



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

## **Stakeholder Advisory Committee (SHAC) Meeting**

Date: Wednesday, October 23, 2024

Time: 9:00 AM

Location: Butte County Library, Chico Branch, 1108 Sherman Avenue, Chico, CA 95926

Or [Join the Vina GSA Board Meeting via Zoom](#)

Meeting ID: 869 8360 0705

Join via phone: +1 669 900 6833

***No public comments or questions will be taken online.***

### **MEETING AGENDA**

October 23, 2024

1. **CALL TO ORDER AND ROLL CALL**

2. **BUSINESS FROM THE FLOOR**

The public and SHAC members will have an opportunity to comment on items not on the agenda and that are relevant to the SHAC. Committee members and Management Committee staff are not required to respond to any issues raised during the public comment period. Commenters are asked to respect differing perspectives and to keep remarks within three minutes.

3. **\*REVIEW AND APPROVAL OF 5/22/24 SHAC MEETING MINUTES**

4. **\*DISCUSSION OF PROPOSED NEW MONITORING NETWORK LOCATIONS** (Report – Ryan Fulton, Larry Walker Associates)

5. **\*PRESENTATION OF SGM GRANT PROJECTS PROGRESS REPORT** (Report – Becky Fairbanks, GSA Project Manager & Tovey Giezentanner, Agricultural Groundwater Users of Butte County)

6. **GSA PROGRAM MANAGER UPDATE** (Verbal Report)

7. **ADJOURNMENT:**

The Committee will adjourn to their next meeting, Wednesday, November 20, 2024

\*Materials included in agenda packet

# **MINUTES OF THE VINA STAKEHOLDER ADVISORY COMMITTEE (SHAC)**

## **REGULAR MEETING**

Meeting of May 22, 2024, 9:00 a.m. – 12:00 p.m.

**OLD MUNICIPAL BUILDING, 441 MAIN STREET, CHICO CA 95928  
AND VIA ZOOM (LISTEN/VIEW ONLY)**

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1. **CALL TO ORDER AND ROLL CALL**– Meeting was called to order by Chair Lewis at 9:00 a.m.

### **ROLL CALL**

#### **SHAC Committee Members Present:**

- Anne Dawson
- Samantha Lewis
- Evan Markey
- Joanne Parsley
- Greg Sohnrey

#### **Committee Members Absent:**

- Sam Geopp
- Todd Greene
- Bruce Smith

#### **Member Agency Staff Present:**

Dillon Raney, Christina Buck, Kamie Loeser & Kelly Peterson, Becky Fairbanks (Butte County Department of Water & Resource Conservation (BCDWRC), Linda Herman and David Kehn (City of Chico).

***\*\*SHAC member Greene joined the meeting at 9:05 a.m.\*\****

### **1.a. Election of Chair and Vice Chair**

A motion made by SHAC member Sohnrey to appoint SHAC member Lewis as Chair and SHAC member Parsley as Vice-Chair. SHAC member Markey seconded the motion. Motion carried as follows:

AYES: Committee Members, Lewis, Markey, Parsley, and Sohnrey,  
NOES: None.  
ABSTAIN: Committee Member Dawson  
ABSENT: Committee Members Geopp, Greene and Smith

## **2. INTRODUCTION OF NEW SHAC MEMBERS AND STAFF**

Dillon Raney was introduced as the Vina GSA Program Manager and Becky Fairbanks was introduced as the new SGMA Grant Program Coordinator.

## **3. BUSINESS FROM THE FLOOR**

The public and SHAC members will have an opportunity to comment on items not on the agenda and that are relevant to SHAC. Committee members and Management Committee staff are not required to respond to any issues raised during the public comment period. Commenters are asked to respect differing perspectives and to keep remarks within three minutes.

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No public comments were received.

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#### 4. REVIEW AND APPROVAL OF 10/25/23 SHAC MEETING MINUTES

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No public comments were received.

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A motion made by SHAC member Sohnrey to approve the Meeting Minutes was seconded by SHAC member Markey. Motion carried as follows:

AYES: Committee Members Dawson, Greene, Markey, Parsley, Sohnrey, Vice-Chair Parsley and Chair Lewis.  
NOES: None.  
ABSTAIN: None.  
ABSENT: Committee Members Geopp, and Smith

#### 5. PRESENTATION OF 2023 ANNUAL REPORT (Kelly Peterson, Butte County)

The Annual Report is available on the Vina GSA website at: <https://www.vinagsa.org/library>

**Action:** None, this was an informational item only.

Butte County staff representative, Kelly Peterson, gave an update on the topic. Discussion ensued among the SHAC members. Questions were answered.

#### 6. \*UPDATE ON SGMA GRANT PROJECTS. (Becky Fairbanks & Christina Buck, Butte County)

**Action:** None, this was an informational item only.

Butte County Project Coordinator Becky Fairbanks gave an update on this item. Discussion ensued and SHAC member questions were answered.

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No public comments were received.

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#### 7. CONTINUED DISCUSSION OF AGENDA ITEM 5. - 2023 ANNUAL REPORT

Prior to the break, SHAC member Greene stated he had further questions regarding the 2023 Annual Report and asked if the discussion could go back to Agenda Item 5. Chair Lewis requested a motion to do so. SHAC member Greene made the motion and SHAC member Dawson seconded the motion. The motion carried as follows:

AYES: Committee Members Dawson, Greene, Markey, Parsley, Sohnrey, Vice-Chair Parsley and Chair Lewis.  
NOES: None.  
ABSTAIN: None.  
ABSENT: Committee Members Geopp, and Smith

Greene requested that all the hydrographs be included in the Annual Report. Peterson said that she would take the suggestion to the Technical Advisory Committee for possible inclusion in the next annual report.

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Jim Brobeck and Alternate SHAC member-Domestic Well Claudia Rawlins provided comments on the Annual Report.

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#### 8. BREAK – The SHAC took a 5-minute break, and the meeting resumed at 10:32 a.m.

\*\*SHAC member Bruce Smith joined the meeting\*\*

**9. \*FEE STUDY UPDATE & STAKEHOLDER ENGAGEMENT (Catherine Hansford & Schaelene Rollins, HEC)**

The consultant HEC provided an update on the new fee study and provided a detailed presentation on the Stakeholder Engagement component of the project. Discussion ensued and the SHAC members provided comments and suggestions on this topic.

SHAC member Sohnrey requested that the fee study include all properties in the portion of the fee that cover the costs of the SGMA mandatory reporting and other requirements. He believes it should be spread to all parties, including those State, Federal and other entities who are exempt from the GSA fees.

Chair Lewis requested that the fee study highlight and be transparent about all the GSA costs and expenses including litigation costs.

SHAC member Dawson inquired and emphasized that the domestic well users are considered and be part of the study and stakeholder outreach. Dawson also believes all should pay a portion of the fee but thinks it should be proportional to their water use.

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Claudia Rawlins provided comments and asked questions on this item.

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SHAC member Smith requested the consultant consider how the influx of solar may result in increased water use due to decreased electricity costs.

**10. MANAGEMENT COMMITTEE UPDATE – (Verbal Report)**

**Possible Action:** Schedule additional SHAC meeting for June 26, 2024

The Committee was asked if they would like to schedule an additional SHAC meeting on June 26, 2024, from 9:00 a.m. to 11: a.m. SHAC member Sohnrey made a motion to meet on this date, which was seconded by SHAC member Markey.

AYES: Committee Members Dawson, Greene, Markey, Smith, Sohnrey, Vice-Chair Parsley and Chair Lewis.  
NOES: None.  
ABSTAIN: None.  
ABSENT: Committee Member Geopp

**11. ADJOURNMENT**

By a motion from SHAC member Sohnrey and a second from SHAC member Dawson, the SHAC unanimously approved to adjourn the meeting 11:28. a.m. to their next meeting to be held on June 26, 2024.

# Vina Subbasin Update on Proposed Monitoring Network Enhancements

Prepared by

The LWA Team in coordination with the Vina GSA

Funding provided by the California Department of Water Resources

October 2024



**Luhdorff &  
Scalmanini**  
Consulting Engineers



**CALIFORNIA**  
STATE UNIVERSITY, CHICO



## Outline

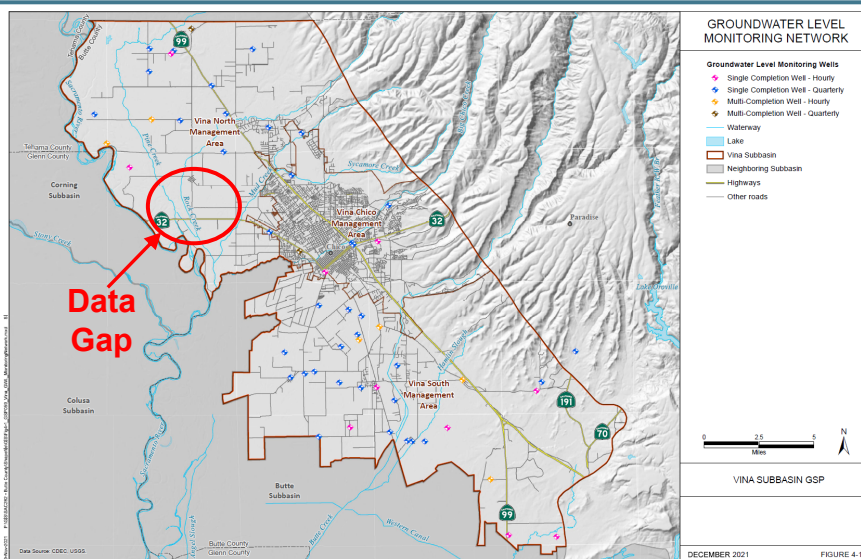
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- Project Objectives
- Overview Existing Groundwater Level Monitoring Network
- ISW/GDE Monitoring Network Development Process
- Proposed Enhancements
- Schedule/Next Steps

## Objectives

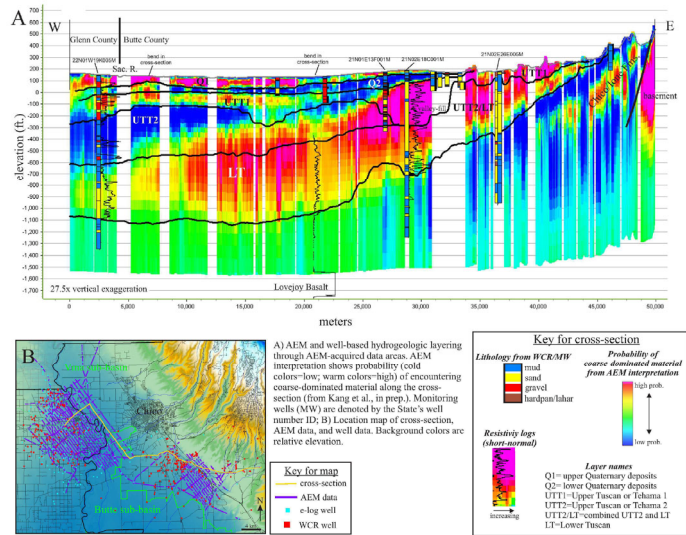
- Address data gaps identified in the Vina GSP & comments in DWR's Determination Letter
- Monitor all beneficial uses and users of groundwater including:
  - ✓ Interconnected surface waters (ISWs),
  - ✓ Groundwater dependent ecosystems (GDEs),
  - ✓ Domestic well owners, and
  - ✓ Agricultural users
- Available funding to drill/install a minimum of **nine (9) shallow wells**, **one (1) multi-completion well**, and **three (3) stream gages**

## Existing Groundwater Level Monitoring Network



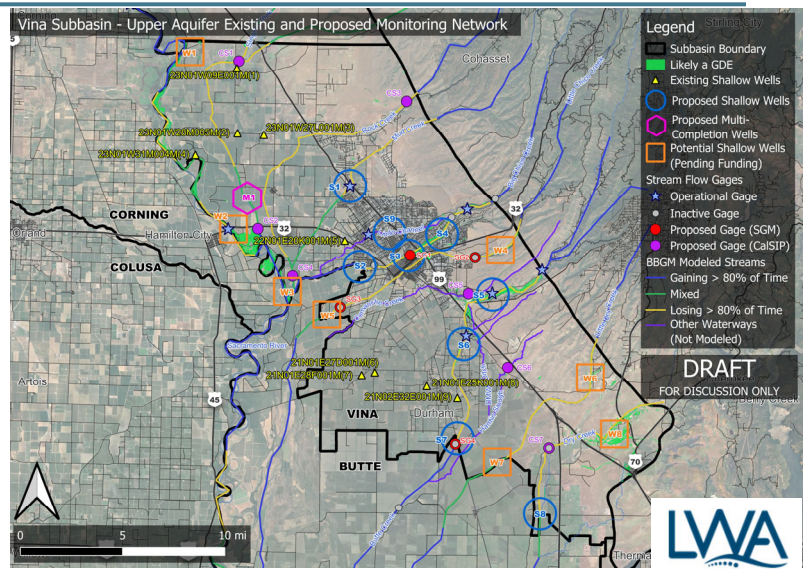
# ISW / GDE Monitoring Network Development

- Partnered with Dr. Todd Greene, CSU Chico
- Identified existing shallow wells within the Subbasin
- Includes wells only screened in the upper and lower Quaternary deposits (Q1 & Q2)



# Proposed Monitoring Network Enhancements

- Nine (9) existing shallow wells
- Install/drill additional seventeen (17) shallow wells (pending funding and inventory of existing shallow wells not identified in the GSP)
- Install one (1) multi-completion well
- Install additional ten (10) stream gages (pending funding)



## Schedule

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### SHAC/Board Input Process:

- SHAC Meeting → October 23, 2024 (Monitoring Network Update)
- Vina GSA Board Meeting → November 13, 2024 (Monitoring Network Update)
- SHAC Meeting → November 20, 2024 (Recommendation to Board)
- Vina GSA Board Meeting → December 11, 2024 (Final Board Approval)

### Next Steps:

- Access agreements, final designs, & bid documents complete January 2025
- Well contractors notice to proceed by February 2025
- New wells installed by June 2025
- Stream gage installations start December 2024

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Questions?



# TECHNICAL MEMORANDUM

Date: October 23, 2024  
To: Vina Groundwater Sustainability Agency (GSA)  
From: Larry Walker Associates  
Subject: Groundwater Monitoring Network Enhancements



## 1. BACKGROUND

The Vina Groundwater Sustainability Agency (GSA) groundwater level monitoring network is critical for understanding conditions for all beneficial users and uses of groundwater including interconnected surface waters (ISWs), groundwater dependent ecosystems (GDEs), domestic well users, and agricultural users. The Vina GSA was awarded funding through DWR's Sustainable Groundwater Management (SGM) Grant Program to fund monitoring network enhancements as identified in the Vina Groundwater Sustainability Plan (GSP) and DWR's Determination Letter.<sup>1</sup> The scope of this grant includes (1) a thorough review of the existing monitoring network and (2) the design and installation of a minimum of nine new shallow wells, one new multi-completion well, a minimum of three new stream gages, and monitoring of eight domestic wells.

## 2. METHODS AND PROCEDURES

The Vina GSP, Section 4.2, identifies seventy-eight (78) existing wells within the Vina Subbasin groundwater level monitoring network (Figure 1). This network of monitoring wells was used for observing groundwater levels and calculating flow directions and hydraulic gradients in the principal aquifer during GSP development and annual reporting. The actual aquifer layers these wells represented based on screen intervals / well depths were not identified in the GSP. After meeting with the Butte County Technical Advisory Committee and neighboring subbasins, it was recommended to develop a separate monitoring network for the upper groundwater aquifer layer, to monitor ISWs and GDEs, and the lower aquifer layer, to monitor impacts from pumping. The two-layer approach allows for assessing the vertical connectivity between aquifer zones.

Vina GSA partnered with Dr. Todd Greene with CSU Chico to provide stratigraphic context for the screened intervals in the Vina Subbasin monitoring wells. This information was then used to help guide the location and screen intervals for future monitoring well sites for the upper and lower aquifer layers. A thorough breakdown of the data, methodology, and results of this investigation are detailed in a technical memorandum developed by Sub-Terra Heritage Resource Investigations (Greene, 2024).

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<sup>1</sup> Vina GSP and Determination Letter available here: <https://sgma.water.ca.gov/portal/gsp/preview/86>

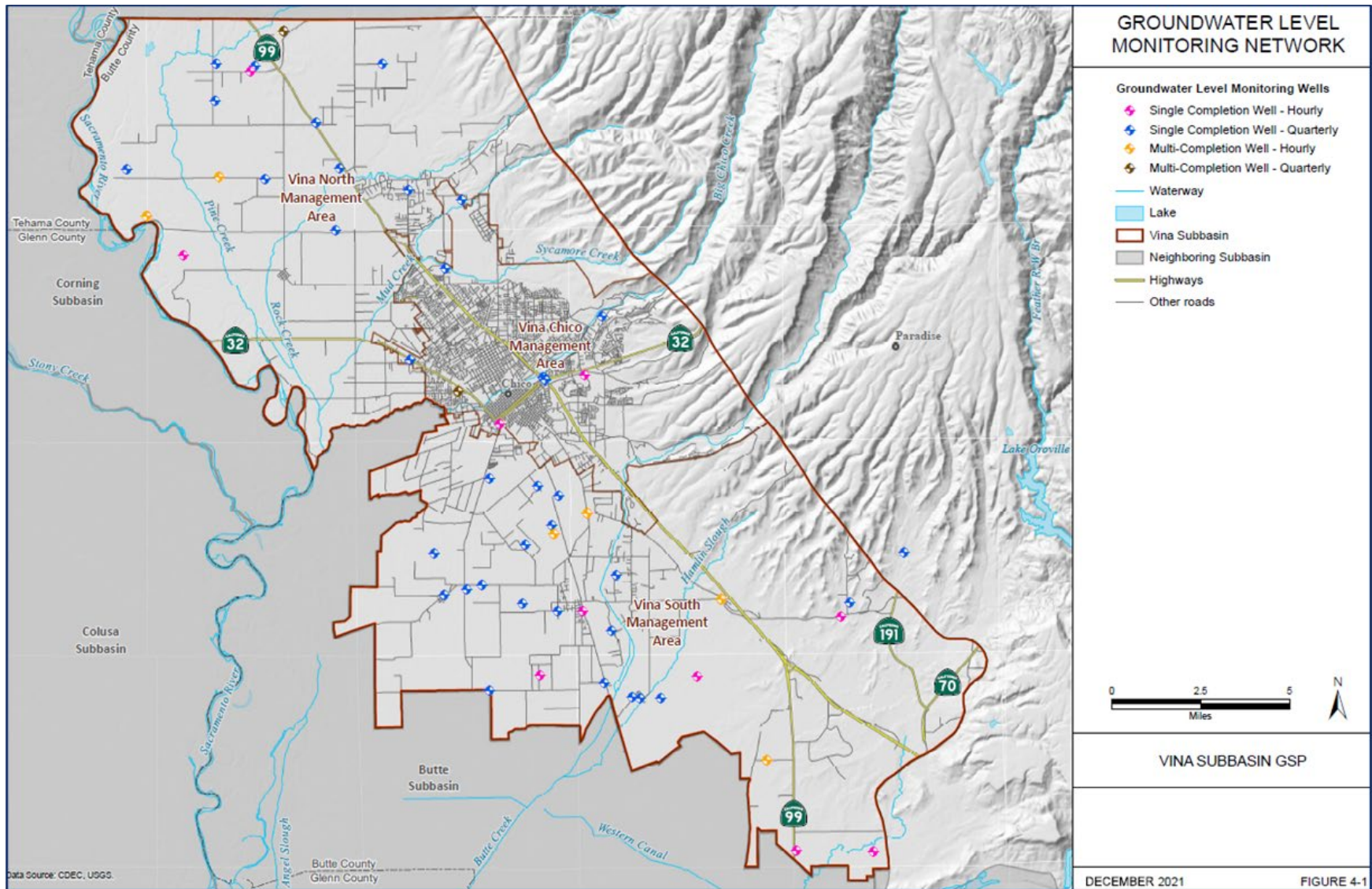


Figure 1. Map of existing groundwater level monitoring network (Vina Groundwater Subbasin GSP, Figure 4-1, page 165).

## 2.1. Monitoring Network Enhancements

To refine the site selection process for new wells and stream gages in the groundwater monitoring network, LWA in coordination with GSA staff have established the following site selection criteria:

1. **Data Gaps** – Prioritize locations that will help address data gaps identified in the GSP and DWR’s Determination Letter which includes ISWs and GDEs. The Butte Basin Groundwater Model was used to identify potential ISWs. Potential GDEs were identified using the Natural Communities Commonly Associated with Groundwater dataset developed by DWR, the California Department of Fish and Wildlife (CDFW), and The Nature Conservancy (TNC).
2. **Land Access** – The GSA will locate new sites along County and City easements when feasible or establish landowner agreements as needed.
3. **Existing Infrastructure** – Prioritize utilizing existing infrastructure to avoid unnecessary drilling and well construction expenses, when possible. For stream gages, locating and reactivating inactive sites will generally be more cost-effective than establishing new gaging sites.
4. **SGMA Projects** – Prioritize sites that could benefit other SGMA projects. For example, the Lindo Channel Recharge Project will require shallow wells to help quantify recharge. Installing both shallow wells in the area could help analyze benefits provided by such a project in the short term, while also serving as long-term monitoring sites for ISWs/GDEs.
5. **Water Quality** – To the extent possible, new wells will support subbasin groundwater quality monitoring efforts and fill gaps in the water quality monitoring network.
6. **Priority Watersheds** – While most wells and stream gages will be placed in accordance with the criteria listed above, the GSA may have the opportunity to install additional stream gages under the Stream Gage Improvement Program (CalSIP) in “Priority Watersheds” as described in the 2022 California Stream Gaging Prioritization Plan.<sup>2</sup> The CalSIP Priority Watersheds in Vina Subbasin include Singer Creek, Pine Creek, Rock Creek, Commanche Creek, Hamlin Slough, and Dry Creek.

## 2.2. Domestic Well Survey

A desktop survey was performed to locate parcels with domestic wells using the County Assessor’s Office parcel use codes. The goal of this survey was to refine the GSA’s existing domestic well dataset and to identify areas with a high density of domestic wells at risk of going dry (deemed “Priority Areas”). In the desktop survey, parcels within Cal Water and Durham Irrigation District service areas were excluded from the analysis due to being served by a public water supply system. Parcels zoned for agriculture were only included if they had a building with a known address.

The GSA will hold outreach events to solicit interest from community members in Priority Areas in preparation for the launch of the Community Monitoring Program to monitor domestic wells throughout the Subbasin.

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<sup>2</sup> Plan available here: [https://www.waterboards.ca.gov/waterrights/water\\_issues/programs/stream\\_gaging\\_plan/](https://www.waterboards.ca.gov/waterrights/water_issues/programs/stream_gaging_plan/)

### 3. RESULTS

#### 3.1. Monitoring Network Enhancements

A map of the proposed monitoring network for the Vina Subbasin is shown in Figure 2. Of the seventy-eight (78) existing wells included in the groundwater level monitoring network (see GSP Section 4.2), Dr. Todd Greene’s analysis identified only nine (9) as shallow. Shallow wells are screened in the upper and lower Quaternary deposits. These sites are summarized in Table 1 with hydrographs provided in Appendix A.

*Table 1. Existing representative monitoring wells measuring groundwater levels in the upper aquifer.*

Map Label	Monitoring Frequency	Multi-Completion	Well Type	Management Area
23N01W09E001M (1)	Quarterly	No	Irrigation	Vina - North
23N01W28M005M (2)	Hourly	Yes	Observation	Vina - North
23N01W27L001M (3)	Hourly	No	Residential	Vina - North
23N01W31M004M (4)	Hourly	Yes	Observation	Vina - North
22N01E20K001M (5)	Quarterly	No	Residential	Vina - North
21N01E27D001M (6)	Quarterly	No	Residential	Vina - South
21N01E28F001M (7)	Quarterly	No	Irrigation	Vina - South
21N01E25K001M (8)	Quarterly	No	Residential	Vina - South
21N02E32E001M (9)	Hourly*	No	Irrigation	Vina - South

As illustrated on Figure 2, the long-term goal for the shallow monitoring network is to install wells near streams and potential GDEs in areas delineated with blue circles, indicating high priority locations, and orange squares, indicating lower priority locations. The high priority monitoring sites are located along Big Chico Creek, Butte Creek, Mud Creek, and Lindo Channel. The lower priority sites are along smaller, ephemeral streams. A shallow well will be installed at the nine (9) high priority locations under the SGM Grant pending review of other existing shallow monitoring wells in the area (e.g., City of Chico nitrate monitoring wells) that may be used instead of drilling a new well. Additional shallow wells will be installed in areas identified by the orange squares as funding allows.

A multi-completion well is proposed at site labeled M1 as illustrated on Figure 2. This location is not covered by an existing monitoring well, located along a section of Pine Creek that transitions from a gaining and losing stream according to the Butte Basin Groundwater Model, surrounded by agricultural pumping, and located to the west of an area with a significant number of domestic wells.

It is recommended to install three stream gages along Big Chico, Little Chico, and Butte Creeks with SGM grant funding. Additional stream gages along Pine, Rock, Camanche, and Dry Creeks and Hamlin Slough may be installed with CalSIP funding (see purple circles on Figure 2). A long-term goal is to measure water entering and leaving the Subbasin through streams.

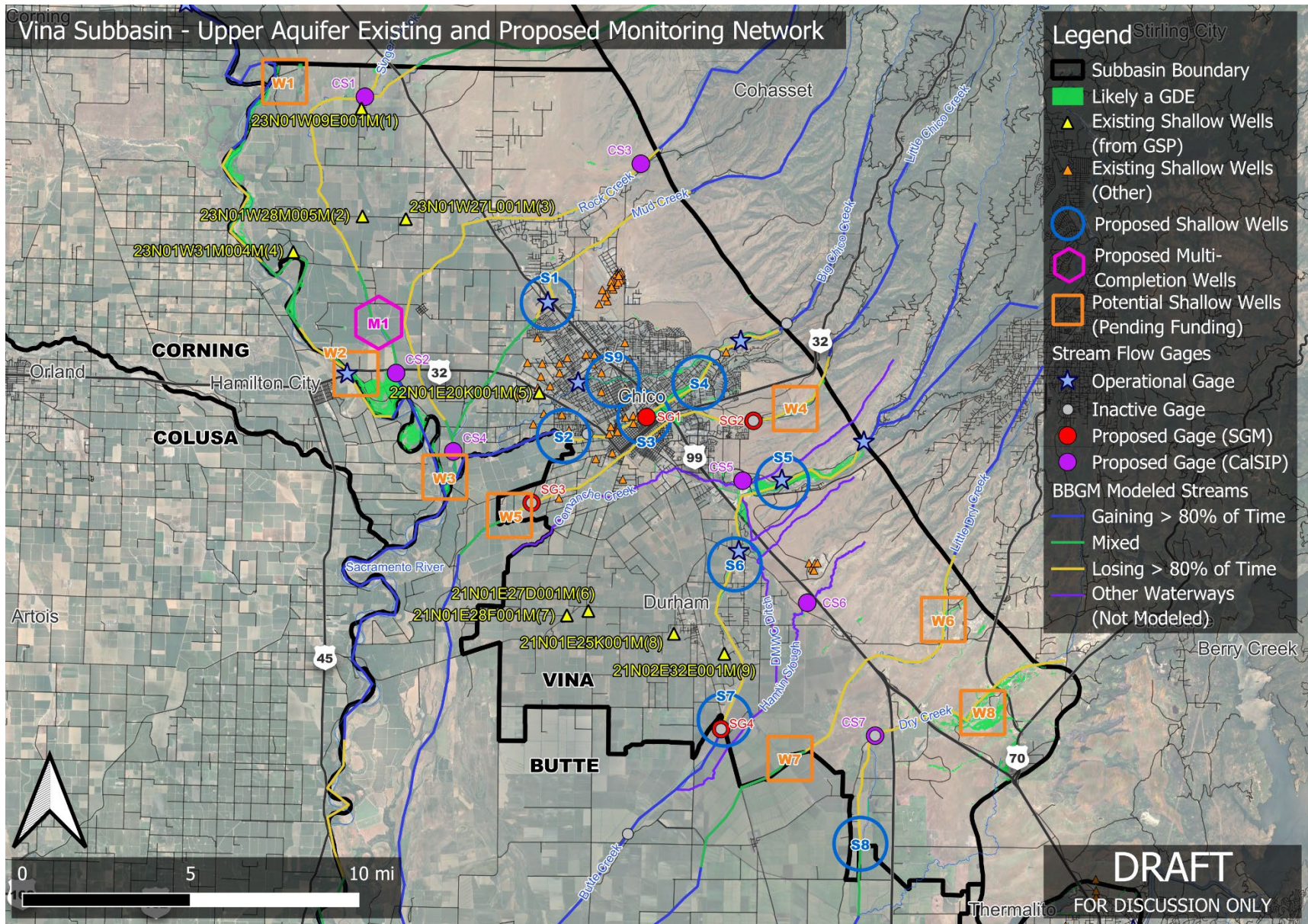


Figure 2. Map depicting all wells, both existing and proposed, to be included in the Upper Aquifer monitoring network.

### 3.3. Domestic Well Survey Preliminary Results

The domestic well survey based on parcel information identified 1,342 domestic wells within the Vina Subbasin. A map of the domestic well survey results with delineated Priority Areas are shown in Figure 3. For comparison, DWR estimates approximately 2,300 domestic wells within the Vina Subbasin based on the number of well completion reports (WCRs) received since 1977.<sup>3</sup> The parcel-based approach may be a better representation of the actual number of wells in the Subbasin as some domestic wells have likely been replaced over time. Further coordination with Cal Water is recommended to identify parcels within their service area without service.

Approximately fourteen well owners have volunteered their domestic wells to be monitored under the Community Monitoring Program (see purple points on Figure 3). These wells will be further evaluated to assess the suitability to participate and be monitored through the Program. The GSA has funding to install monitoring equipment on eight domestic wells.

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<sup>3</sup> California's Groundwater Live website link: <https://sgma.water.ca.gov/CalGWLive/#wells>

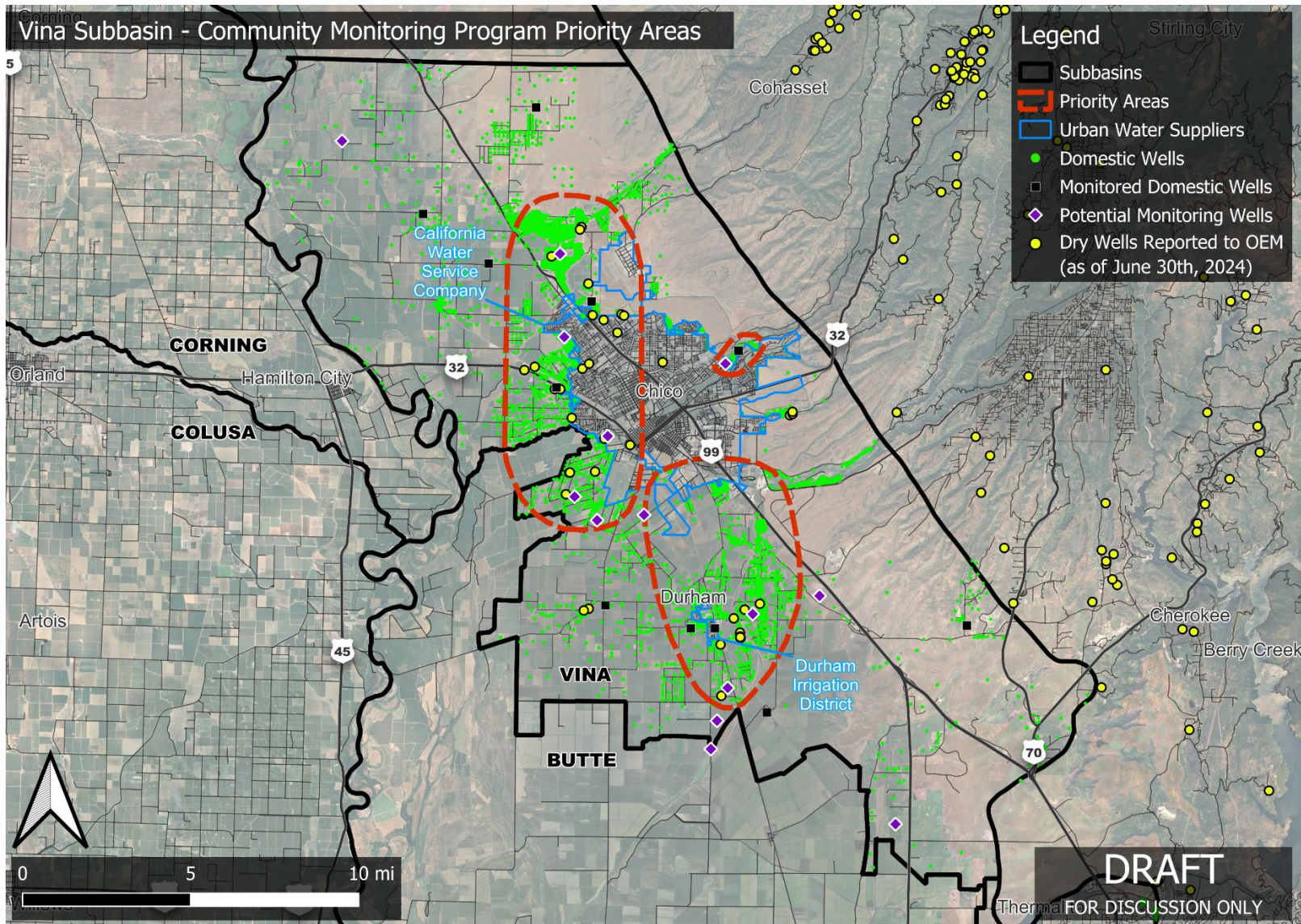


Figure 3. Map depicting results of the domestic well survey. Priority areas were delineated from the domestic well survey results and the dry wells reported to Butte County OEM through June 30, 2024.

## 4. NEXT STEPS

The LWA Team in coordination with GSA staff are actively soliciting input on the proposed enhanced monitoring network from local stakeholders. To date, we have engaged the following groups for input:

- Members of Butte County Technical Advisory Committee,
- Agricultural Groundwater Users of Butte County,
- Friends of Butte Creek,
- The Nature Conservancy, and
- Other GSA/County technical consultants.

The LWA Team will continue to request input from stakeholders over the next two months. The schedule to request input from the Vina GSA Stakeholder Advisory Committee (SHAC) and the Board of Directors is summarized in Table 2. Updates will be provided to the SHAC and Board of Directors at their October and November meetings, respectively. Final recommendation and approval from the SHAC and Board of Directors is tentatively scheduled for November 20, 2024, and December 11, 2024; respectively.

*Figure 4. Proposed SHAC and Board of Directors input process schedule.*

<b>Group</b>	<b>Meeting Date</b>	<b>Purpose</b>
SHAC	October 23, 2024	Monitoring Network Update
Board of Directors	November 13, 2024	Monitoring Network Update
SHAC	November 20, 2024	Recommendation to Board
Board of Directors	December 11, 2024	Final Board Approval

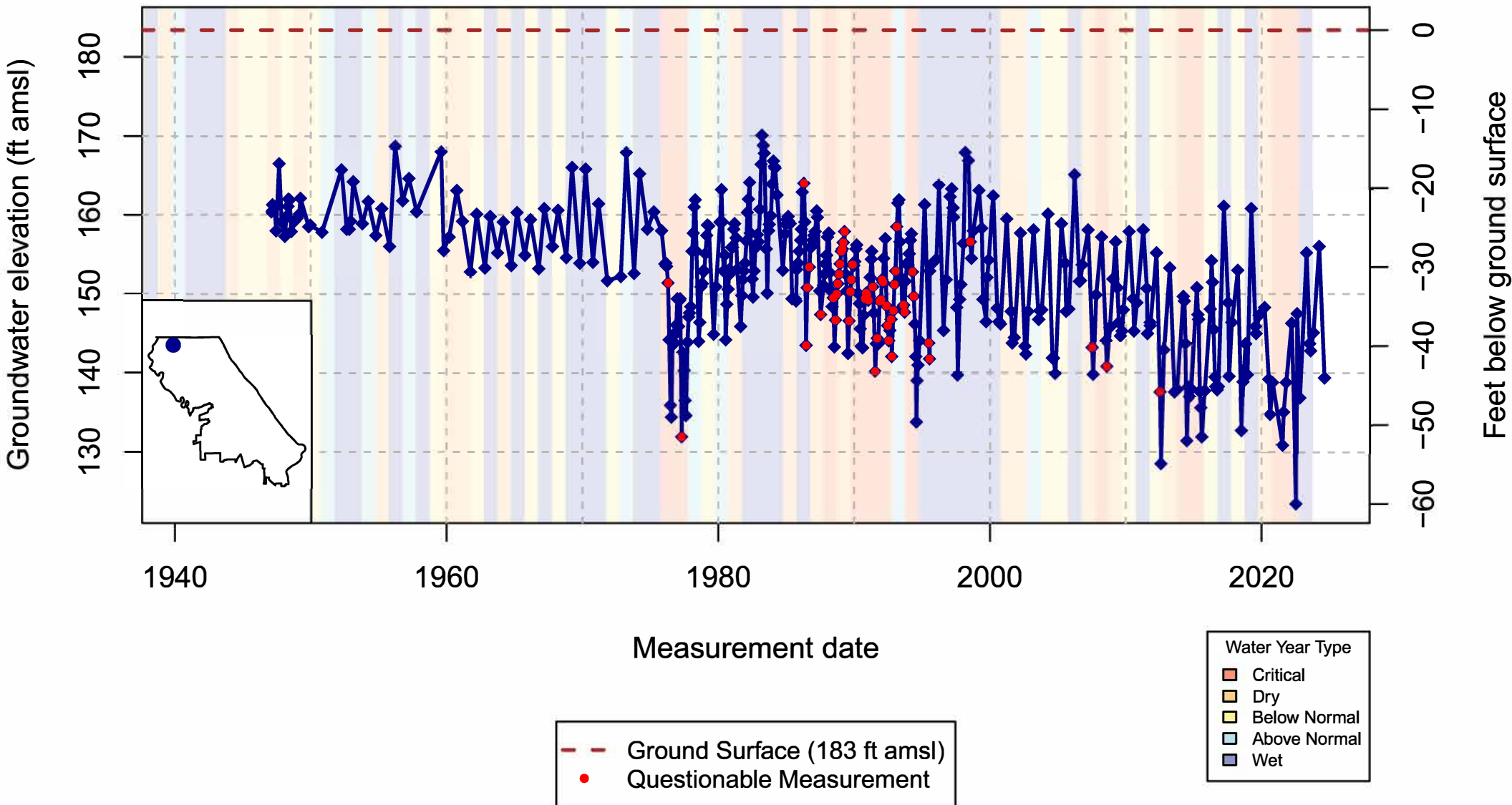
The LWA Team in coordination with GSA staff will continue to advance activities to ensure installation of the monitoring network remains on schedule. Landowner access agreements (as applicable), final monitoring well designs and specifications, and bid documents will be completed by January 2025. Well contractors will be given notice to proceed by February 2025 with all new wells installed by June 2025. Stream gage installations will start in December 2024 once final approval is granted by the Vina GSA Board of Directors.



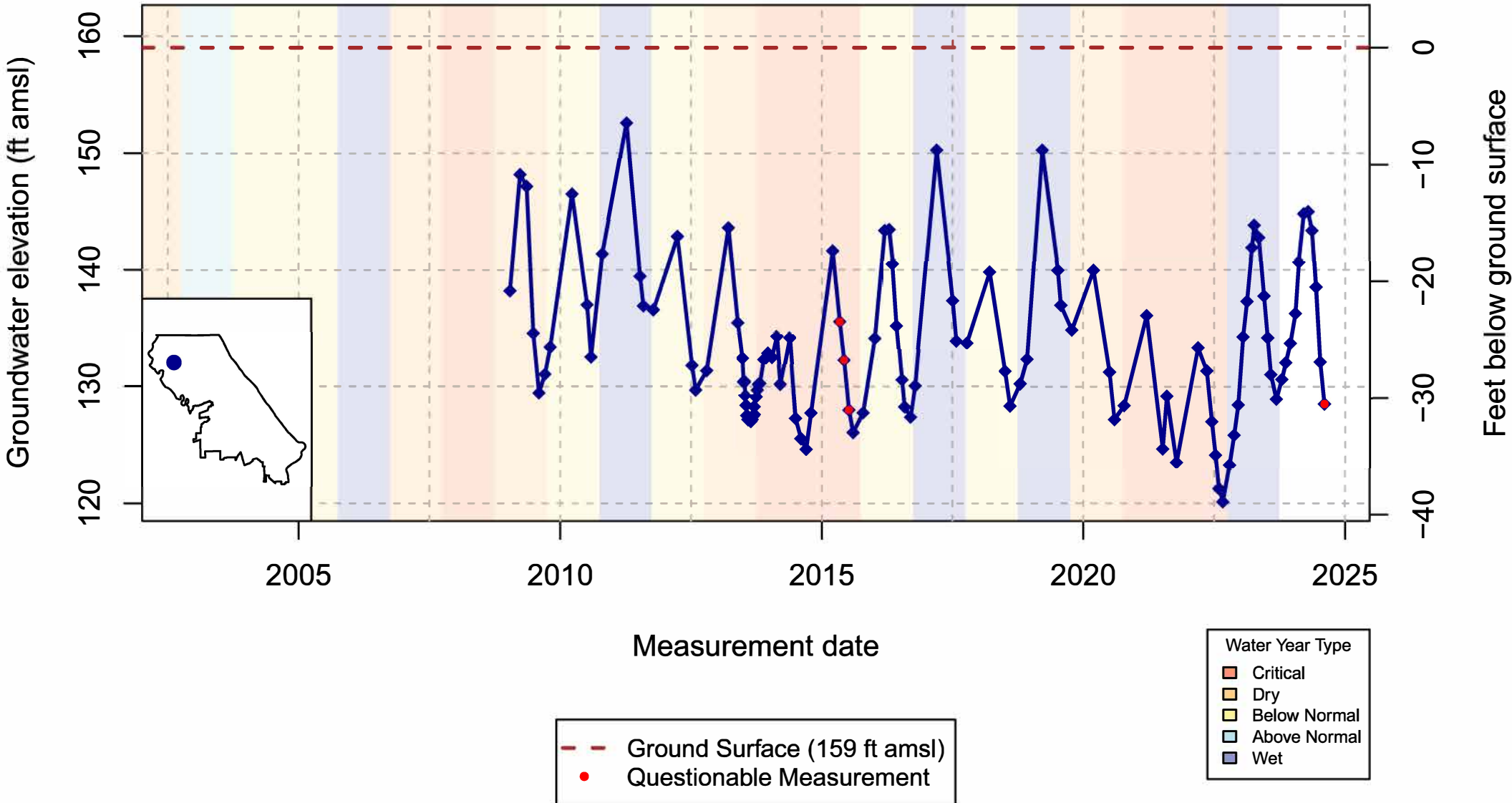
**APPENDIX A**

**Vina Subbasin Groundwater Hydrographs for Existing Shallow Wells  
(Identified Through Dr. Todd Greene's Analysis)**

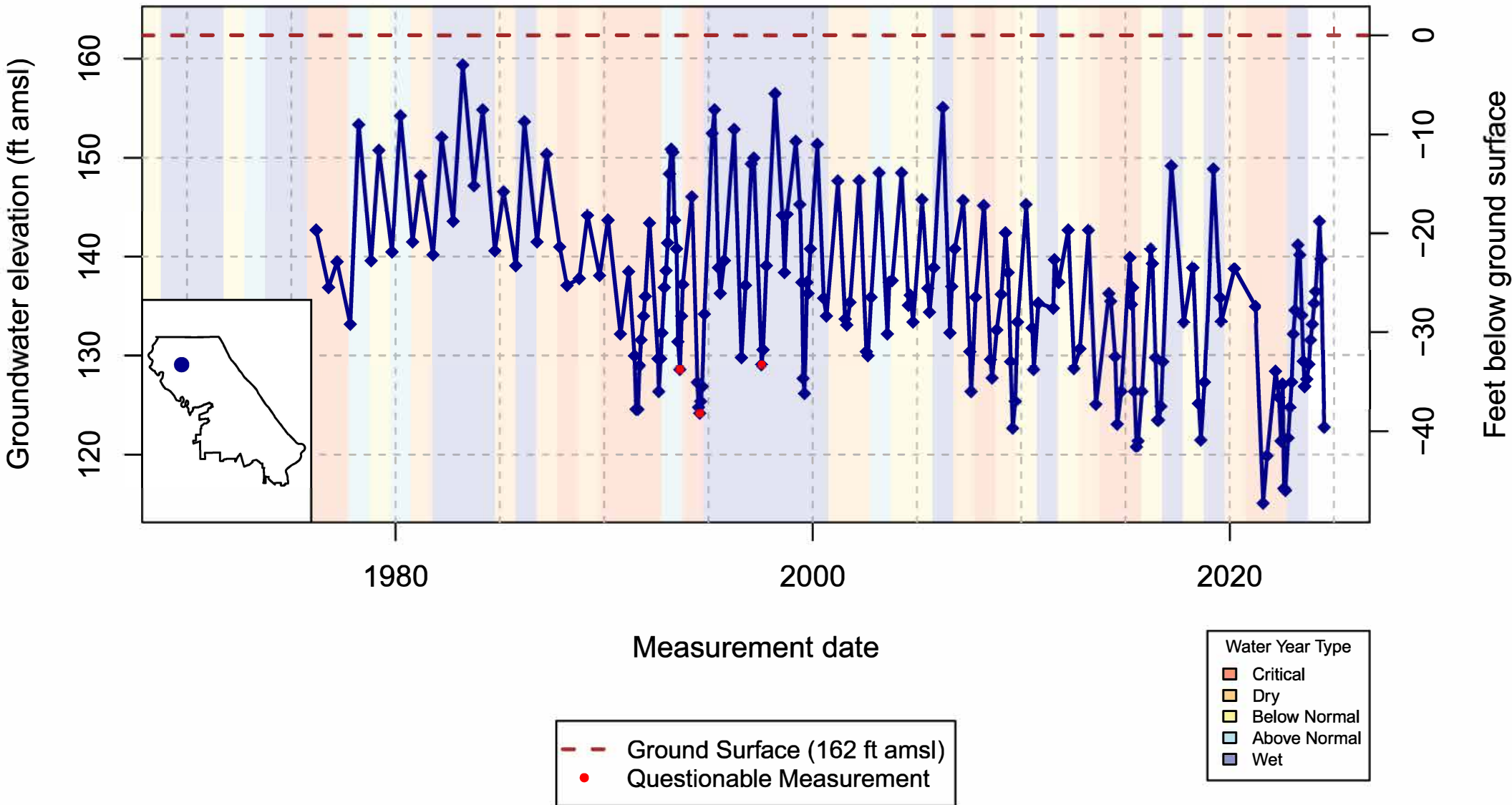
### Vina Subbasin – State Well Number (SWN): 23N01W09E001M(1) – Upper Aquifer



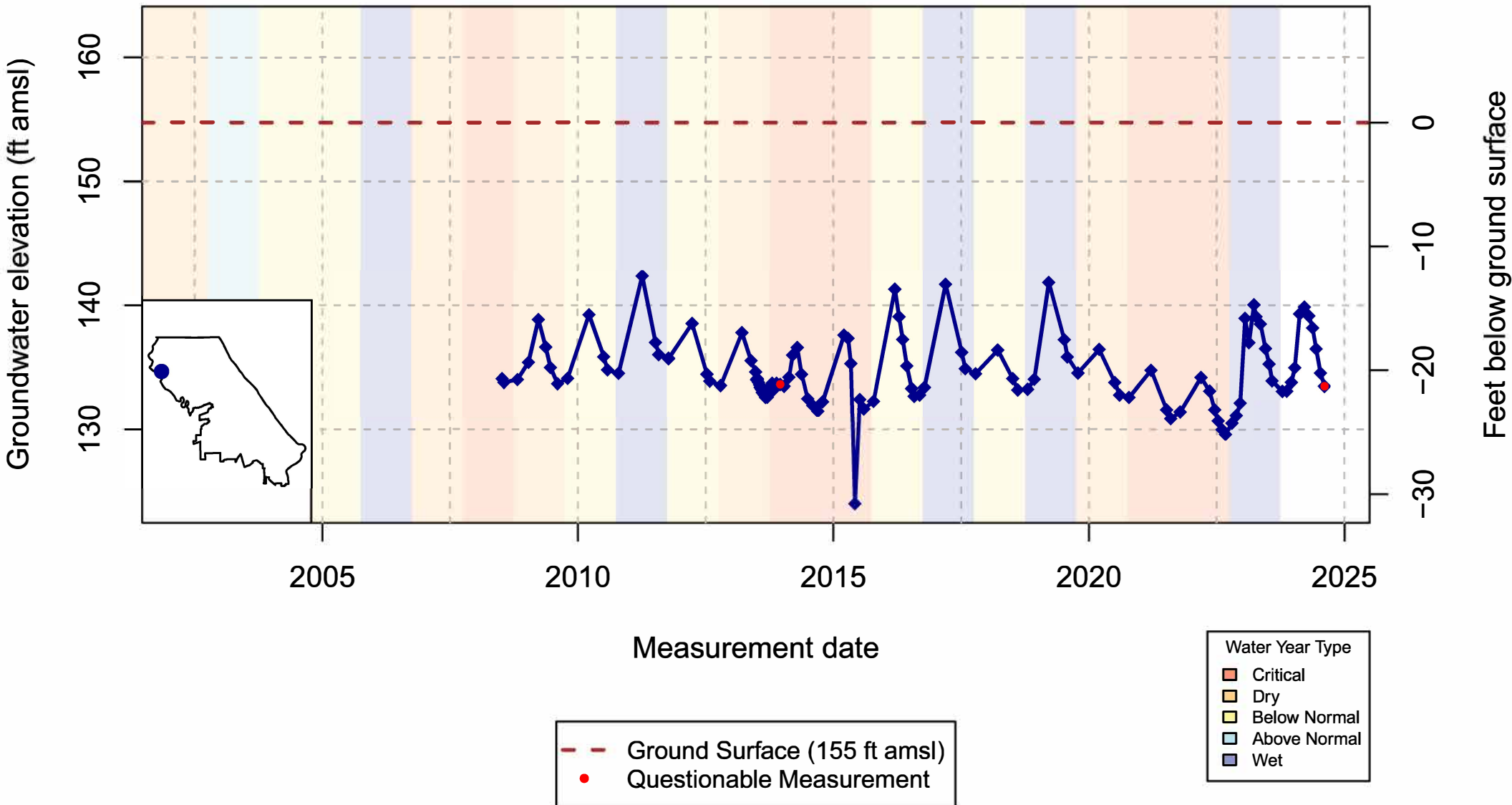
### Vina Subbasin – State Well Number (SWN): 23N01W28M005M(2) – Upper Aquifer



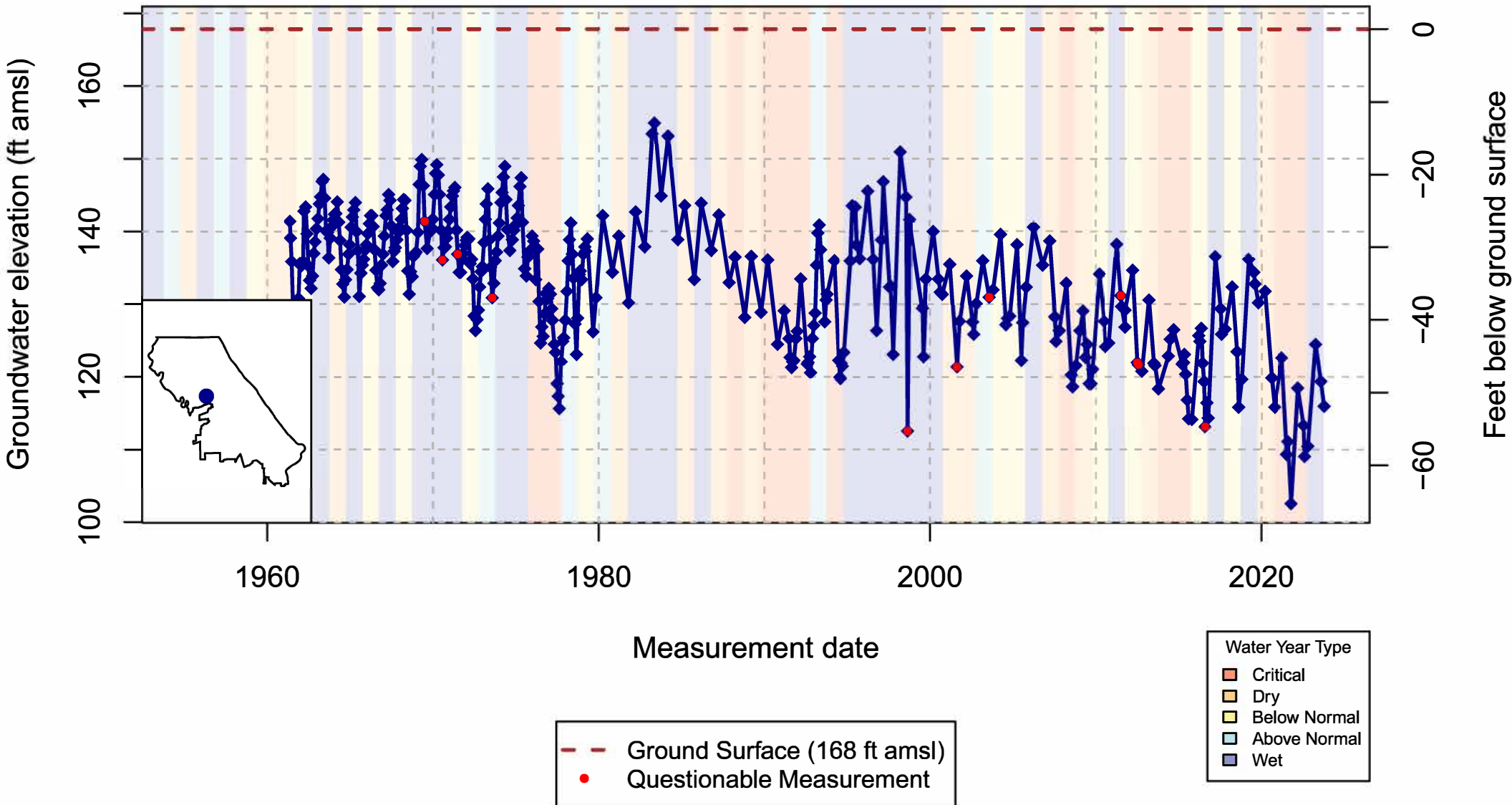
# Vina Subbasin – State Well Number (SWN): 23N01W27L001M(3) – Upper Aquifer



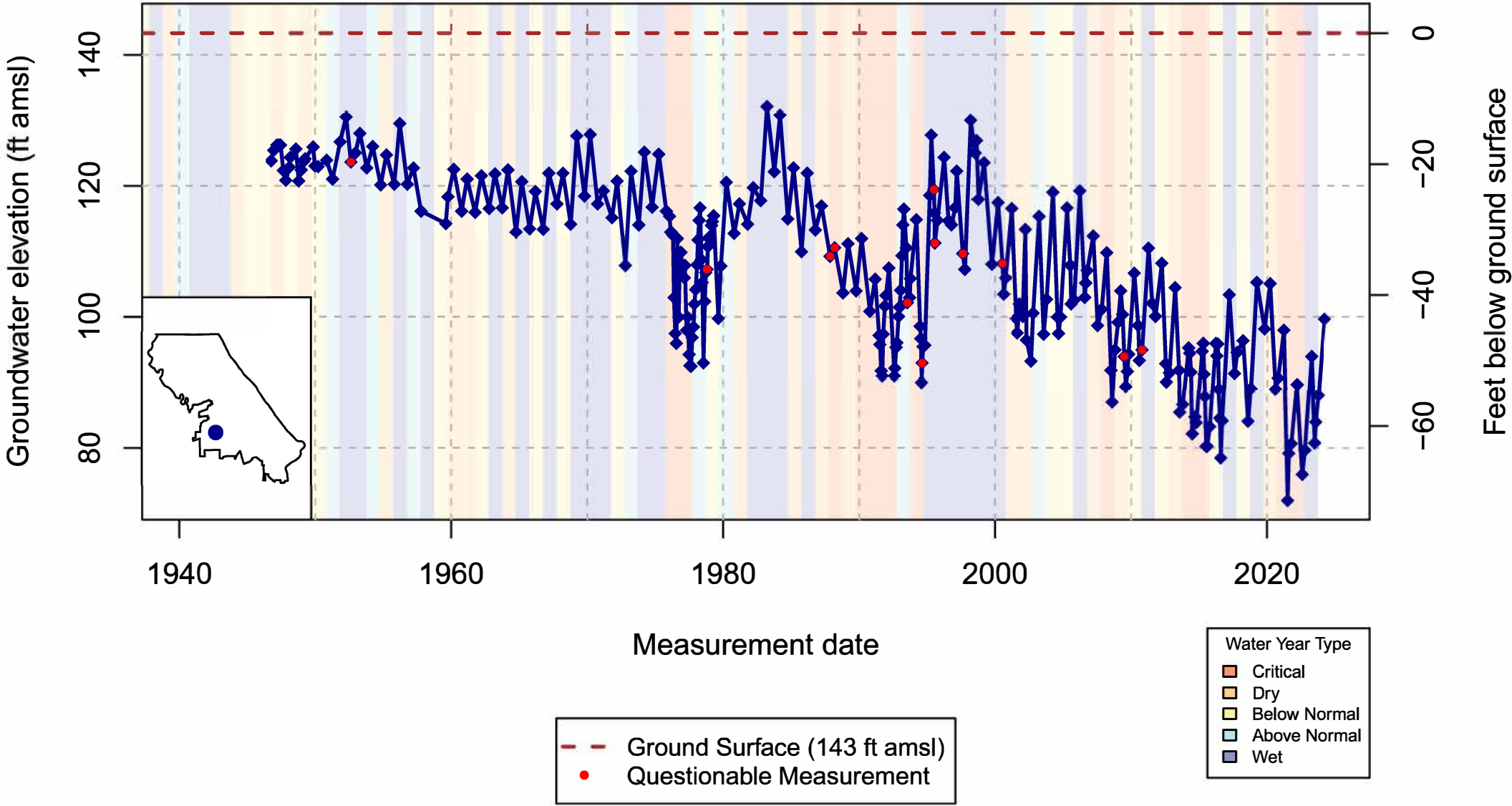
### Vina Subbasin – State Well Number (SWN): 23N01W31M004M(4) – Upper Aquifer



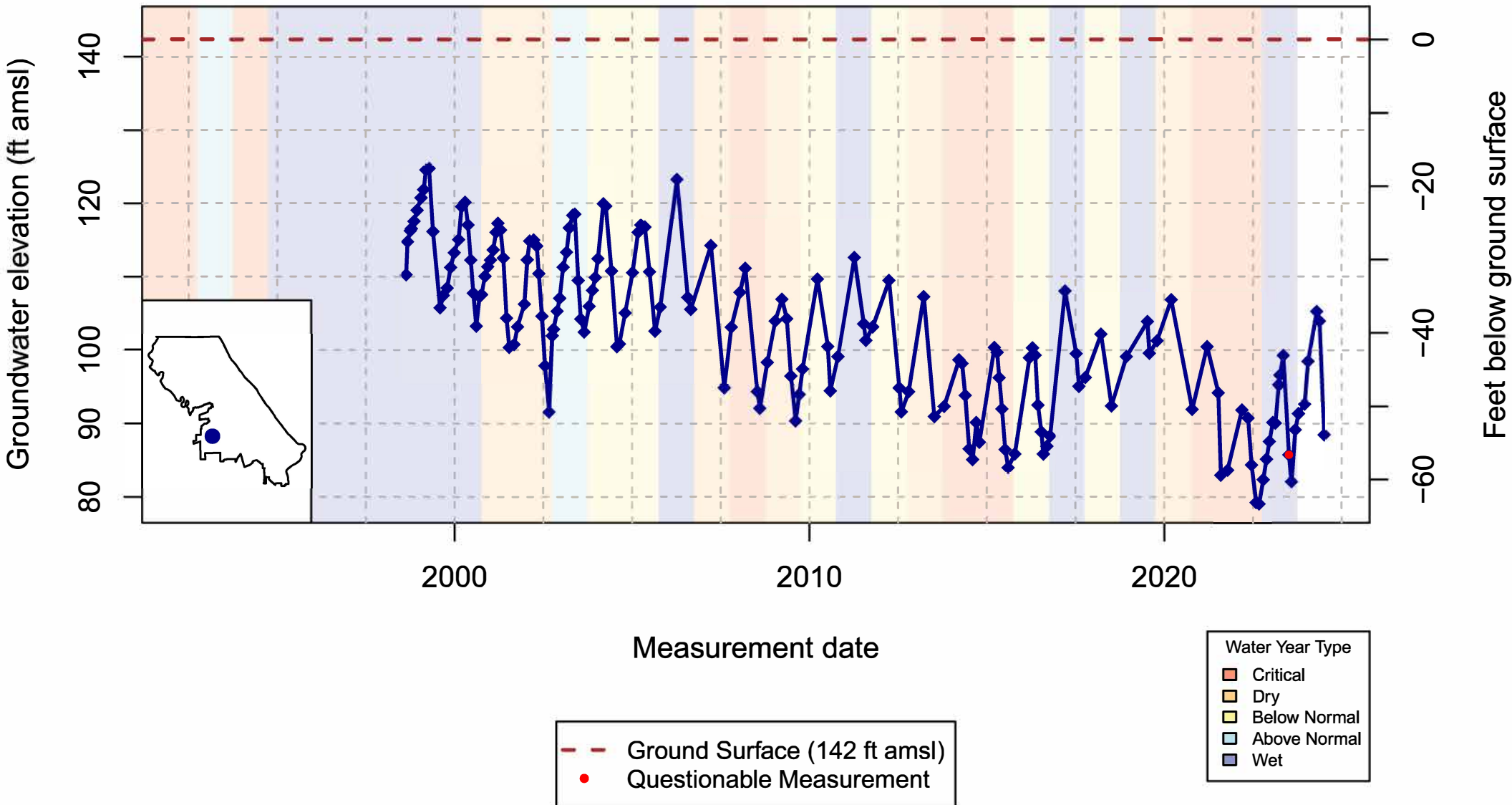
# Vina Subbasin – State Well Number (SWN): 22N01E20K001M(5) – Upper Aquifer



### Vina Subbasin – State Well Number (SWN): 21N01E27D001M(6) – Upper Aquifer

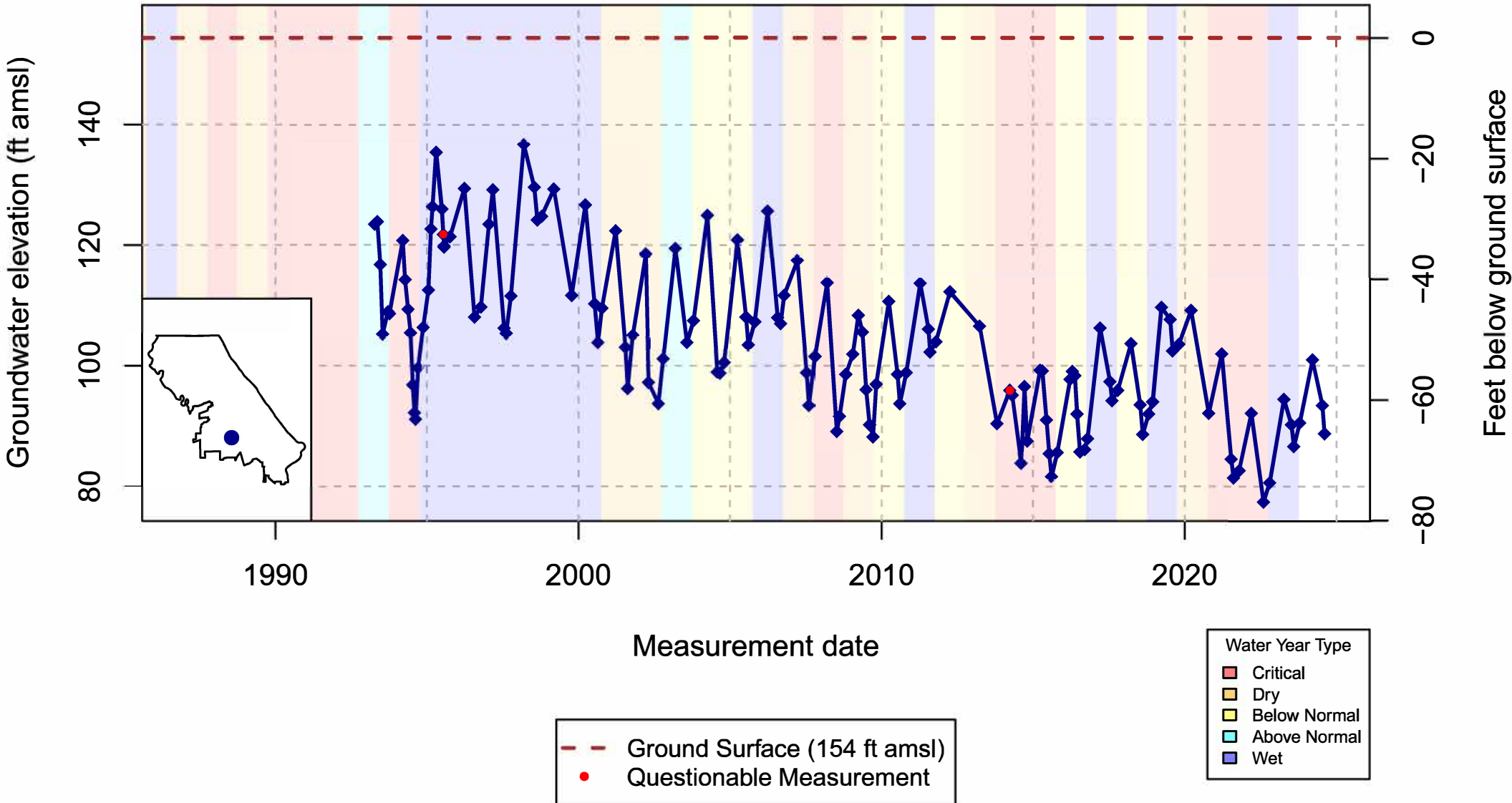


### Vina Subbasin – State Well Number (SWN): 21N01E28F001M(7) – Upper Aquifer

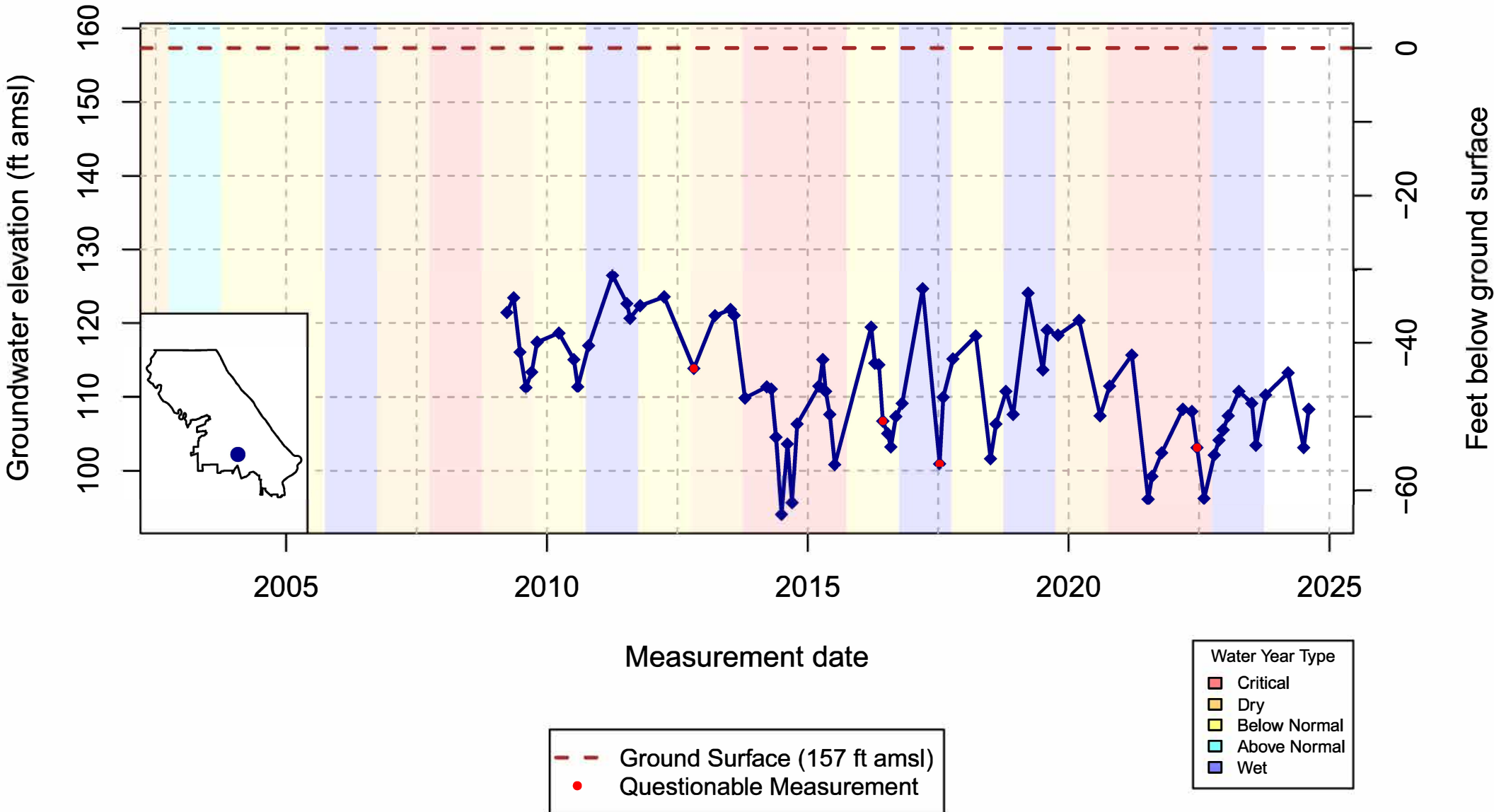




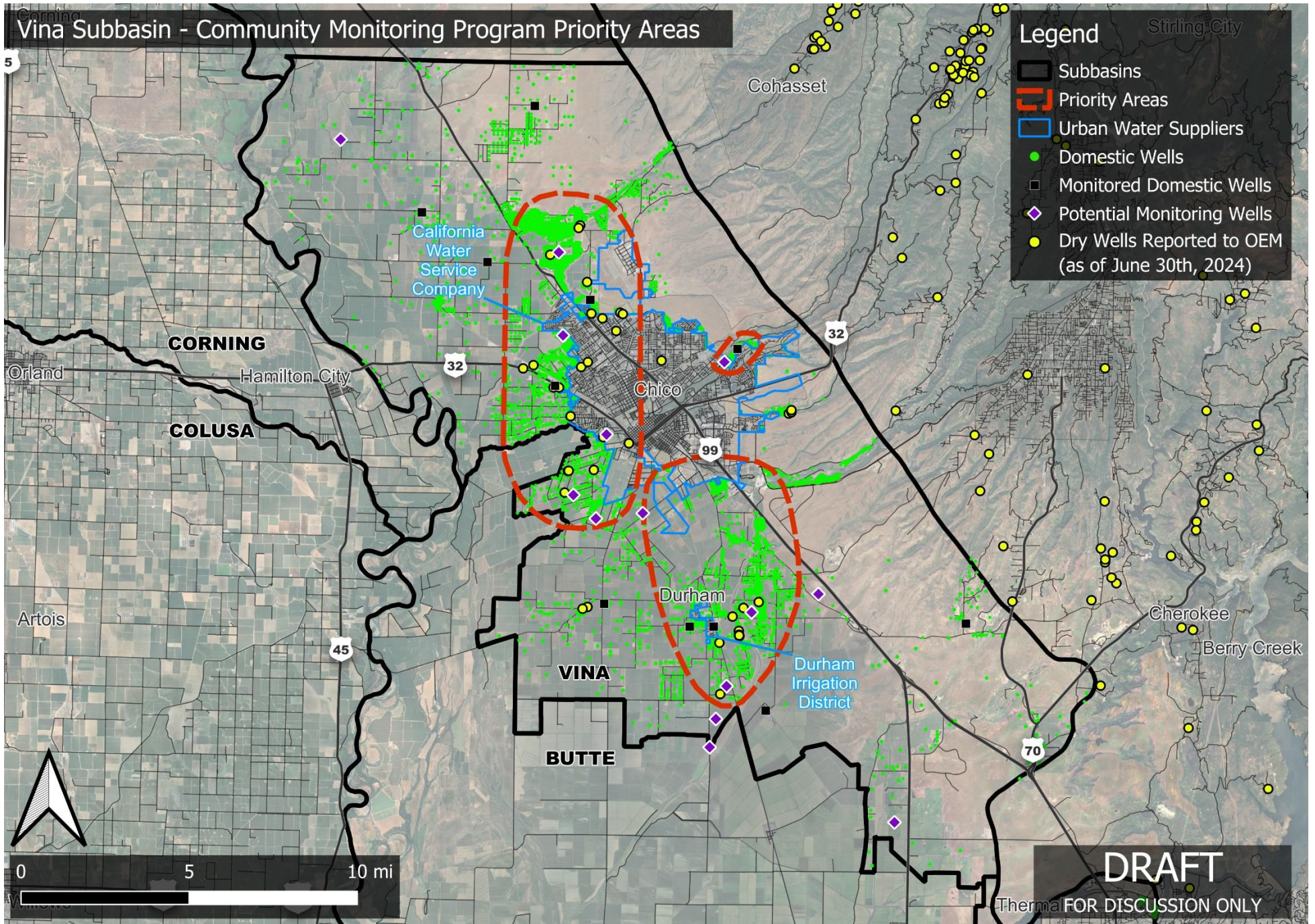
### Vina Subbasin – State Well Number (SWN): 21N01E25K001M(8) – Upper Aquifer



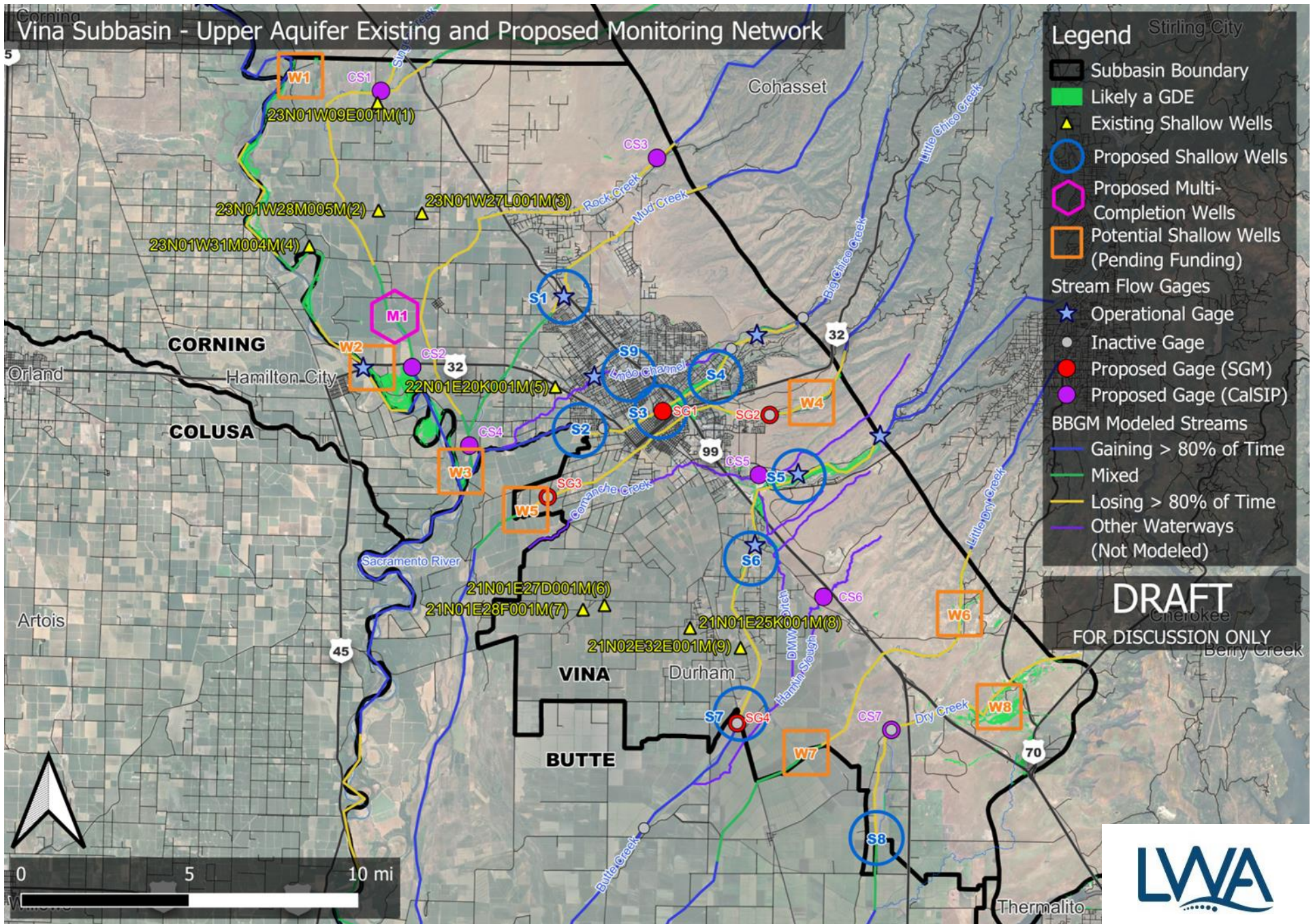
# Vina Subbasin – State Well Number (SWN): 21N02E32E001M(9) – Upper Aquifer



Vina Subbasin - Community Program Priority Areas



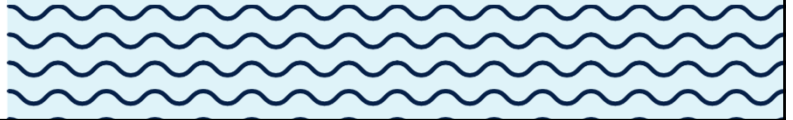
# Vina Subbasin - Upper Aquifer Existing and Proposed Monitoring Network





# Sustainable Groundwater Management Projects Update

Becky Fairbanks  
Stakeholder Advisory Committee  
October 23, 2024



## Background



- California Department of Water Resources Sustainable Groundwater Management Implementation Grant
  - Vina Groundwater Sustainability Agency (GSA) awarded \$5.5M
- Vina GSA Board approved the approach to partner with Butte County Department of Water and Resource Conservation and Agricultural Groundwater Users of Butte County (AGUBC) to lead portions of the grant funded work.



### Projects implemented through March 2026:

- Data Gap Identification and Data Improvement
- Lindo Channel Recharge Feasibility
- Outreach Program
- Project Management and Grant Administration
- Demand Reduction Strategies



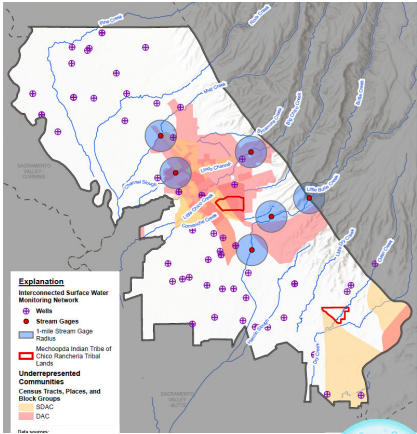
# Data Gap Identification & Data Improvement

### Why it matters:

- **Accurate data** is essential for making informed decisions about water resources.

### Our plan:

- Invest in **new monitoring sites and equipment** for more precise data on surface and groundwater conditions.
- **Better understand the system** and amend the Vina GSA GSP over time to respond to new data and feedback from DWR.



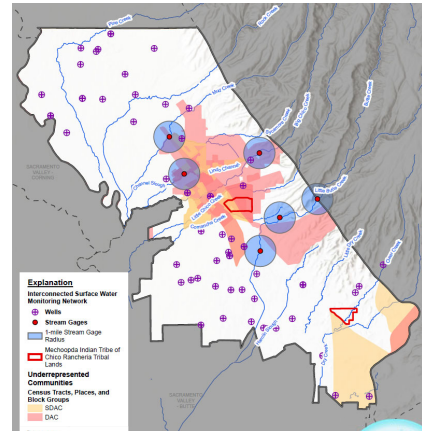
# Data Gap Identification & Data Improvement

## Updates on Tasks during 4/1/24 - 9/30/24:

- Project is on track and within budget.

## Consultant Progress on Tasks Includes:

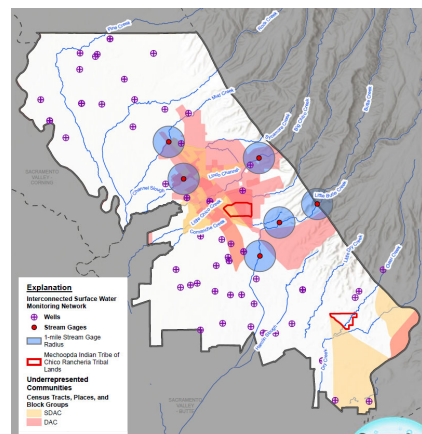
- Began identifying areas within the subbasin for potential new monitoring network sites. Coordination with Butte County to understand existing network.
- Developed approach to classify shallow and deep monitoring wells to support monitoring network enhancements. Analysis underway.
- In process of reviewing the GSP and DWR determination letter to identify data gaps and areas of refinement.



# Data Gap Identification & Data Improvement

## Next Steps:

- Finalize draft map of proposed locations for new monitoring sites
- Present the map of proposed locations to the Stakeholder Advisory Committee (SHAC) on October 23<sup>rd</sup>
- Present recommendations for proposed new monitoring sites to the Vina GSA Board for approval



# Lindo Channel Recharge Feasibility

- Assess feasibility of enhancing natural recharge along the Lindo Channel in Chico.
- Project Outcomes:
  - **Develop Recharge Feasibility Study**
  - **Monitoring Network**
  - **Stakeholder Engagement**



# Lindo Channel Recharge Feasibility

## Updates on Tasks during 4/1/24 - 9/30/24:

- Project is within budget.
- Schedule has been slightly delayed but overall is on track

## Consultant Progress on Tasks Includes:

- Reviewed water rights to assist in developing the flow thresholds for diversion.
- Reviewed AEM data and well logs for assessment of groundwater recharge potential.
- Revised the project schedule.





# Lindo Channel Recharge Feasibility

## Revised Schedule

	Start	Finish
<b>C4.1: Project Management</b>	<b>3/18/2024</b>	<b>6/17/2025</b>
<b>C4.b.2: Pilot Project Feasibility and Initial Design</b> (Completion date is contingent upon receiving acceptance from CDFW by 1/17/25)	<b>3/18/2024</b>	<b>3/31/2025</b>
<b>C4.b.3 Design Consultation and Meetings</b>	<b>3/18/2024</b>	<b>6/17/2025</b>
<b>C4.c.4 Task 1: Final Implementation Design</b> (Start date is dependent on meeting the deadline for the Initial Design task)	<b>4/1/2025</b>	<b>6/17/2025</b>
<b>C4.c.5: Install Monitoring Network</b>	<b>7/29/2024</b>	<b>6/17/2025</b>
<b>C4.c.6: Implementation Consultation and Meetings</b>	<b>3/18/2024</b>	<b>6/17/2025</b>
<b>C4.e.7: Stakeholder Engagement</b>	<b>3/18/2024</b>	<b>6/17/2025</b>



# Outreach Program

### Updates on Tasks during 4/1/24 - 9/30/24:

- Project is on track and within budget.

### Consultant Progress on Tasks Includes:

- Created a style guide to promote consistency in outreach materials.
- Began creating project-specific outreach plans.

### Upcoming:

- Finalize project-specific outreach plans.
- Develop and design outreach materials for projects.



# Project Management & Grant Administration

## Updates on Tasks during 4/1/24 - 9/30/24:

- Project is on track and within budget

## Progress on Tasks Includes:

- Hosted a big team kickoff meeting with all consultants
- Scheduled regular check-in meetings with each consulting team
- Filed environmental forms
- Submitted two quarterly invoices and progress reports to DWR



# Demand Reduction Strategies Update

**Tovey Giezentanner**  
**Project Manager**

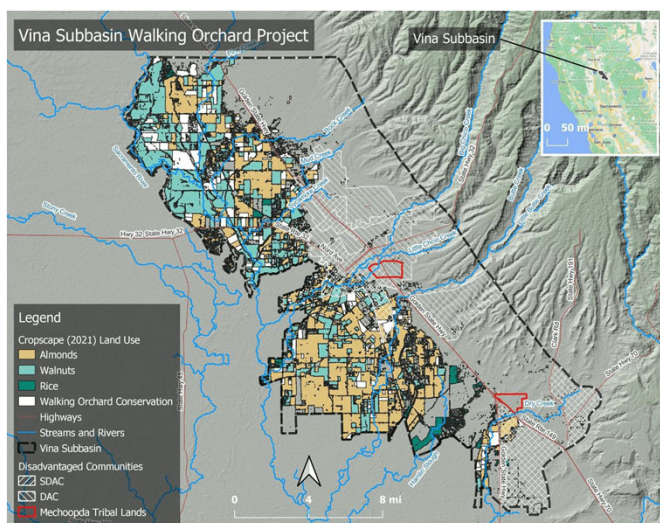
# Demand Reduction Strategies

**Will improve subbasin sustainability** related to groundwater levels and groundwater storage **by decreasing consumptive use** through two programs:

1. Precision Irrigation Program
2. Extend Orchard Replacement Program



## Extend Orchard Replacement Program



### What:

Incentivize local growers to **extend the duration of their current fallowing practice** between orchard removal and replanting by one or more growing seasons.

### Why:

Extra time allows the soil to fallow and **reduces the overall demand** on groundwater.

### Goals & Benefits:

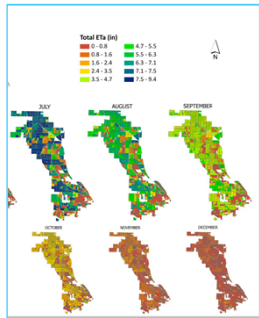
- Temporarily fallow between 1,600 and 3,200 acres per year.
- Reduce groundwater use by 4,000 to 8,000 acre-feet per year in the Subbasin.



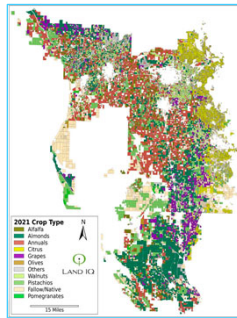
# Precision Irrigation Program

Perform a comprehensive state of irrigation technology and systems analysis in the Subbasin:

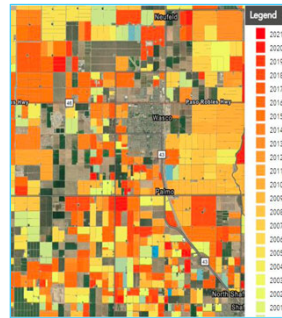
1. Step 1 – Use spatial data (ET, crop type, & crop age) to compare orchards of the same type and maturity. Find out which orchards have higher water use and lower water use (i.e., consumptive use, NOT applied)
2. Step 2 - Use spatial data to see if there are any relationships between water use and soil type, tree density, and/or irrigation method.
3. Step 3 – Identify orchards of interest (depending on results of Step 2) and collect information from owners on historical yields, irrigation scheduling/management, and variety on orchards of interest.
4. Step 4 – Identify strategies to reduce ET without decreasing yield for basin-wide implementation.



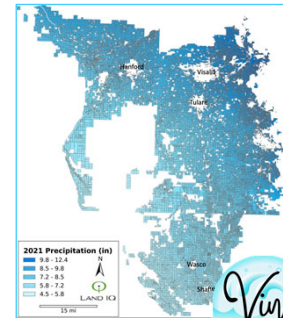
ET



Crop Type



Crop Age



Precipitation



## Demand Reduction Strategies: Timeline & Activity

	2024	2025	2026
Phases	<b>Develop Pilot Programs</b>	<b>Implement Pilot Programs</b>	<b>Finalize Technical Memos / Programs</b>
Precision Irrigation	<ul style="list-style-type: none"> <li>Install ET stations.</li> <li>Develop spatial map.</li> <li>Add layers to spatial map.</li> </ul>	<ul style="list-style-type: none"> <li>Analysis of outputs from the spatial map.</li> <li>Conduct educational outreach to landowners based on results and solicit input / feedback.</li> </ul>	<ul style="list-style-type: none"> <li>Finalize Technical Memo for the Subbasin, based on comprehensive spatial mapping analysis and grower input.</li> </ul>
Extend Orchard Replacement	<ul style="list-style-type: none"> <li>Collect economic data.</li> <li>Develop and Finalize Pilot Program Guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>Implement Extend Orchard Pilot Program.</li> </ul>	<ul style="list-style-type: none"> <li>Finalize Technical Memo for the Subbasin, based on comprehensive spatial mapping analysis and results of Extend Orchard Pilot Program.</li> </ul>



# Upcoming Public Events



Vina SGM  
Projects

- 11/7/24 – Extend Orchard Replacement Webinar
- 11/13/24 – Lindo Channel Recharge Feasibility Stakeholder Meeting
- Extend Orchard Replacement Public Workshop

## Questions?

