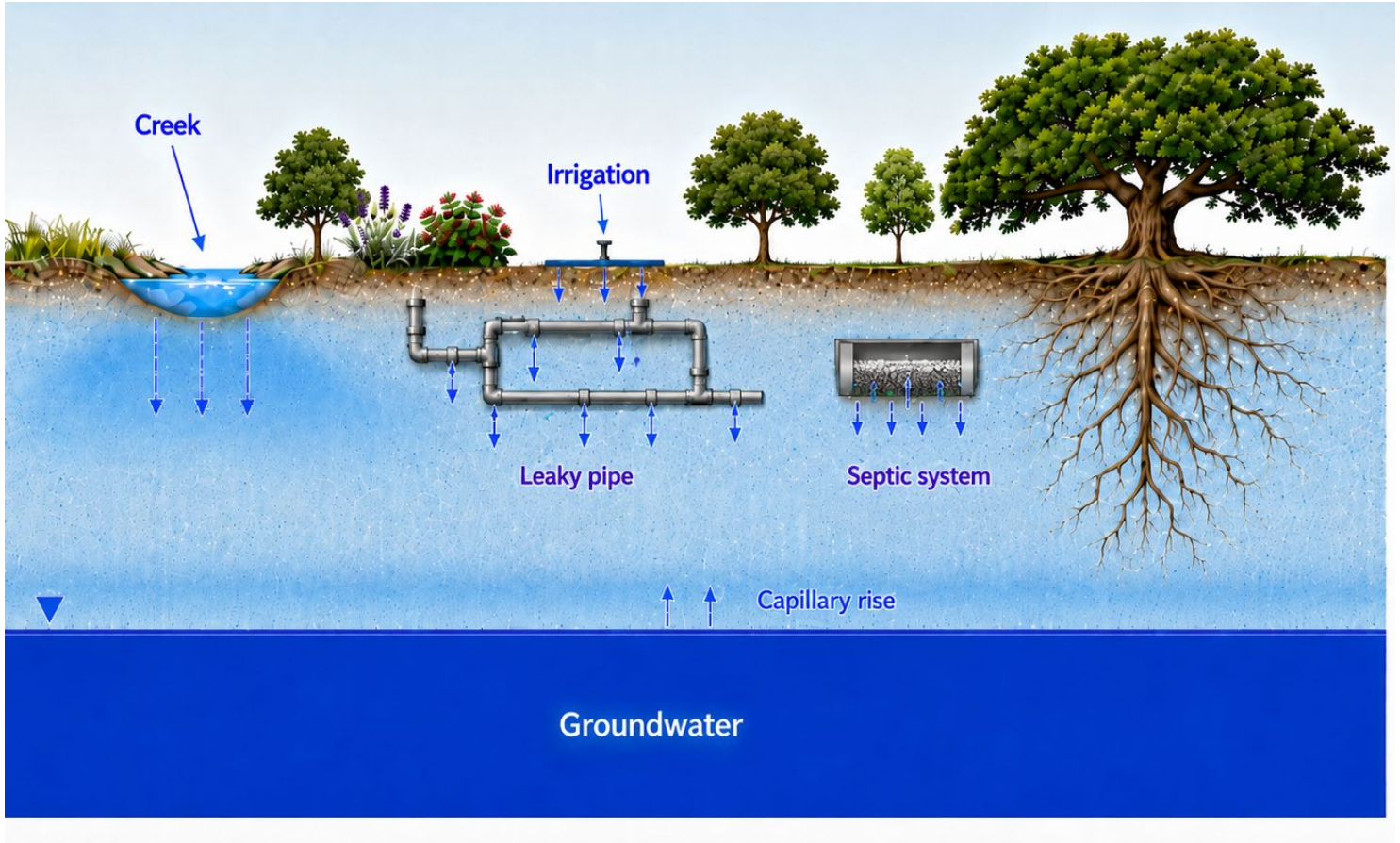
One Location Can Have Different Depth-to-Water Conditions: Near Lindo Channel in Chico



Chico Urban Forest

Vegetation health can reflect multiple water sources and stressors

- Chico urban forest is a diverse community of vegetation:
  - Bidwell Park – riparian and non-riparian, unirrigated
  - Irrigated landscaping – ornamental
  - Non-irrigated deeper-rooted trees
- Other water sources in the urban environment: leaky pipes, septic systems
- Deep-rooted vegetation may use shallow groundwater, soil moisture, or both depending on location and season.
- Available data has been identified related to shallow groundwater conditions –> missing piece is vegetation health



Monitoring should help distinguish regional groundwater trends from localized or drought-related vegetation stress.

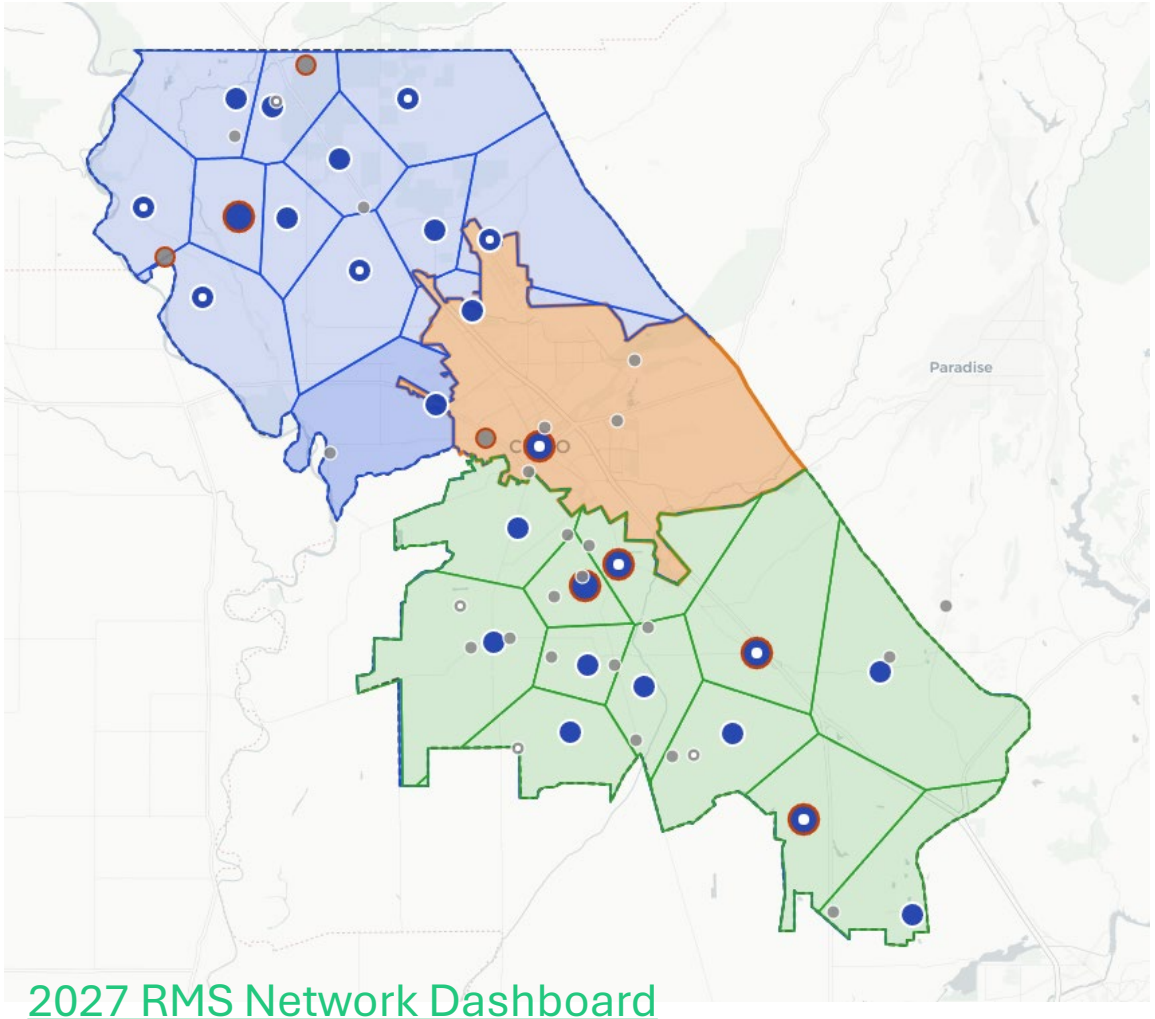
Key Question for Groundwater Management:

What's the vulnerability of deep-rooted vegetation/GDEs to changes in regional groundwater conditions?

- Water sources in urban environment: Big Chico Creek/Lindo Channel recharge, irrigation, leaky pipes, septic systems
- Deep-rooted vegetation may use soil moisture, shallow groundwater, or both depending on location and season.
- Drought can reduce precipitation-derived soil moisture at the same time groundwater levels decline.
- **Because causes are complicated, the strawman emphasizes better monitoring and adaptive management rather than assuming all vegetation stress would be caused by regional groundwater decline.**

Strawman Component 1: RMS Network Updates

Targeted refinement to improve representation of Representative Monitoring Site (RMS) network



[2027 RMS Network Dashboard]

17
2022 RMS wells

29
proposed RMS wells

11
retained

6
removed

18
added

- Remove or replace wells with questionable data, missing data, or boundary/location limitations.
- Designate additional wells as RMS to improve spatial coverage and alignment with beneficial-user considerations (domestic wells and shallow groundwater).
- Maintain the 2022 GSP approach: Continue using management areas and representative polygons for SMC evaluation.

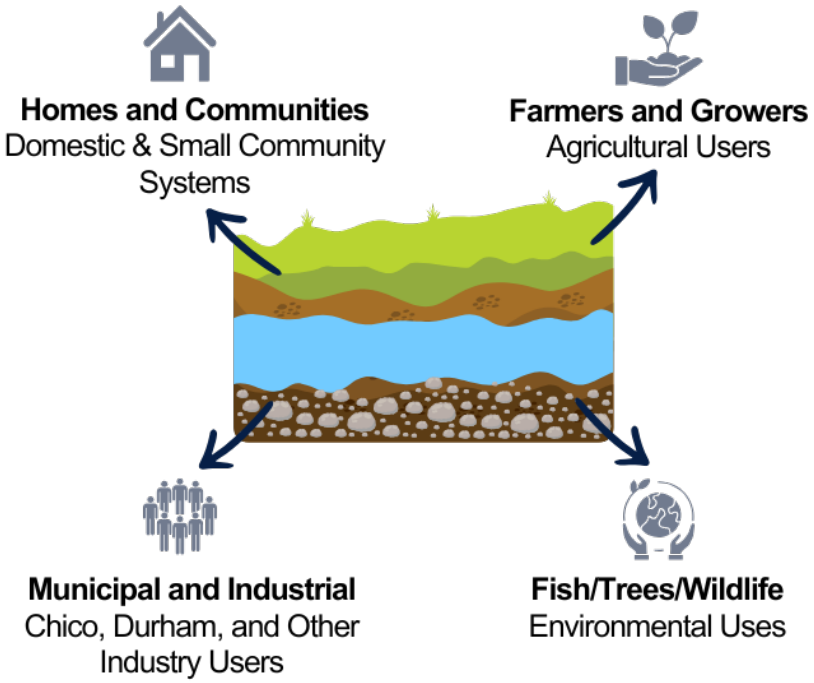
Beneficial Users and Purpose of Monitoring: Why RMS Wells Matter

RMS wells are the compliance sites used to evaluate Sustainable Management Criteria (SMC)

- RMS wells should be reliable, representative, and useful for evaluating conditions that matter to beneficial users.
- They are not intended to capture every localized condition in the Subbasin.
- The monitoring network directly affects how impacts to beneficial uses and users are evaluated (i.e. assignment of Minimum Thresholds etc.)

What are we trying to protect?

"Beneficial Uses and Users"



Strawman Component 2: SMC Continuity + Local Management Levels (LMLs)

An early-warning concept for GDE-sensitive areas without revising basin-wide MTs

- Sustainable Management Criteria (SMC)
  - Carry forward MT, MO, and 2027 IM values for retained 2022 GSP RMS wells
  - Assign SMC to new RMS wells using a comparable method tied to the SMC adopted in the 2022 GSP
- Consider non-regulatory LMLs 10–20 feet below the Measurable Objective in GDE-sensitive areas to trigger evaluation and adaptive management.
- LMLs assigned only to RMS wells monitoring the shallow zone and located in GDE identified areas (based on findings of recent GDE assessment)

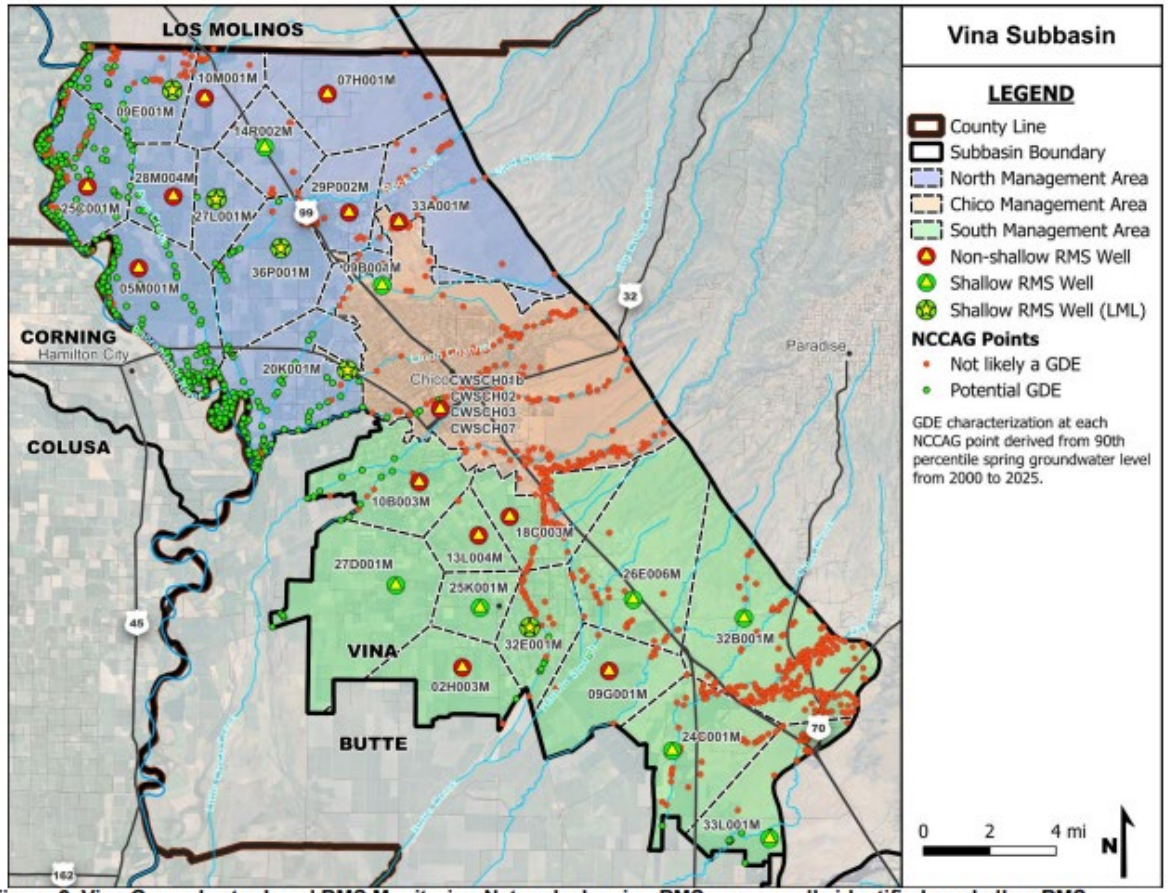


Figure 2. Vina Groundwater Level RMS Monitoring Network showing RMS zones, wells identified as shallow RMS wells, and RMS wells assigned an LML.

The LML would not define an undesirable result; it would flag the need to investigate and consider appropriate response actions.

Potential Board Action

Consider approval of the expanded RMS Network, as described in the Groundwater Level Strawman

Discussion could also weigh in on:

2. Initial feedback on Local Management Levels concept?

3. What additional figures, maps, or tables would help explain the approach to stakeholders and the Boards?

Save the Date: GWL Strawman Public Discussion July 14, 2026 4:30-6:00 PM

Vina Groundwater Sustainability Agency
Agenda Transmittal

Subject: Update and Discussion of Sustainable Yield, Groundwater Extraction and Change in Storage Calculations to Guide Periodic Evaluation Content Development

Contact: Christina Buck	**Phone**: (530) 552-3593	**Meeting Date:** July 8, 2026	**Agenda Item:** 4.4

The Boards will receive an overview of how sustainable yield, groundwater extraction, and change in groundwater storage have been estimated in the Vina Subbasin Groundwater Sustainability Plan and recent Annual Reports. The discussion will provide context for addressing Department of Water Resources comments through the upcoming Periodic Evaluation and will provide an opportunity for questions and Board input on the proposed approach going forward. ***(Christina Buck, Asst. Director Butte County Water and Resource Conservation)***

Requested Action: Provide feedback to staff.

Attachments:
1. Staff Memo
2. Presentation slides

Vina Groundwater Sustainability Agency
308 Nelson Avenue, Oroville, CA 95965
(530) 552-3592 · VinaGSA@gmail.com

MEMORANDUM

To: Vina and Rock Creek Reclamation District GSA Boards

From: Christina Buck, Assistant Director, Butte County Department of Water and Resource Conservation [providing technical staff support to the Vina GSA]; Ryan Fulton and Laura Foglia, Larry Walker Associates

Date: June 24, 2026

Subject: Update and Discussion of Sustainable Yield, Groundwater Extraction, and Change in Storage Calculation to Guide Periodic Evaluation Content Development

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Background

The Vina Groundwater Sustainability Plan (GSP) was adopted in December 2021 by the Vina Groundwater Sustainability Agency (GSA) and Rock Creek Reclamation District GSA and subsequently reviewed and approved by the California Department of Water Resources (DWR) in July 2023. As part of its approval, DWR provided Recommended Corrective Actions (RCAs) identifying several areas for clarification or improvement. The GSAs are required to submit the first Periodic Evaluation of the GSP by January 2027.

This memo provides an update to the GSA Boards regarding sustainable yield and two of its key building-block components: groundwater extraction and change in groundwater storage. The Periodic Evaluation is the appropriate time to clarify these topics because it is the first required five-year check-in on how the GSP is being implemented, how new information has been incorporated, and how future reporting may be framed.

This memo is informational. The GSA Boards are asked to receive information, ask questions, and provide feedback to inform how the Periodic Evaluation describes sustainable yield, groundwater extraction, and change in storage methodologies. No formal recommendation is requested at this time.

Purpose of this Memo

The purpose of this memo is to define the issue, provide context for how it was addressed in the adopted GSP and subsequent Annual Reports, and outline a proposed approach for discussion.

Specifically, this memo is intended to:

- Explain how sustainable yield was calculated in the 2022 GSP;
- Describe how groundwater extraction and change in storage have been estimated in Annual Reports since GSP adoption;
- Explain why DWR requested clarification and why the Periodic Evaluation is the appropriate opportunity for that clarification;
- Describe the proposed approach to be used in the Periodic Evaluation

The Issue to be Addressed

Sustainable yield is the amount of water that naturally replenishes the aquifer and can be extracted without resulting in undesirable results. Sustainable yield is not measured directly. It is calculated using assumptions and estimates of groundwater extraction and change in groundwater storage. Additionally, the resulting numerical value of these estimates is highly influenced by the time period selected for the calculation. There are two issues related to sustainable yield that need to be addressed:

1. DWR requested clarification. In its Determination Letter, DWR encouraged the GSAs to update the Plan during future periodic evaluations to clarify how sustainable yield was calculated and to confirm whether DWR correctly interpreted the GSP calculation.
2. The GSP and Annual Reports do not rely on exactly the same data and methodology approaches. The 2022 GSP used the Butte Basin Groundwater Model (BBGM) to support its sustainable yield estimate and its component parts. The BBGM remains an important technical tool, but it is not updated annually to support Annual Report water budget numbers because annual model updates are time- and resource-intensive. Since adoption, Annual Reports have relied on more cost effective and repeatable annual methodologies to estimate groundwater extraction and change in storage.

Because there is uncertainty in both groundwater extraction estimates and change in storage estimates, it is helpful to use methodologies that are consistent over time and understandable to stakeholders. Aligning the sustainable yield discussion with the Annual Report methods would improve comparison across years and help the SHAC, Boards and stakeholders in the subbasin understand what assumptions are being made and why.

Relevant Context

SGMA Definition of Sustainable Yield

The Sustainable Groundwater Management Act (SGMA) defines sustainable yield as the maximum quantity of water, calculated over a base period representative of long-term future conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result (California Water Code section 10721(w)).

In plain terms, sustainable yield is an estimate of how much groundwater can be withdrawn over the long term while still avoiding significant and unreasonable impacts. It is best understood as a management guidepost, not a precise annual pumping limit.

Sustainable Yield Calculation Concept

For the Vina Subbasin, sustainable yield was calculated in the 2022 GSP in relation to groundwater extraction and change in groundwater storage. For clarity, the calculation can be expressed as:

Sustainable Yield = Groundwater Extraction + Change in Groundwater Storage

In this formula, a positive change in storage means groundwater storage increased, while a negative change in storage means groundwater storage decreased. When change in storage is negative, it reduces the sustainable yield estimate. For example, if average groundwater extraction is 243,500 acre-feet per year (AFY) and average change in storage is -10,000 AFY, then sustainable yield would be 233,500 AFY.

2022 GSP Sustainable Yield and DWR Feedback

The 2022 GSP estimated sustainable yield for the Vina Subbasin as 233,500 AFY. This was based on historical groundwater pumping (average over 2000-2018) of 243,500 AFY and an estimated average annual storage decrease of 10,000 AFY. The GSP recognized that the estimate was sensitive to the time period selected and the storage value used to translate changes in groundwater levels into changes in groundwater volume.

DWR reviewed the approach and interpreted the GSP to have rounded an estimated storage decline and deducted that value from historical pumping to arrive at 233,500 AFY. DWR encouraged the GSAs to clarify this calculation during future periodic evaluations. The following is an excerpt from the Determination letter related to DWR's evaluation of the sustainable yield calculation in the 2022 GSP:

> *The GSP estimates the sustainable yield based on projected water levels under baseline conditions. Per the GSP, on average, groundwater levels will be 21 feet below measurable objective in 2042 if no groundwater management measures are implemented.*[147] *This decline of 21 feet translates into 12,840 acre-feet per year of storage decline.*[148] *While the GSP does not explicitly state this information, it appears that the GSP rounds this decline in storage to 10,000 acre-feet per year and deducts this from historical pumping of 243,500 acre-feet per year to estimate sustainable yield.*[149] *Thus, the GSP estimates a sustainable yield of 233,500 acre-feet per year which is expected to stop the projected decline in groundwater levels.* [150] *Department staff encourage the GSAs to update the Plan during future periodic evaluations to clarify how the sustainable yield was calculated to ensure the inference by Department staff is correct.*
>
> *147 Vina Subbasin GSP, Section 2.3.6, p. 178.*
> *148 Vina Subbasin GSP, Table 2-10, p. 179.*
> *149 Vina Subbasin GSP, Section 2.3.6, p. 179.*

DWR was generally correct in their interpretation, and the Periodic Evaluation provides the appropriate opportunity to clarify that the GSA Boards decided on the 10,000 AF estimate for change in storage as a reasonable mid-level value given the possible range and uncertainty in estimates. DWR was correct in its description of sustainable yield being calculated as the change in storage + groundwater extraction.

How Annual Reports Have Addressed Groundwater Extraction and Change in Storage

Since GSP adoption, Annual Reports have been used to track groundwater conditions and water budget information on a recurring basis. Annual Reports are prepared every year, so the methodologies used for groundwater extraction and change in storage would ideally be repeatable, cost-effective, and based on data that can be updated annually.

For groundwater extraction, Annual Reports use reported pumping records where available, such as from water suppliers and municipalities (ex. Cal Water Chico). For unmeasured agricultural groundwater extraction, the 2025 Annual Report describes use of the Groundwater Extraction Estimates from Earth Observations (GEEEO) approach, which integrates satellite-based evapotranspiration, land use, climate, and locally available water supply data to estimate the groundwater extraction needed to meet remaining applied water demand on irrigated lands. In other words, groundwater extraction is estimated as the difference between the estimated irrigation demand for crops and the available supply (from precipitation or applied surface water).

For change in groundwater storage, Annual Reports use observed spring-to-spring groundwater level changes at representative monitoring site (RMS) wells, representative areas around those wells, and a storage coefficient derived from the BBGM. This method is intended to allow annual change in storage estimates to be developed from observed groundwater level data while maintaining reasonable consistency with the model-based understanding developed for the GSP.

Comparison of Approaches

The following table summarizes the key difference between the adopted GSP approach, the Annual Report approach, and the proposed approach to be described in the Periodic Evaluation.

Topic	2022 GSP Approach	Annual Report Approach Since Adoption	Proposed Periodic Evaluation / Going-Forward Approach
Primary purpose	Establish initial GSP water budget, sustainable yield estimate, and sustainability framework.	Report annual groundwater conditions, groundwater extraction, and change in storage to DWR and the public.	Clarify sustainable yield methodology and align the building-block estimates with the methods used for ongoing annual reporting.
Groundwater extraction	Estimated primarily using the BBGM for the GSP historical water budget period.	Measured pumping records where available; unmeasured groundwater extraction estimated through annual water use analysis / GEEEO methods.	Use Annual Report extraction methods as the practical ongoing basis, with clear documentation of data sources, assumptions, and uncertainty. Specific data sources/approach for crop water demand estimates can be reviewed and can be easily understood by stakeholders.
Crop Water Demand	Estimated using the BBGM which includes the Irrigation Demand Calculator to calculate crop water demand based on inputs for evapotranspiration (ET), precipitation, crop acreage, soil properties, and known surface water supplies to estimate the remaining irrigation demand met by groundwater.	Estimated using the Groundwater Extraction Estimates from Earth Observations (GEEEO) approach, which combines satellite-based Open ET evapotranspiration data, land use, climate data, effective precipitation, and known surface water supplies to estimate the remaining irrigation demand met by groundwater.	Use the Annual Report crop water demand approach as the starting point, with possible refinements to specific ET data sources and how effective precipitation is accounted for. The goal would be to improve transparency and stakeholder understanding of the building blocks used to estimate agricultural groundwater use.
Change in groundwater storage	Estimated using BBGM water budget outputs and GSP assumptions.	Estimated from observed spring-to-spring groundwater level changes at RMS wells, representative areas, and a storage coefficient derived from the BBGM.	Use the Annual Report storage method for consistency across years. If the Groundwater Level RMS network changes, this would be a change from the previous annual reports.
Key benefit	Based on an integrated model developed for the GSP basin setting and water budget.	Repeatable, annually updateable, and more transparent for tracking changes over time.	Repeatable, annually updateable, and easier to understand. Improves comparability between sustainable yield, groundwater extraction, and change in storage estimates used in annual reporting and long-term planning.

Key limitation / discussion point	Not practical to update BBGM annually without significant cost and effort.	Annual report methodologies evolved over the past several years and reported values for groundwater extraction and change in storage include a mixture of results derived from BBGM and Annual report calculation approaches	Periodic Evaluation is an opportunity to clarify and align approaches to reduce uncertainty associated with comparing results from differing methodologies.

Proposed Approach for Discussion

The proposed approach is to use the Annual Report methodologies as the basis for describing sustainable yield building blocks going forward. The Periodic Evaluation would explain the methodology, compare it to the 2022 GSP approach, and document stakeholder and Board direction regarding how the GSAs should frame these estimates in future reporting.

Under this approach, the Periodic Evaluation would:

- Clarify how the 2022 GSP sustainable yield estimate of 233,500 AFY was calculated and how it relates to DWR's interpretation in the Determination Letter;
- Use groundwater extraction estimates based on measured pumping records where available
- Use crop water demand estimates based on land use data and ET estimates to estimate groundwater use where direct measurements are not available (i.e. for agricultural groundwater pumping).
- Use change in storage estimates based on observed groundwater level changes, representative monitoring areas, and a documented storage coefficient consistent with the Annual Report approach;
- Representative monitoring areas would be consistent with the Groundwater Level RMS network, so changes to that network (ex. increased number of wells) would affect the change in storage calculation;
- Present multiple averaging periods, such as 5-year, 10-year, and longer-term averages, to show how the selected time period affects the resulting sustainable yield estimate; and
- Describe uncertainty clearly so the estimates are useful for management discussions without implying a level of precision that the data do not support.

Considerations

This approach should be considered as the path forward because it directly addresses DWR's request for clarification, uses methods that can be updated on an annual basis, and creates a more consistent connection between the sustainable yield discussion and the water budget information presented in Annual Reports. It also provides an opportunity for stakeholders and the Boards to revisit the assumptions in an open setting and develop a shared understanding of how these estimates are being developed.

The approach also preserves flexibility. The BBGM can continue to provide important technical context and can be used when updated model results are available. However, the GSAs would not need to rely on annual BBGM updates to produce consistent annual estimates for groundwater extraction and change in storage.

Requested Input

This is primarily an informational item and the Boards are not being asked to make a technical recommendation or select a final sustainable yield value at this meeting. The Boards are asked to receive this information, ask questions, and provide general feedback to inform how the Periodic Evaluation will describe sustainable yield, groundwater extraction, and change in storage methodologies.

Comments and questions may be directed to cbuck@buttecounty.ca.gov.

Sustainable Yield, Groundwater Extraction, and Change in Storage

Joint Board Meeting of the Vina and RCRD GSAs
July 8, 2026

Presented by: Christina Buck, Ph.D.
Asst. Director, Butte County Water and Resource Conservation
[providing technical staff support to the Vina GSA]

Sustainable yield: a guidepost, not a precise annual limit

In plain terms, sustainable yield estimates how much groundwater (AF/year) can be withdrawn over the long term while avoiding significant and unreasonable impacts.

Groundwater Extraction + **Change in Groundwater Storage** = **Sustainable Yield**

2022 GSP example

243,500 AFY + (–10,000 AFY) = 233,500 AFY

The result depends on the selected time period (not typically a single year but instead an average over a specified period of time) and assumptions used to estimate both building blocks.

Why are we discussing sustainable yield now?

Two issues make the Periodic Evaluation the right time to clarify the approach.

DWR asked for clarification

DWR approved the GSP but asked the GSAs to clarify how sustainable yield was calculated.

Methods have evolved

Recent Annual Reports use repeatable annual methods, not reliant on Butte Basin Groundwater Model.

Periodic Evaluation is the opportunity

The first five-year check-in can document the approach going forward.

Goal for Today: understand the issue, ask questions, and provide feedback — not select a final number or technical method today.

The Challenge: Different methods across time lead to challenges in comparing results

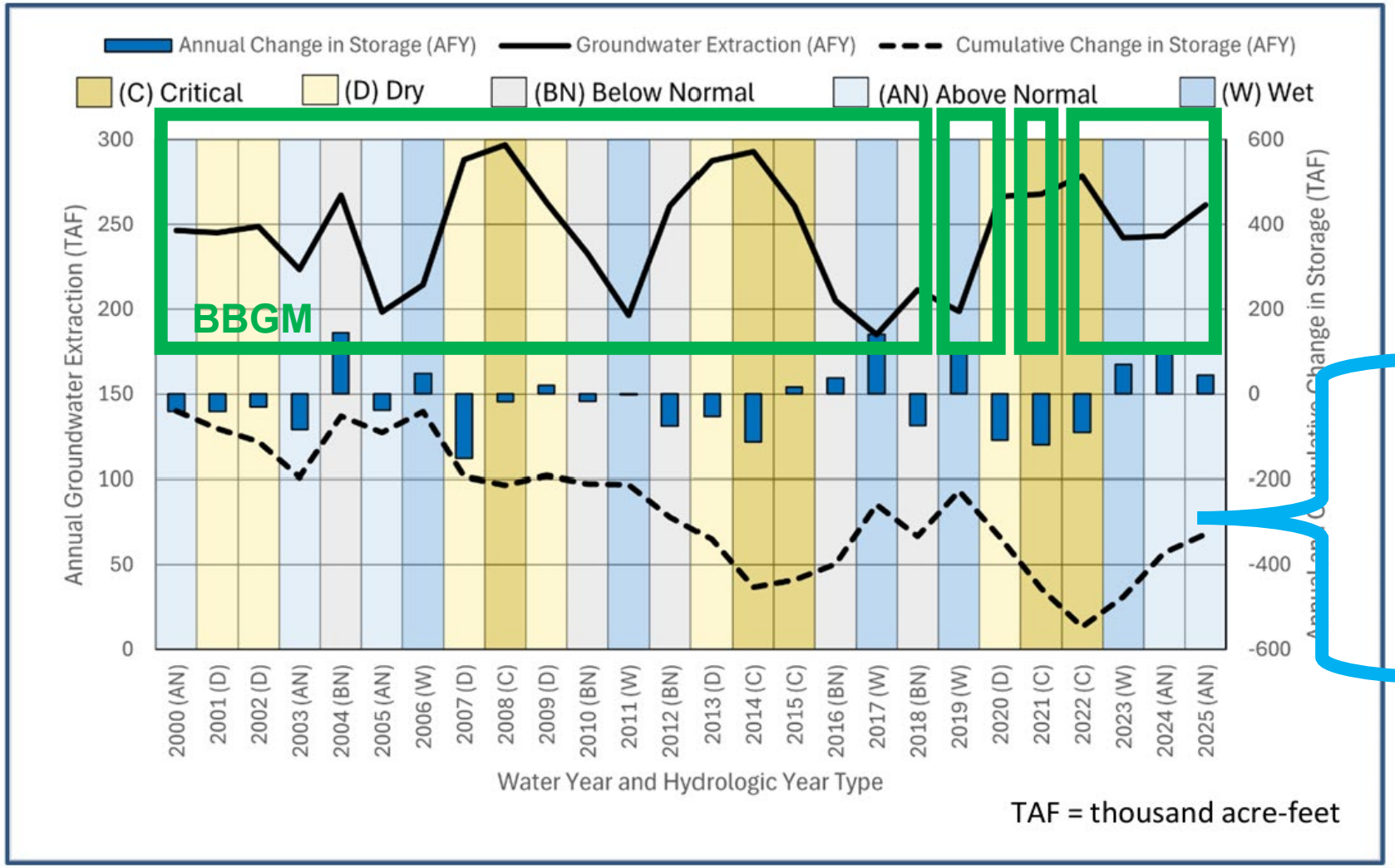


Figure ES-2. Vina Subbasin Groundwater Pumping, Annual and Cumulative Change in Storage from WY 2000 to WY 2025

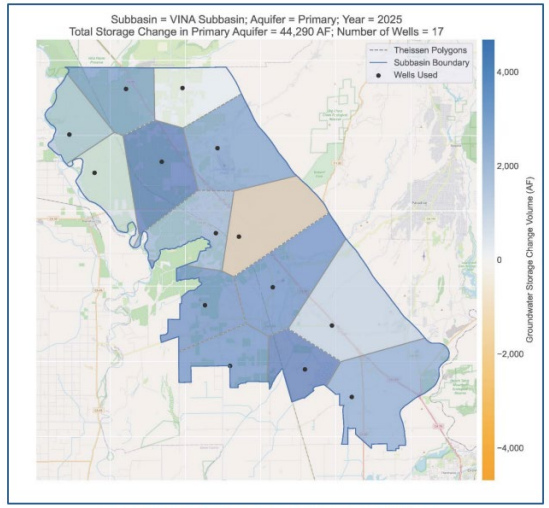
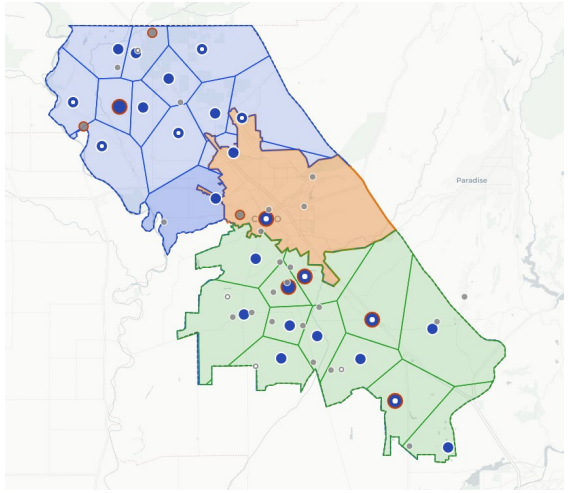


Figure 4-2. Vina Subbasin Change in Groundwater Storage from Spring 2024 to Spring 2025



Proposed approach for the Periodic Evaluation

Use the Annual Report methodologies as the basis for describing the sustainable yield building blocks in the Periodic Evaluation for the past and going forward.

1 → 2 → 3 → 4

Clarify

Explain the 2022 GSP calculation and DWR's interpretation.

Align

Use Annual Report methods for extraction and storage estimates.

Compare

Show how 5-year, 10-year, and longer-term averages affect results.

Document

Describe methods and uncertainty of estimates clearly

Why consider this path forward? It is repeatable, annually updateable, more transparent, and improves comparability between sustainable yield, groundwater extraction, and change in storage estimates going forward and historically.

Requested Board Action

For Information Only. No formal action is requested today.

Thoughts or questions?
Feedback will help shape how the Periodic Evaluation describes these topics

Vina Groundwater Sustainability Agency
Agenda Transmittal

Subject: Consideration of Fiscal Year 2025-26 Annual Operations Budget Adjustment

Contact: Dillon McGregor	**Phone:** (530) 552-3589	**Meeting Date:** July 8, 2026	**Agenda Item:** 4.1

Background

The Vina Groundwater Sustainability Agency (Vina GSA) Board adopted the Fiscal Year (FY) 2025-26 Annual Operations Budget on June 11, 2025 (Resolution 2025-01), with total revenues and expenditures of $1,687,000. Two grant programs active during FY 2025-26 were not fully reflected in the adopted budget and require adjustment.

California Department of Water Resources (DWR) Sustainable Groundwater Management (SGM) Round 2 Grant. The adopted budget included $903,100 in anticipated SGM Round 2 Grant revenue and associated expenditures. However, the amount of Butte County's subrecipient agreement for services was inadvertently omitted from the adopted budget and the additional grant revenue and associated expenditure is approximately $1,000,000. Therefore, a FY 2025-26 budget adjustment is necessary to reflect actual activity under the $5.5 million grant agreement.

DWR California Stream Gage Improvement Program (CalSIP) Grant. The Vina GSA entered a grant agreement with DWR in April 2025 for up to $600,000 to fund installation of stream gages at seven sites in the Vina Subbasin. Portions of these funds have been utilized in the FY 2025-26 requiring revenue and expense adjustments to the adopted budget. Anticipated CalSIP revenues and expenditures for FY 2025-26 total $200,000.

Fiscal Impact
Changes to revenues and expenditures subsequent to the adoption of the budget must be reflected and authorized through budget amendments and reflected in an adjusted budget. These changes must be submitted to the Auditor's Office before invoices can be paid. These budget adjustments reflect grant-funded activity only and have no effect on the operational budget or the Sustainable Groundwater Management Act (SGMA) regulatory fee. The adjustment must be approved before the close of FY 2025-26 on June 30, 2026.

Approval of Resolution 2026-04 will increase the adopted FY25-26 budget by $1,200,000 for a total adjusted budget of $2,887,000. No impact to the operational budget or SGMA regulatory fee.

Attachments:
- Attachment A: Vina GSA FY25-26 Proposed Budget Adjustments
- Attachment B: Vina GSA FY25-26 Amended Budget
- Resolution No. 2026-04, Approving an Amendment to the Fiscal Year 2025-26 Annual Operations Budget

Requested Board Action:
Adopt Resolution No. 2026-04, Approving an Amendment to the Fiscal Year 2025-26 Annual Operations Budget and authorize the Chair to sign.

Attachment A

Vina GSA Adjusted Fiscal Year 2025-26 Annual Operating Budget			
	FY25-26 Adopted Budget	Budget Adjustment	Proposed Adjusted Budget
REVENUES			
GSA-Related Revenues			
SGMA Regulatory Fees	$779,650		$779,650
Rock Creek Reclamation District - Cost Share	$4,250		$4,250
DWR SGMA Round 2 Grant Funding	$903,100	$1,000,000	$1,903,100
DWR CalSIP Grant Funding	$0	$200,000	$200,000
Rollover from FY 24/25	$0		$0
TOTAL REVENUES	$1,687,000	$1,200,000	$2,887,000
EXPENSES			
Part 1: Governance & GSA Operations			
Audit Services (23-24 & 24-25)	$37,500		$37,500
Financial Services	$2,500		$2,500
County Tax Roll Fee Support	$28,000		$28,000
Legal Services (excluding defense)	$30,000		$30,000
Legal Services Accrued FY 24-25 (excluding defense)	$15,000		$15,000
Legal Defense Reserve	$175,000		$175,000
Legal Defense Reserve Accrued FY 24-25	$55,000		$55,000
Professional Services	$35,000		$35,000
Program Manager	$110,000		$110,000
Office Expenses	$16,000		$16,000
10% Contingency	$50,400		$50,400
Prudent Reserve (50% the total $110,000 Prudent Reserve)	$55,000		$55,000
Part 1 Subtotal	**$609,400**	**$0**	**$609,400**
Part 2: SGMA Monitoring & SGM			
Annual Reporting	$5,000		$5,000
Periodic Evaluations (2028-2023)	$20,000		$20,000
Groundwater Monitoring	$30,000		$30,000
Surface-GW Modeling	$10,000		$10,000
GSA Coordination & Outreach	$10,000		$10,000
Data Management System Maintenance	$15,000		$15,000
Technical Assistance - Professional Services	$10,000		$10,000
Grant Procurement	$15,000		$15,000
10% Contingency	$11,500		$11,500
Prudent Reserve (50% the total $110,000 Prudent Reserve)	$55,000		$55,000
Part 2 Subtotal	**$181,500**	**$0**	**$181,500**
Total Operational Budget	**$790,900**	**$0**	**$790,900**
DWR SGMA Round 2 Grant Funded Projects			
Consulting Services	$896,100	$1,000,000	$1,896,100
Data Gap Identification & Data Improvement			
Demand Reduction Strategies			
Lindo Channel Recharge Feasibility			
DWR SGMA Round 2 Grant Fundied Projects Sub-Total	**$896,100**	**$1,000,000**	**$1,896,100**
DWR CalSIP Grant Funded Project			
Consulting Services	$0	$200,000	$200,000
DWR CalSIP Grant Funded Project Sub-Total	**$0**	**$200,000**	**$200,000**
TOTAL EXPENSES	**$1,687,000**	**$1,200,000**	**$2,887,000**
Fee Setting Calculation			
Part 1 & 2 Expenses	$790,900	$0	$790,900
less RCRD 2.44% Share of Part 2 Costs	($4,250)		($4,250)
less SGM Grant Contribution	($7,000)		($7,000)
Fee Setting Amount (Required Fee Revenue)	**$779,650**	**$0**	**$779,650**

Vina GSA Amended Fiscal Year 2025-26 Annual Operating Budget

	Amended Budget
REVENUES	
GSA-Related Revenues	
SGMA Regulatory Fees	$779,650
Rock Creek Reclamation District - Cost Share	$4,250
DWR SGMA Round 2 Grant Funding	$1,903,100
DWR CalSIP Grant Funding	$200,000
Rollover from FY 24/25	$0
TOTAL REVENUES	$2,887,000
EXPENSES	
Part 1: Governance & GSA Operations	
Audit Services (23-24 & 24-25)	$37,500
Financial Services	$2,500
County Tax Roll Fee Support	$28,000
Legal Services (excluding defense)	$30,000
Legal Services Accrued FY 24-25 (excluding defense)	$15,000
Legal Defense Reserve	$175,000
Legal Defense Reserve Accrued FY 24-25	$55,000
Professional Services	$35,000
Program Manager	$110,000
Office Expenses	$16,000
10% Contingency	$50,400
Prudent Reserve (50% the total $110,000 Prudent Reserve)	$55,000
Part 1 Subtotal	**$609,400**
Part 2: SGMA Monitoring & SGM	
Annual Reporting	$5,000
Periodic Evaluations (2028-2023)	$20,000
Groundwater Monitoring	$30,000
Surface-GW Modeling	$10,000
GSA Coordination & Outreach	$10,000
Data Management System Maintenance	$15,000
Technical Assistance - Professional Services	$10,000
Grant Procurement	$15,000
10% Contingency	$11,500
Prudent Reserve (50% the total $110,000 Prudent Reserve)	$55,000
Part 2 Subtotal	**$181,500**
Total Operational Budget	**$790,900**
DWR SGMA Round 2 Grant Funded Projects	
Consulting Services	$1,896,100
Data Gap Identification & Data Improvement	
Demand Reduction Strategies	
Lindo Channel Recharge Feasibility	
DWR SGMA Round 2 Grant Fundied Projects Sub-Total	**$1,896,100**
DWR CalSIP Grant Funded Project	
Consulting Services	$200,000
DWR CalSIP Grant Funded Project Sub-Total	**$200,000**
TOTAL EXPENSES	**$2,887,000**
Fee Setting Calculation	
Part 1 & 2 Expenses	$790,900
less RCRD 2.44% Share of Part 2 Costs	($4,250)
less SGM Grant Contribution	($7,000)
Fee Setting Amount (Required Fee Revenue)	**$779,650**

VINA GROUNDWATER SUSTAINABILITY AGENCY

RESOLUTION NO. 2026-04

APPROVING AN AMENDMENT TO THE FISCAL YEAR 2025-26 ANNUAL OPERATIONS BUDGET

WHEREAS, the County of Butte, City of Chico, and the Durham Irrigation District entered into a Joint Powers Agreement (JPA) in 2019 to form the Vina Groundwater Sustainability Agency (Vina GSA) pursuant to Water Code sections 10721 and 10723; and

WHEREAS, the Vina GSA was formed to provide sustainable groundwater management to the Vina Subbasin in compliance with the Sustainable Groundwater Management Act (SGMA); and

WHEREAS, section 15.2 of the JPA provides the Vina GSA authority to develop and adopt annual budgets which estimate the cost of operating the Vina GSA pursuant to SGMA and the JPA; and

WHEREAS, section 9.3 of the JPA requires a supermajority vote to approve the annual budget and modifications thereto; and

WHEREAS, the Vina GSA Board of Directors adopted the Fiscal Year 2025-26 Annual Operations Budget on June 11, 2025, by Resolution No. 2025-01, with total revenues and expenses of $1,687,000; and

WHEREAS, the FY2025-26 included expenditures for DWR Sustainable Groundwater Management (SGM) Round 2 Grant requiring an increase of $1,000,000 to the grant revenue and associated project expenditures; and

WHEREAS, the Vina GSA executed a grant agreement with the California Department of Water Resources for the California Stream Gage Improvement Program (CalSIP) in April 2025, which was not included in the adopted FY2025-26 budget, and anticipated CalSIP grant revenues and expenditures for FY2025-26 total $200,000; and

WHEREAS, the proposed budget amendment includes an increase of $1,000,000 from the SGM Round 2 Grant and $200,000 for the CalSIP program, both of which reflect grant-funded activity only and has no effect on the total operational budget or the SGMA regulatory fee; and

WHEREAS, the amended budget attached hereto as Attachment A accurately reflects the revised revenues and expenditures for Fiscal Year 2025-26.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE VINA GROUNDWATER SUSTAINABILITY AGENCY does hereby resolve, declare and order as follows:

1. The Vina GSA Board so finds and determines the above recitals are correct.
2. The Vina GSA Fiscal Year 2025-26 Annual Operations Budget is hereby amended as set forth in Attachment A, increasing total revenues and expenses by $1,200,000 for an adjusted total of $2,887,000.
3. The amendment reflects grant-funded revenues and expenditures only. There is no change to the operational budget, SGMA regulatory fee, or member agency contributions.

PASSED, APPROVED AND ADOPTED by the Board of Directors of the **VINA GROUNDWATER SUSTAINABILITY AGENCY** this 8th day of July 2026.

AYES:

NOES:

ABSENT:

ABSTAIN:

CERTIFICATE OF RESOLUTION

We, the undersigned, hereby certify as follows:

1. That we are the Board Chair and Secretary of the VINA GROUNDWATER SUSTAINABILITY AGENCY; and
2. That the foregoing resolution is a true and correct copy of a resolution of the Board of Directors of the Vina Groundwater Sustainability Agency, passed at the meeting of the Board of Directors held on July 8, 2026, at the City of Chico City Council Chambers, 421 Main Street, Chico, CA 95928.

IN WITNESS WHEREOF, we have signed this certificate this 8th day of July 2026, at Chico, California.

_____

Jeffrey Rohwer, Chair of the Board of Directors

_____

Brandon Mortimer, Secretary

FY 2025-26 Annual Operations Budget Amendment

Resolution No. 2026-04

Vina GSA Board of Directors

July 8, 2026

1

Background

- **Adopted Budget:** FY 2025-26 Annual Operations Budget adopted June 11, 2025 (Resolution 2025-01), totaling $1,687,000 in revenues and expenditures.
- Two grant programs active during FY 2025-26 were not fully reflected in the adopted budget and require adjustment.

2

Grant Programs Requiring Adjustment

1 **DWR SGM Round 2 Grant**

Adopted budget included $903,100 in grant revenue and expenditures. Butte County's subrecipient agreement (~$1,000,000) was inadvertently omitted, requiring an adjustment under the $5.5 million grant agreement.

2 **DWR CalSIP Grant**

$600,000 grant agreement with DWR (April 2025) for stream gage installation at seven Vina Subbasin sites was not included in the adopted budget. Anticipated FY 2025-26 activity totals $200,000.

3

Budget Amendment by the Numbers

$1.0M SGM Round 2 Increase

$200K CalSIP Grant Added

$1.2M Total Adjustment

4

FY 2025-26 Budget Summary

	FY25-26 Adopted	Adjustment	Adjusted Budget
SGMA Regulatory Fees	$779,650	—	$779,650
DWR SGM Round 2 Grant	$903,100	+$1,000,000	$1,903,100
DWR CalSIP Grant	$0	+$200,000	$200,000
Total Revenues	**$1,687,000**	**+$1,200,000**	**$2,887,000**
Total Operational Budget	$790,900	$0	$790,900
SGM Grant Projects	$896,100	+$1,000,000	$1,896,100
CalSIP Grant Project	$0	+$200,000	$200,000
Total Expenses	**$1,687,000**	**+$1,200,000**	**$2,887,000**

5

Fiscal Impact and Recommended Action

- **No impact to operations or fees:** Grant-funded activity only. No change to the operational budget, SGMA regulatory fee, or member agency contributions.
- **Recommended Action:** Adopt Resolution No. 2026-04, Approving an Amendment to the Fiscal Year 2025-26 Annual Operations Budget, and authorize the Chair to sign.

6

Vina Groundwater Sustainability Agency
Agenda Transmittal

Subject: Consideration of Fiscal Year 2026-27 Annual Operations Budget Adjustment

Contact: Dillon McGregor	**Phone:** (530) 552-3589	**Meeting Date:** June 24, 2026	**Agenda Item:** 3.2

Background

The Vina Groundwater Sustainability Agency (Vina GSA) Board adopted the Fiscal Year (FY) 2026-27 Annual Operations Budget on June 10, 2026 (Resolution 2026-01), with total revenues and expenditures of $2,586,150. The California Stream Gage Improvement Program (CalSIP) grant was not reflected in the adopted budget and requires adjustment.

DWR California Stream Gage Improvement Program (CalSIP) Grant. The Vina GSA entered a grant agreement with DWR in April 2025 for up to $600,000 to fund installation of stream gages at seven sites in the Vina Subbasin. The CalSIP grant was inadvertently omitted from the FY2025-26 budget and carried forward into the FY2026-27 budget without correction. Portions of these funds are anticipated to be utilized in FY2026-27, requiring revenue and expense adjustments to the adopted budget. Anticipated CalSIP revenues and expenditures for FY2026-27 total $450,000.

The combined CalSIP budget across FY2025-26 ($200,000) and FY2026-27 ($450,000) totals $650,000, which exceeds the $600,000 grant award by $50,000. Not all FY2025-26 invoices have been received, and final expenditures for that year may come in below the $200,000 budgeted amount. The $450,000 figure provides a buffer to ensure sufficient budget authority is in place while actual costs are still being reconciled. Total expenditures will not exceed the grant award amount.

Fiscal Impact

Changes to revenues and expenditures subsequent to the adoption of the budget must be reflected and authorized through budget amendments and reflected in an adjusted budget. These changes must be submitted to the Auditor's Office before invoices can be paid. This budget adjustment reflects grant-funded activity only and has no effect on the operational budget or the Sustainable Groundwater Management Act (SGMA) regulatory fee.

Approval of Resolution 2026-05 will increase the adopted FY2026-27 budget by $450,000 for a total adjusted budget of $3,036,150. No impact to the operational budget or SGMA regulatory fee.

Attachments

- Attachment A: Vina GSA FY26-27 Proposed Budget Adjustments
- Attachment B: Vina GSA FY26-27 Amended Budget
- Resolution No. 2026-05, Approving an Amendment to the Fiscal Year 2026-27 Annual Operations Budget

Requested Board Action

Adopt Resolution No. 2026-05, Approving an Amendment to the Fiscal Year 2026-27 Annual Operations Budget, and authorize the Chair to sign.

Vina GSA Adjusted Fiscal Year 2026-27 Annual Operating Budget

	FY26-27 Adopted Budget	Budget Adjustment	Proposed Adjusted Budget
REVENUES			
GSA-Related Revenues			
SGMA Regulatory Fees	$977,185		$977,185
Rock Creek Reclamation District - Cost Share	$8,965		$8,965
DWR SGMA Round 2 Grant Funding	$1,600,000		$1,600,000
DWR CalSIP Grant Project	$0	$450,000	$450,000
TOTAL REVENUES	$2,586,150	$450,000	$3,036,150
EXPENSES			
Part 1: Governance & GSA Operations			
Audit Services (FY25-26)	$19,500		$19,500
Financial Services	$12,000		$12,000
County Tax Roll Fee Support	$31,000		$31,000
Legal Services (excluding defense)	$30,000		$30,000
Legal Defense Reserve	$240,000		$240,000
Legal Defense Reserve Accrued FY 25-26	$60,000		$60,000
Professional Services	$35,000		$35,000
Program Manager	$115,000		$115,000
Office Expenses	$20,000		$20,000
Reserve (10%)	$56,250		$56,250
Part 1 Subtotal	**$618,750**	**$0**	**$618,750**
Part 2: SGMA Monitoring & SGM			
Annual Reporting	$42,000		$42,000
Periodic Evaluations (2028-2032)	$52,000		$52,000
Well Mitigation Plan	$50,000		$50,000
Groundwater Monitoring	$54,000		$54,000
Surface-GW Modeling	$31,500		$31,500
GSA Coordination & Outreach	$31,500		$31,500
Data Management System Maintenance	$15,500		$15,500
Technical Assistance - Professional Services	$42,000		$42,000
Grant Procurement & Administration	$15,500		$15,500
Reserve (10%)	$33,400		$33,400
Part 2 Subtotal	**$367,400**	**$0**	**$367,400**
Total Operational Budget	**$986,150**	**$0**	**$986,150**
DWR SGMA Round 2 Grant Fundied Projects	**$1,600,000**		**$1,600,000**
DWR CalSIP Grant Project	**$0**	**$450,000**	**$450,000**
TOTAL EXPENSES	**$2,586,150**	**$450,000**	**$3,036,150**
Fee Setting Calculation			
Part 1 & 2 Expenses	$986,150	$0	$986,150
less RCRD 2.44% Share of Part 2 Costs	$8,965	$0	$8,965
less SGM Grant Contribution	$0	$0	$0
Fee Setting Amount (Required Fee Revenue)	**$977,185**	**$0**	**$977,185**

Vina GSA Amended Fiscal Year 2026-27 Annual Operating Budget

	Amended Budget
REVENUES	
GSA-Related Revenues	
SGMA Regulatory Fees	$977,185
Rock Creek Reclamation District - Cost Share	$8,965
DWR SGMA Round 2 Grant Funding	$1,600,000
DWR CalSIP Grant Project	$450,000
TOTAL REVENUES	$3,036,150
EXPENSES	
Part 1: Governance & GSA Operations	
Audit Services (FY25-26)	$19,500
Financial Services	$12,000
County Tax Roll Fee Support	$31,000
Legal Services (excluding defense)	$30,000
Legal Defense Reserve	$240,000
Legal Defense Reserve Accrued FY 25-26	$60,000
Professional Services	$35,000
Program Manager	$115,000
Office Expenses	$20,000
Reserve (10%)	$56,250
Part 1 Subtotal	**$618,750**
Part 2: SGMA Monitoring & SGM	
Annual Reporting	$42,000
Periodic Evaluations (2028-2032)	$52,000
Well Mitigation Plan	$50,000
Groundwater Monitoring	$54,000
Surface-GW Modeling	$31,500
GSA Coordination & Outreach	$31,500
Data Management System Maintenance	$15,500
Technical Assistance - Professional Services	$42,000
Grant Procurement & Administration	$15,500
Reserve (10%)	$33,400
Part 2 Subtotal	**$367,400**
Total Operational Budget	**$986,150**
DWR SGMA Round 2 Grant Fundied Projects	**$1,600,000**
DWR CalSIP Grant Project	**$450,000**
TOTAL EXPENSES	**$3,036,150**
Fee Setting Calculation	
Part 1 & 2 Expenses	$986,150
less RCRD 2.44% Share of Part 2 Costs	$8,965
less SGM Grant Contribution	$0
Fee Setting Amount (Required Fee Revenue)	**$977,185**

VINA GROUNDWATER SUSTAINABILITY AGENCY

RESOLUTION NO. 2026-05

APPROVING AN AMENDMENT TO THE FISCAL YEAR 2026-27 ANNUAL OPERATIONS BUDGET

WHEREAS, the County of Butte, City of Chico, and the Durham Irrigation District entered into a Joint Powers Agreement (JPA) in 2019 to form the Vina Groundwater Sustainability Agency (Vina GSA) pursuant to Water Code sections 10721 and 10723; and

WHEREAS, the Vina GSA was formed to provide sustainable groundwater management to the Vina Subbasin in compliance with the Sustainable Groundwater Management Act (SGMA); and

WHEREAS, section 15.2 of the JPA provides the Vina GSA authority to develop and adopt annual budgets which estimate the cost of operating the Vina GSA pursuant to SGMA and the JPA; and

WHEREAS, section 9.3 of the JPA requires a supermajority vote to approve the annual budget and modifications thereto; and

WHEREAS, the Vina GSA Board of Directors adopted the Fiscal Year 2026-27 Annual Operations Budget on June 10, 2026, by Resolution No. 2026-01, with total revenues and expenses of $2,586,150; and

WHEREAS, the Vina GSA executed a grant agreement with the California Department of Water Resources for the California Stream Gage Improvement Program (CalSIP) in April 2025, which was inadvertently omitted from the FY2025-26 budget and carried forward into the FY2026-27 budget without correction, and anticipated CalSIP grant revenues and expenditures for FY2026-27 total $450,000; and

WHEREAS, the proposed budget amendment reflects grant-funded activity only and has no effect on the total operational budget or the SGMA regulatory fee; and

WHEREAS, the amended budget attached hereto as Attachment A accurately reflects the revised revenues and expenditures for Fiscal Year 2026-27.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE VINA GROUNDWATER SUSTAINABILITY AGENCY does hereby resolve, declare and order as follows:

1. The Vina GSA Board so finds and determines the above recitals are correct.
2. The Vina GSA Fiscal Year 2026-27 Annual Operations Budget is hereby amended as set forth in Attachment A, increasing total revenues and expenses by $450,000 for an adjusted total of $3,036,150.
3. The amendment reflects grant-funded revenues and expenditures only. There is no change to the operational budget or the SGMA regulatory fee.

PASSED, APPROVED AND ADOPTED by the Board of Directors of the **VINA GROUNDWATER SUSTAINABILITY AGENCY** this 8th day of July 2026.

AYES:

NOES:

ABSENT:

ABSTAIN:

CERTIFICATE OF RESOLUTION

We, the undersigned, hereby certify as follows:

1. That we are the Board Chair and Secretary of the VINA GROUNDWATER SUSTAINABILITY AGENCY; and
2. That the foregoing resolution is a true and correct copy of a resolution of the Board of Directors of the Vina Groundwater Sustainability Agency, passed at the meeting of the Board of Directors held on July 8, 2026, at the City of Chico City Council Chambers, 421 Main Street, Chico, CA 95928.

IN WITNESS WHEREOF, we have signed this certificate this 8th day of July 2026, at Chico, California.

_____

Jeffrey Rohwer, Chair of the Board of Directors

_____

Brandon Mortimer, Secretary

FY 2026-27 Annual Operations Budget Amendment

Resolution No. 2026-05

Vina GSA Board of Directors | July 8, 2026

1

Background

- **Adopted Budget:** FY 2026-27 Annual Operations Budget adopted June 10, 2026 (Resolution 2026-01), totaling $2,586,150 in revenues and expenditures.
- **DWR CalSIP Grant:** $600,000 grant agreement with DWR (April 2025) for stream gage installation at seven Vina Subbasin sites. Inadvertently omitted from the FY 2025-26 budget and carried forward into FY 2026-27 without correction.
- **Budget Adjustment:** $450,000 in CalSIP revenues and expenditures for FY 2026-27. Total expenditures across both fiscal years will not exceed the $600,000 grant award.

2

Budget Amendment by the Numbers

$450K — CalSIP Grant Adjustment

$600K — Total Grant Award

$3.04M — Adjusted Total Budget

3

FY 2026-27 Budget Summary

	FY26-27 Adopted	Adjustment	Adjusted Budget
SGMA Regulatory Fees	$977,185	—	$977,185
DWR SGM Round 2 Grant	$1,600,000	—	$1,600,000
DWR CalSIP Grant	$0	+$450,000	$450,000
Total Revenues	$2,586,150	+$450,000	$3,036,150
Total Operational Budget	$986,150	$0	$986,150
SGM Grant Projects	$1,600,000	—	$1,600,000
CalSIP Grant Project	$0	+$450,000	$450,000
Total Expenses	**$2,586,150**	**+$450,000**	**$3,036,150**

4

Fiscal Impact and Recommended Action

- **No impact to operations or fees:** Grant-funded activity only. No change to the operational budget, SGMA regulatory fee, or member agency contributions.
- **Procedural requirement:** Grant funds must be authorized in the adopted budget before invoices can be paid.
- **Recommended Action:** Adopt Resolution No. 2026-05, Approving an Amendment to the Fiscal Year 2026-27 Annual Operations Budget, and authorize the Chair to sign.

Vina Groundwater Sustainability Agency
Agenda Transmittal

Subject: Consideration of Resolution No. 2026-02 Setting Regulatory Sustainable Groundwater Management Act Fees for Fiscal Year 2026-27

Contact: Dillon McGregor	**Phone:** (530) 552-3589	**Meeting Date:** June 24, 2026	**Agenda Item:** 3.3

The Vina Groundwater Sustainability Agency (GSA) Board will consider adopting the SGMA regulatory fees for Fiscal Year 2026-27. At the June 10, 2026, Board meeting, the Board held adoption of the fee pending verification that the correct fee calculation methodology had been followed. The proposed fees have since been recalculated by Hansford Economic Consulting (HEC) in accordance with the 5-year outlook methodology authorized by Resolution No. 2025-02. Fee amounts are set forth in Attachment A.

Attachments:

- Staff Report
- Attachment A: Fiscal Year 2026-27 Fees Table
- Attachment B: HEC Technical Memorandum, Vina GSA FY27 Fee, dated June 18, 2026
- Resolution No. 2026-02, Setting Regulatory Sustainable Groundwater Management Act Fees for Fiscal Year 2026-27

Requested Board Action:
Adopt Resolution No. 2026-02, Setting Regulatory Sustainable Groundwater Management Act Fees for Fiscal Year 2026-27, and authorize the Chair to sign.

Vina Groundwater Sustainability Agency
308 Nelson Avenue, Oroville, CA 95965
(530) 552-3592 · VinaGSA@gmail.com

MEMORANDUM

To: Vina GSA Board of Directors

From: Dillon McGregor, GSA Program Manager

Date: June 24, 2026

Subject: Consideration of Resolution No. 2026-02 Setting Regulatory Sustainable Groundwater Management Act Fees for Fiscal Year 2026-27

Background

The Vina Groundwater Sustainability Agency (Vina GSA) Board adopted the Groundwater Sustainability Fee on June 11, 2025, by Resolution No. 2025-02, Adopting the Final Sustainable Groundwater Management Act Fee Study Report. Resolution 2025-02 established two methodologies by which the Board may adjust the fee each year under Section 3, Periodic Review:

1. Increased fees based on a 5-year outlook of projected budgetary needs.

2. Application of the March to March West Region Consumer Price Index for All Urban Consumers (CPI-U), with any adjustment no less than zero and no greater than 4%.

By limiting annual adjustments to one of two defined approaches, Resolution 2025-02 ensures that fee changes are grounded in objective criteria, giving ratepayers confidence that increases are tied to documented cost needs.

At the June 10, 2026 Board meeting, the Board considered Resolution 2026-02 to set the FY2026-27 fee. The fee presented at that meeting had been calculated using a single-year budget estimate, which is a valid approach under the fee study but is not one of the two methodologies authorized by Resolution 2025-02. The Board provided direction that staff revise the budget pursuant one of the methodologies identified in Resolution 2025-02.

Pursuant to this direction, Hansford Economic Consulting (HEC) recalculated the fee under the authorized methodology. The CPI-U for March 2025 to March 2026 was 3.12%, which would generate $827,930 in fee revenue. That amount is insufficient to meet the FY2026-27 budget need of $977,185 and the target minimum reserve of three months of operating expenses. Accordingly, HEC applied the 5-year outlook methodology to calculate the FY27 fee. A full description of the calculation methodology and steps is provided in the attached HEC Technical Memorandum dated June 18, 2026.

Proposed FY2026-27 Fees

The table below compares the adopted FY2025-26 fees with the proposed FY2026-27 fees.

Fee part	Type of use	Fee application	FY26 adopted fee	FY27 proposed fee
Part 1: Base fee	All parcels	Per parcel	$12.62	$16.58
Part 2: Group 1	Agricultural	Per cropped acre	$4.22	$5.60
Part 2: Group 2	Domestic	Per developed parcel	$0.96	$1.26
Part 2: Group 3	Grazing & vacant	N/A	$0.00	$0.00

[1] A parcel can have more than one type of use. [2] Cropped acreage is identified using the most recent DWR crop mapping layer.

Legal Authority

The Vina GSA is authorized to impose and collect regulatory fees under Water Code Section 10730. Adoption of the fee requires a supermajority vote of the Board of Directors per Section 9.3 of the Joint Powers Agreement (JPA).

Attachments

- Attachment A: Fiscal Year 2026-27 Fees Table
- Attachment B: HEC Technical Memorandum, Vina GSA FY27 Fee, dated June 18, 2026
- Resolution No. 2026-02, Setting Regulatory Sustainable Groundwater Management Act Fees for Fiscal Year 2026-27

Staff Recommendation

Adopt Resolution No. 2026-02, Setting Regulatory Sustainable Groundwater Management Act Fees for Fiscal Year 2026-27, and authorize the Chair to sign.

HANSFORD ECONOMIC CONSULTING

PO Box 10384
Truckee, CA 96162

Phone: 530-412-3676
Email: catherine@hansfordecon.com

Technical Memorandum

To: **Dillon McGregor**, GSA Program Manager

From: Catherine Hansford **Date:** June 18, 2026

Subject: Vina GSA FY27 Fee

Purpose

In 2025, HEC prepared a fee study for the Vina GSA. The Fee was adopted by the Vina GSA Board of Directors (Board) on June 11, 2025. HEC prepared the tax roll for the Butte County Auditor-Controller's office for the first year of fee collection and provided the master database to Vina GSA to prepare hand bills for those properties that do not receive a tax bill. This memorandum provides the methodology for setting the fiscal year 2027 (FY27) Vina GSA Fee, calculation steps and calculated fees, and compares the FY27 Fee with the FY26 Fee.

Fee Adjustment Methodology

Resolution 2025-02, which adopted the SGMA fee provides two methodologies by which to update the fee each year under Section 3. Periodic Review. These include:

1. Increased fees based on a 5-year outlook of projected budgetary needs.

2. Application of the change in the March to March West Region Consumer Price Index for All Urban Consumers (CPI-U), in which case the fee adjustment shall be no less than zero, nor higher than 4%.

Note that in any year, the Board can lower the fee when the GSA can demonstrate that the budgetary needs and target minimum reserve level of the next fiscal year can be met.

On June 10, 2026 the Vina GSA Board adopted the FY27 budget, identifying fee revenue need of $977,185 for FY27. Application of the CPI-U (3.12%) would generate $827,930 which is insufficient to meet the budget need and the target minimum reserve of three months of operating expenses; therefore, methodology 1 is used to calculate the FY27 Fee.

Table 1 shows the five-year cost projection in current dollars and the average annual amount to be recovered from fees by fee part; 59.0% from Part 1 and 41.0% from Part 2.

Table 1
FY27 – FY31 Projected GSA Costs (Current Dollars)

Operating Expenses	FY27 Budget	FY28	FY29	FY30	FY31	5-Year Average
Part 1: Governance & GSA Operations						
Audit Services (FY25-26)	$19,500	$19,500	$19,500	$19,500	$19,500	$19,500
Financial Services	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000
County Tax Roll Fee Support	$31,000	$31,000	$31,000	$31,000	$31,000	$31,000
Legal Services (excluding defense)	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
Legal Defense Reserve	$240,000	$240,000	$200,000	$200,000	$150,000	$206,000
Legal Defense Reserve Accrued FY 25-26	$60,000	$0	$0	$0	$0	$12,000
Professional Services	$35,000	$35,000	$35,000	$35,000	$35,000	$35,000
Program Manager	$115,000	$115,000	$115,000	$115,000	$115,000	$115,000
Office Expenses	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
Reserve (10%)	$56,250	$50,250	$46,250	$46,250	$41,250	$48,050
Part 1 Subtotal	**$618,750**	**$552,750**	**$508,750**	**$508,750**	**$453,750**	**$528,550**
						59.0%
Part 2: SGMA Monitoring & SGM						
Annual Reporting	$42,000	$42,000	$42,000	$42,000	$42,000	$42,000
Periodic Evaluations (2028-2033)	$52,000	$52,000	$52,000	$52,000	$52,000	$52,000
Well Mitigation Plan	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Groundwater Monitoring	$54,000	$54,000	$54,000	$54,000	$54,000	$54,000
Surface-GW Modeling	$31,500	$31,500	$31,500	$31,500	$31,500	$31,500
GSA Coordination & Outreach	$31,500	$31,500	$31,500	$31,500	$31,500	$31,500
Data Management System Maintenance	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500
Tech. Assistance / Prof. Services	$42,000	$42,000	$42,000	$42,000	$42,000	$42,000
Grant Procurement & Administration	$15,500	$15,500	$15,500	$15,500	$15,500	$15,500
Reserve (10%)	$33,400	$33,400	$33,400	$33,400	$33,400	$33,400
Part 2 Subtotal	**$367,400**	**$367,400**	**$367,400**	**$367,400**	**$367,400**	**$367,400**
						41.0%
Total Operational Budget	**$986,150**	**$920,150**	**$876,150**	**$876,150**	**$821,150**	**$895,950**
less RCRD Share	$8,965	$8,965	$8,965	$8,965	$8,965	
FY27 Fee Setting Cost	**$977,185**	**$911,185**	**$867,185**	**$867,185**	**$812,185**	

The projected costs were inflated 4% each year in **Table 2** so that a cash flow projection could be constructed, and the fee-setting cost for FY27 determined.

Table 2
Inflated Five-Year Cost Projection

Operating Expenses	FY27 Budget	FY28	FY29	FY30	FY31
Cost Inflation Asumption -->	*1.04*	*1.08*	*1.12*	*1.17*	
Part 1: Governance & GSA Operations					
Audit Services (FY25-26)	$19,500	$20,280	$21,091	$21,935	$22,812
Financial Services	$12,000	$12,480	$12,979	$13,498	$14,038
County Tax Roll Fee Support	$31,000	$32,240	$33,530	$34,871	$36,266
Legal Services (excluding defense)	$30,000	$31,200	$32,448	$33,746	$35,096
Legal Defense Reserve	$240,000	$249,600	$216,320	$224,973	$175,479
Legal Defense Reserve Accrued FY 25-26	$60,000	$0	$0	$0	$0
Professional Services	$35,000	$36,400	$37,856	$39,370	$40,945
Program Manager	$115,000	$119,600	$124,384	$129,359	$134,534
Office Expenses	$20,000	$20,800	$21,632	$22,497	$23,397
Reserve (10%)	$56,250	$52,260	$50,024	$52,025	$48,257
Part 1 Subtotal	**$618,750**	**$574,860**	**$550,264**	**$572,275**	**$530,823**
Part 2: SGMA Monitoring & SGM					
Annual Reporting	$42,000	$43,680	$45,427	$47,244	$49,134
Periodic Evaluations (2028-2033)	$52,000	$54,080	$56,243	$58,493	$60,833
Well Mitigation Plan	$50,000	$52,000	$54,080	$56,243	$58,493
Groundwater Monitoring	$54,000	$56,160	$58,406	$60,743	$63,172
Surface-GW Modeling	$31,500	$32,760	$34,070	$35,433	$36,851
GSA Coordination & Outreach	$31,500	$32,760	$34,070	$35,433	$36,851
Data Management System Maintenance	$15,500	$16,120	$16,765	$17,435	$18,133
Tech. Assistance / Prof. Services	$42,000	$43,680	$45,427	$47,244	$49,134
Grant Procurement & Administration	$15,500	$16,120	$16,765	$17,435	$18,133
Reserve (10%)	$33,400	$34,736	$36,125	$37,570	$39,073
Part 2 Subtotal	**$367,400**	**$382,096**	**$397,380**	**$413,275**	**$429,806**
Total Operational Budget	**$986,150**	**$956,956**	**$947,644**	**$985,550**	**$960,629**
less RCRD Share	$8,965	$9,323	$9,696	$10,084	$10,487
FY27 Fee Setting Cost	**$977,185**	**$947,633**	**$937,948**	**$975,466**	**$950,142**

The fee-setting cost, which deducts Rock Creek Reclamation District's share of costs, accounts for the anticipated ending fund balance 6/30/2026, deducts for any grant funding and adds for prudent reserves to meet three months of operating expenses, is $1,025,000, as shown in **Table 3**.

Table 3
Projected Cash Flow

Revenues and Expenses	Fiscal Year Ending FY27	FY28	FY29	FY30	FY31
Revenue	***Fee change***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
Vina GSA SGMA Fee	$1,025,000	$1,025,000	$1,025,000	$1,025,000	$1,025,000
RCRD Part 2 Cost Share	$8,965	$9,323	$9,696	$10,084	$10,487
Total Revenue	**$1,033,965**	**$1,034,323**	**$1,034,696**	**$1,035,084**	**$1,035,487**
Expenses					
Operations	$686,150	$707,356	$731,324	$760,577	$785,151
Legal Defense	$300,000	$249,600	$216,320	$224,973	$175,479
Total Expense	**$986,150**	**$956,956**	**$947,644**	**$985,550**	**$960,629**
Estimated Net Revenue	**$47,815**	**$77,367**	**$87,052**	**$49,534**	**$74,858**
Beginning Balance	$200,000	$247,815	$325,182	$412,234	$461,768
Net Revenues	$47,815	$77,367	$87,052	$49,534	$74,858
Estimated Ending Balance	**$247,815**	**$325,182**	**$412,234**	**$461,768**	**$536,626**
Reserves					
Target Minimum Reserve [1]	$246,538	$239,239	$236,911	$246,387	$240,157
Cash Balance as % of Costs	25.1%	34.0%	43.5%	46.9%	55.9%
Target Minimum Reserve Met?	**yes**	**yes**	**yes**	**yes**	**yes**

Source: HEC June 17, 2026. flow

[1] Target reserves are two months of operating expenses for FY26 and 3 months in subsequent years.

The total fee-setting cost to be collected by fee part is calculated in **Table 4**.

Table 4
FY27 Fee-Setting Cost by Part

Operations Cost Category	Fee Part Share	FY27 Fee Cost Basis
Part 1 Costs	59.0%	$604,681
Part 2 Costs	41.0%	$420,319
FY27 Fee Level		**$1,025,000**

The number of actual fee-paying parcels is established using the Butte County Assessor's most current data in July prior to finalization of the tax roll and hand bill database. The FY26 number of parcels charged is used to calculate the FY27 fee, with an allowance of 2% for bad debt and parcel changes. The calculated FY27 Part 1 fee is $16.58 per Parcel, an increase of $3.96 per Parcel from FY26. The Part 1 fee calculation is shown in **Table 5**.

Table 5
Part 1 Fee Calculation

Fee Item		Calculation
Cost Allocation for Part 1 Fee		**$604,681**
Fee-Paying Parcels		37,228
FY27 Fee per Parcel		**$16.24**
Bad Debt & Parcels Changes Allowance	98%	
Calculated FY27 Fee per Parcel [1]		**$16.58**

[1] Fee rounded to 2 cents.

Per the adopted fee methodology, 90% of the Part 2 fee costs are allocated to Agriculture, and 10% to Domestic users. **Table 6** shows the fee calculation for the Part 2, Group 1 Agricultural users. Total cropped acres charged the fee in FY26 are used for the calculation and an allowance of 5% is included for bad debt and crop changes because the Part 2 Group 1 fee is not charged to Idle and Unclassified crops (the definitions of which are provided by the Department of Water Resources). The calculated Part 2, Group 1 fee is $5.60 per Cropped Acre, an increase of $1.38 per Cropped Acre from FY26.

Table 6
Part 2 Group 1 Fee Calculation

Fee Item		Total
Cost Allocation for Part 2, Group 1 Fees		**$378,287**
Cropped Acres		71,172
FY27 Fee per Cropped Acre		**$5.32**
Bad Debt & Crop Changes Allowance	95%	
Calculated FY27 Fee per Parcel [1]		**$5.60**

[1] Fee rounded to 2 cents.

Table 7 shows the fee calculation for the Part 2, Group 2 Domestic users. Total Developed Parcels charged the fee FY26 are used for the calculation and an allowance of 2% is included for bad debt and change in number of developed parcels. The calculated Part 2, Group 2 fee is $1.26 per Developed Parcel, an increase of $0.30 per Developed Parcel from FY26.

Table 7
Part 2 Group 2 Fee Calculation

Fee Item		Total
Cost Allocation for Part 2, Group 2 Fees		**$42,032**
Developed Parcels		34,074
FY27 Fee per Developed Parcel		**$1.23**
Bad Debt & Developed Parcels Allowance	98%	
Calculated FY27 Fee per Parcel [1]		**$1.26**

[1] Fee rounded to 2 cents.

Findings

The Fee for FY27 needs to increase for both Part 1 and Part 2 fees to fund the FY27 budget and meet target minimum cash reserves. A comparison of the FY26 and the proposed FY27 fees are shown in **Table 8**.

Table 8
Comparison of FY26 and FY27 Fees

Fee Part	Type of Use	Fee Application	Fiscal Year 2026	Fiscal Year 2027
Part 1: Base Fee	Charged to every parcel	per Parcel	$12.62	$16.58
Part 2: User Group	**Part 2 fee(s) are charged by use and added to the Part 1 fee [1]**			
Group 1	Agricultural	per Cropped Acre [2]	$4.22	$5.60
Group 2	Domestic	per Developed Parcel	$0.96	$1.26
Group 3	Grazing & Vacant		$0.00	$0.00

Notes:
[1] A parcel can have more than one type of use.
[2] Cropped acreage of the Assessor Parcel within the GSA Boundaries.

VINA GROUNDWATER SUSTAINABILITY AGENCY

RESOLUTION NO. 2026-02

SETTING REGULATORY SUSTAINABLE GROUNDWATER MANAGEMENT ACT FEES FOR FISCAL YEAR 2026-27

WHEREAS, the Sustainable Groundwater Management Act (SGMA) of 2014 provides groundwater sustainability agencies (GSAs) with the authority to impose and collect fees on all applicable properties to fund regulatory activities within the GSAs' jurisdictional boundaries; and

WHEREAS, the Vina GSA, in coordination with the Rock Creek Reclamation District GSA, developed a joint Groundwater Sustainability Plan (GSP) covering the entire Vina Subbasin, which the California Department of Water Resources (DWR) approved on July 27, 2023; and

WHEREAS, the Board of Directors of the Vina GSA approved a regulatory SGMA fee on June 11, 2025, as authorized by Water Code section 10730 to fund the costs of a groundwater sustainability program, including implementation of the Vina Subbasin GSP; and

WHEREAS, the fee resolution (No. 2025-02) authorized the Board of Directors to adjust the fees levied in future fiscal years based on methods described in Attachment A, Section 3.1 of Resolution No 2025-02; and

WHEREAS, the annual adjustment to fees based on the previously adopted methods is based on a 5-year outlook of projected budgetary needs as authorized by Section 3.1 of Resolution No. 2025-02; and

WHEREAS, the CPI-U methodology was evaluated but would generate insufficient revenue to meet the FY2026-27 budget need and target minimum reserve; therefore, the fiscal year 2027 (FY27) fees set forth in Attachment A are based on the 5-year outlook of projected budgetary needs as authorized by Resolution 2025-02..

NOW THEREFORE BE IT RESOLVED by the Board of Directors of the Vina Groundwater Sustainability Agency as follows:

1. The Vina GSA regulatory SGMA Fee for FY27 is set at the charges identified in Attachment A on the terms and conditions set in Resolution No. 2025-02; and
2. The Vina GSA Program Manager is hereby authorized and directed to file a certified copy of this resolution with the Auditor-Controller of the County of Butte. Upon such filing, the County Auditor-Controller shall enter on the County assessment roll opposite each lot or parcel of land the amount of fee thereupon as shown in the levy roll. The fees shall continue to be collected at the same time and in the same manner as County taxes are collected and all the laws providing for collection and enforcement shall apply to the collection and enforcement of the assessments. After collection by the County, the net amount of the assessments, after deduction of any compensation due the County for collection, shall be paid to Vina GSA; and
3. The Vina GSA Program Manager is hereby authorized and directed to cause the direct billing of the fee for entities that do not receive a tax bill; and
4. The Vina GSA Program Manager and Vina GSA Counsel are hereby authorized and directed to take such other and further steps as may be necessary or appropriate to implement the intent and purpose of this resolution.

PASSED, APPROVED AND ADOPTED by the Board of Directors of the VINA GROUNDWATER SUSTAINABILITY AGENCY this 8th day of July 2026.

AYES:

NOES:

ABSENT:

ABSTAIN:

CERTIFICATE OF RESOLUTION

We, the undersigned, hereby certify as follows:

1. That we are the Board Chair and Secretary of the VINA GROUNDWATER SUSTAINABILITY AGENCY; and
2. That the foregoing resolution is a true and correct copy of a resolution of the Board of Directors of the Vina Groundwater Sustainability Agency, passed at the meeting of the Board of Directors held on July 8, 2026, at the City of Chico City Council Chambers, 421 Main Street, Chico, CA 95928.

IN WITNESS WHEREOF, we have signed this certificate this 8th day of July 2026, at Chico, California.

_____Jeffrey Rohwer, Chair of the Board of Directors

_____Brandon Mortimer, Secretary

ATTACHMENT A

Fee Part	Type of Use	Calculated FY27 Fee	Application of the Fee
Part 1: Base Fee	**Every parcel is charged the Part 1 fee**	**$16.58**	**per Parcel**
Part 2: User Group 1	**Agricultural**	**$5.60**	**per Cropped Acre**
Part 2: User Group 2	**Domestic**	**$1.26**	**Per developed Parcel**
Part 2: User Group 3	**Grazing & Vacant**	**$0.00**	

FY 2026-27
SGMA Regulatory Fee

Resolution No. 2026-02

Vina GSA Board of Directors | July 8, 2026

1

Fee Adjustment Framework

Resolution 2025-02 established two defined methodologies for annual fee adjustments, ensuring changes are grounded in objective criteria.

5-Year Outlook

Fee increase based on a five-year projection of budgetary needs, inflated for cost growth, with target minimum reserves of three months of operating expenses.

CPI-U Adjustment

Application of March-to-March West Region Consumer Price Index for All Urban Consumers. Adjustment capped at 4% and floored at 0%.

2

Why the 5-Year Outlook Applies

The CPI-U methodology was evaluated first, as it produces a smaller increase. However, the resulting revenue falls short of the FY 2026-27 budget need and target reserves.

3.12%

CPI-U
March 2025 to March 2026

$827,930

CPI-U Revenue
Insufficient to meet budget

$977,185

FY 2026-27
Fee Revenue Need

3

How the Fee Was Calculated

1. **Five-Year Cost Projection**
   Projected FY27 through FY31 operating expenses in current dollars, averaging $895,950 annually. Part 1 (Governance) represents 59% and Part 2 (SGMA Monitoring) 41%.

2. **Inflation Adjustment**
   Costs inflated at 4% per year to build a realistic cash flow model across the five-year horizon.

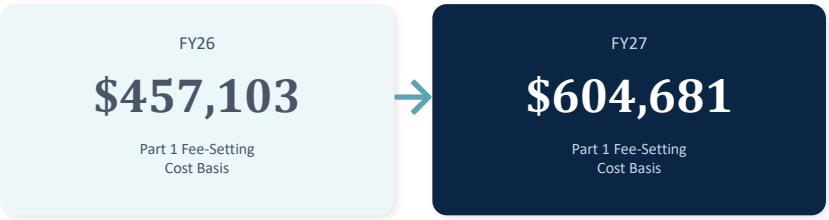
3. **Cash Flow and Fee-Setting Cost**
   After accounting for the anticipated beginning fund balance ($200,000) and target minimum reserves of three months of operating expenses, the fee-setting cost is $1,025,000. This is higher than the $977,185 single-year budget need because it builds reserves over the five-year period.

4. **Fee Allocation**
   Fee-setting cost allocated by part (59% Part 1, 41% Part 2), then divided across parcels and cropped acres. Allowances for bad debt and parcel/crop changes are applied: 2% for Part 1 and Domestic, 5% for Agricultural.

4

Understanding the Increase

The Part 1 budget for FY 2026-27 is essentially the same as FY 2025-26, yet the Part 1 fee increases approximately 31%. This is because the fee is not set from a single-year budget. It is calculated from the five-year cost projection.



The five-year outlook averages projected costs over a five-year planning horizon. In FY26, the Part 1 fee was set to collect $457,103. Under the updated projection, Part 1 needs $604,681 in FY27 to sustain operations and reserves through FY31..

5

Proposed FY 2026-27 Fees

Fee Part	Type of Use	Fee Application	FY26 Adopted	FY27 Proposed
Part 1: Base Fee	All parcels	Per parcel	$12.62	**$16.58**
Part 2: Group 1	Agricultural	Per cropped acre	$4.22	**$5.60**
Part 2: Group 2	Domestic	Per developed parcel	$0.96	**$1.26**
Part 2: Group 3	Grazing & Vacant	N/A	$0.00	$0.00

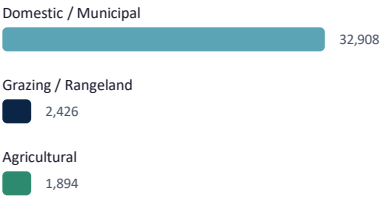
A parcel can have more than one type of use. Cropped acreage identified using the most recent DWR crop mapping layer. Bad debt allowances: 2% (Part 1 and Domestic), 5% (Agricultural) account for the slightly higher percentage increase in the Agricultural fee.

6

Who Pays and How Much

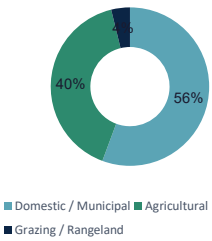
Parcels by Sector

37,228 total fee-paying parcels



Estimated FY27 Revenue by Sector

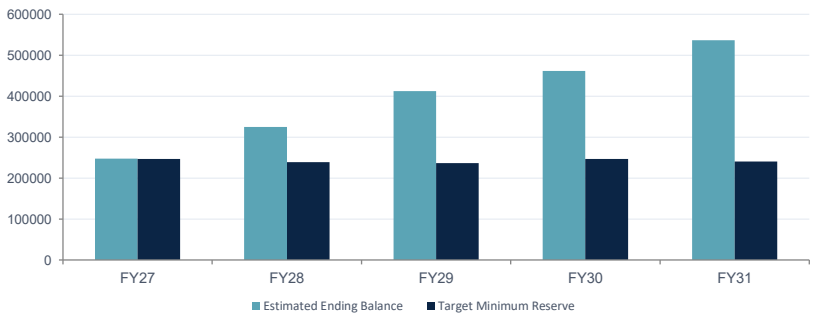
$1,025,000 total (includes reserves)



7

Five-Year Financial Outlook

Projected cash reserves meet or exceed the target minimum (three months of operating expenses) in every year through FY 2030-31, assuming no fee increase beyond FY27.



8


Recommended Action
Adopt Resolution No. 2026-02, Setting Regulatory
Sustainable Groundwater Management Act Fees
for Fiscal Year 2026-27 and authorize the Chair to sign.
Authorized under Water Code Section 10730
Supermajority vote required per JPA Section 9.3

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