



CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

BOARD OF DIRECTORS MEETING

Board of Directors

Cory Bantilan Chair, Santa Barbara County Water Agency
Matt Vickery Vice Chair, Cuyama Basin Water District
Arne Anselm Secretary, County of Ventura
Byron Albano Treasurer, Cuyama Basin Water District
Rick Burnes Cuyama Basin Water District
Jimmy Paulding County of San Luis Obispo

Zack Scrivner County of Kern
Das Williams Santa Barbara County Water Agency
Deborah Williams Cuyama Community Services District
Jane Wooster Cuyama Basin Water District
Derek Yurosek Cuyama Basin Water District

AGENDA

January 10, 2024

Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Board of Directors to be held on Wednesday, January 10, 2024, at 2:00 PM at the **Cuyama Valley Family Resource Center 4689 CA-166, New Cuyama, CA 93254**. Participate via computer at: <https://rb.gy/1nxwv> or by going to Microsoft Teams, downloading the free application, then entering Meeting ID: 224 192 969 900 Passcode: jVHbgy or enter or telephonically at (469) 480-3918 Phone Conference ID: 956 062 525#.

Teleconference Locations:

4689 CA-166 New Cuyama, CA 93254	3432 Kraft Lane Arvin, CA 93203	1065 Higuera Street San Luis Obispo	105 E. Anapamu Street Santa Barbara, CA 93101	5241 8th Street Carpinteria, CA 93013
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The order in which agenda items are discussed may be changed to accommodate scheduling or other needs of the Board or Committee, the public, or meeting participants. Members of the public are encouraged to arrive at the commencement of the meeting to ensure that they are present for discussion of all items in which they are interested.

In compliance with the Americans with Disabilities Act, if you need disability-related modifications or accommodations, including auxiliary aids or services, to participate in this meeting, please contact Taylor Blakslee at (661) 477-3385 by 4:00 p.m. on the Friday prior to this meeting. The Cuyama Basin Groundwater Sustainability Agency reserves the right to limit each speaker to three (3) minutes per subject or topic.

1. Call to Order (Bantilan) (1 min)
2. Roll Call (Blakslee) (1 min)
3. Pledge of Allegiance (Bantilan) (1 min)
4. Meeting Protocols (Blakslee) (2 min)
5. Election of Officers (Bantilan) (5 min)
6. Standing Advisory Committee Meeting Report (Kelly) (3 min)
7. Report from Auditors on Fiscal Year 2022-2023 Audit (Daniells Phillips Vaughan & Bock) (10 min)

CONSENT AGENDA

Items listed on the Consent Agenda are considered routine and non-controversial by staff and will be approved by one motion if no member of the Board or public wishes to comment or ask questions. If comment or discussion is desired by anyone, the item will be removed from the Consent Agenda and will be considered in the listed sequence with an opportunity for any member of the public to address the Board concerning the item before action is taken.

8. Approve Minutes – November 1, 2023 (Bantilan) (1 min)

9. Approve Payment of Bills for September, October, November, and December 2023 (Blakslee) (1 min)
10. Approve Financial Reports for October and November 2023 (Blakslee) (1 min)

ACTION ITEMS

All action items require a simple majority vote by default (50% of the vote). Items that require a super majority vote (75% of the weighted total) will be noted as such at the end of the item.

11. Consider for Approval Resolution No. 2024-01 Authorizing the Submission of Calendar Year 2020, Fiscal Years 20-21, 21-22, 22-23 and 23-24 Delinquent Groundwater Extraction Fees to County Tax Collectors for Collection (Dominguez) (5 min)
12. Groundwater Sustainability Plan Amendment Components
 - a) Update on GSP Component Schedule (Beck/Van Lienden) (5 min)
 - b) Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Results Criteria for: [Final Discussion] (Beck/Van Lienden) (90 min)
 - i. Groundwater Levels
 - ii. Groundwater Storage
 - iii. Subsidence
 - iv. Water Quality
 - c) Discuss and Take Appropriate Action on GSP Draft Chapters: [Final Discussion] (Beck/Van Lienden) (30 min)
 - i. Chapter 1. Agency Information, Plan Area, Communication
 - ii. Chapter 4. Monitoring Networks
 - d) Discuss and Take Appropriate Action on Allocation Program Components (Continued Discussion) (Beck/Van Lienden) (60 min)

REPORT ITEMS

13. Administrative Updates
 - a) Report of the Executive Director (Beck) (5 min)
 - b) Report of the General Counsel (Hughes) (5 min)
14. Technical Updates
 - a) Update on Groundwater Sustainability Plan Activities (Van Lienden) (2 min)
 - b) Update on Grant-Funded Projects (Van Lienden) (5 min)
 - c) Update on October 2023 Groundwater Conditions Report (Van Lienden) (5 min)
15. Report of Ad Hoc Committees (1 min)
16. Directors' Forum (1 min)
17. Public Comment for Items Not on the Agenda (5 min)
18. Correspondence (1 min)

CLOSED SESSION

19. Conference with Legal Counsel – Anticipation Litigation
Significant Exposure to Litigation Pursuant to Government Code section 54956.9(d)(2)
 - (a) Number of Potential Cases: One
20. Conference with Legal Counsel – Existing Litigation
Pursuant to Government Code section 54956.9(d)(1)

(a) Bolthouse Land Company, LLC, et al v. All Persons Claiming a Right to Extract or Store Groundwater in the Cuyama Valley Groundwater Basin (BCV-21-101927)

21. Adjourn (6:06 p.m.)

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

2024 Board Ad hocs

1	GSP Amendment	Albano Paulding Williams, Das Wooster Yurosek
2	Basin-Wide Water Management Policy	Anselm Bantilan Williams, Deborah Yurosek
3	Central Management Area Policy	Anselm Bantilan Vickery Williams, Deborah Wooster
4	Grant-Funded Items	Albano Vickery Williams, Das Williams, Deborah
5	Unknown Extractors	Anselm Vickery

Tech Forum Participants

Participants	Entity	Representing
Casey Walsh	---	---
Neil Currie	Cleath-Harris	Grapevine Capital
Matt Klinchuch	Cuyama Basin Water District	Cuyama Basin Water District
Jeff Shaw John Fio Karthik Ramesh	EKI	Cuyama Basin Water District
Matt Young Matt Scrudato	Santa Barbara County Water Agency	Santa Barbara County
Bianca Cabera Steve Johnson Jeff Helsley	Stetson Engineers	Sunrise Olive



TO: Board of Directors
Agenda Item No. 7

FROM: Taylor Blakslee

DATE: January 10, 2024

SUBJECT: Report from Auditors on Fiscal Year 2022-2023 Audit

Recommended Motion

None – informational only.

Discussion

Daniells Phillips Vaughan & Bock has been retained to perform the audit for Fiscal Year 2022-2023 and their audit letter and the Cuyama Basin Groundwater Sustainability Agency's (CBGSA) management representation letter are provided as Attachment 1. The CBGSA Financial Report (dated June 30, 2023) is provided as Attachment 2



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Board of Directors
Cuyama Basin Groundwater Sustainability Agency
Bakersfield, California

Attention: Cory Bantilan, Board Chair

This letter is to inform the Board of Directors of **Cuyama Basin Groundwater Sustainability Agency** about significant matters related to the conduct of our audit as of and for the year ended June 30, 2023, so that it can appropriately discharge its oversight responsibility and we comply with our professional responsibilities.

Auditing standards generally accepted in the United States of America (AU-C 260, *The Auditor's communication With Those Charged With Governance*) require the auditor to promote effective two-way communication between the auditor and those charged with governance. Consistent with this requirement, the following summarizes our responsibilities regarding the financial statement audit as well as observations arising from our audit that are significant and relevant to your responsibility to oversee the financial reporting process.

Our Responsibilities With Regard to the Financial Statement Audit

Our responsibility under auditing standards generally accepted in the United States of America has been described to you in our arrangement letter dated July 27, 2023. The audit of the financial statements does not relieve management or those charged with governance of their responsibilities, which are also described in that letter.

Overview of the Planned Scope and Timing of the Financial Statement Audit

We have issued a separate communication dated July 27, 2023 regarding the planned scope and timing of our audit and identified significant risks.

Significant Accounting Practices, Including Policies, Estimates and Disclosures

We will discuss our views about the qualitative aspects of **Cuyama Basin Groundwater Sustainability Agency's** significant accounting practices, including accounting policies, accounting estimates and financial statement disclosures. The following is a list of the matters that will be discussed, including the significant estimates, which you may wish to monitor for your oversight responsibilities of the financial reporting process:

- Under generally accepted accounting principles, in certain circumstances, management may select among alternative accounting practices. In our view, in such circumstances, management has selected the preferable accounting practice.
- Management has the ultimate responsibility for the appropriateness of the accounting policies used by the Agency. The Agency did not adopt any significant new accounting policies nor have there been any changes in existing significant accounting policies during the current period.
- We did not identify any significant or unusual transactions or significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus.
- Accounting estimates are an integral part of the preparation of financial statements and are based upon management's current judgment. The process used by management encompasses their knowledge and experience about past and current events and certain assumptions about future events. There were no significant accounting estimates reflected in the Agency's June 30, 2023 financial statements.

Audit Adjustments

There were no audit adjustments made to the original trial balance presented to us to begin our audit.

Uncorrected Misstatements

We are not aware of any uncorrected misstatements other than misstatements that are clearly trivial.

Internal Control Matters

We have issued a separate communication dated December 14, 2023 regarding certain deficiencies in internal control that we identified during the planning or performance of our audit of the financial statements. This communication is included in the audited financial statements as finding 2023-001.

Disagreements With Management

We encountered no disagreements with management over the application of significant accounting principles, the basis for management's judgments on any significant matters, the scope of the audit, or significant disclosures to be included in the financial statements.

Consultation With Other Accountants

We are not aware of any consultations management had with other accountants about accounting or auditing matters.

Significant Difficulties Encountered in Performing the Audit

We did not encounter any significant difficulties in dealing with management during the audit.

Shared Responsibilities: AICPA Independence

The AICPA regularly emphasizes that auditor independence is a **joint responsibility** and is managed most effectively when management, audit committees, and audit firms work together in considering compliance with AICPA independence rules. For Daniells Phillips Vaughan & Bock ("DPVB") to fulfill its professional responsibility to maintain and monitor independence, management, the audit committee, and DPVB each play an important role.

Our Responsibilities

- AICPA rules require independence both of mind and in appearance when providing audit and other attestation services. DPVB is to ensure that the AICPA's General Requirements for performing non-attest services are adhered to and included in all letters of engagement.
- Maintain a system of quality control over compliance with independence rules and firm policies.

The Agency's Responsibilities

- Timely inform DPVB, before the effective date of transactions or other business changes, of the following:
 - New affiliates, directors, officers, or person in financial reporting oversight roles.
 - New beneficial owners of the Agency's equity securities that have significant influence.
 - Change in corporate structure impacting affiliates such as add-on acquisitions or exits.
- Provide necessary affiliate information such as new or updated investment structure charts, as well as financial information required to perform materiality calculations needed for making affiliate determinations.

Management Representations

Attached is a copy of the management representation letter.

Closing

We will be pleased to respond to any questions you have about the foregoing. We appreciate the opportunity to continue to be of service to **Cuyama Basin Groundwater Sustainability Agency**.

This report is intended solely for the information and use of the Board of Directors and management and is not intended to be, and should not be, used by anyone other than these specified parties.

Daniells Phillips Vaughan & Bock

December 19, 2023



December 14, 2023

Daniells, Phillips, Vaughan & Bock
300 New Stine Road
Bakersfield, CA 93309

This representation letter is provided in connection with your audits of the basic financial statements of **Cuyama Basin Groundwater Sustainability Agency** (the Agency) as of and for the years ended June 30, 2023 and 2022 for the purpose of expressing an opinion on whether the financial statements are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP).

We confirm, to the best of our knowledge and belief, that as of December 14, 2023:

Financial Statements

1. We have fulfilled our responsibilities, as set out in the terms of the audit arrangement letter dated July 27, 2023, for the preparation and fair presentation of the financial statements referred to above in accordance with U.S. GAAP.
2. We acknowledge our responsibility for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
3. We acknowledge our responsibility for the design, implementation and maintenance of controls to prevent and detect fraud.
4. The methods, data, and significant assumptions used by us in making accounting estimates and their related disclosures are appropriate to achieve recognition, measurement, or disclosure that is reasonable in the context of U.S. GAAP, and reflect our judgment based on our knowledge and experience about past and current events, and our assumptions about conditions we expect to exist and courses of action we expect to take.
5. Related-party transactions have been recorded in accordance with the economic substance of the transaction and appropriately accounted for and disclosed in accordance with the requirements of U.S. GAAP.
6. All events subsequent to the date of the financial statements, and for which U.S. GAAP requires adjustment or disclosure, have been adjusted or disclosed.
7. The effects of all known actual or possible litigation and claims have been accounted for and disclosed in accordance with U.S. GAAP.
8. Management has followed applicable laws and regulations in adopting, approving and amending budgets.
9. Risk disclosures associated with deposit and investment securities and derivative transactions are presented in accordance with GASB requirements.
10. The government properly separated information in debt disclosures related to direct borrowings and direct placements of debt from other debt and disclosed any unused lines of credit, collateral pledged to secure debt, terms in the debt agreements related to significant default or termination events with finance-related consequences and significant subjective acceleration clauses in accordance with GASB Statement No. 88.
11. Components of net position (net investment in capital assets, restricted, and unrestricted) and classifications of fund balance (non-spendable, restricted, committed, assigned, and unassigned) are properly classified and, if applicable, approved.
12. Revenues are appropriately classified in the statement of activities within program revenues, general revenues, contributions to term or permanent endowments, or contributions to permanent fund principal.
13. We have no direct or indirect legal or moral obligation for any debt of any organization, public or private, that is not disclosed in the financial statements.
14. We have complied with all aspects of laws, regulations and provisions of contracts and agreements that would have a material effect on the financial statements in the event of noncompliance. In connection therewith, we specifically represent that we are responsible for determining that we are not subject to the requirements of the Single Audit Act because we have not received, expended or otherwise been the beneficiary of the required amount of federal awards during the period of this audit.

15. With respect to the services performed such as drafting the financial statements, proposing and posting audit adjustments, and assessing the impact of new accounting standards in the course of the audit:
 - a. We have made all management decisions and performed all management functions;
 - b. We assigned an appropriate individual to oversee the services;
 - c. We evaluated the adequacy and results of the services performed, and made an informed judgment on the results of the services performed;
 - d. We have accepted responsibility for the results of the services; and
 - e. We have accepted responsibility for all significant judgments and decisions that were made.
16. We have no knowledge of any uncorrected misstatements in the financial statements.

Information Provided

17. We have provided you with:
 - a. Access to all information of which we are aware that is relevant to the preparation and fair presentation of the basic financial statements such as records, documentation and other matters.
 - b. Additional information that you have requested from us for the purpose of the audits.
 - c. Unrestricted access to persons within the Agency from whom you determined it necessary to obtain audit evidence.
 - d. Minutes of the meetings of the governing board and committees, or summaries of actions of recent meetings for which minutes have not yet been prepared.
18. All transactions have been recorded in the accounting records and are reflected in the basic financial statements.
19. We have disclosed to you the results of our assessment of risk that the basic financial statements may be materially misstated as a result of fraud.
20. It is our responsibility to establish and maintain internal control over financial reporting. One of the components of an entity's system of internal control is risk assessment. We hereby represent that our risk assessment process includes identification and assessment of risks of material misstatement due to fraud. We have shared with you our fraud risk assessment, including a description of the risks, our assessment of the magnitude and likelihood of misstatements arising from those risks, and the controls that we have designed and implemented in response to those risks.
21. We have no knowledge of allegations of fraud or suspected fraud affecting the Agency's basic financial statements involving:
 - a. Management.
 - b. Employees who have significant roles in internal control.
 - c. Others where the fraud could have a material effect on the basic financial statements.
22. We have no knowledge of any allegations of fraud or suspected fraud affecting the Agency's basic financial statements received in communications from employees, former employees, analysts, regulators, or others.
23. We have no knowledge of noncompliance or suspected noncompliance with laws and regulations.
24. We have disclosed to you all known actual or possible litigation and claims whose effects should be considered when preparing the financial statements.
25. We have disclosed to you the identity of all of the Agency's related parties and all the related-party relationships and transactions of which we are aware.
26. We have informed you of all significant deficiencies in internal control over financial reporting, including significant deficiencies or material weaknesses in the design or operation of internal controls that could adversely affect the Agency's ability to record, process, summarize and report financial data.
27. There have been no communications from regulatory agencies concerning noncompliance with, or deficiencies in, financial reporting practices.
28. During the course of your audits, you may have accumulated records containing data that should be reflected in our books and records. All such data have been so reflected. Accordingly, copies of such records in your possession are no longer needed by us.

Supplementary Information

29. With respect to Management's Discussion and Analysis presented in relation to the Agency's financial statements as a whole:
 - a. We acknowledge our responsibility for the presentation of such information.
 - b. We believe such information, including its form and content, is presented in accordance with U.S. GAAP.

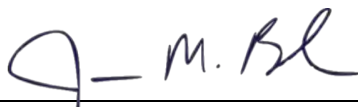
- c. The methods of measurement and presentation have not changed from those used in the prior period.

Compliance Considerations

In connection with your audit conducted in accordance with *Government Auditing Standards*, we confirm that management:

30. Is responsible for the preparation and fair presentation of the financial statements in accordance with the applicable financial reporting framework.
31. Is responsible for compliance with the laws, regulations and provisions of contracts and grant agreements applicable to the auditee.
32. Is not aware of any instances of identified and suspected fraud and noncompliance with provisions of laws, regulations, contracts, and grant agreements that have a material effect on the financial statements.
33. Is responsible for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
34. Acknowledges its responsibility for the design, implementation and maintenance of controls to prevent and detect fraud.
35. Has taken timely and appropriate steps to remedy identified or suspected fraud or noncompliance with provisions of laws, regulations, contracts, and grant agreements that the auditor reports.
36. Has a process to track the status of audit findings and recommendations.
37. Has identified for the auditor previous audits, attestation engagements and other studies related to the objectives of the audit and whether related recommendations have been implemented.
38. Is not aware of any investigations or legal proceedings that have been initiated with respect to the period under audit.
39. Has provided views on the auditor's reported findings, conclusions and recommendations, as well as management's planned corrective actions, for the report.
40. Acknowledges its responsibilities as it relates to non-audit services performed by the auditor, including that it assumes all management responsibilities; that it oversees the services by designating an individual, preferably within senior management, who possesses suitable skill, knowledge or experience; that it evaluates the adequacy and results of the services performed; and that it accepts responsibility for the results of the services.

Cuyama Basin Groundwater Sustainability Agency



Jim Beck
Executive Director



Jacqueline Harris, CPA
Chief Financial Officer



**CUYAMA BASIN GROUNDWATER
SUSTAINABILITY AGENCY**

FINANCIAL REPORT
June 30, 2023

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CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

ORGANIZATION DATA

June 30, 2023

BOARD OF DIRECTORS

Derek Yurosek, Chairperson, Cuyama Basin Water District

Byron Albano, Director, Cuyama Basin Water District

Cory Bantilan, Director, Santa Barbara County Water Agency

Jimmy Paulding, Director, County of San Luis Obispo

Zack Scrivner, Director, County of Kern

Arne Anselm, Director, County of Ventura

Rick Burnes, Director, Cuyama Basin Water District

Matt Vickery, Director, Cuyama Basin Water District

Das Williams, Director, Santa Barbara County Water Agency

Jane Wooster, Director, Cuyama Basin Water District



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PATRICK W. PAGGI

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Cuyama Basin Groundwater Sustainability Agency
Bakersfield, California

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of **Cuyama Basin Groundwater Sustainability Agency** (the Agency), as of and for the year ended June 30, 2023 and 2022, and the related notes to the financial statements, which collectively comprise the Agency's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the Agency as of June 30, 2023 and 2022, and the respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Agency and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

The Agency's management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Agency's ability to continue as a going concern for 12 months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

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Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Agency's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Agency's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 4-5 be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 14, 2023 on our consideration of the Agency's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Agency's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Agency's internal control over financial reporting and compliance.

Daniells Phillips Vaughan & Bock

Bakersfield, California
December 14, 2023

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

MANAGEMENT'S DISCUSSION AND ANALYSIS

As the Board of Directors of the **Cuyama Basin Groundwater Sustainability Agency**, we offer readers of the Agency's financial statements this narrative overview and analysis of the Agency's performance during the fiscal years ended June 30, 2023 and 2022. Please read it in conjunction with the Agency's financial statements, which will follow this section.

Agency Formation and Organization

Cuyama Basin Groundwater Sustainability Agency (the "Agency") is a joint powers authority established on June 6, 2017 in accordance with Sustainable Groundwater Management Act (SGMA). SGMA requires that a Groundwater Sustainability Plan (GSP) be adopted for the 21 basins and subbasins identified by the Department of Water Resources as "critically overdrafted," of which, the Agency is one. The purpose of the GSP is to achieve sustainability in the basin by the year 2040. The Agency was responsible for developing and initiating the implementation of a GSP by January 31, 2020. Funding for projects is obtained through State grants utilizing State bond funds and potential matching funds from local government agencies.

Using This Annual Report

This annual report includes this management's discussion and analysis report, the independent auditor's report and the basic financial statements of the Agency. The basic financial statements consist of a series of financial statements. The statement of net position, the statement of revenues, expenses and changes in net position and the statement of cash flows provide information about the activities of the Agency. The basic financial statements also include various footnote disclosures, which further describe Agency activities.

Required Financial Statements

The financial statements of the Agency report information of the Agency using accounting methods similar to those used by private sector companies. These statements offer short and long-term financial information about its activities. The statement of net position includes all of the Agency's assets and liabilities and provides information about the nature and amounts of investments in resources (assets) and the obligations to Agency creditors (liabilities). It also provides the basis for evaluating the capital structure of the Agency and assessing the liquidity and financial flexibility of the Agency.

All of the year's revenues and expenses are accounted for in the statement of revenues, expenses and changes in net position. This statement measures the success of the Agency's operations over the past year and can be used to determine whether the Agency has successfully recovered all its costs through its user fees and other charges, profitability and credit worthiness.

The final required financial statement is the statement of cash flows. This statement reports cash resulting from operations, investing, and financing activities and provides answers to such questions as where did cash come from, what was cash used for, and what was the change in cash balance during the reporting period.

Financial Highlights

- A large portion of the Agency's assets is cash of approximately \$2,162,000.
- The Agency's operating revenue in fiscal year 2023 was approximately \$2,508,000, which consists of grant revenue and groundwater extraction fees.
- The Agency's operating expenses in fiscal year 2023 were approximately \$1,542,000, primarily consisting of consulting expenses.

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

MANAGEMENT'S DISCUSSION AND ANALYSIS

2023, 2022 and 2021 Condensed Financial Statements

	2023	2022	2011
Current assets	\$ 2,900,515	\$ 2,359,160	\$ 1,578,890
Current liabilities	\$ 819,567	\$ 1,243,859	\$ 815,459
Net position	\$ 2,080,948	\$ 1,115,301	\$ 763,431
Operating revenues	\$ 2,507,529	\$ 1,487,466	\$ 1,462,109
Operating expenses	1,541,882	1,135,596	1,334,783
Change in net position	\$ 965,647	\$ 351,870	\$ 127,326

Contacting the Agency's Financial Management

This financial report is designed to provide the Board of Directors and the Agency's stakeholders with a general overview of the Agency's accountability for the assets it receives and manages.

If you have questions about this report or need additional information, please contact Taylor Blakslee, Project Manager, at 4900 California Ave, Tower B, 2nd Floor, Bakersfield, California 93309.

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

STATEMENTS OF NET POSITION

June 30, 2023 and 2022

	2023	2022
ASSETS		
Current Assets		
Cash	\$ 2,162,299	\$ 2,055,848
Accounts receivable	738,216	303,312
Total current assets	\$ 2,900,515	\$ 2,359,160
LIABILITIES AND NET POSITION		
Current Liabilities		
Accounts payable	\$ 341,806	\$ 396,114
Deferred revenue	477,761	847,745
Total current liabilities	819,567	1,243,859
Net Position - Unrestricted	2,080,948	1,115,301
Total liabilities and net position	\$ 2,900,515	\$ 2,359,160

See Notes to Financial Statements.

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

Years Ended June 30, 2023 and 2022

	2023	2022
Operating revenues		
Grants	\$ 1,470,162	\$ 330,505
Groundwater extraction fees	1,037,367	1,156,961
Total operating revenues	2,507,529	1,487,466
Operating expenses		
Program	1,119,397	788,342
General and administration	422,485	347,254
Total operating expenses	1,541,882	1,135,596
Change in net position	965,647	351,870
Net position, beginning	1,115,301	763,431
Net position, ending	\$ 2,080,948	\$ 1,115,301

See Notes to Financial Statements.

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

STATEMENTS OF CASH FLOWS Years Ended June 30, 2023 and 2022

	2023	2022
Cash Flows From Operating Activities		
(Payments) Receipts from landowners	\$ 731,117	\$ 1,421,160
Receipts from grants	971,524	348,896
Payments for program expenses	(1,150,861)	(606,380)
Payments for administration services	(445,329)	(317,066)
Net cash provided by operating activities	106,451	846,610
Cash:		
Beginning	2,055,848	1,209,238
Ending	<u>\$ 2,162,299</u>	<u>\$ 2,055,848</u>
Reconciliation of operating income to net cash provided by operating activities		
Operating income	\$ 965,647	\$ 351,870
Adjustments to reconcile operating income to net cash provided by operating activities:		
Changes in working capital components:		
(Increase) decrease in:		
Accounts receivable	(434,904)	66,340
Increase (decrease) in:		
Accounts payable	(54,308)	212,150
Deferred revenue	(369,984)	216,250
Net cash provided by operating activities	\$ 106,451	\$ 846,610

See Notes to Financial Statements.

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

NOTES TO FINANCIAL STATEMENTS

Note 1. Nature of Agency and Summary of Significant Accounting Policies

Nature of activities: Cuyama Basin Groundwater Sustainability Agency (the "Agency") is a joint powers Authority established on June 6, 2017 in accordance with Sustainable Groundwater Management Act (SGMA). SGMA requires that a Groundwater Sustainability Plan (GSP) be adopted for the 21 basins and subbasins identified by the Department of Water Resources (DWR) as "critically overdrafted," of which, the Agency is one. The purpose of the GSP is to achieve sustainability in the basin by the year 2040. The Agency is responsible for developing a GSP and implementing that GSP over the next 20 years.

A summary of the Agency's significant accounting policies follows:

Reporting entity: The Agency has no oversight responsibility for any other governmental entity, nor is the Agency's operation a component unit of any other governmental entity. Therefore, the reporting entity consists only of Agency operations.

The Agency operates as an enterprise fund. An enterprise fund accounts for operations that are financed and operated similarly to private business enterprises.

Use of estimates: The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Basis of accounting: The accompanying financial statements have been prepared on the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned and expenses are recognized when incurred.

Enterprise funds have the option of consistently following or not following pronouncements issued by the Financial Accounting Standards Board (FASB) subsequent to November 30, 1989. The Agency has elected not to follow FASB standards issued after that date, unless such standards are specifically adopted by the Governmental Accounting Standards Board (GASB).

Cash: The Agency maintains its cash in a bank deposit account, which, at times may exceed federally insured limits. The Agency has not experienced any losses in such account. The Agency believes it is not exposed to any significant credit risk on cash.

Accounts receivable: Accounts receivable represents amounts due from participants, landowners and the California Department of Water Resources. The Agency considers accounts receivable to be fully collectible; accordingly, no allowance for doubtful accounts is required.

Deferred revenue: Deferred revenue consists of groundwater extraction fees billed for the next fiscal year received before year end.

Net position: The basic financial statements utilize a net position presentation. Net position is categorized as unrestricted.

- *Unrestricted Net Position* - This category represents the net position of the Agency, not restricted for any project or other purpose.

Subsequent events: The Agency has evaluated subsequent events through December 14, 2023, the date on which the financial statements were available to be issued. There were no subsequent events identified by management which would require disclosure in the financial statements.

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

NOTES TO FINANCIAL STATEMENTS

Note 2. Cash

Cash held by the Agency consists of cash in a general checking account.

Custodial Credit Risk

Custodial credit risk for *deposits* is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The California Government Code does not contain legal or policy requirements that would limit the exposure to custodial credit risk for deposits other than the following provision for deposits: The California Government Code requires that a financial institution secure deposits made by state or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under state law (unless so waived by the governmental unity).

Note 3. Major Funding Sources

The following grantor and landowners each accounted for over 10% of the Agency's total revenue for the years ended June 30, 2023 and 2022:

	2023	2022
Grantor	\$ 1,470,162	\$ 330,505
Landowner A	\$ 357,241	\$ 407,733
Landowner B	\$ 253,452	\$ 332,718

The grant revenue is subject to review and audit by the State of California. If the review or audit discloses exceptions, the Agency may incur a liability to the State of California.

OTHER INDEPENDENT AUDITOR'S REPORT



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PATRICK W. PAGGI

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

Board of Directors
Cuyama Basin Groundwater Sustainability Agency
Bakersfield, California

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of **Cuyama Basin Groundwater Sustainability Agency** (the Agency) as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the Agency's basic financial statements, and have issued our report thereon dated December 14, 2023.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Agency's internal control over financial reporting (internal control) as a basis for designing procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Agency's internal control. Accordingly, we do not express an opinion on the effectiveness of the Agency's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We did identify a certain deficiency in internal control, described in the accompanying schedule of findings and responses as item FS-2023-001, that we considered to be a significant deficiency.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Agency's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Cuyama Basin Groundwater Sustainability Agency Response to Finding

Government Auditing Standards requires the auditor to perform limited procedures on the Agency's response to findings identified during our audit and described in the accompanying schedule of findings and response was not subjected to other auditing procedures applied in the responses audit of the financial statements, and, accordingly, we express no opinion on the response.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Daniells Phillips Vaughan & Bock

Bakersfield, California

December 14, 2023

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

SCHEDULE OF FINDINGS AND RESPONSES Year Ended June 30, 2023

I. INTERNAL CONTROL OVER FINANCIAL REPORTING

FS-2023-001 **Condition:** The Agency does not have proper segregation of duties in the cash receipts process. The person who receives the cash also deposits the cash and enters the transaction into the general ledger.

Criteria: Segregation of duties is the basic building block of sustainable risk management and internal controls.

Cause: Limited number of employees working for the Agency.

Effect: Cash received can be manipulated for personal gain and amounts received can be materially misstated on the financial statements.

Recommendation: The Agency should define separate persons to complete each task allowing for segregation of duties.

Management's Response/Planned Corrective Action: The Agency acknowledges the importance of internal controls and the segregation of duties. With a limited number of staff, the Agency relies on alternative practices to safeguard its assets. For example, the generation of revenue and invoicing amounts are developed by staff not responsible for cash receipts and entering transactions in the general ledger. Cash receipts and accounts receivable balances are reported to, and reviewed by, staff responsible for developing revenue generation and invoicing amounts not less than on a monthly basis. Additional management oversight includes the reporting of revenue and expenses, and corresponding cash receipts and disbursements, to the Agency's Board of Directors at every scheduled board meeting.

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

SUMMARY SCHEDULE OF PRIOR YEAR FINDINGS

Year Ended June 30, 2023

FS-2022-001 The Agency did not have proper segregation of duties in the cash receipts process. The person who receives the cash also deposits the cash and enters the transaction into the general ledger. *Similar item noted in the current year. See FS-2023-001.*

Cuyama Basin Groundwater Sustainability Agency Board of Directors Meeting

November 1, 2023

Draft Meeting Minutes

PRESENT:

Directors

Bantilan, Cory – Chair
Vickery, Matt – Vice Chair
Albano, Byron – Treasurer
Anselm, Arne – Secretary
Burnes, Rick
DeBranch, Brad – Alternate for Yurosek, Derek
Reely, Blaine – Alternate for Paulding, Jimmy
Williams, Das
Williams, Debby
Wooster, Jane
Zenger, Katelyn – Alternate for Scrivner, Zack

Staff

Beck, Jim – Executive Director
Blakslee, Taylor – Assistant Executive Director
Van Lienden, Brian – Woodard & Curran
Gardiner, Charles – Woodard & Curran
Dominguez, Alex – Legal Counsel

ABSENT:

None

1. **Call to Order**

Cuyama Basin Groundwater Sustainability Agency (CBGSA) Chair Cory Bantilan called the meeting to order at 2:00 p.m.

2. **Roll Call**

Mr. Blakslee called roll (shown above) and informed Chair Bantilan that there was a quorum of the Board.

3. **Pledge of Allegiance**

The pledge of allegiance was led by Chair Bantilan.

4. **Standing Advisory Committee Meeting Report**

SAC Chair Brenton Kelly provided a report on the October 26, 2023, SAC meeting and is included below:

The Standing Advisory Committee met at the Cuyama Valley Family Resource Center in a hybrid format, with four committee members present in-person and two on the conference line. GSA Staff Taylor Blakeslee and legal counsel Alex Dominguez were present, and they were joined by Jim Beck and Brian Van Lienden on the call. Several members of the public were on the video conference.

At the top of the meeting, we reviewed three applications to fill SAC vacancies. There were numerous comments made in support of the applicants regarding their previous involvement, knowledge, and valuable input. A unanimous recommendation was made in support of all three applicants being appointed to the SAC by the GSA.

10b. Overview of Public Workshop on October 12, 2023

The SAC made the following additions to the general Workshop comments:

- ◆ Effort should be made to provide materials in advance
- ◆ Specific questions should be prefaced with informed discussions of the options
- ◆ If a knowledgeable person was at a table, a group of people could gather around for 10 minutes or so and rotate to other tables with a different topic so that more informed feedback could be shared and collected. ‘The better informed the better the feedback.’
- ◆ In order to call this a public “workshop”, it would be good to create a more engaging meeting rather than having staff present complex material and just ask for any clarifying questions.

10c. Update on September 2023 GSP Component Discussion

Committee Member Jaffe requested that the discussions at the technical forum be more transparent. She suggested that an agenda be made available before the meeting and minutes be made available after the meeting. Mr. Beck replied that the Board will need to provide direction on the technical forum and originally the forum was developed to allow technical people to share their technical concerns in a candid discussion without having any political influence or scrutiny from the public.

To a question about the discussions around water markets, Mr. Beck explained that there are a lot of people wanting more policies developed for a water market, however, there is a lot of work that needs to be done before this is addressed.

10d. Discuss and Take Appropriate Action on Groundwater Subsidence Monitoring Network

Committee Member Haslett commented that the scale should be in feet, and it appears overstated because it is shown in inches. He agreed with the technical forum feedback to consider reviewing the high school station to ensure that data is accurate.

Chair Kelly agreed with Committee Member Haslett and the Technical Forum regarding concern for the accuracy of the high school station.

Committee Member Gaillard made a motion to remove the high school station from the data.

There was no second.

Chair Kelly asked what the project scope would look like to investigate the high school station. Mr. Blakslee replied staff will need to develop a scope and cost for this activity. Micah Eggleton commented that this station is owned by USGS.

Committee Member Jaffe commented it is important to investigate the high school station due to its prime location and does not support getting rid of this station. Chair Kelly agreed that with only two existing subsidence stations within the Basin that the high school site should be investigated, not just removed.

Mr. Beck explained that Mr. Van Lienden can call USGS to see what QA/QC is being done for the data being produced at the high school and the next time Mr. Van Lienden is in the area, he can visually inspect the station.

Committee Member Haslett made a motion for staff to continue with the same network and investigate the high school station for accuracy. The motion was seconded by Vice Chair DeBranch, a roll call vote was made, and the motion passed.

AYES:	DeBranch, Furstenfeld, Gaillard, Haslett, Jaffe, Kelly
NOES:	None
ABSTAIN:	None
ABSENT:	None

10e. Discuss and Take Appropriate Action on Groundwater Interconnected Surface Water (ISW) Monitoring Network

Mr. Blakslee commented that DWR has plans to release comments on ISW soon and that this may impact the schedule to develop this section.

It was assured that the new Grant funded monitoring wells and GDE piezometers are being installed and that data collection was happening as scheduled and that these new monitoring sites were all being added to the ISW Network

The SAC provided consensus to wait for DWR guidance before making additional policy decisions.

10f. Discuss and Take Appropriate Action on Groundwater Water Quality Monitoring Network

Chair Kelly asked if it is possible to streamline data collection by using more wells for both groundwater quality and groundwater elevation Monitoring Networks. Mr. Van Lienden replied staff chose the wells that have a historical record that can be referenced.

Committee Member Jaffe asked what an appropriate monitoring frequency for arsenic and nitrates is and if the data can be integrated into the current reports. Mr. Van Lienden replied the five-year tests are to check the third-party data that is being received annually and he said that data that is received will be part of the data management system (DMS).

Committee Member Furstenfeld asked why the GSA is avoiding collecting data on Arsenic and Nitrates? Mr. Van Lienden explained that other regulatory agencies were already collecting that data and making it available. Mr.

Beck explained that on top of the labor involved to physically take a sample to a lab, the tests can be more than

\$100 a sample. Mr. Furstenfeld commented that GSA monitoring should still be more frequent than once in 5 years. "Since we always seem to lack sufficient data, why would we choose to collect less frequently?"

Chair Kelly commented he supports using data from other monitoring entities but would like to see how it is being used, analyzed, and presented, and he is in favor of performing monitoring for Arsenic & Nitrates every other year.

Committee Member Gillard asked for guidance to know if the Arsenic is removed by a homeowners Reverse Osmosis filter system. Alex Dominguez stated that assistance was outside the purview of SGMA.

Community member Carlisle reflected on DWRs repeated concern for the movement of Ground Water Quality issues caused by over pumping and stressed the need for the GSA to collect good local data every 2-3 years and to report the data trends information in a way that the neighbors can understand.

The SAC chose to address the issues separately starting with TDS:

Committee Member Jaffe makes a motion to support modifications by staff for TDS network and continue monitoring of TDS. The motion was seconded by Committee Haslett, a roll call vote was made, and the motion passed.

AYES:	DeBranch, Furstenfeld, Gaillard, Haslett, Jaffe, Kelly
NOES:	None
ABSTAIN:	None
ABSENT:	None

With regards to the issue of Arsenic and Nitrate measurements: Vice Chair DeBranch made a motion to support Staff recommendations and perform monitoring once every 5 years. The motion was seconded by Committee Gaillard, a roll call vote was made, and the motion did not pass.

AYES:	DeBranch, Gaillard
NOES:	Furstenfeld, Haslett, Jaffe, Kelly
ABSTAIN:	None
ABSENT:	None

Committee Member Haslett made a motion to clarify that the results of ongoing Arsenic and Nitrates monitoring by other entities are used by the CBGSA and to perform monitoring once every three years. The motion was seconded by Committee Furstenfeld, a roll call vote was

made, and the motion passed.

AYES: Furstenfeld, Haslett, Jaffe, Kelly
 NOES: DeBranch, Gaillard
 ABSTAIN: None
 ABSENT: None

Committee Member Jaffe commented it is important that this information be made available to the public.

10g. Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Results Criteria for Groundwater Subsidence

The Committee had repeated concerns as to the accuracy of the reported 0.8 inches of subsidence per year from the High School monitor.

Community Member Karen Adams commented it is important to measure subsidence accurately across the basin but particularly in the center.

Chair Kelly shared the committee's concerns for the spatial density of the subsidence network when the Undesirable Results threshold is 30% of only one, maybe two monitoring sites.

The need for an investigation of the High School Site was recognized as a next step for these SMCs.

10h. Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Results Criteria for Groundwater Interconnected Surface Water (ISW)

Chair Kelly asked if this would be presented as an 'ISW Conditions Report' or be included as part of the Annual Report. Mr. Van Lienden replied that it would be helpful to see the guidance document from DWR first to determine where this information should be presented.

The Committee generally agreed with staff to continue to use the same SMCs and Undesirable Results definition for Interconnected Surface Water until the anticipated DWR guidance document is released.

10i. Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Results Criteria for Groundwater Water Quality

Committee Member Jaffe commented it would be helpful to see actual examples of where the MT/MO currently are to be able to provide a recommendation moving forward.

Chair Kelly commented there are several monitoring wells that only had one data point when the MT/MO was set and is in favor of amending the sustainability management criteria (SMCs) to accommodate the most recent data trends.

Vice Chair DeBranch supported the technical forum feedback and commented it is important to

not go above and beyond the responsibilities set by the Sustainable Groundwater Management Act (SGMA).

Committee Member Haslett supports the technical forum feedback.

Chair Kelly is also in support of the technical forum feedback, especially the “Need to better describe GSA actions when water quality minimum thresholds are exceeded.”

Stakeholder Casey Walsh asked if there are any other Groundwater Sustainability Agencies (GSA) that have these SMC issues for Arsenic and Nitrate? and if so, their efforts should be looked at as a reference.

Stakeholder Lynn Carlisle commented it would be important to have general support for tracking levels and movements of nitrates and arsenic, and provide regular reports to the public.

10j. Discuss and Take Appropriate Action on Glidepath Methodology

Committee Member Gaillard commented that in his farming area there is an increase of TDS over recent times and although that is commonly improved with the pumping reductions it is evidently not aggressive enough.

Committee Member Jaffe commented she agrees with Committee Member Gaillard and commented it would be a tremendous mistake to adjust the glide path to have less reductions earlier in the period.

Vice Chair DeBranch commented he is not supportive of having a greater reduction earlier in the period since SGMA allows for sustainability to be delayed until 2040.

Committee Member Haslett commented it would be difficult for farmers to make long-term plans if the glide path is adjusted to have a greater reduction earlier in the period. He continued to say that pumping reductions are only effective if there is also enhanced recharge occurring.

Vice Chair DeBranch commented that when the CMA gets to full reductions in 2040 there will still be areas within the Basin that are out of balance and there will need to be other measures in place to account for that imbalance. Committee Member Haslett suggested when it gets to that point the GSA will need to manage each well rather than managing areas.

Chair Kelly asserts that we are already behind the reduction ‘curve’, because the first 2 years reductions of 10% was originally ‘given away’ by having added it to the base calculations for the average 20 year Historical Use.

The Undesirable Result of the Loss of Groundwater in Storage gets permanently worse every year of overdraft. Millions of acre feet are at stake from the long term effects of groundwater storage loss. He continued to say he is in support of having greater reductions earlier and to try to retain enough groundwater to sustain Cuyama after 2040.

Stakeholder Casey Walsh commented he is in support of having a greater reduction curve earlier in the period because there is no reasonable likelihood of additional supplies. Stakeholder David

Lewis commented that a tiered approach to reductions would avoid punishing the small pumpers when the majority of pumping is being done by a couple of very large pumpers. Stakeholder Karen Adams supported basin wide reductions with a tiered approach that recognizes where there is overdraft and she doesn't feel the need to make the biggest pumpers comfortable with the timeline.

10k. Approval of 2024 Meeting Calendar

The SAC provided consensus to approve the proposed 2024 meeting calendar. No further policy recommendations were considered by the SAC.

Respectfully submitted, Brenton Kelly
SAC Chair

5. Report on Accounts Receivable

Mr. Blakslee provided a report on the accounts receivable which is provided in the Board packet.

MOTION

Director Das Williams made a motion to write-off accrued late payment penalties totaling \$2,498.54 for Cuyama Orchards, Inc. The motion was seconded by Vice Chair Vickery, a roll call vote was made and passed with 71%.

- AYES: Albano, Bantilan, Burnes, DeBranch, Vickery, Das Williams, Debby Williams, Wooster, Zenger
- NOES: None
- ABSTAIN: Albano
- ABSENT: Anselm, Reely

CONSENT AGENDA

6-8. Consent Agenda

Chair Bantilan asked if any Directors wanted to move any of the consent items out to discuss in more detail. No request was made, and Chair Bantilan asked if there was a motion to approve consent agenda item nos. 6-8.

Director Anselm joined the meeting at 2:11 p.m.

MOTION

Director Wooster made a motion to approve the consent agenda item nos. 6-8. The motion was seconded by Director Burnes, a roll call vote was made and passed with 89%.

AYES: Albano, Anselm, Bantilan, Burnes, DeBranch, Vickery, Das Williams, Debby Williams, Wooster, Zenger
 NOES: None
 ABSTAIN: None
 ABSENT: Reely

ACTION ITEMS**9. Review and Take Appropriate Action on SAC Membership Applications**

Mr. Blakslee provided an overview of the SAC membership applications received.

MOTION

Director Das Williams made a motion to approve the appointment of Karen Adams, John Caufield, and David Lewis to the Standing Advisory Committee. The motion was seconded by Director Wooster, a roll call vote was made and passed with 89%.

AYES: Albano, Anselm, Bantilan, Burnes, DeBranch, Vickery, Das Williams, Debby Williams, Wooster, Zenger
 NOES: None
 ABSTAIN: None
 ABSENT: Reely

10. Groundwater Sustainability Plan Amendment Components**a. Update on GSP Component Schedule**

Mr. Beck reviewed the Groundwater Sustainability Plan (GSP) update and Board policy discussion schedule which is provided in the Board packet.

b. Overview of Public Workshop on October 12, 2023

Mr. Van Lienden provided an update on the public workshop October 12, 2023, which is provided in the Board packet.

SAC Chair Kelly provided the SAC report on the public workshop on October 12, 2023, which is provided in the SAC report.

Mr. Beck commented that there was a high participation rate among members of the public. Director Das Williams commented that the high participation in the public workshop shows the concern the public has. Director Debby Williams suggested adding creeks to the maps. Director Das Williams commented the Buckhorn can also be a viable option for public workshops.

c. Update on September 2023 GSP Component Discussion

Mr. Van Lienden provided an overview of the feedback provided at the last Board

meeting, public workshop, and at the technical forum which is provided in the Board packet.

Director Wooster commented that the technical committee should refrain from making policy comments and should focus their comments on technical comments.

SAC Chair Kelly provided the SAC report on 2023 GSP component discussion which is provided in the SAC report.

d. Discuss and Take Appropriate Action on Subsidence Monitoring Network

Mr. Van Lienden provided an overview of the subsidence monitoring network which is provided in the Board packet.

SAC Chair Kelly provided the SAC report on subsidence monitoring network which is provided in the SAC report.

Mr. Beck reminded the Board this item will need final approval.

Director Wooster agreed the high school needs to be investigated.

MOTION

Vice Chair Vickery made a motion to continue using the same subsidence monitoring network and to investigate the high school station. The motion was seconded by Director Debby Williams, a roll call vote was made and passed with 89%.

AYES: Albano, Anselm, Bantilan, Burnes, DeBranch, Vickery, Das Williams, Debby Williams, Wooster, Zenger

NOES: None

ABSTAIN: None

ABSENT: Reely

e. Discuss and Take Appropriate Action on Groundwater Interconnected Surface Water (ISW) Monitoring Network

Mr. Van Lienden provided an overview of the interconnected surface water (ISW) monitoring network which is included in the Board packet.

SAC Chair Kelly provided the SAC report on the interconnected surface water monitoring network which is provided in the SAC report.

Director Wooster commented that staff is trying to identify which part of the streams contribute to the groundwater basin and how much is travelling upstream.

The Board concurred with staff's recommendation to defer action on the ISW monitoring network until the California Department of Water Resources (DWR) issues their ISW guidance documents scheduled for the spring and fall 2024.

f. Discuss and Take Appropriate Action on Groundwater Water Quality Monitoring Network

Mr. Van Lienden reviewed the Groundwater Quality Monitoring Network which is provided in the Board packet.

SAC Chair Kelly provided the SAC report on groundwater water quality monitoring network which is provided in the SAC report.

Director Reely joined the meeting at 3:15 p.m.

Director Zenger asked why well 841 and 845 were the only ones identified in the Western Region. Mr. Van Lienden replied these were the wells offered by the landowner and they have enough distance between the two sites to provide sufficient data.

Director Debby Williams asked if staff is using the Cuyama Community Service District (CCSD) data on arsenic. Mr. Van Lienden replied that this data has been used in the past and will continue to be used.

Director Albano requested a visual representation of the data that is already available for staff to use. Mr. Van Lienden reviewed the data available from 2010-2020 and commented that this is something that can be put together.

Director Burnes commented that it is important to check if the data being collected from other entities is quality data, otherwise the GSA needs to collect their own data.

Director Debby Williams commented that there is a well from the CCSD that is potentially going to be capped and asked staff if they would like to use it for monitoring purposes. Mr. Van Lienden replied he would connect with Director Debby Williams on this offer.

Director Wooster commented she is in favor of having monitoring occur once every five years and staff can utilize the data from other entities to monitor trends and major changes. Director Vickery and Director DeBranch agreed with Director Wooster.

MOTION

Director Albano made a motion to approve the staff recommendation for the total dissolved solutions (TDS) monitoring network, and, for arsenic and nitrates, to perform monitoring once every 5 years to correspond with GSP updates. The motion was seconded by Vice Chair Vickery, a roll call vote was made and passed with 89%.

- AYES: Albano, Anselm, Bantilan, Burnes, DeBranch, Reely, Vickery, Debby Williams, Wooster, Zenger
- NOES: Das Williams
- ABSTAIN: None

ABSENT: None

g. Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Results Criteria for Groundwater Subsidence

Mr. Van Lienden provided an overview of the subsidence sustainable management criteria and undesirable results criteria for groundwater subsidence which is provided in the Board packet.

SAC Chair Kelly provided the SAC report on sustainable management criteria and undesirable results criteria for groundwater subsidence which is provided in the SAC report.

No specific Board feedback was provided on this item.

h. Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Results Criteria for Groundwater Interconnected Surface Water (ISW)

Mr. Van Lienden provided an overview of the sustainable management criteria and undesirable results criteria for groundwater interconnected surface water which is provided in the Board packet.

SAC Chair Kelly provided the SAC report on the sustainable management criteria and undesirable results criteria for groundwater interconnected surface water which is provided in the SAC report.

Director Zenger asked how much time is left to make this decision. Mr. Beck replied if this data is provided by DWR in the late fall 2024 then it can be presented in the Board meeting in November 2024. Director Zenger asked if there is any flexibility due to the schedule constraints. Mr. Beck replied that DWR may not have the ability to push out the due date for the 2025 GSP update, so GSA's may have to submit what they have at the time.

The Board provided general feedback to wait until DWR issuance ISW guidance documents in spring and fall 2024.

i. Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Results Criteria for Groundwater Water Quality

Mr. Van Lienden provided an overview on sustainable management criteria and undesirable results criteria for groundwater water quality which is provided in the Board packet.

SAC Chair Kelly provided the SAC report on sustainable management criteria and undesirable results criteria for groundwater water quality which is provided in the SAC report.

Director Wooster commented that there are a lot of water sources in the valley that have arsenic, nitrates, and TDS and it should not be under the purview of Sustainable Groundwater Management Act (SGMA) to fix the water quality. She continued to

explain that the CBGSA can take action to mitigate water quality issues, but it cannot fix the water quality.

Director Albano commented that the main mission of SGMA and the CBGSA is to manage water levels and the CBGSA needs to be aware of the actions it takes to manage the pumping of groundwater and the effects it may have on water quality.

Stakeholder Don S. provided a public comment on backflow prevention.

Stakeholder Rachel H. commented that as the water level gets lower the concentration of arsenic and nitrate increases and the CBGSA needs to ensure the water quality is not getting worse while monitoring the movement of this poor water quality. She continued to say the CBGSA needs to monitor this each year.

Director Wooster commented there are multiple agencies that are all testing the water quality at different times resulting in a continuum of tests.

Director Debby Willaims clarified the CCSD may not have their well installed before 2025.

Alternate Director Katelyn Zenger requested staff report on what monitoring other GSAs have done for arsenic and nitrates.

j. Discuss and Take Appropriate Action on Glidepath Methodology

Mr. Van Lienden provided an overview of the glidepath methodology which is provided in the Board packet.

SAC Chair Kelly provided the SAC report on glidepath methodology which is provided in the SAC report.

Director Vickery commented that the glidepath and minimum thresholds (MT) are connected and the glidepath needs to set while keeping the MTs in mind.

Chair Bantilan commented it is too early to take a vote to change the glidepath. He said there likely needs to be pumping reductions throughout other portions of the basin.

Director Vickery agreed if there are areas that need a steeper pumping reduction then that is what needs to be done, however, if the CBGSA finds there are interconnected groundwater, then the reductions need to be done in all areas the groundwater is connected.

Director Zenger commented that if the glidepath is a reduction in pumping based on a percentage then it would be fair to reduce all irrigated pumping by the same percentage.

Director Albano commented that if there are other areas in the basin that have overdraft, then he is in favor of reducing pumping, but the problem is in the Central

Management Area since other areas are sustainable.

Director DeBranch asked what additional information will be put into the model for the next model iteration. Mr. Van Lienden replied that the model will have updated information on the location of wells, information from newly drilled wells, river channel survey, AEM data from DWR, and updated information on pumping from meter data from 2023.

k. Approval of 2024 Meeting Calendar

Mr. Blakslee reviewed the 2024 meeting calendar which is provided in the Board packet.

SAC Chair Kelly provided the SAC report on 2024 meeting calendar which is provided in the SAC report.

MOTION

Director Albano made a motion to adopt the 2024 meeting calendar as presented. The motion was seconded by Director Zenger, a roll call vote was made and passed with 93%.

AYES: Albano, Anselm, Bantilan, Burnes, DeBranch, Reely, Das Williams, Debby Williams, Wooster, Zenger

NOES: None

ABSTAIN: None

ABSENT: Vickery

REPORT ITEMS

11. Administrative Updates

a. Report of the Executive Director

Mr. Blakslee provided an update on DWR Basin Management Practices, reporter inquiries, Hallmark Group progress and next steps and an overview of the CBGSA's expenses and budget-to-actuals, which are included in the Board packet.

Mr. Blakslee asked the Board if they would like to allow technical experts to attend the technical forum who are only observing rather than providing feedback.

Director Albano commented he is ok with having these technical experts join the technical forum whether they are providing feedback or not.

The Board requested tech forum comments are attributed to the commentor if the item does not have full consensus of the tech forum.

Director Burnes commented he does not believe a technical expert should join the technical forum if they are not providing feedback.

The Board provided direction to not allow participants to join the technical forum if they

are not providing feedback and if they do not have a technical background.

b. Report of the General Counsel

Nothing to report.

12. Technical Updates

a. Update on Groundwater Sustainability Plan Activities

Mr. Van Lienden provided an update on the accomplishments for July and August 2023 which are provided in the Board packet.

b. Update on Grant-Funded Projects

Mr. Van Lienden provided an update on grant-funded projects which is provided in the Board packet.

c. Update on 2023 Groundwater Quality Conditions Report

Mr. Van Lienden provided an update on the October 2023 groundwater conditions report which is provided in the Board packet.

13. Report of the Ad Hoc Committee

Nothing to report.

14. Directors' Forum

Director Das Williams introduced Chris Stenton who built the new bridge in Cuyama. Director Williams also requested legal counsel look into AB 779 and provide an update at the next meeting.

15. Public comment for Items Not on the Agenda

Basin Logix's Spencer Harris said he is soliciting interest from the CBGSA Board and SAC to support the development of a groundwater allocation management system for the CMA.

16. Correspondence

Mr. Blakslee reported that a letter from Basin Logix is included in the Board packet.

17. Closed Session

At 4:56 PM, the Board adjourned to closed session. At 6:28 PM, the Board returned from closed session at which time Legal Counsel reported to the public that direction had be duly provided by the Board to intervene in Bolthouse Land Company, LLC, et al v. All Persons Claiming a Right to Extract or Store Groundwater in the Cuyama Valley Groundwater Basin (BCV-21-101927), commonly referred to as the Cuyama Basin Groundwater Adjudication.

18. Adjourn

Chair Bantilan adjourned the meeting at 6:30 p.m.

BOARD OF DIRECTORS OF THE
CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Chair: _____

ATTEST:

Secretary: _____

DRAFT



TO: Board of Directors
Agenda Item No. 9

FROM: Taylor Blakslee, Hallmark Group

DATE: January 10, 2024

SUBJECT: Approval of Payment of Bills for September, October, November, and December 2023

Recommended Motion

Approve payment of the bills for September, October, November, and December 2023 in the amount of \$697,617.10.

Discussion

Consultant invoices for the months of September, October, November, and December 2023 are provided as Attachment 1 and summarized below.

Expense	September	October	November	December	Totals
BC2 Environmental – Monitoring wells	\$0.00	\$52,763.75	\$74,721.25	\$199,646.25	\$327,131.25
W&C – Technical support services	\$0.00	\$123,934.89	\$174,799.72	\$0.00	\$298,734.61
Hallmark – Executive Director services	\$0.00	\$23,611.09	\$14,936.11	\$0.00	\$38,547.20
Klein – Legal services	\$0.00	\$3,300.00	\$11,552.15	\$0.00	\$14,852.15
P&P – Quarterly Groundwater levels	\$3,002.35	\$7,849.54	\$0.00	\$0.00	\$10,851.89
DPVB – Annual Audit	\$0.00	\$6,500.00	\$1,000.00	\$0.00	\$7,500.00
TOTALS	\$3,002.35	\$217,959.27	\$277,009.23	\$199,646.25	\$697,617.10

PROVOST & PRITCHARD CONSULTING GROUP

455 W Fir Ave • Clovis, CA 93611 • (559) 449-2700
www.provostandpritchard.com

Taylor Blakslee
Cuyama GSA
4900 California Ave., Tower B, 2nd Floor
Bakersfield, CA 93309

October 16, 2023
Project No: 03930-23-001
Invoice No: 104285

Project Name: Groundwater Level Monitoring (WY 2024)

Client Project #:

Professional Services from September 01, 2023 to September 30, 2023

Phase: LVL Groundwater Level Monitoring

Labor

	Hours	Rate	Amount	
Administrative Assistant	.10	76.00	7.60	
Associate Envir. Spec	6.70	140.00	938.00	
Totals	6.80		945.60	
Total Labor				945.60

Reimbursable Expenses

Postage/Shipping/Delivery			71.51	
Total Reimbursables			71.51	71.51

Total this Phase: \$1,017.11

Phase: QLT Groundwater Quality Monitoring

Labor

	Hours	Rate	Amount	
Assistant Engineer	1.40	126.00	176.40	
Project Administrator	.10	94.00	9.40	
Associate Envir. Spec	6.20	140.00	868.00	
Totals	7.70		1,053.80	
Total Labor				1,053.80

Reimbursable Expenses

Travel & Mileage			283.66	
Other Direct Reimb Expenses			647.78	
Total Reimbursables			931.44	931.44

Total this Phase: \$1,985.24

Total this Invoice: \$3,002.35

Project 03930-23-001 Groundwater Level Monitoring (WY 2024) Invoice 104285

Billing Backup

Tuesday, October 31, 2023

Provost & Pritchard Consulting Group

Invoice 104285 Dated 10/16/2023

9:45:43 AM

Phase: LVL Groundwater Level Monitoring

Labor

			Hours	Rate	Amount
Administrative Assistant					
1111 - Riggi, Mary	9/19/2023		.10	76.00	7.60
Associate Envir. Spec					
1154 - Vander Schuur, Jon	9/5/2023		.80	140.00	112.00
1154 - Vander Schuur, Jon	9/12/2023		.60	140.00	84.00
1154 - Vander Schuur, Jon	9/14/2023		.50	140.00	70.00
1154 - Vander Schuur, Jon	9/15/2023		.50	140.00	70.00
1154 - Vander Schuur, Jon	9/15/2023		1.00	140.00	140.00
1154 - Vander Schuur, Jon	9/18/2023		1.00	140.00	140.00
1154 - Vander Schuur, Jon	9/19/2023		1.00	140.00	140.00
1154 - Vander Schuur, Jon	9/21/2023		.30	140.00	42.00
1154 - Vander Schuur, Jon	9/29/2023		1.00	140.00	140.00
Totals			6.80		945.60
Total Labor					945.60

Reimbursable Expenses

Postage/Shipping/Delivery

AP 62516	9/19/2023	United Parcel Service / 147Y7R / Invoice: \$32.23 + 15%= 147Y7R363, 9/16/2023	37.06
AP 62648	9/26/2023	United Parcel Service / 147Y7R / Invoice: \$29.96 + 15%= 147Y7R363, 9/23/2023	34.45

Total Reimbursables 71.51 71.51

Total this Phase: \$1,017.11

Phase: QLT Groundwater Quality Monitoring

Labor

			Hours	Rate	Amount
Assistant Engineer					
1026 - Poire, Luis	9/21/2023		1.00	126.00	126.00
1026 - Poire, Luis	9/28/2023		.40	126.00	50.40
Project Administrator					
1117 - Bravo, Vivian	9/15/2023		.10	94.00	9.40
Associate Envir. Spec					
1154 - Vander Schuur, Jon	9/15/2023		.50	140.00	70.00
1154 - Vander Schuur, Jon	9/15/2023		.50	140.00	70.00
1154 - Vander Schuur, Jon	9/18/2023		1.00	140.00	140.00
1154 - Vander Schuur, Jon	9/19/2023		1.20	140.00	168.00
1154 - Vander Schuur, Jon	9/25/2023		1.00	140.00	140.00
1154 - Vander Schuur, Jon	9/28/2023		1.00	140.00	140.00
1154 - Vander Schuur, Jon	9/30/2023		1.00	140.00	140.00
Totals			7.70		1,053.80
Total Labor					1,053.80

Reimbursable Expenses

Travel & Mileage

AP 62873	9/27/2023	Business Card (4030) / 8/21/2023 Lodging: Luis Poire / Invoice: 4030 Sep 2023, 9/4/2023	241.11
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Project	03930-23-001	Groundwater Level Monitoring (WY 2024)	Invoice	104285
AP 62873	9/27/2023	Business Card (4030) / 8/21/2023 Lodging: Luis Poire / Invoice: 4030 Sep 2023, 9/4/2023	10.42	
AP 62873	9/27/2023	Business Card (4030) / 8/24/2023 Lodging: Luis Poire / Invoice: 4030 Sep 2023, 9/4/2023	32.13	
Other Direct Reimb Expenses				
AP 62852	9/28/2023	Business Card (2370) / 8/16/2023 Hydrasleeve/materials / Invoice: 2370 Sep 2023, 9/4/2023	647.78	
Total Reimbursables			931.44	931.44
			Total this Phase:	\$1,985.24
			Total this Project:	\$3,002.35
			Total this Report	\$3,002.35



Delivery Service Invoice

Invoice Date **September 16, 2023**

Invoice Number 0000147Y7R373

Account Number 147Y7R

*** Shipping charges were for shipping a water level transducer assembly to and from the Van Essen repair representative

DATE	SHIPMENT NUMBER	SHIPMENT TYPE	ZIP	CLASS	WEIGHT	UNIT	BASE RATE	ADDITIONAL CHARGES	TOTAL
09/12	1Z147Y7R0392036757	Ground Residential	85742	4	13		16.44	-4.93	11.51
		Customer Weight			1				
		Residential Surcharge					5.25	-1.84	3.41
		Declared Value \$ 2,000.00					26.00	-11.00	15.00
		Fuel Surcharge					3.36	-1.05	2.31
		Customer Entered Dimensions = 30 x 15 x 4 in							
		Total					51.05	-18.82	32.23

UserID: Ifanucchi

Sender : Mary Riggi

Provost & Pritchard
400 East Main Street
Visalia CA 93291

Receiver:

Eric Coulombe
3390 West Pepperwood Loop
TUCSON AZ 85742

Message Codes:r

09/13	1Z147Y7R0395971786	Ground Residential	91505	2	2		10.90	-0.80	10.10
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Delivery Service Invoice

Invoice Date **September 23, 2023**

Invoice Number 0000147Y7R383

Account Number 147Y7R

Message Codes:ag

09/19	1Z147Y7R0396616837	Ground Commercial	93291	4	20	18.50	-5.55	12.95
		Customer Weight			5			
		Declared Value\$ 2,000.00				26.00	-11.00	15.00
		Fuel Surcharge				2.87	-0.86	2.01
		Customer Entered Dimensions = 30 x 15 x 6 in						
		Total				47.37	-17.41	29.96

1st ref: 03930-23-001 LVL

Sender :

Eric Coulombe
3390 W Pepperwood Loop
TUCSON AZ 85742

UserID: Ifanucchi

Receiver:

Jon Vander Schuur
Provost & Pritchard Consulting
400 E Main Street, Suite 300
VISALIA CA 93291

Message Codes:r

1Z147Y7R0397870622	Ground Commercial	95356	2	2		10.90	-0.80	10.10
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Cuyama Buckhorn
4923 primero st
new cuyama , ca 93254

Check-out receipt

Name: Luis Poire
Check-in: Wednesday, Aug 23, 2023
Check-out: Thursday, Aug 24, 2023
Confirmation #: 70571777
Invoice number: 8225
Invoice date: 08/24/2023

03930-22-001 LVL

Unit assignment: 19

Luis Poire
3203 Tresselwych In
CA 93311
United States
lpoire@ppeng.com
T: 661 4874344

Date	Description of services	Cost(USD)
08/23/2023	Unit 19: Classic Queen - Siteminder - BAR	180.00
08/23/2023	Resort Fee : Resort Fee	25.00
Sub-total		205.00
Processing Fee		9.06
Govt Tax		21.60
STax		1.94
Total		237.60
Aug 18, 2023, MC XXXX 4030		209.66
Aug 23, 2023, MC XXXX 4030		27.94
Amount due (USD)		0.00

Your signature authorizes Cuyama Buckhorn to communicate with you via email and to charge your credit card for the full amount due.

Customer signature: _____

There will be a credit card authorization of \$100 per day taken for incidental charges upon the day of check-in.

All rooms are non-smoking (tobacco and marijuana). \$250 cleaning fee will be applied if anyone smokes within a hotel room or on their patio.

We are pleased to offer an array of food & beverage options for meals while you are on property. No outside food or beverages are permitted in public areas. No guestroom or patio cooking is permitted. A \$250 fee will be applied to the credit card on file if unauthorized cooking takes place on our property.

A pet fee of \$30.00 will be applied for the entire stay. \$175 authorization upon check in will be taken for a pet cleaning fee. This fee will be returned if extra cleaning is not needed.

Any damages to property, public spaces, and or rooms due to guest, will be sole responsibility of guest.

Please know that glass and pets are not allowed in pool area.

My signature above acknowledges that I have read and understand the above policies, authorizations and fees that may be applied to my credit card.



03930-22-01/QLT

Invoice

PO Box 443
Snellville, GA 30078-0443

Phone: 800-474-2490 or 770-978-9971
Fax: 770-978-8661

Invoice Number:
74213

Invoice Date:
Aug 15, 2023

Page:
1

Sold To:

PROVOST & PRITCHARD
Email Invoice To:
orderplacer@PPENG.COM

United States

Phone: 559-801-5926

Ship to:

Provost & Pritchard Consulting Group
400 East Main St
Ste 300/Attn: Jon Vander Schuur
Visalia, CA 93291
559/303-3559

Customer ID		Customer PO	Payment Terms			
PROVOST-PRITCHARD-CA		Jon Vander Schuur	Prepaid			
Contact Name		Shipping Method	Ship Date	Due Date		
		UPS GROUND	8/15/23	8/15/23		
Item	U/M	Description	Quantity	B/O	Unit Price	Extension
GSH110	each	(GEO HS-2) HYDRASLEEVE 1.5in O.D. BY 30in DISPOSABLE SAMPLE SLEEVE_ ~600ML_ FOR 2in WELL	5.00		25.00	125.00
GSH130	each	(GEO HS-2-1L) HydraSleeve Standard 2-inch 1.3 liter vol. (Filled Diameter 1.75in x 38in) (For 2in Sch 80 or larger well)	8.00		34.00	272.00
FSR270	1000ft	Rope Polypropylene 3/16in Hollow Braid White-1000ft Spool	2.00		27.50	55.00
GSH300	each	(HS-Springclip) Spring Clip for 1.5 , 1.7 and 1.9 Hydrasleeve (for 2 wells)	4.00		3.50	14.00
GSW305-C	each	(HS-SOLID-WT-8) HS SOLID-WT-8+Clip: Weight-SST 0.75-inch diameter X 4 in long. 8 oz Bullet weight with weight clip GSH299	2.00		23.00	46.00
ADM040	<Each>	Order placed by: Jon Vander Schuur	1.00			
ADM-LK	<Each>	Thanks for the order! --lynn kricun	1.00			
ADM086	<Each>	Please email a copy of the paid invoice to: abeaudreau@ppeng.com	1.00			
Ship-Via: UPS GROUND Price 51.29 08/15/2023 Tracking # 1Z5XX6520399796970						

***We Make Sampling, Measuring & Monitoring
Easier For You!***

By placing an order you have agreed to EON's Terms and Conditions of Sale and Terms and Conditions of Rental, which are published on our website at:
www.EONPro.com/Terms-Conditions

Sales Order Reference: 130660

Check/CM/CC Ref No: CC 74213

Subtotal	512.00
Sales Tax	
Freight	51.29
Total Invoice Amount	563.29
Payment/Credit Applied	563.29
INVOICE BALANCE DUE (USD)	0.00

CHECK OUT OUR WEBSITE: www.eonpro.com

BC2 ENVIRONMENTAL

1150 West Trenton Avenue
 Orange, California 92867
 Phone (714) 744-2990 Fax (714) 744-2991

INVOICE**Bill to:**

Cuyama Basin Groundwater Sustainability Agency
 C/O Hallmark Group
 4900 California Ave.,
 Tower B, 2nd Floor
 Bakersfield, CA 93309

Invoice Date: 10/16/2023
 Invoice No.: 23-29306
 BC2 Proposal #: 23-309
 Site Address: New Cuyama, CA
 Well Locations: GDE-5, GDE-4, GDE-1
 Job/Site Name: Cuyama Valley Groundwater Basin Sustainability Project
 Monitoring Well Construction

ATTN: Taylor Blakslee TBlakslee@hgcpm.com

Project Manager: Jim Strandberg Woodard & Curran
 Site Contact: Anthony Ebron

Payment Terms: Net 45

Tax I.D. Number: 83-2585853

Period of Performance: July 18 (1 days) & 9/11 - 15, 2023 (5 work days)

Item	Description	Unit	Quantity	Unit Price	Extension
1	Administration & General Conditions	Hours	10	\$ 250.00	\$2,500.00
2	Mobilization/Demobilization – Shallow Wells	Each	1	\$ 8,500.00	\$8,500.00
3	Daily Travel/Per Diem – Shallow Wells	Day	5	\$ 975.00	\$4,875.00
4	Drill Borehole to Total Depth	Feet	185	\$ 57.00	\$10,545.00
5	2.5-inch Sch 40 PVC Casing, Threaded Flush-Joint	Feet	110	\$ 28.00	\$3,080.00
6	2.5-inch Sch 40 PVC Screen 0.02-inch Slot, Threaded Flush-Joint	Feet	80	\$ 30.00	\$2,400.00
7	Sand Filter Pack (#2/16 Washed Silica Sand, or Equivalent)	Feet	109	\$ 20.00	\$2,180.00
8	Bentonite Seal (Chips)	Feet	8	\$ 18.00	\$144.00
9	Annular Seal (Neat Cement Grout)	Feet	68	\$ 12.00	\$816.00
10	Locking Steel Monument, Concrete Pad, Bollards	Each	2	\$ 1,800.00	\$3,600.00
10a	Flush Mount Well Box in 3ft x 3ft Wood Form	Each	1	\$ 900.00	\$900.00
11	Prevailing Wage – Shallow Wells	Day	5	\$ 2,100.00	\$10,500.00
12	Support Truck – Shallow Wells	Day	5	\$ 225.00	\$1,125.00
13	Forklift Drop-Off and Pick-Up	Each	0	\$ 385.00	\$0.00
14	Forklift Rental	Day	0	\$ 350.00	\$0.00
15	Fuel Surcharge - Shallow Wells	Day	3	\$ 285.00	\$855.00
16	COVID-19 Surcharge	Day	0	\$ -	\$0.00
17	Estimated Sales Tax – Shallow Wells		0	\$ -	\$0.00
18	Overtime – Shallow Wells (over 10hrs/day)	Hour	1	\$ 525.00	\$393.75
19	Standby Time – Shallow Wells	Hour	0	\$ 350.00	\$0.00
20	Per Diem – Site Walk - Project Management	Day	1	\$ 350.00	\$350.00
Subtotal (Shallow Wells)					\$ 50,263.75

**THANK YOU FOR SELECTING
 BC2 ENVIRONMENTAL**

23-29324 Cuyama Basin GSA - Cuyama - Shallow Wells

21	Mobilization/Demobilization – Nested Wells	Each	0	\$ 18,000.00	\$0.00
22	Daily Travel/Per Diem – Nested Wells	Day	0	\$ 975.00	\$0.00
23	Conductor Casing	Feet	0	\$ 185.00	\$0.00
24	Drill Exploratory Borehole to Total Depth	Feet	0	\$ 80.00	\$0.00
25	E Log	Each	0	\$ 8,525.00	\$0.00
26	3-inch Sch 80 PVC Casing, Threaded Flush-Joint	Feet	0	\$ 45.00	\$0.00
27	3-inch Sch 80 PVC Screen 0.02-inch Slot, Threaded Flush-Joint	Feet	0	\$ 42.00	\$0.00
28	Sand Filter Pack (#2/16 Washed Silica Sand, or Equivalent)	Feet	0	\$ 43.00	\$0.00
29	Bentonite Seal (Chips)	Feet	0	\$ 50.00	\$0.00
30	Annular Seal (Neat Cement Grout)	Feet	0	\$ 38.00	\$0.00
31	Locking Steel Monument, Concrete Pad, Bollards	Each	0	\$ 2,250.00	\$0.00
32	Prevailing Wage – Nested Wells	Day	0	\$ 2,450.00	\$0.00
33	Support Truck/Compressor – Nested Wells	Day	0	\$ 575.00	\$0.00
34	Fuel Surcharge - Nested Wells	Each	0	\$ 4,875.00	\$0.00
35	Estimated Sales Tax – Nested Wells		0	\$ -	\$0.00
36	Overtime – Nested Wells	Hour	0	\$ 675.00	\$0.00
37	Standby Time – Nested Wells	Hour	0	\$ 600.00	\$0.00
38	Site Security - if required	Day	0	\$ 575.00	\$0.00
Subtotal (Nested Wells)					\$0.00
39	Mobilization/Demobilization - Well Development	Each	0	\$ 6,000.00	\$0.00
40	Daily Travel/Per Diem – Well Development	Day	0	\$ 350.00	\$0.00
41	Prevailing Wage – Well Development	Hour	0	\$ 320.00	\$0.00
42	Overtime – Well Development	Hour	0	\$ 375.00	\$0.00
43	Standby Time – Well Development	Hour	0	\$ 195.00	\$0.00
44	Sound Panels - if required	Month	0	\$27,000	\$0.00
Subtotal (Well Development)					\$0.00
SUBTOTAL					\$52,763.75
TAX					
MISC.					
BALANCE DUE					\$52,763.75

<https://www.bc2env.com/client-survey>

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

PROGRESS REPORT FOR TASK ORDER CB-HG-008

Client Name:	Cuyama Basin Groundwater Sustainability Agency	Agreement Number:	201709-CB-001
Company Name:	HGCPM, Inc. DBA The Hallmark Group	Address:	500 Capitol Mall, Suite 2350 Sacramento, CA 95814
Task Order Number:	CB-HG-008	Report Period:	October 1-31, 2023
Progress Report Number:	56	Project Manager:	Jim Beck
Invoice Number:	2023-CBGSA-10	Invoice Date:	October 31, 2023

SUMMARY OF WORK PERFORMED

Task 1: Board of Directors and Advisory Committee Meetings

- Drafted August 31, 2023, Cuyama Basin Groundwater Sustainability Agency (CBGSA) Standing Advisory Committee (SAC) minutes.
- Drafted September 6, 2023, Board minutes.
- Prepared SAC presentation and meeting packet for SAC meeting on October 26, 2023.
- Facilitated SAC meeting on October 26, 2023.
- Drafted October 26, 2023 SAC minutes.
- Processed new SAC member applications.

Task 2: Consultant Management and GSP Implementation

- Prepared for and facilitated Groundwater Sustainability Plan (GSP) Policy Components Ad hoc.
- Developed and distributed Cuyama Basin Water Year 2023 irrigated land use survey to landowners.
- Correspondence with landowners regarding irrigated land use data request and processed irrigated land use data.

Task 3: Financial Information Coordination

- Billing and administration.
- Review August and September invoices.
- Drafted September progress report.
- Coordination of fiscal year 2022-2023 audit.
- Processed mail and bank deposits.
- Coordinated data request for CBGSA quarterly grant disbursement.
- Reviewed Santa Barbara and Ventura tax information.

Task 4: Cuyama Basin GSA Outreach

- Coordinated with Department of Water Resources (DWR) for interpretive services for public workshop.
- Correspondence with stakeholders regarding Cuyama public workshop.
- Coordinated with Catalyst Group and Woodard and Curran regarding public workshop.
- Developed public workshop summary.
- Participated in AP media reporter interview.
- Facilitated public workshop on October 11, 2023.

DELIVERABLES AND COMPLETED TASKS

- Facilitated public workshop on October 11, 2023.
- Facilitated SAC meeting on October 26, 2023.
- Developed and distributed Cuyama Basin Water Year 2023 irrigated land use survey to landowners.

PLANNED OBJECTIVES FOR NEXT REPORTING PERIOD

- Prepare for CBGSA Board meeting on November 1, 2023.
- Finalize coordination of Fiscal Year audit.

SIGNIFICANT ISSUES OR CHALLENGES (IF ANY) AND POTENTIAL RESOLUTIONS

- N/A

Billed To:
Cuyama Basin GSA
 Attn: Jim Beck
 4900 California Avenue, Ste B
 Bakersfield, CA 93309

Please Remit Payment To:
The Hallmark Group
 500 Capitol Mall, Ste 2350
 Sacramento, CA 95814
 P: (916) 923-1500

Invoice No.: 2023-CBGSA-10
Date: October 31, 2023
Agreement No.: 201709-CB-001
Task Order: CB-HG-009

For professional services rendered for the month of October 2023:

Task No.	Task Description	Personnel	Billing Classification	Hours	Rate	Amount
1	Board of Directors Meetings	J. Beck	Executive Director	7.75	\$ 350.00	\$ 2,712.50
		T. Blasklee	Project Manager	29.75	\$ 200.00	\$ 5,950.00
		J. Montoya	Project Coordinator	23.00	\$ 150.00	\$ 3,450.00
Total Task 1 Labor						\$ 12,112.50
2	Consultant Mgmt and GSP Impl	J. Beck	Executive Director	2.50	\$ 350.00	\$ 875.00
		T. Blasklee	Project Manager	15.25	\$ 200.00	\$ 3,050.00
		J. Montoya	Project Coordinator	0.25	\$ 150.00	\$ 37.50
Total Task 2 Labor						\$ 3,962.50
3	Financial Information Coordination	J. Beck	Executive Director	0.00	\$ 350.00	\$ -
		J. Harris	Project Controls	13.25	\$ 200.00	\$ 2,650.00
		T. Blasklee	Project Manager	4.25	\$ 200.00	\$ 850.00
		H. Fuentes	Project Controls Coordinator	0.50	\$ 150.00	\$ 75.00
		J. Montoya	Project Coordinator	0.75	\$ 150.00	\$ 112.50
Total Task 3 Labor						\$ 3,687.50
4	CBGSA Outreach	T. Blasklee	Project Manager	17.50	\$ 200.00	\$ 3,500.00
Total Task 4 Labor						\$ 3,500.00
5	Groundwater Extraction Fee Funding	T. Blasklee	Project Manager	0.00	\$ 200.00	\$ -
		J. Montoya	Project Coordinator	0.00	\$ 150.00	\$ -
Total Task 5 Labor						\$ -
8	Adjudication Support	T. Blasklee	Project Manager	0.00	\$ 200.00	\$ -
		J. Montoya	Project Coordinator	0.00	\$ 125.00	\$ -
Total Task 8 Labor						\$ -
Total Labor						\$ 23,262.50
Other Direct Costs (ODC)		September Mileage (T. Blakslee 129.4 mi)				\$ 84.76
		October Mileage (T. Blakslee 275.3 mi)				\$ 180.32
		Printed Materials for Board Meeting (Office Depot)				\$ 63.33
		Printed Materials for Board Meeting (Office Depot)				\$ 3.58
Total ODC						\$ 331.99
5% ODC Mark-Up						\$ 16.60
TOTAL AMOUNT DUE THIS INVOICE						\$ 23,611.09

Maximum Contract Value and Progress Billing						
Sub Task	Contract Value	Amendments/ Change Orders	Total Committed	Previously Billed	Current Billing	Remaining Balance
CB-HG-009	\$ 311,706.00	\$ -	\$ 311,706.00	\$ 48,662.50	\$ 23,262.50	\$ 239,781.00
Other Direct Costs	\$ 5,694.00	\$ -	\$ 5,694.00	\$ 266.98	\$ 348.59	\$ 5,078.43
Total	\$ 317,400.00	\$ -	\$ 317,400.00	\$ 48,929.48	\$ 23,611.09	\$ 244,859.43

Office DEPOT OfficeMax®

BAKERSFIELD - (661) 324-5457
10/31/2023 2:28 PM



EV2TTPX9U6XY5R446B

SALE	952-21-1386-1111-23.10.1	
281522 DS Color Ltr U		
90 @ 0.65	58.50	
You Pay		58.50SS
Subtotal:	58.50	
Sales and Use Tax	4.83	
Total:	63.33	
Visa 9066:	63.33	

AUTH CODE 02375G
TDS Chip Read
AID A0000000031010 CAPITAL ONE VISA
CVS No Signature Required

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or scan the below QR code



Office DEPOT OfficeMax®

BAKERSFIELD - (661) 324-5457
10/31/2023 2:42 PM



EV2TTPX9U6XY5B446B

SALE	952-21-1387-1111-23.10.1	
354494 DS B&W Letter		
8 @ 0.17	1.36	
You Pay		1.36SS
281522 DS Color Ltr U		
3 @ 0.65	1.95	
You Pay		1.95SS
Subtotal:	3.31	
Sales and Use Tax	0.27	
Total:	3.58	
Visa 9066:	3.58	

AUTH CODE 02081G
TDS Chip Read
AID A0000000031010 CAPITAL ONE VISA
CVS No Signature Required

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and enter the survey code below
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or scan the below QR code



PROVOST & PRITCHARD CONSULTING GROUP

455 W Fir Ave • Clovis, CA 93611 • (559) 449-2700
www.provostandpritchard.com

Taylor Blakslee
Cuyama GSA
4900 California Ave., Tower B, 2nd Floor
Bakersfield, CA 93309

December 01, 2023
Project No: 03930-23-001
Invoice No: 105656

Project Name: Groundwater Level Monitoring (WY 2024)

Client Project #:

LVL: Depth to water measurements performed on October 24th and 25th.
Travel to and from Bakersfield to Cuyama.
Equipment preparation, Well owner contacts prior to field visits
Download and reporting of DTW values and field notes and transducer data
Reimbursables including mileage and lodging

QLT: Followup Water Quality event on October 3rd, 2023
Correspondence with well owners via phone and email, scheduling
Travel for two technicians Visalia to Cuyama and Bakersfield to Cuyama
Onsite sampling and field testing of wells for one day
Reimbursables for equipment, meals and milage.

Professional Services from October 01, 2023 to October 31, 2023

Phase: LVL Groundwater Level Monitoring

Labor

	Hours	Rate	Amount	
Assistant Engineer	27.50	126.00	3,465.00	
Project Administrator	.90	94.00	84.60	
Associate Envir. Spec	6.70	140.00	938.00	
Associate Geologist/Hydrog	.30	155.00	46.50	
Totals	35.40		4,534.10	
Total Labor				4,534.10

Reimbursable Expenses

Travel & Mileage			252.83	
Other Direct Reimb Expenses			41.65	
Total Reimbursables		1.15 times	294.48	338.65

Total this Phase: \$4,872.75

Phase: QLT Groundwater Quality Monitoring

Labor

	Hours	Rate	Amount	
Assistant Engineer	6.00	126.00	756.00	
Associate Envir. Spec	6.50	140.00	910.00	
Travel Time	6.00	80.00	480.00	
Totals	18.50		2,146.00	
Total Labor				2,146.00

Reimbursable Expenses

Travel & Mileage			632.60	
Other Direct Reimb Expenses			89.83	
Total Reimbursables		1.15 times	722.43	830.79

*** Please make checks payable to Provost & Pritchard Consulting Group ***
For billing inquiries, please email Billing@ppeng.com.

Project	03930-23-001	Pond MWC Water System Improvements	Invoice	104993
			Total this Phase:	\$2,976.79
			Total this Invoice	<u><u>\$7,849.54</u></u>

Project 03930-23-001 Pond MWC Water System Improvements Invoice 104993

Billing Backup

Friday, December 1, 2023

Provost & Pritchard Consulting Group

Invoice 104993 Dated 12/1/2023

10:36:20 AM

Phase: LVL Groundwater Level Monitoring

Labor

		Hours	Rate	Amount
Assistant Engineer				
1026 - Poire, Luis	10/9/2023	.50	126.00	63.00
1026 - Poire, Luis	10/10/2023	1.00	126.00	126.00
1026 - Poire, Luis	10/11/2023	.50	126.00	63.00
1026 - Poire, Luis	10/17/2023	.30	126.00	37.80
1026 - Poire, Luis	10/23/2023	1.00	126.00	126.00
1026 - Poire, Luis	10/24/2023	11.00	126.00	1,386.00
1026 - Poire, Luis	10/25/2023	10.00	126.00	1,260.00
1026 - Poire, Luis	10/27/2023	3.00	126.00	378.00
1026 - Poire, Luis	10/30/2023	.20	126.00	25.20
Project Administrator				
1117 - Bravo, Vivian	10/4/2023	.50	94.00	47.00
1117 - Bravo, Vivian	10/27/2023	.30	94.00	28.20
1117 - Bravo, Vivian	10/30/2023	.10	94.00	9.40
Associate Envir. Spec				
1154 - Vander Schuur, Jon	10/3/2023	1.00	140.00	140.00
1154 - Vander Schuur, Jon	10/9/2023	1.00	140.00	140.00
1154 - Vander Schuur, Jon	10/10/2023	.50	140.00	70.00
1154 - Vander Schuur, Jon	10/11/2023	.50	140.00	70.00
1154 - Vander Schuur, Jon	10/17/2023	1.00	140.00	140.00
1154 - Vander Schuur, Jon	10/19/2023	1.20	140.00	168.00
1154 - Vander Schuur, Jon	10/23/2023	1.00	140.00	140.00
1154 - Vander Schuur, Jon	10/24/2023	.50	140.00	70.00
Associate Geologist/Hydrog				
1164 - Vaughn, Shawn	10/9/2023	.30	155.00	46.50
	Totals	35.40		4,534.10
	Total Labor			4,534.10

Reimbursable Expenses

Travel & Mileage

MI 0000000MLG02 10/31/2023	2018 Nissan Frontier - Bakersfield Pool / 10/24/23 210 miles @ \$0.655 per mile	137.55
MI 0000000MLG02 10/31/2023	2018 Nissan Frontier - Bakersfield Pool / 10/25/23 176 miles @ \$0.655 per mile	115.28

Other Direct Reimb Expenses

EX 000000002357 10/24/2023	Poire, Luis / / Dinner at Cuyama Buckhorn	41.65
----------------------------	---	-------

Total Reimbursables **1.15 times** **294.48** **338.65**

Total this Phase: \$4,872.75

Phase: QLT Groundwater Quality Monitoring

Labor

		Hours	Rate	Amount
Assistant Engineer				
1026 - Poire, Luis	10/2/2023	.50	126.00	63.00
1026 - Poire, Luis	10/3/2023	5.50	126.00	693.00
Associate Envir. Spec				
1154 - Vander Schuur, Jon	10/2/2023	1.00	140.00	140.00

Project	03930-23-001	Pond MWC Water System Improvements	Invoice	104993		
1154 - Vander Schuur, Jon		10/3/2023	4.00	140.00	560.00	
1154 - Vander Schuur, Jon		10/9/2023	.50	140.00	70.00	
1154 - Vander Schuur, Jon		10/9/2023	.50	140.00	70.00	
1154 - Vander Schuur, Jon		10/10/2023	.50	140.00	70.00	
Travel Time						
40 - Poire, Luis		10/3/2023	1.00	80.00	80.00	
40 - Vander Schuur, Jon		10/3/2023	5.00	80.00	400.00	
	Totals		18.50		2,146.00	
	Total Labor					2,146.00
Reimbursable Expenses						
Travel & Mileage						
EX	000000002321	8/22/2023	📄	Vander Schuur, Jon / Lodging / Remote project location	164.99	
EX	000000002321	8/23/2023	📄	Vander Schuur, Jon / Lodging / Remote project site	164.99	
EX	000000002527	10/3/2023		Poire, Luis / / Travel to Cuyama for Water Quality work / 115.00 miles @ 0.655	75.33	
MI	0000000MLG06	10/31/2023		2019 Dodge Ram - Visalia Pool / 10/3/23 347 miles @ \$0.655 per mile	227.29	
Other Direct Reimb Expenses						
EX	000000002321	8/23/2023	📄	Vander Schuur, Jon / Lunch Expense for 2 staff / Lunch Expense for two staff members	42.88	
EX	000000002357	10/3/2023	📄	Poire, Luis / / Lunch at Cuyama Buckhorn w/ Jon Vander Schuur	46.95	
	Total Reimbursables		1.15 times		722.43	830.79
				Total this Phase:		\$2,976.79
				Total this Project:		\$7,849.54
				Total this Report		\$7,849.54

CUYAMA BUCKHORN

New Cuyama, CA 4923
Primer St. 93254
(661)766-2825
Y'ALL COME BACK NOW

Customer Copy

Check: 225849
Card Type Visa
Card Number *****8619
Auth Code 08137D
Expiration Date **/**

Check: 225849
Table:
Server: Summer J
10/24/23 07:25pm

Amount \$34.65

Tip: 7.00

---[Seat 2]---
1 Valley Burger \$27.00
1 French Fries \$4.00

Total: 41.65

\$31.00
Tax 1: \$2.41
Non Cash Adj: \$1.24
Sub w/Tax: \$34.65
Cash Total: **\$33.41**
CC Total: **\$34.65**

Guest Name: _____

Room #: _____

ROOM TIP: _____

TOTAL: _____

Guest Signature: _____

Thank you.
For Pool Service / Room Service / or Parties of 6 or more there is an automatic 20% gratuity.

Not Specified

Taft Inn

(661) 745-5555

203 SOUTH 6TH STREET
TAFT, CA 93268

frontdesk@bwtaft.com

C/O 08/23/2023 07:25 AM

Registered To:VANDER SCHUUR, JON
2418 E. PRINCETON
Visalia, CA 93292

(559) 303-3559

Room #	210-A
Conf #	884871600-01
Arrival	08/22/23
Departure	08/23/23
Room Type	1K - Single King
Guests	2 / 0
Payment	Visa/Master
Acct	XXXX-XXXX-XXXX-4583

Posting Date	AcctCode	Description	From	Reference	Amount
08/22/23	RC	ROOM CHRG REVENUE			\$149.99
08/22/23	91	OCCUPANCY TAX			\$15.00
08/23/23	VS	PAYMENT VISA/MC		4583 - 019227	\$164.99-
Balance Due					\$0.00

I have received the goods and / or services in the amount shown heron. I agree that my liability for this bill is not waived agree to be held personally liable in the event that the indicated person, company or associate fails to pay for any part or full amount of these charges. If a credit card charge, I further agree to perform the obligations set forth in the cardholder agreement with the issuer.

 Signature

Each Best Western® branded hotel is independently owned and operated.

Taft Inn

203 SOUTH 6TH STREET
TAFT, CA 93268

(661) 745-5555

frontdesk@bwtaft.com

C/O 08/24/2023 06:24 AM

Registered To:VANDER SCHUUR, JON
2418 E. PRINCETON
Visalia, CA 93292

(559) 303-3559

Room #	210-A
Conf #	926871704-01
Arrival	08/23/23
Departure	08/24/23
Room Type	1K - Single King
Guests	2 / 0
Payment	Visa/Master
Acct	XXXX-XXXX-XXXX-2625

Posting Date	AcctCode	Description	From	Reference	Amount
08/23/23	RC	ROOM CHRG REVENUE			\$149.99
08/23/23	91	OCCUPANCY TAX			\$15.00
08/24/23	VS	PAYMENT VISA/MC		2625 - 05722D	\$164.99-
				Balance Due	\$0.00

I have received the goods and / or services in the amount shown heron. I agree that my liability for this bill is not waived agree to be held personally liable in the event that the indicated person, company or associate fails to pay for any part or full amount of these charges. If a credit card charge, I further agree to perform the obligations set forth in the cardholder agreement with the issuer.

 Signature

Each Best Western® branded hotel is independently owned and operated.

CUYAMA BUCKHORN

New Cuyama, CA 4923
Primer St. 93254
(661)766-2825
Y'ALL COME BACK NOW

Check: 220679
Table: TB2
Server: Karissa R
08/23/23

12:15pm

---[Seat 1]---	
1 Pulled Pork Sandwich	\$17.00
1 The Buckhorn	\$16.00
<hr/>	
Tax 1:	\$33.00
Non Cash Adj:	\$2.56
Sub w/Tax:	\$1.32
Cash Total:	\$36.88
CC Total:	\$35.56
	\$36.88

Guest Name: _____

Room #:

Customer Copy

Check: 220679
Card Type: Visa
Card Number: *****4583
Auth Code: 067207
Expiration Date: **/**

Amount: \$36.88
Tip: 6.00
Total: 42.88

Customer Copy

Check: 224074
Card Type Visa
Card Number *****8619
Auth Code 04163D
Expiration Date **/**

Amount \$39.95
Tip: 7.00
Total: 46.95

10/3/23 Cuyama Buckhorn
Jon Vander Schuur / Luis Poire

Progress Report



Cuyama Basin Groundwater Sustainability Plan Development

Subject: October 2023 Progress Report

Jim Beck, Executive Director,

Prepared for: Cuyama Basin Groundwater Sustainability Agency (CBGSA)

Prepared by: Micah Eggleton, Woodard & Curran

Reviewed by: Brian Van Lienden, Woodard & Curran

Date: November 17, 2023

Project No.: 0011078.01

This progress report summarizes the work performed and project status for the period of September 30, 2023 through October 27, 2023 on the Cuyama Basin Groundwater Sustainability Plan Development project. The work associated with this invoice was performed in accordance with our Consulting Services Agreement dated December 6, 2017, and with Task Order 11, issued by the CBGSA on May 2, 2023. Work previously authorized on Task Orders 1 through 10 are complete.

The progress report contains the following sections:

1. Work Performed
2. Budget Status
3. Schedule Status
4. Outstanding Issues to be Coordinated

1 Work Performed

A summary of work performed on the project during the current reporting period is provided in Table 1.

Table 1: Summary of Task/Deliverables Status for Task Order 11

Task	Work Completed During the Reporting Period	Percent Complete	Work Scheduled for Next Period
Task 54: FY23-24 Stakeholder/Board and Outreach Engagement Support	<ul style="list-style-type: none"> • Prepare for and participate in ad-hoc calls • Prepare materials for Tech Forum and Policy Ad-hoc calls • Prepare for and participate in public workshop on October 12 • Prepare for and participate in SAC meeting on October 26 • Updates to GSA website 	45%	<ul style="list-style-type: none"> • Participation in future ad-hoc calls • Preparation for and participation in future public workshops, CBGSA Board and SAC meetings
Task 55: FY23-24 Grant Administration	<ul style="list-style-type: none"> • Coordination, budget and schedule management related to grant tasks • Preparation and submittal of 4th grant invoice 	30%	<ul style="list-style-type: none"> • Finalize fourth grant invoice and submit to DWR • Further grant administration and invoicing
Task 56: FY23-24 Ongoing Monitoring and Data Management Support	<ul style="list-style-type: none"> • Program management, coordination and data management related to monitoring activities • Prepare permit applications and landowner agreements for well site locations • Managed drilling subconsultant to perform of multi-completion monitoring well MW-F, including field management of drilling contractor 	20%	<ul style="list-style-type: none"> • Program management, coordination and data management related to monitoring activities • Continue preparation of permits and agreements for well locations • Perform installation of multi-completion monitoring wells
Task 57: FY23-24 Project and Management Action Implementation	<ul style="list-style-type: none"> • Performed updates to model data for CBWRM updates • Prepared materials for Tech Forum discussion • Perform modeling analysis for alternative glide path scenarios • Develop potential future approaches for management action implementation 	20%	<ul style="list-style-type: none"> • Ongoing PMA implementation support including analysis and material preparation • Perform basin model update

Cuyama Basin Groundwater Sustainability Development
October 2023 Progress Report

Task	Work Completed During the Reporting Period	Percent Complete	Work Scheduled for Next Period
Task 58: FY23-24 GSP Implementation, Outreach, & Compliance Activities	<ul style="list-style-type: none"> • Coordination among GSA Board, staff and stakeholders • Ongoing budget tracking, schedule management, and quality assurance/quality control of project implementation activities • Review monitoring data and identify issues with monitoring protocols • Perform model updates for upcoming Annual Report modeling activities 	35%	<ul style="list-style-type: none"> • Ongoing support for GSP implementation, outreach and compliance activities
Task 59: Prepare Five Year Update	<ul style="list-style-type: none"> • Reviewed monitoring data and monitoring wells to develop proposed revisions to water quality monitoring well network • Developed options for updates to glide path and sustainability criteria for Board consideration • Updates to map formats and DMS data to support GSP updates • Develop draft Chapter updates based on Board direction 	30%	<ul style="list-style-type: none"> • Continued review of data relevant to the GSP and development of potential technical updates • Continued update and development of GSP approaches for Board consideration • Develop draft GSP chapters for Board review
Task 60: FY23-24 Improve Understanding of Basin Water Use	<ul style="list-style-type: none"> • None 	2%	<ul style="list-style-type: none"> • Continued support for weather station, river channel survey and land use project implementation
Task 61: FY23-24 Preparation of Grant Proposal	<ul style="list-style-type: none"> • None 	0%	<ul style="list-style-type: none"> • None
Task 62: Perform Fault Investigation	<ul style="list-style-type: none"> • Planning and scoping of fault investigations activities, including coordination with potential subconsultants 	8%	<ul style="list-style-type: none"> • Perform planning activities for fault investigation
Task 63.1: Support for DWR Technical Support Services	<ul style="list-style-type: none"> • None 	0%	<ul style="list-style-type: none"> • Support DWR TSS activities as needed

Task	Work Completed During the Reporting Period	Percent Complete	Work Scheduled for Next Period
Task 63.2: Well Permit Review	<ul style="list-style-type: none"> None 	5%	<ul style="list-style-type: none"> Additional well permit reviews as requested
Task 63.3: Website Redesign	<ul style="list-style-type: none"> None 	0%	<ul style="list-style-type: none"> None

2 Budget Status

Table 2 shows the percent spent for each task under Task Order 11 as of October 27, 2023. 21% of the available Task Order 11 budget has been expended (\$511,997.65 out of \$2,436,117).

Table 2: Budget Status for Task Order 11

Task	Total Budget	Spent Previously	Spent this Period	Total Spent to Date	Budget Remaining	% Spent to Date
54	\$153,530.00	\$48,487.65	\$27,101.39	\$75,589.04	\$77,940.96	49%
55	\$99,940.00	\$23,920.00	\$4,972.50	\$28,892.50	\$71,047.50	29%
56	\$323,350.00	\$30,240.28	\$21,613.50	\$51,853.78	\$271,496.22	16%
57	\$541,220.00	\$95,439.74	\$5,295.00	\$100,734.74	\$440,485.26	19%
58	\$114,980.00	\$27,885.00	\$10,095.00	\$37,980.00	\$77,000.00	33%
59	\$688,500.00	\$138,448.84	\$51,316.25	\$189,765.09	\$498,734.91	28%
60	\$101,892.00	\$2,197.50	\$0.00	\$2,197.50	\$99,694.50	2%
61	\$41,980.00	\$0.00	\$0.00	\$0.00	\$41,980.00	0%
62	\$329,730.00	\$21,108.75	\$3,541.25	\$24,650.00	\$305,080.00	7%
63.1	\$20,050.00	\$0.00	\$0.00	\$0.00	\$20,050.00	0%
63.2	\$12,030.00	\$335.00	\$0.00	\$335.00	\$11,695.00	3%
63.3	\$8,915.00	\$0.00	\$0.00	\$0.00	\$8,915.00	0%
Total	\$2,436,117.00	\$388,062.76	\$123,934.89	\$511,997.65	\$1,924,119.35	21%

3 Schedule Status

The project is on schedule. Work authorized under Task Orders 1 through 10 is complete.

4 Outstanding Issues to be Coordinated

None



Remit to:
 PO Box 55008
 Boston, MA 02205-5008

T 800.426.4262
 T 207.774.2112
 F 207.774.6635

INVOICE

TD BANK

Electronic Transfer:

⑆ 211274450 ⑆ 2427662596 ⑆

Jim Beck
 Executive Director
 Cuyama Basin Groundwater Sustainability
 Agency
 c/o Hallmark Group
 1901 Royal Oaks Drive, Suite 200
 Sacramento, CA 95815

November 22, 2023
 Project No: 0011078.01
 Invoice No: 227185

Project 0011078.01 CUYAMA GSP

Professional Services for the period ending October 27, 2023

Phase 054 FY 23/24 STAKEHOLDER/BOARD AND OUTREACH ENGAGEMENT SUPPORT

Professional Personnel

	Hours	Rate	Amount	
Designer				
Fox, Adam	2.00	200.00	400.00	
Project Planner 1				
O'Callaghan, Ariel	18.25	265.00	4,836.25	
Senior Project Manager				
Van Lienden, Brian	30.00	335.00	10,050.00	
Totals	50.25		15,286.25	
Labor Total				15,286.25

Reimbursable

Vehicle Expenses				
10/12/2023 Van Lienden, Brian		CBGSA Public Workshop	203.05	
10/12/2023 O'Callaghan, Ariel		Public Meeting	313.09	
10/13/2023 Van Lienden, Brian		CBGSA Public Workshop	203.05	
Travel & Lodging				
10/12/2023 O'Callaghan, Ariel		Public Meeting	14.25	
10/12/2023 O'Callaghan, Ariel		Public Meeting	142.49	
10/12/2023 Van Lienden, Brian		CBGSA Public Workshop	134.99	
10/12/2023 Van Lienden, Brian		CBGSA Public Workshop	13.50	
Reimbursable Total	1.1 times		1,024.42	1,126.86

Project	0011078.01	CUYAMA GSP	Invoice	227185
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Consultant

Sub - Consultant Miscellaneous

10/27/2023	THECATALYST GROUP	THE CATALYST GROUP - Inv# 827	9,716.62
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Consultant Total	1.1 times	9,716.62	10,688.28
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	Total this Phase		\$27,101.39
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Phase	055	FY 23/24 GRANT ADMIN
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Professional Personnel

	Hours	Rate	Amount
Planner 3			
Valenzuela, George	8.50	250.00	2,125.00
Senior Project Manager			
Van Lienden, Brian	8.50	335.00	2,847.50
Totals	17.00		4,972.50
Labor Total			4,972.50
		Total this Phase	\$4,972.50

Phase	056	FY 23/24 ONGOING MONITORING SUPPORT AND ENHANCEMENTS
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Professional Personnel

	Hours	Rate	Amount
Drafter			
Ebron, Anthony	1.50	150.00	225.00
Li Guan, Javier	2.00	150.00	300.00
Engineer 1			
Camille, Adrien	21.00	200.00	4,200.00
Project Assistant			
Miller, Annette	2.25	130.00	292.50
Nazzaro, Alexandra	34.75	130.00	4,517.50
Senior Project Manager			
Strandberg, James	32.00	335.00	10,720.00
Totals	93.50		20,255.00
Labor Total			20,255.00

Please include our invoice number in your remittance. Thank you.

Project	0011078.01	CUYAMA GSP	Invoice	227185
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Reimbursable

Vehicle Expenses

10/23/2023	Camille, Adrien	Field Work	320.46
10/23/2023	Camille, Adrien	Field Work	135.33
10/27/2023	EAN SERVICES LLC 402334	0011078.01 Strandberg Rental Car	431.73

Travel & Lodging

10/23/2023	Camille, Adrien	Field Work	134.99
10/23/2023	Camille, Adrien	Field Work	13.50
10/24/2023	Camille, Adrien	Field Work	13.50
10/24/2023	Camille, Adrien	Field Work	134.99

Field Supplies

10/27/2023	PALMS ENVIRONMENTAL LLC	Boxes Nitrile Gloves - Semper Medium/NP	42.08
10/27/2023	PALMS ENVIRONMENTAL LLC	Fuel Cost Surcharge for delivery.	8.42

Reimbursable Total	1.1 times	1,235.00	1,358.50
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Total this Phase	\$21,613.50
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Phase	057	FY 23/24 PROJECT & MANAGEMENT ACTION IMPLEMENTATION
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Professional Personnel

	Hours	Rate	Amount	
Drafter				
Boswell, Emily	2.50	150.00	375.00	
Engineer 1				
Hunt, Devin	8.25	200.00	1,650.00	
Project Assistant				
Sentz-Casas, Christine	1.00	130.00	130.00	
Senior Project Manager				
Van Lienden, Brian	4.00	335.00	1,340.00	
Technical Manager 1				
Ceyhan, Mahmut	6.00	300.00	1,800.00	
Totals	21.75		5,295.00	
Labor Total				5,295.00
		Total this Phase		\$5,295.00

Project	0011078.01	CUYAMA GSP	Invoice	227185
Phase	058	FY 23/24 GSP IMPLEMENTATION, OUTREACH, AND COMPLIANCE ACTIVITIES		

Professional Personnel

	Hours	Rate	Amount
Engineer 1			
Camille, Adrien	11.25	200.00	2,250.00
Project Manager 1			
Lucy, Caleb	3.50	300.00	1,050.00
Project Planner 1			
Eggleton, Charles	13.00	265.00	3,445.00
Senior Project Manager			
Van Lienden, Brian	10.00	335.00	3,350.00
Totals	37.75		10,095.00
Labor Total			10,095.00
		Total this Phase	\$10,095.00

Phase	059	FY 23/24 PREPARE 5 YEAR GSP UPDATE		
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Professional Personnel

	Hours	Rate	Amount
Drafter			
Ebron, Anthony	.25	150.00	37.50
Engineer 1			
Camille, Adrien	14.00	200.00	2,800.00
Hunt, Devin	10.50	200.00	2,100.00
Engineer 2			
Koerth, Nicole	2.75	225.00	618.75
Project Assistant			
Miller, Annette	1.50	130.00	195.00
Project Planner 1			
Eggleton, Charles	36.50	265.00	9,672.50
O'Callaghan, Ariel	52.25	265.00	13,846.25
Senior Project Manager			
Strandberg, James	43.75	335.00	14,656.25
Van Lienden, Brian	20.00	335.00	6,700.00

Project	0011078.01	CUYAMA GSP		Invoice	227185
	Senior Technical Leader				
	Taghavi, Ali		2.00	345.00	690.00
	Totals		183.50		51,316.25
	Labor Total				51,316.25
				Total this Phase	\$51,316.25

Phase 062 FY 23/24 PERFORM FAULT INVESTIGATION

Professional Personnel

	Hours	Rate	Amount
Engineer 1			
Camille, Adrien	9.75	200.00	1,950.00
Senior Project Manager			
Strandberg, James	4.75	335.00	1,591.25
Totals	14.50		3,541.25
Labor Total			3,541.25
		Total this Phase	\$3,541.25
		Total this Invoice	\$123,934.89

	Current Fee	Previous Fee	Total
Project Summary	123,934.89	5,064,057.34	5,187,992.23

Approved by:



Brian Van Lienden
Senior Project Manager
Woodard & Curran

The Catalyst Group, Inc.
 25 Brushwood Lane
 Greenbrae, CA 94904
 +1 4155242080
 Charles@CatalystGroupCA.com
 www.CatalystGroupCA.com

**BILL TO**

Brian Van Lienden
 Woodard & Curran
 801 T Street
 Sacramento, CA 95811

INVOICE 827**DATE 11/06/2023 TERMS Net 90****DUE DATE 02/05/2024**

DATE	ACCOUNT SUMMARY	AMOUNT
10/09/2023	Balance Forward	12,115.45
	Other payments and credits after 10/09/2023 through 11/05/2023	0.00
11/06/2023	Other invoices from this date	0.00
	New charges (details below)	9,716.62
	Total Amount Due	21,832.07

DATE	ACTIVITY	DESCRIPTION	QTY	RATE	AMOUNT
10/02/2023	Task 10-Pope	Workshop prep, Taylor/Brian call	1:45	170.00	297.50
10/03/2023	Task 10-Pope	Event logistics	0:30	170.00	85.00
10/04/2023	Task 10-Pope	Workshop plan, emails, posters	4:30	170.00	765.00
10/09/2023	Task 10-Pope	Workshop prep	0:45	170.00	127.50
10/10/2023	Task 10-Pope	Logistics, room setup	0:45	170.00	127.50
10/10/2023	Task 10-Gardiner	Workshop prep	0:15	225.00	56.25
10/11/2023	Task 10-Pope	Meeting prep, call, drive time	7:30	170.00	1,275.00
10/11/2023	Task 10-Leonard	Cuyama Spanish translation document	4:30	95.00	427.50
10/11/2023	Task 10-Gardiner	Workshop prep and call	2:30	225.00	562.50
10/11/2023		Cuyama Display Boards			140.93
10/11/2023		CUYAMA BUCKHORN LODGING			199.76
10/11/2023	Travel Expenses	Bridge tolls	4	7.00	28.00
10/12/2023	Task 10-Pope	Drive time, meeting	8:00	170.00	1,360.00
10/12/2023	Task 10-Gardiner	Workshop	2:00	225.00	450.00
10/12/2023		CUYAMA BUCKHORN Lodging			27.94
10/12/2023	Travel Expenses	Mileage	687	0.655	449.99
10/13/2023	Task 10-Pope	Travel time	7:00	170.00	1,190.00

DATE	ACTIVITY	DESCRIPTION	QTY	RATE	AMOUNT
10/13/2023	Task 10-Gardiner	Workshop follow-up	0:15	225.00	56.25
10/16/2023	Task 10-Pope	emails	0:15	170.00	42.50
10/17/2023	Task 10-Pope	Charles follow-up call	2:00	170.00	340.00
10/17/2023	Task 10-Gardiner	Debrief, notes	1:30	225.00	337.50
10/18/2023	Task 10-Pope	sign-in sheets	0:45	170.00	127.50
10/19/2023	Task 10-Pope	emails	0:15	170.00	42.50
10/20/2023	Task 10-Pope	Workshop notes	0:30	170.00	85.00
10/20/2023	Task 10-Gardiner	SAC package	0:15	225.00	56.25
10/25/2023	Task 10-Pope	Workshop notes, SAC review	2:45	170.00	467.50
10/25/2023	Task 10-Gardiner	Workshop follow-up	0:45	225.00	168.75
10/26/2023	Task 10-Pope	Emails	0:30	170.00	85.00
10/26/2023	Task 10-Gardiner	SAC meeting	1:30	225.00	337.50

TOTAL OF NEW
CHARGES

9,716.62

TOTAL DUE

\$21,832.07

DANIELLS PHILLIPS VAUGHAN & BOCK

*CPAs & Advisors
300 New Stine Road
Bakersfield, CA 93309
(661) 834-7411
Federal Tax ID. No. 95-2972229*

*Cuyama Basin Groundwater Sustainability Agency
4900 California Avenue, Tower B 2nd Floor
Bakersfield, CA 93309*

*Invoice No. 133156
Date 10/31/2023
Client No. 02114*

-- ACCOUNTING & AUDITING SERVICES --

Progress billing for work to date in connection with audit
for the year ended June 30, 2023;

\$ 6,500.00

Make all checks payable to **DANIELLS PHILLIPS VAUGHAN & BOCK**
Pay by card online at <https://www.dpvb.com/online-payment/>

*All Accounts are due and payable upon receipt of invoice.
A finance charge of 1% (12% apr) will be charged on past due accounts. Thank you.*

BC2 ENVIRONMENTAL

1150 West Trenton Avenue

Orange, California 92867

Phone (714) 744-2990 Fax (714) 744-2991

INVOICE**Bill to:**

Cuyama Basin Groundwater Sustainability Agency
 C/O Hallmark Group
 4900 California Ave.,
 Tower B, 2nd Floor
 Bakersfield, CA 93309

Invoice Date: 11/14/2023

Invoice No.: 23-29306.1

BC2 Proposal #: 23-309

Site Address: New Cuyama, CA

Well Locations: MW-F

Job/Site Name: Cuyama Valley Groundwater Basin Sustainability Project
 Monitoring Well Construction

ATTN: Taylor Blakslee TBlakslee@hgcpm.com

Project Manager: Jim Strandberg Woodard & Curran

Site Contact: Anthony Ebron

Payment Terms: Net 45**Tax I.D. Number: 83-2585853****Period of Performance: October 23 - 31 (9 days)**

Item	Description	Unit	Quantity	Unit Price	Extension
1	Administration & General Conditions	Hours	0	\$ 250.00	\$0.00
2	Mobilization/Demobilization – Shallow Wells	Each	0	\$ 8,500.00	\$0.00
3	Daily Travel/Per Diem – Shallow Wells	Day	0	\$ 975.00	\$0.00
4	Drill Borehole to Total Depth	Feet	0	\$ 57.00	\$0.00
5	2.5-inch Sch 40 PVC Casing, Threaded Flush-Joint	Feet	0	\$ 28.00	\$0.00
6	2.5-inch Sch 40 PVC Screen 0.02-inch Slot, Threaded Flush-Joint	Feet	0	\$ 30.00	\$0.00
7	Sand Filter Pack (#2/16 Washed Silica Sand, or Equivalent)	Feet	0	\$ 20.00	\$0.00
8	Bentonite Seal (Chips)	Feet	0	\$ 18.00	\$0.00
9	Annular Seal (Neat Cement Grout)	Feet	0	\$ 12.00	\$0.00
10	Locking Steel Monument, Concrete Pad, Bollards	Each	0	\$ 1,800.00	\$0.00
10a	Flush Mount Well Box in 3ft x 3ft Wood Form	Each	0	\$ 900.00	\$0.00
11	Prevailing Wage – Shallow Wells	Day	0	\$ 2,100.00	\$0.00
12	Support Truck – Shallow Wells	Day	0	\$ 225.00	\$0.00
13	Forklift Drop-Off and Pick-Up	Each	0	\$ 385.00	\$0.00
14	Forklift Rental	Day	0	\$ 350.00	\$0.00
15	Fuel Surcharge - Shallow Wells	Day	0	\$ 285.00	\$0.00
16	COVID-19 Surcharge	Day	0	\$ -	\$0.00
17	Estimated Sales Tax – Shallow Wells		0	\$ -	\$0.00
18	Overtime – Shallow Wells (over 10hrs/day)	Hour	0	\$ 525.00	\$0.00
19	Standby Time – Shallow Wells	Hour	0	\$ 350.00	\$0.00
20	Per Diem – Site Walk - Project Management	Day	0	\$ 350.00	\$0.00
Subtotal (Shallow Wells)					\$ -

**THANK YOU FOR SELECTING
 BC2 ENVIRONMENTAL**

23-29306.1 Cuyama Basin GSA - Cuyama - Mud Rotary Site MW-F

21	Mobilization/Demobilization – Nested Wells	Each	0.5	\$ 18,000.00	\$9,000.00
22	Daily Travel/Per Diem – Nested Wells	Day	9	\$ 975.00	\$8,775.00
23	Conductor Casing	Feet	105	\$ 185.00	\$19,425.00
24	Drill Exploratory Borehole to Total Depth	Feet	0	\$ 80.00	\$0.00
25	E Log	Each	0	\$ 8,525.00	\$0.00
26	3-inch Sch 80 PVC Casing, Threaded Flush-Joint	Feet	0	\$ 45.00	\$0.00
27	3-inch Sch 80 PVC Screen 0.02-inch Slot, Threaded Flush-Joint	Feet	0	\$ 42.00	\$0.00
28	Sand Filter Pack (#2/16 Washed Silica Sand, or Equivalent)	Feet	0	\$ 43.00	\$0.00
29	Bentonite Seal (Chips)	Feet	0	\$ 50.00	\$0.00
30	Annular Seal (Neat Cement Grout)	Feet	0	\$ 38.00	\$0.00
31	Locking Steel Monument, Concrete Pad, Bollards	Each	0	\$ 2,250.00	\$0.00
32	Prevailing Wage – Nested Wells	Day	8	\$ 2,450.00	\$19,600.00
33	Support Truck/Compressor – Nested Wells	Day	8	\$ 575.00	\$4,600.00
34	Fuel Surcharge - Nested Wells	Each	0.25	\$ 4,875.00	\$1,218.75
35	Estimated Sales Tax – Nested Wells		0	\$ -	\$0.00
36	Overtime – Nested Wells	Hour	4	\$ 675.00	\$2,362.50
37	Standby Time – Nested Wells	Hour	0	\$ 600.00	\$0.00
38	Site Security - if required	Day	0	\$ 575.00	\$0.00
Subtotal (Nested Wells)					\$64,981.25
39	Mobilization/Demobilization - Well Development	Each	1	\$ 6,000.00	\$6,000.00
40	Daily Travel/Per Diem – Well Development	Day	2	\$ 350.00	\$700.00
41	Prevailing Wage – Well Development	Hour	10	\$ 320.00	\$3,040.00
42	Overtime – Well Development	Hour	0	\$ 375.00	\$0.00
43	Standby Time – Well Development	Hour	0	\$ 195.00	\$0.00
44	Sound Panels - if required	Month	0	\$27,000	\$0.00
Subtotal (Well Development)					\$9,740.00
SUBTOTAL					\$74,721.25
TAX					
MISC.					
BALANCE DUE					\$74,721.25

<https://www.bc2env.com/client-survey>

**THANK YOU FOR SELECTING
BC2 ENVIRONMENTAL**

23-29306.1 Cuyama Basin GSA - Cuyama - Mud Rotary Site MW-F

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

PROGRESS REPORT FOR TASK ORDER CB-HG-008

Client Name:	Cuyama Basin Groundwater Sustainability Agency	Agreement Number:	201709-CB-001
Company Name:	HGCPM, Inc. DBA The Hallmark Group	Address:	500 Capitol Mall, Suite 2350 Sacramento, CA 95814
Task Order Number:	CB-HG-008	Report Period:	November 1-30, 2023
Progress Report Number:	57	Project Manager:	Jim Beck
Invoice Number:	2023-CBGSA-11	Invoice Date:	November 30, 2023

SUMMARY OF WORK PERFORMED

Task 1: Board of Directors and Advisory Committee Meetings

- Facilitated Cuyama Basin Groundwater Sustainability Agency (CBGSA) Board meeting on November 1, 2023.
- Developed summary of Board action followed up on Board tasks.
- Scheduled all 2024 SAC and Board meetings.

Task 2: Consultant Management and GSP Implementation

- Coordinated Technical Forum and GSP Policy Component Ad hoc.
- Processed Water Year 2023 irrigated land use surveys.
- Coordinated modifications to the baseline map with Woodard and Curran.
- Correspondence with Woodard and Curran regarding Cuyama High School subsidence and grant-funded well installations.

Task 3: Financial Information Coordination

- Billing and administration.
- Drafted October progress report.
- Coordinated fiscal year 2022-2023 audit.
- Processed mail and bank deposits.
- Coordinated data request for CBGSA quarterly grant disbursement.

Task 4: Cuyama Basin GSA Outreach

- Correspondence with stakeholders regarding reporting forms and land use data.
- Attended Fall 2023 California Department of Water Resources symposium.

DELIVERABLES AND COMPLETED TASKS

- Facilitated Board meeting on November 1, 2023.
- Processed Water Year 2023 irrigated land use surveys.

PLANNED OBJECTIVES FOR NEXT REPORTING PERIOD

- Prepare for Cuyama Basin GSA SAC meeting on January 4, 2024.
- Finalize Fiscal Year audit.

SIGNIFICANT ISSUES OR CHALLENGES (IF ANY) AND POTENTIAL RESOLUTIONS

- N/A



INVOICE

Billed To:
Cuyama Basin GSA
 Attn: Jim Beck
 4900 California Avenue, Ste B
 Bakersfield, CA 93309

Please Remit Payment To:
The Hallmark Group
 500 Capitol Mall, Ste 2350
 Sacramento, CA 95814
 P: (916) 923-1500

Invoice No.: 2023-CBGSA-11
Date: November 30, 2023
Agreement No.: 201709-CB-001
Task Order: CB-HG-009

For professional services rendered for the month of November 2023:

Task No.	Task Description	Personnel	Billing Classification	Hours	Rate	Amount
1	Board of Directors Meetings	J. Beck	Executive Director	11.00	\$ 350.00	\$ 3,850.00
		T. Blasklee	Project Manager	12.50	\$ 200.00	\$ 2,500.00
		J. Montoya	Project Coordinator	9.25	\$ 150.00	\$ 1,387.50
Total Task 1 Labor						\$ 7,737.50
2	Consultant Mgmt and GSP Impl	J. Beck	Executive Director	3.75	\$ 350.00	\$ 1,312.50
		T. Blasklee	Project Manager	11.75	\$ 200.00	\$ 2,350.00
Total Task 2 Labor						\$ 3,662.50
3	Financial Information Coordination	J. Beck	Executive Director	0.00	\$ 350.00	\$ -
		J. Harris	Project Controls	3.00	\$ 200.00	\$ 600.00
		T. Blasklee	Project Manager	0.75	\$ 200.00	\$ 150.00
		H. Fuentes	Project Controls Coordinator	0.50	\$ 150.00	\$ 75.00
		J. Montoya	Project Coordinator	1.00	\$ 150.00	\$ 150.00
Total Task 3 Labor						\$ 975.00
4	CBGSA Outreach	T. Blasklee	Project Manager	5.75	\$ 200.00	\$ 1,150.00
Total Task 4 Labor						\$ 1,150.00
8	Adjudication Support	T. Blasklee	Project Manager	1.25	\$ 200.00	\$ 250.00
		J. Montoya	Project Coordinator	0.25	\$ 150.00	\$ 37.50
Total Task 8 Labor						\$ 287.50
Total Labor						\$ 13,812.50
	Other Direct Costs (ODC)	Hall Letter Shop - Printing/Mailing Materials for Irrigated Land Use Letters				\$ 1,070.10
Total ODC						\$ 1,070.10
5% ODC Mark-Up						\$ 53.51
TOTAL AMOUNT DUE THIS INVOICE						\$ 14,936.11

Maximum Contract Value and Progress Billing						
Sub Task	Contract Value	Amendments/ Change Orders	Total Committed	Previously Billed	Current Billing	Remaining Balance
CB-HG-009	\$ 311,706.00	\$ -	\$ 311,706.00	\$ 71,925.00	\$ 13,812.50	\$ 229,968.50
Other Direct Costs	\$ 5,694.00	\$ -	\$ 5,694.00	\$ 615.57	\$ 1,123.61	\$ 3,954.82
Total	\$ 317,400.00	\$ -	\$ 317,400.00	\$ 72,540.57	\$ 14,936.11	\$ 229,923.32

INVOICE

85



5200 Rosedale Highway, Bakersfield, CA 93308
 (661) 327-3228 • Fax (661) 327-5140

INVOICE DATE	10/24/2023
INVOICE NO.	27121
AMOUNT DUE	\$1,070.10

SOLD TO

SHIP TO

Hallmark Group CPM
 4900 California Ave Tower B
 Suite 210
 Bakersfield, CA 93309

Hallmark Group CPM
 4900 California Ave Tower B
 Suite 210
 Bakersfield, CA 93309

Order Placed... Josh Montoya

TERMS	COD	CUSTOMER #	PO #	JOB #	I10064
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QTY	PRODUCT	DESCRIPTION	TOTAL
700	Printing	Irrigated Land Use Letter	348.00T
700	Envelopes	#10 Regular Envelopes	125.50T
1	Mail Preparation	688 Pieces Mailed 10/16/2023 (Processed 803 Records)	253.24
1	110	Postage	304.30

All charge accounts are due and payable on the 1st day of the month following the date of invoice. 1.5% per month late charge will be due on all past due balances. A Statement **will not** be sent unless requested.

Thank you for this order!

SALES TAX	\$39.06
SALE TOTAL	\$1,070.10
PAYMENTS / CREDITS	\$0.00
PLEASE PAY THIS AMOUNT →	\$1,070.10

Progress Report



Cuyama Basin Groundwater Sustainability Plan Development

Subject: November 2023 Progress Report

Jim Beck, Executive Director,

Prepared for: Cuyama Basin Groundwater Sustainability Agency (CBGSA)

Prepared by: Micah Eggleton, Woodard & Curran

Reviewed by: Brian Van Lienden, Woodard & Curran

Date: December 20, 2023

Project No.: 0011078.01

This progress report summarizes the work performed and project status for the period of October 28, 2023 through November 24, 2023 on the Cuyama Basin Groundwater Sustainability Plan Development project. The work associated with this invoice was performed in accordance with our Consulting Services Agreement dated December 6, 2017, and with Task Order 11, issued by the CBGSA on May 2, 2023. Work previously authorized on Task Orders 1 through 10 are complete.

The progress report contains the following sections:

1. Work Performed
2. Budget Status
3. Schedule Status
4. Outstanding Issues to be Coordinated

1 Work Performed

A summary of work performed on the project during the current reporting period is provided in Table 1.

Table 1: Summary of Task/Deliverables Status for Task Order 11

Task	Work Completed During the Reporting Period	Percent Complete	Work Scheduled for Next Period
Task 54: FY23-24 Stakeholder/Board and Outreach Engagement Support	<ul style="list-style-type: none"> • Prepare for and participate in ad-hoc calls • Prepare materials for Tech Forum and Policy Ad-hoc calls • Prepare for and participate in Board meeting on November 1 • Updates to GSA website 	55%	<ul style="list-style-type: none"> • Participation in future ad-hoc calls • Preparation for and participation in future public workshops, CBGSA Board and SAC meetings
Task 55: FY23-24 Grant Administration	<ul style="list-style-type: none"> • Coordination, budget and schedule management related to grant tasks • Preparation and submittal of 4th grant invoice 	40%	<ul style="list-style-type: none"> • Finalize fourth grant invoice and submit to DWR • Further grant administration and invoicing
Task 56: FY23-24 Ongoing Monitoring and Data Management Support	<ul style="list-style-type: none"> • Program management, coordination and data management related to monitoring activities • Prepare permit applications and landowner agreements for well site locations • Managed drilling subconsultant to perform installation of multi-completion monitoring well MW-F, including field management of drilling contractor 	20%	<ul style="list-style-type: none"> • Program management, coordination and data management related to monitoring activities • Continue preparation of permits and agreements for well locations • Continued support for installation of multi-completion monitoring wells
Task 57: FY23-24 Project and Management Action Implementation	<ul style="list-style-type: none"> • Performed updates to model data for CBWRM updates • Develop updates to model baseline data • Field investigation to confirm model input assumptions • Develop potential future approaches for management action implementation 	25%	<ul style="list-style-type: none"> • Ongoing PMA implementation support including analysis and material preparation • Continue basin model update

Cuyama Basin Groundwater Sustainability Development
November 2023 Progress Report

Task	Work Completed During the Reporting Period	Percent Complete	Work Scheduled for Next Period
Task 58: FY23-24 GSP Implementation, Outreach, & Compliance Activities	<ul style="list-style-type: none"> • Coordination among GSA Board, staff and stakeholders • Ongoing budget tracking, schedule management, and quality assurance/quality control of project implementation activities • Perform review of subsidence monitoring station • Perform model updates for upcoming Annual Report modeling activities 	40%	<ul style="list-style-type: none"> • Ongoing support for GSP implementation, outreach and compliance activities
Task 59: Prepare Five Year Update	<ul style="list-style-type: none"> • Developed options for updates to sustainability criteria for Board consideration • Updates to map formats and DMS data to support GSP updates • Data updates to support revisions to GSP chapters • Develop draft Chapter updates based on Board direction 	40%	<ul style="list-style-type: none"> • Continued review of data relevant to the GSP and development of potential technical updates • Continued update and development of GSP approaches for Board consideration • Develop draft GSP chapters for Board review
Task 60: FY23-24 Improve Understanding of Basin Water Use	<ul style="list-style-type: none"> • Perform river channel survey, including data processing to develop contours or river channel 	35%	<ul style="list-style-type: none"> • Continued support for weather station and land use project implementation
Task 61: FY23-24 Preparation of Grant Proposal	<ul style="list-style-type: none"> • None 	0%	<ul style="list-style-type: none"> • None
Task 62: Perform Fault Investigation	<ul style="list-style-type: none"> • Planning and scoping of fault investigations activities, including coordination with potential subconsultants 	8%	<ul style="list-style-type: none"> • Perform planning activities for fault investigation
Task 63.1: Support for DWR Technical Support Services	<ul style="list-style-type: none"> • None 	0%	<ul style="list-style-type: none"> • Support DWR TSS activities as needed
Task 63.2: Well Permit Review	<ul style="list-style-type: none"> • None 	5%	<ul style="list-style-type: none"> • Additional well permit reviews as requested

Task	Work Completed During the Reporting Period	Percent Complete	Work Scheduled for Next Period
Task 63.3: Website Redesign	<ul style="list-style-type: none"> None 	0%	<ul style="list-style-type: none"> None

2 Budget Status

Table 2 shows the percent spent for each task under Task Order 11 as of November 24, 2023. 28% of the available Task Order 11 budget has been expended (\$686,797.37 out of \$2,436,117).

Table 2: Budget Status for Task Order 11

Task	Total Budget	Spent Previously	Spent this Period	Total Spent to Date	Budget Remaining	% Spent to Date
54	\$153,530.00	\$75,589.04	\$5,716.10	\$81,305.14	\$72,224.86	53%
55	\$99,940.00	\$28,892.50	\$7,560.00	\$36,452.50	\$63,487.50	36%
56	\$323,350.00	\$51,853.78	\$41,592.85	\$93,446.63	\$229,903.37	29%
57	\$541,220.00	\$100,734.74	\$19,950.00	\$120,684.74	\$420,535.26	22%
58	\$114,980.00	\$37,980.00	\$2,775.00	\$40,755.00	\$74,225.00	35%
59	\$688,500.00	\$189,765.09	\$55,546.25	\$245,311.34	\$443,188.66	36%
60	\$101,892.00	\$2,197.50	\$32,540.20	\$34,737.70	\$67,154.30	34%
61	\$41,980.00	\$0.00	\$0.00	\$0.00	\$41,980.00	0%
62	\$329,730.00	\$24,650.00	\$9,119.32	\$33,769.32	\$295,960.68	10%
63.1	\$20,050.00	\$0.00	\$0.00	\$0.00	\$20,050.00	0%
63.2	\$12,030.00	\$335.00	\$0.00	\$335.00	\$11,695.00	3%
63.3	\$8,915.00	\$0.00	\$0.00	\$0.00	\$8,915.00	0%
Total	\$2,436,117.00	\$511,997.65	\$174,799.72	\$686,797.37	\$1,749,319.63	28%

3 Schedule Status

The project is on schedule. Work authorized under Task Orders 1 through 10 is complete.

4 Outstanding Issues to be Coordinated

None



Remit to: T 800.426.4262
 PO Box 55008 T 207.774.2112
 Boston, MA 02205-5008 F 207.774.6635

INVOICE

TD BANK
Electronic Transfer:
 ⑆ 211274450 ⑆ 2427662596 ⑆*

Jim Beck
 Executive Director
 Cuyama Basin Groundwater Sustainability
 Agency
 c/o Hallmark Group
 1901 Royal Oaks Drive, Suite 200
 Sacramento, CA 95815

December 21, 2023
 Project No: 0011078.01
 Invoice No: 228508

Project 0011078.01 CUYAMA GSP

Professional Services for the period ending November 24, 2023

Phase 054 FY 23/24 STAKEHOLDER/BOARD AND OUTREACH ENGAGEMENT SUPPORT

Professional Personnel

	Hours	Rate	Amount	
Senior Project Manager				
Van Lienden, Brian	13.50	335.00	4,522.50	
Totals	13.50		4,522.50	
Labor Total				4,522.50

Reimbursable

Vehicle Expenses				
11/1/2023	Van Lienden, Brian	CBGSA Board Meeting 310 mi @.655	203.05	
11/2/2023	Van Lienden, Brian	CBGSA Board Meeting 310 mi @.655	203.05	
Travel & Lodging				
11/1/2023	Van Lienden, Brian	CBGSA Board Meeting	135.84	
11/1/2023	Van Lienden, Brian	CBGSA Board Meeting	8.15	
	Reimbursable Total	1.1 times	550.09	605.10

Consultant

Sub - Consultant Miscellaneous				
11/24/2023	THE CATALYST GROUP	The Catalyst Group - Inv# 834	535.00	
	Consultant Total	1.1 times	535.00	588.50

Please include our invoice number in your remittance. Thank you.

Project	0011078.01	CUYAMA GSP	Invoice	228508
			Total this Phase	\$5,716.10

Phase	055	FY 23/24 GRANT ADMIN
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Professional Personnel

	Hours	Rate	Amount	
Planner 3				
Valenzuela, George	15.50	250.00	3,875.00	
Senior Project Manager				
Van Lienden, Brian	11.00	335.00	3,685.00	
Totals	26.50		7,560.00	
				Labor Total
				7,560.00
				Total this Phase
				\$7,560.00

Phase	056	FY 23/24 ONGOING MONITORING SUPPORT AND ENHANCEMENTS
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Professional Personnel

	Hours	Rate	Amount	
Drafter				
Boswell, Emily	93.50	150.00	14,025.00	
Ebron, Anthony	1.75	150.00	262.50	
Pierce, Sarah	3.00	150.00	450.00	
Engineer 1				
Camille, Adrien	12.00	200.00	2,400.00	
Project Assistant				
Nazzaro, Alexandra	36.75	130.00	4,777.50	
Senior Project Manager				
Strandberg, James	38.25	335.00	12,813.75	
Senior Technical Leader				
House, Jason	.50	345.00	172.50	
Medlin, William	.50	345.00	172.50	
Totals	186.25		35,073.75	
				Labor Total
				35,073.75

Project	0011078.01	CUYAMA GSP	Invoice	228508
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Reimbursable

Vehicle Expenses

10/27/2023	Nazzaro, Alexandra	travel expenses	50.00
10/29/2023	Nazzaro, Alexandra	travel expenses	68.40
11/1/2023	Nazzaro, Alexandra	travel expenses	65.37
11/1/2023	Nazzaro, Alexandra	travel expenses	21.11
11/2/2023	Nazzaro, Alexandra	travel expenses	932.60
11/6/2023	Boswell, Emily	Expenses related to drilling at cuyama	23.58
11/7/2023	Boswell, Emily	Expenses related to drilling at cuyama	45.88
11/10/2023	Boswell, Emily	Expenses related to drilling at cuyama	49.55
11/13/2023	Boswell, Emily	Expenses related to drilling at cuyama	40.00
11/14/2023	Boswell, Emily	Expenses related to drilling at cuyama	40.16
11/14/2023	Boswell, Emily	Expenses related to drilling at cuyama	739.69
11/22/2023	Ebron, Anthony	Field Work - Drilling	432.29

Travel & Lodging

10/23/2023	Nazzaro, Alexandra	travel expenses	13.50
10/23/2023	Nazzaro, Alexandra	travel expenses	134.99
10/24/2023	Nazzaro, Alexandra	travel expenses	13.50
10/24/2023	Nazzaro, Alexandra	travel expenses	134.99
10/25/2023	Nazzaro, Alexandra	travel expenses	134.99
10/25/2023	Nazzaro, Alexandra	travel expenses	13.50
10/26/2023	Nazzaro, Alexandra	travel expenses	134.99
10/26/2023	Nazzaro, Alexandra	travel expenses	13.50
10/27/2023	Nazzaro, Alexandra	travel expenses	143.99
10/27/2023	Nazzaro, Alexandra	travel expenses	14.40
10/28/2023	Nazzaro, Alexandra	travel expenses	143.99
10/28/2023	Nazzaro, Alexandra	travel expenses	14.40
10/29/2023	Nazzaro, Alexandra	travel expenses	14.40
10/29/2023	Nazzaro, Alexandra	travel expenses	143.99
10/30/2023	Nazzaro, Alexandra	travel expenses	13.50
10/30/2023	Nazzaro, Alexandra	travel expenses	134.99
10/31/2023	Nazzaro, Alexandra	travel expenses	13.50

Project	0011078.01	CUYAMA GSP	Invoice	228508
10/31/2023	Nazzaro, Alexandra	travel expenses	134.99	
11/1/2023	Nazzaro, Alexandra	travel expenses	13.50	
11/1/2023	Nazzaro, Alexandra	travel expenses	134.99	
11/1/2023	Nazzaro, Alexandra	travel expenses	20.00	
11/2/2023	Nazzaro, Alexandra	travel expenses	31.14	
11/6/2023	Boswell, Emily	Expenses related to drilling at cuyama	134.99	
11/6/2023	Boswell, Emily	Expenses related to drilling at cuyama	13.50	
11/7/2023	Boswell, Emily	Expenses related to drilling at cuyama	13.50	
11/7/2023	Boswell, Emily	Expenses related to drilling at cuyama	134.99	
11/8/2023	Boswell, Emily	Expenses related to drilling at cuyama	13.50	
11/8/2023	Boswell, Emily	Expenses related to drilling at cuyama	134.99	
11/9/2023	Boswell, Emily	Expenses related to drilling at cuyama	134.99	
11/9/2023	Boswell, Emily	Expenses related to drilling at cuyama	13.50	
11/10/2023	Boswell, Emily	Expenses related to drilling at cuyama	143.99	
11/10/2023	Boswell, Emily	Expenses related to drilling at cuyama	14.40	
11/11/2023	Boswell, Emily	Expenses related to drilling at cuyama	143.99	
11/11/2023	Boswell, Emily	Expenses related to drilling at cuyama	14.40	
11/12/2023	Boswell, Emily	Expenses related to drilling at cuyama	14.40	
11/12/2023	Boswell, Emily	Expenses related to drilling at cuyama	143.99	
11/13/2023	Boswell, Emily	Expenses related to drilling at cuyama	13.50	
11/13/2023	Boswell, Emily	Expenses related to drilling at cuyama	134.99	
11/14/2023	Boswell, Emily	Expenses related to drilling at cuyama	65.00	

Project	0011078.01	CUYAMA GSP	Invoice	228508
Meals				
10/23/2023	Nazzaro, Alexandra	travel expenses	24.63	
10/23/2023	Nazzaro, Alexandra	travel expenses	16.05	
10/23/2023	Nazzaro, Alexandra	travel expenses	14.22	
10/27/2023	Nazzaro, Alexandra	travel expenses	19.17	
10/27/2023	Nazzaro, Alexandra	travel expenses	17.72	
10/29/2023	Nazzaro, Alexandra	travel expenses	23.97	
10/29/2023	Nazzaro, Alexandra	travel expenses	5.30	
10/31/2023	Nazzaro, Alexandra	travel expenses	18.22	
11/1/2023	Nazzaro, Alexandra	travel expenses	23.83	
11/1/2023	Nazzaro, Alexandra	travel expenses	14.00	
11/2/2023	Nazzaro, Alexandra	travel expenses	8.66	
11/6/2023	Ebron, Anthony	Field Work - Drilling	23.58	
11/6/2023	Boswell, Emily	Expenses related to drilling at cuyama	19.43	
11/6/2023	Boswell, Emily	Expenses related to drilling at cuyama	12.26	
11/7/2023	Boswell, Emily	Expenses related to drilling at cuyama	38.52	
11/7/2023	Boswell, Emily	Expenses related to drilling at cuyama	25.90	
11/7/2023	Boswell, Emily	Expenses related to drilling at cuyama	1.40	
11/8/2023	Boswell, Emily	Expenses related to drilling at cuyama	2.91	
11/9/2023	Boswell, Emily	Expenses related to drilling at cuyama	11.00	
11/9/2023	Boswell, Emily	Expenses related to drilling at cuyama	10.00	
11/10/2023	Boswell, Emily	Expenses related to drilling at cuyama	12.76	
11/10/2023	Boswell, Emily	Expenses related to drilling at cuyama	7.65	
11/11/2023	Boswell, Emily	Expenses related to drilling at cuyama	11.40	
11/11/2023	Boswell, Emily	Expenses related to drilling at cuyama	21.00	
11/12/2023	Boswell, Emily	Expenses related to drilling at cuyama	24.00	

Project	0011078.01	CUYAMA GSP	Invoice	228508
11/12/2023	Boswell, Emily	Expenses related to drilling at cuyama	27.00	
11/13/2023	Boswell, Emily	Expenses related to drilling at cuyama	2.91	
11/13/2023	Boswell, Emily	Expenses related to drilling at cuyama	4.74	
11/13/2023	Boswell, Emily	Expenses related to drilling at cuyama	6.57	
11/14/2023	Boswell, Emily	Expenses related to drilling at cuyama	6.95	
Miscellaneous				
11/7/2023	Boswell, Emily	Expenses related to drilling at cuyama	21.62	
11/8/2023	Boswell, Emily	Expenses related to drilling at cuyama	27.04	
Meals non-deductible				
10/28/2023	Nazzaro, Alexandra	travel expenses	39.45	
10/31/2023	Nazzaro, Alexandra	travel expenses	25.60	
Reimbursable Total			1.1 times	5,926.45
			Total this Phase	\$41,592.85

Phase 057 FY 23/24 PROJECT & MANAGEMENT ACTION IMPLEMENTATION

Professional Personnel

	Hours	Rate	Amount
Drafter			
Ebron, Anthony	.50	150.00	75.00
Engineer 1			
Hunt, Devin	10.00	200.00	2,000.00
Engineer 3			
Wu, Yi-Shan	19.50	250.00	4,875.00
Project Assistant			
Hughart, Desiree	1.00	130.00	130.00
Miller, Annette	1.50	130.00	195.00
Sentz-Casas, Christine	1.00	130.00	130.00
Project Planner 1			
Eggleton, Charles	3.50	265.00	927.50

Project	0011078.01	CUYAMA GSP		Invoice	228508
Senior Project Manager					
Van Lienden, Brian			10.50	335.00	3,517.50
Technical Manager 1					
Ceyhan, Mahmut			27.00	300.00	8,100.00
Totals			74.50		19,950.00
Labor Total					19,950.00
				Total this Phase	\$19,950.00

Phase 058 FY 23/24 GSP IMPLEMENTATION, OUTREACH, AND COMPLIANCE ACTIVITIES

Professional Personnel

	Hours	Rate	Amount
Drafter			
Almestad, Kevin	9.00	150.00	1,350.00
Project Manager 1			
Lucy, Caleb	4.75	300.00	1,425.00
Totals	13.75		2,775.00
Labor Total			2,775.00
			Total this Phase
			\$2,775.00

Phase 059 FY 23/24 PREPARE 5 YEAR GSP UPDATE

Professional Personnel

	Hours	Rate	Amount
Engineer 1			
Camille, Adrien	19.00	200.00	3,800.00
Hunt, Devin	16.00	200.00	3,200.00
Project Assistant			
Regemann, Laurie	.25	130.00	32.50
Project Planner 1			
Eggleton, Charles	65.75	265.00	17,423.75
O'Callaghan, Ariel	32.75	265.00	8,678.75
Senior Project Manager			
Strandberg, James	27.25	335.00	9,128.75
Van Lienden, Brian	34.50	335.00	11,557.50

Project	0011078.01	CUYAMA GSP		Invoice	228508
	Senior Technical Leader				
	Taghavi, Ali		5.00	345.00	1,725.00
	Totals		200.50		55,546.25
	Labor Total				55,546.25
	Total this Phase				\$55,546.25

Phase 060 FY 23/24 IMPROVE UNDERSTANDING OF BASIN WATER USE

Consultant

Sub - Consultant Miscellaneous

11/24/2023 ACCESS GEOGRAPHIC LLC ACCESS GEOGRAPHIC - Inv# 29,582.00
001

Consultant Total 1.1 times 29,582.00 32,540.20

Total this Phase \$32,540.20

Phase 062 FY 23/24 PERFORM FAULT INVESTIGATION

Professional Personnel

	Hours	Rate	Amount
Engineer 1			
Camille, Adrien	2.50	200.00	500.00
Senior Project Manager			
Strandberg, James	4.75	335.00	1,591.25
Totals	7.25		2,091.25
Labor Total			2,091.25

Consultant

Sub - Consultant Miscellaneous

11/24/2023 RINCON CONSULTANTS INC RINCON CONSULTANTS 6,389.15
Inv# 53029

Consultant Total 1.1 times 6,389.15 7,028.07

Total this Phase \$9,119.32

Total this Invoice \$174,799.72

Project	0011078.01	CUYAMA GSP	Invoice	228508
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Outstanding Invoices

Number	Date	Balance
227185	11/22/2023	123,934.89
Total		123,934.89

	Current Fee	Previous Fee	Total
Project Summary	174,799.72	5,187,992.23	5,362,791.95

Approved by: _____



Brian Van Lienden
Senior Project Manager
Woodard & Curran

The Catalyst Group, Inc.
 25 Brushwood Lane
 Greenbrae, CA 94904
 +1 4155242080
 Charles@CatalystGroupCA.com
 www.CatalystGroupCA.com

**BILL TO**

Brian Van Lienden
 Woodard & Curran
 801 T Street
 Sacramento, CA 95811

INVOICE 834**DATE** 12/10/2023 **TERMS** Net 90**DUE DATE** 03/09/2024

DATE	ACCOUNT SUMMARY	AMOUNT
11/06/2023	Balance Forward	21,832.07
	Other payments and credits after 11/06/2023 through 12/09/2023	-12,115.45
12/10/2023	Other invoices from this date	0.00
	New charges (details below)	535.00
	Total Amount Due	10,251.62

DATE	ACTIVITY	DESCRIPTION	QTY	RATE	AMOUNT
11/01/2023	Task 10-Gardiner	Board meeting	2:00	225.00	450.00
11/16/2023	Task 10-Pope	Emails, scheduling	0:30	170.00	85.00

TOTAL OF NEW
 CHARGES 535.00

TOTAL DUE \$10,251.62

ACCESSGEOGRAPHIC

INVOICE: 196721

12/3/23

Access Geographic, LLC
 3116 S. Mill Avenue, Ste.193
 Tempe, AZ 85282

Sold To:

Brian Van Lienden
 Woodard & Curran
 801 T Street
 Sacramento, CA 95811

Ship To:

Brian Van Lienden
 Woodard & Curran
 801 T Street
 Sacramento, CA 95811

SHIPPING METHOD	PAYMENT TERMS	SHIP DATE
HD	Net 30	OD

QUANTITY	ITEM	DESCRIPTION	AMOUNT
1.00	LIDAR	POINT CLOUD & CLASSIFICATION	\$25,865
1.00	MAPPING	DEM & CONTOURS	\$3,717

Subtotal	\$29,582.00
Sales Tax	\$0.00
Shipping & Handling	<u>\$0.00</u>
Total Invoice Amount	\$29,582.00
Payment Received	<u>\$0.00</u>
TOTAL	\$29,582.00



Rincon Consultants, Inc
 180 North Ashwood Avenue
 Ventura, CA 93003
 805-644-4455

Date: 12/14/2023
 Project No: 23-15400

Woodard & Curran
 Accounts_Payable
 12 Mountfort Street
 Portland, ME 04101

Subject: Transmittal of Invoice # 53029 - Cuayama Biological Survey

Dear Accounts_Payable ,

This letter accompanies Rincon Consultants' invoice for the Cuayama Biological Survey for the period through 12/15/2023. The invoice amount of \$6,389.15 brings our total amount billed to \$6,389.15, or approximately 84% of the total authorized budget of \$7,635.00.

During this period, Rincon worked on the following tasks:

- Coordination of, preparation for, and completion of the biological survey
- Project management and billing tasks

Outstanding Invoices: please note that you have an outstanding balance of \$6,389.15 for this project. The following invoices are outstanding:

Aging Summary

Invoice Number	Invoice Date	Outstanding	Current	Over 30	Over 60	Over 90	Over 120
53029	12/14/2023	6,389.15	6,389.15				
	Total	6,389.15	6,389.15	0.00	0.00	0.00	0.00

We are committed to providing excellent environmental services and appreciate the opportunity to work with you. Please contact us if you have any questions about the invoice or the status of our progress.

Sincerely,
 RINCON CONSULTANTS, INC.



Rincon Consultants, Inc
 180 North Ashwood Avenue
 Ventura, CA 93003
 805-644-4455

INVOICE

Invoice No:	53029
Invoice Date:	12/14/2023
Due Date:	12/29/2023

Woodard & Curran
 Accounts Payable
 12 Mountfort Street
 Portland, ME 04101

Project Number: 23-15400
 Project Name: Cuayama Biological Survey

Invoice Period to 12/15/2023

Project Manager: Aileen Mahoney

Description	Unit / Basis	Number / Cost	Rate / Markup	Billed Amount
Task 2: Project Management				
Professional Fees				
Senior Principal	Hour	1.00	308.00	308.00
Senior Planner I	Hour	0.25	230.00	57.50
Clerical/Billing Specialist	Hour	0.75	103.00	77.25
Professional Fees Totals				442.75
	Task Subtotal			442.75
Task 1: Biological Resource Assessment				
Professional Fees				
Senior Biologist II	Hour	22.00	246.00	5,412.00
GIS/CADD Specialist I	Hour	1.50	145.00	217.50
Professional Fees Totals				5,629.50
Reimbursables				
Vehicle Day Rate	Day	1.00	90.00	90.00
GPS	Day	1.00	67.00	67.00
<i>MRobbins Geode-16</i>				
Company Vehicle Mileage	Mile	246.00	0.65	159.90
<i>Robbins</i>				
Reimbursables Totals				316.90
	Task 1: Biological Resource Assessment Subtotal			5,946.40
	Invoice Total			6,389.15

Description	Amount
Total This Invoice	\$6,389.15
Previous Billings	\$0.00
Total Billings	\$6,389.15
Total Budget	\$7,635.00
Remaining Budget	\$1,245.85
Remaining Budget %	16.32%

Thank you for selecting Rincon Consultants.

Remittance Options (all payments must be made in USD)

CHECK:

Rincon Consultants, Inc.
180 N. Ashwood Ave
Ventura, CA 93003

Tax ID: 77-0390093

ACH OR WIRE TRANSFER:

Bank Name: Montecito Bank & Trust
Routing: 122234783
Account: 410121233
SWIFT: WFBIUS6S

ACH & Wire payment MUST be accompanied with remittance information.

Email Remittance to: ar@rinconconsultants.com

Avoid email scams, call our Accounts Receivable Team to verify requested changes in payment details.

DANIELLS PHILLIPS VAUGHAN & BOCK

*CPAs & Advisors
300 New Stine Road
Bakersfield, CA 93309
(661) 834-7411
Federal Tax ID. No. 95-2972229*

*Cuyama Basin Groundwater Sustainability Agency
4900 California Avenue, Tower B 2nd Floor
Bakersfield, CA 93309*

*Invoice No. 133596
Date 11/30/2023
Client No. 02114*

-- ACCOUNTING & AUDITING SERVICES --

Progress billing for work to date in connection with audit
for the year ended June 30, 2023;

\$ 1,000.00

Make all checks payable to **DANIELLS PHILLIPS VAUGHAN & BOCK**
Pay by card online at <https://www.dpvb.com/online-payment/>

*All Accounts are due and payable upon receipt of invoice.
A finance charge of 1% (12% apr) will be charged on past due accounts. Thank you.*

BC2 ENVIRONMENTAL

1150 West Trenton Avenue
 Orange, California 92867
 Phone (714) 744-2990 Fax (714) 744-2991

INVOICE**Bill to:**

Cuyama Basin Groundwater Sustainability Agency
 C/O Hallmark Group
 4900 California Ave.,
 Tower B, 2nd Floor
 Bakersfield, CA 93309

Invoice Date: 12/15/2023
 Invoice No.: 23-29306.2
 BC2 Proposal #: 23-309
 Site Address: New Cuyama, CA
 Well Locations: MW-F
 Job/Site Name: Cuyama Valley Groundwater Basin Sustainability Project
 Monitoring Well Construction

ATTN: Taylor Blakslee TBlakslee@hgcpm.com

Project Manager: Jim Strandberg Woodard & Curran
 Site Contact: Anthony Ebron

Payment Terms: Net 45

Tax I.D. Number: 83-2585853

Period of Performance: November 6 - December 4, 2023 (18 days)

Item	Description	Unit	Quantity	Unit Price	Extension
1	Administration & General Conditions	Hours	0	\$ 250.00	\$0.00
2	Mobilization/Demobilization – Shallow Wells	Each	0	\$ 8,500.00	\$0.00
3	Daily Travel/Per Diem – Shallow Wells	Day	0	\$ 975.00	\$0.00
4	Drill Borehole to Total Depth	Feet	0	\$ 57.00	\$0.00
5	2.5-inch Sch 40 PVC Casing, Threaded Flush-Joint	Feet	0	\$ 28.00	\$0.00
6	2.5-inch Sch 40 PVC Screen 0.02-inch Slot, Threaded Flush-Joint	Feet	0	\$ 30.00	\$0.00
7	Sand Filter Pack (#2/16 Washed Silica Sand, or Equivalent)	Feet	0	\$ 20.00	\$0.00
8	Bentonite Seal (Chips)	Feet	0	\$ 18.00	\$0.00
9	Annular Seal (Neat Cement Grout)	Feet	0	\$ 12.00	\$0.00
10	Locking Steel Monument, Concrete Pad, Bollards	Each	0	\$ 1,800.00	\$0.00
10a	Flush Mount Well Box in 3ft x 3ft Wood Form	Each	0	\$ 900.00	\$0.00
11	Prevailing Wage – Shallow Wells	Day	0	\$ 2,100.00	\$0.00
12	Support Truck – Shallow Wells	Day	0	\$ 225.00	\$0.00
13	Forklift Drop-Off and Pick-Up	Each	0	\$ 385.00	\$0.00
14	Forklift Rental	Day	0	\$ 350.00	\$0.00
15	Fuel Surcharge - Shallow Wells	Day	0	\$ 285.00	\$0.00
16	COVID-19 Surcharge	Day	0	\$ -	\$0.00
17	Estimated Sales Tax – Shallow Wells		0	\$ -	\$0.00
18	Overtime – Shallow Wells (over 10hrs/day)	Hour	0	\$ 525.00	\$0.00
19	Standby Time – Shallow Wells	Hour	0	\$ 350.00	\$0.00
20	Per Diem – Site Walk - Project Management	Day	0	\$ 350.00	\$0.00
Subtotal (Shallow Wells)					\$ -

**THANK YOU FOR SELECTING
 BC2 ENVIRONMENTAL**

23-29306.2 Cuyama Basin GSA - Cuyama - Mud Rotary Site MW-F

21	Mobilization/Demobilization – Nested Wells	Each	0.5	\$ 18,000.00	\$9,000.00
22	Daily Travel/Per Diem – Nested Wells	Day	18	\$ 975.00	\$17,550.00
23	Conductor Casing	Feet	0	\$ 185.00	\$0.00
24	Drill Exploratory Borehole to Total Depth	Feet	600	\$ 80.00	\$48,000.00
25	E Log	Each	1	\$ 8,525.00	\$8,525.00
26	3-inch Sch 80 PVC Casing, Threaded Flush-Joint	Feet	560	\$ 45.00	\$25,200.00
27	3-inch Sch 80 PVC Screen 0.02-inch Slot, Threaded Flush-Joint	Feet	40	\$ 42.00	\$1,680.00
28	Sand Filter Pack (#2/16 Washed Silica Sand, or Equivalent)	Feet	375	\$ 43.00	\$16,125.00
29	Bentonite Seal (Chips)	Feet	135	\$ 50.00	\$6,750.00
30	Annular Seal (Neat Cement Grout)	Feet	170	\$ 38.00	\$6,460.00
31	Locking Steel Monument, Concrete Pad, Bollards	Each	1	\$ 2,250.00	\$2,250.00
32	Prevailing Wage – Nested Wells	Day	18	\$ 2,450.00	\$44,100.00
33	Support Truck/Compressor – Nested Wells	Day	18	\$ 575.00	\$10,350.00
34	Fuel Surcharge - Nested Wells	Each	0.75	\$ 4,875.00	\$3,656.25
35	Estimated Sales Tax – Nested Wells		0	\$ -	\$0.00
36	Overtime – Nested Wells	Hour	0	\$ 675.00	\$0.00
37	Standby Time – Nested Wells	Hour	0	\$ 600.00	\$0.00
38	Site Security - if required	Day	0	\$ 575.00	\$0.00
Subtotal (Nested Wells)					\$199,646.25
39	Mobilization/Demobilization - Well Development	Each	0	\$ 6,000.00	\$0.00
40	Daily Travel/Per Diem – Well Development	Day	0	\$ 350.00	\$0.00
41	Prevailing Wage – Well Development	Hour	0	\$ 320.00	\$0.00
42	Overtime – Well Development	Hour	0	\$ 375.00	\$0.00
43	Standby Time – Well Development	Hour	0	\$ 195.00	\$0.00
44	Sound Panels - if required	Month	0	\$27,000	\$0.00
Subtotal (Well Development)					\$0.00
SUBTOTAL					\$199,646.25
TAX					
MISC.					
BALANCE DUE					\$199,646.25

<https://www.bc2env.com/client-survey>

**THANK YOU FOR SELECTING
BC2 ENVIRONMENTAL**

23-29306.2 Cuyama Basin GSA - Cuyama - Mud Rotary Site MW-F



TO: Board of Directors
Agenda Item No. 10

FROM: Taylor Blakslee, Hallmark Group

DATE: January 10, 2024

SUBJECT: Approval of Financial Reports for October and November 2023

Recommended Motion

Approve financial reports for October and November 2023.

Discussion

The Cuyama Basin Groundwater Sustainability Agency's financial report for October 2023 is provided as Attachment 1 and the financial report for November 2023 is provided as Attachment 2.

The reports include:

- Statement of Financial Position
- Receipts and Disbursements
- A/R Aging Summary
- A/P Aging Summary
- Statement of Operations with Budget Variance
- 2022/2023 Operating Budget



Cuyama Basin GSA

Financial Statements October 2023

CUYAMA BASIN GSA
Statement of Financial Position
As of October 31, 2023

	Oct 31, 23	Oct 31, 22	\$ Change	% Change
ASSETS				
Current Assets				
Checking/Savings				
Chase - General Checking	2,097,327	1,756,103	341,224	19%
Total Checking/Savings	2,097,327	1,756,103	341,224	19%
Accounts Receivable				
Accounts Receivable	720,815	761,200	-40,385	-5%
Total Accounts Receivable	720,815	761,200	-40,385	-5%
Total Current Assets	2,818,142	2,517,303	300,839	12%
TOTAL ASSETS	2,818,142	2,517,303	300,839	12%
LIABILITIES & EQUITY				
Liabilities				
Current Liabilities				
Accounts Payable				
Accounts Payable	538,281	446,319	91,962	21%
Total Accounts Payable	538,281	446,319	91,962	21%
Other Current Liabilities				
New/Repl Well Deposits	1,559	0	1,559	100%
Total Other Current Liabilities	1,559	0	1,559	100%
Total Current Liabilities	539,840	446,319	93,520	21%
Total Liabilities	539,840	446,319	93,520	21%
Equity				
Unrestricted Net Assets	2,080,948	1,115,300	965,648	87%
Net Income	197,354	955,683	-758,329	-79%
Total Equity	2,278,303	2,070,983	207,319	10%
TOTAL LIABILITIES & EQUITY	2,818,142	2,517,303	300,839	12%

CUYAMA BASIN GSA
Receipts and Disbursements
As of October 31, 2023

Type	Date	Num	Name	Debit	Credit
Chase - General Checking					
Payment	07/07/2023	4397	Groundwater Extraction Fees:Sunrise Olive Ranch, LLC	21,138.84	
Bill Pmt -Check	07/12/2023	1145	HGCPM, Inc.		31,707.72
Bill Pmt -Check	07/12/2023	1146	Klein DeNatale Goldner		18,234.50
Bill Pmt -Check	07/12/2023	1147	Provost & Pritchard Consulting Group		6,239.42
Bill Pmt -Check	07/12/2023	1148	Woodard & Curran Inc		161,164.95
Bill Pmt -Check	07/12/2023	1149	Provost & Pritchard Consulting Group		2,005.00
Payment	07/14/2023	21532	Groundwater Extraction Fees:Cuyama Orchards, Inc	12,682.80	
Payment	07/14/2023	1867	Groundwater Extraction Fees:Highland Vineyard SB, LLC	20,109.36	
Bill Pmt -Check	09/08/2023	1150	HGCPM, Inc.		42,426.72
Bill Pmt -Check	09/08/2023	1151	Klein DeNatale Goldner		8,782.05
Bill Pmt -Check	09/08/2023	1152	Provost & Pritchard Consulting Group		7,879.96
Bill Pmt -Check	09/08/2023	1153	U.S. Geological Survey		13,150.00
Bill Pmt -Check	09/08/2023	1154	Woodard & Curran Inc		218,671.47
Payment	10/17/2023	05-251132	Department of Water Resources	391,357.90	
Deposit	10/26/2023			0.71	
Total Chase - General Checking				445,289.61	510,261.79
TOTAL				445,289.61	510,261.79

CUYAMA BASIN GSA
A/R Aging Summary
 As of October 31, 2023

	<u>Current</u>	<u>1 - 30</u>	<u>31 - 60</u>	<u>61 - 90</u>	<u>> 90</u>	<u>TOTAL</u>
Department of Water Resources	0	0	377,300	0	343,515	720,815
TOTAL	0	0	377,300	0	343,515	720,815

CUYAMA BASIN GSA
A/P Aging Summary
As of October 31, 2023

	<u>Current</u>	<u>1 - 30</u>	<u>31 - 60</u>	<u>61 - 90</u>	<u>> 90</u>	<u>TOTAL</u>
BC2 Environmental	0	52,764	0	0	0	52,764
Daniells Phillips Vaughan & Bock	6,500	0	0	0	0	6,500
HGCPM, Inc.	23,611	0	12,317	19,775	0	55,703
Klein DeNatale Goldner	3,300	0	9,840	4,463	0	17,603
Provost & Pritchard Consulting Group	7,850	0	3,002	11,239	0	22,091
U.S. Geological Survey	0	0	13,150	0	0	13,150
Woodard & Curran Inc	0	123,935	149,416	97,119	0	370,471
TOTAL	<u>41,261</u>	<u>176,699</u>	<u>187,726</u>	<u>132,596</u>	<u>0</u>	<u>538,281</u>

CUYAMA BASIN GSA
Statement of Operations with Budget Variance
July through October 2023

	Jul - Oct 23	Budget	\$ Over Budget	% of Budget
Ordinary Income/Expense				
Income				
Direct Public Funds				
Groundwater Extraction Fees	530,133	530,133	-0	100%
Grant Reimbursements	376,456	1,055,356	-678,900	36%
Total Direct Public Funds	906,589	1,585,489	-678,900	57%
Total Income	906,589	1,585,489	-678,900	57%
Cost of Goods Sold				
Program Expenses				
Technical Consulting				
Monitoring Network Enhancements	104,618	175,000	-70,382	60%
GSP Implementation - W&C	37,980	70,000	-32,020	54%
Stakeholder Engagement	76,132	44,000	32,132	173%
Technical Support for DWR	0	5,328	-5,328	0%
Outreach	0	10,219	-10,219	0%
Grant Proposals	0	14,000	-14,000	0%
Grant Administration	28,893	33,328	-4,436	87%
Improve Basin Water Use Info	2,198	34,000	-31,803	6%
Project & Mgmt Action Impl	100,735	67,000	33,735	150%
5 Year GSP Update - Technical	189,765	229,482	-39,717	83%
Fault Investigation	24,650	145,000	-120,350	17%
Well Permit Review - Technical	0	4,000	-4,000	0%
Total Technical Consulting	564,970	831,357	-266,387	68%
Other Technical Consulting				
Monitoring Network	41,749	46,500	-4,751	90%
Stream Gauge Maintenance	0	14,163	-14,163	0%
Total Other Technical Consulting	41,749	60,663	-18,914	69%
Total Program Expenses	606,718	892,020	-285,302	68%
Total COGS	606,718	892,020	-285,302	68%
Gross Profit	299,870	693,469	-393,599	43%
Expense				
General and Administrative				
GSA Executive Director				
GSA BOD Meetings	34,313	37,133	-2,821	92%
Consult Mgmt and GSP Devel	17,563	24,447	-6,885	72%
Financial Information Coor	11,163	17,117	-5,955	65%
Funding Process (GWE Fee)	1,588	1,856	-269	86%
CBGSA Outreach	7,100	3,569	3,531	199%
Adjudication Support	200	644	-444	31%
Management Area Admin	0	3,924	-3,924	0%
5-Year GSP Update - Admin	0	6,073	-6,073	0%
Water Use Enforcement	0	8,464	-8,464	0%
Well Permit Review - Admin	0	664	-664	0%
Travel and Direct Costs	0	1,899	-1,899	0%
Total GSA Executive Director	71,925	105,790	-33,865	68%
Other Administrative				
Legal	20,978	66,664	-45,687	31%
Auditing/Accounting Fees	6,500	5,000	1,500	130%
Printing and Copying	67	0	67	100%
Other Admin Expense	3,046	0	3,046	100%
Contingency	0	6,664	-6,664	0%
Total Other Administrative	30,591	78,328	-47,737	39%
Total General and Administrative	102,516	184,118	-81,602	56%
Total Expense	102,516	184,118	-81,602	56%
Net Ordinary Income	197,354	509,351	-311,997	39%
Net Income	197,354	509,351	-311,997	39%

CUYAMA BASIN GSA
FY 23/24 Budget Overview
 July 2023 - June 2024

	Jul '23 - Jun 24
Ordinary Income/Expense	
Income	
Direct Public Funds	
Groundwater Extraction Fees	530,133
Grant Reimbursements	4,221,424
Total Direct Public Funds	4,751,557
Total Income	4,751,557
Cost of Goods Sold	
Program Expenses	
Technical Consulting	
Monitoring Network Enhancements	2,443,000
GSP Implementation - W&C	210,000
Stakeholder Engagement	132,000
Technical Support for DWR	16,000
Outreach	30,667
Grant Proposals	42,000
Grant Administration	100,000
Basin Water Use Surveys	102,000
Project & Mgmt Action Impl	491,000
5 Year GSP Update - Technical	688,450
Fault Investigation	330,000
Well Permit Review - Technical	12,000
Total Technical Consulting	4,597,117
Other Technical Consulting	
Monitoring Network	68,000
Stream Gauge Maintenance	56,650
Total Other Technical Consulting	124,650
Total Program Expenses	4,721,767
Total COGS	4,721,767
Gross Profit	29,790
Expense	
General and Administrative	
GSA Executive Director	
GSA BOD Meetings	111,397
Consult Mgmt and GSP Devel	73,351
Financial Information Coord	51,357
Funding Process (GWE Fee)	5,562
CBGSA Outreach	10,721
Adjudication Support	1,932
Management Area Admin	11,772
5-Year GSP Update - Admin	18,217
Water Use Enforcement	25,400
Well Permit Review - Admin	2,000
Travel and Direct Costs	5,691
Total GSA Executive Director	317,400
Other Administrative	
Legal	200,000
Insurance - D&O and General	16,603
Auditing/Accounting Fees	10,000
Other Admin Expense	200
Contingency	20,000
Total Other Administrative	246,803
Total General and Administrative	564,203
Total Expense	564,203
Net Ordinary Income	-534,413
Net Income	-534,413



Cuyama Basin GSA

Financial Statements
November 2023

CUYAMA BASIN GSA
Statement of Financial Position
As of November 30, 2023

	Nov 30, 23	Nov 30, 22	\$ Change	% Change
ASSETS				
Current Assets				
Checking/Savings				
Chase - General Checking	1,780,008	1,756,103	23,904	1%
Total Checking/Savings	1,780,008	1,756,103	23,904	1%
Accounts Receivable				
Accounts Receivable	720,815	761,543	-40,728	-5%
Total Accounts Receivable	720,815	761,543	-40,728	-5%
Total Current Assets	2,500,823	2,517,646	-16,823	-1%
TOTAL ASSETS	2,500,823	2,517,646	-16,823	-1%
LIABILITIES & EQUITY				
Liabilities				
Current Liabilities				
Accounts Payable				
Accounts Payable	497,971	546,710	-48,739	-9%
Total Accounts Payable	497,971	546,710	-48,739	-9%
Other Current Liabilities				
New/Repl Well Deposits	1,559	0	1,559	100%
Total Other Current Liabilities	1,559	0	1,559	100%
Total Current Liabilities	499,530	546,710	-47,181	-9%
Total Liabilities	499,530	546,710	-47,181	-9%
Equity				
Unrestricted Net Assets	2,080,948	1,115,300	965,648	87%
Net Income	-79,655	855,635	-935,290	-109%
Total Equity	2,001,293	1,970,936	30,358	2%
TOTAL LIABILITIES & EQUITY	2,500,823	2,517,646	-16,823	-1%

CUYAMA BASIN GSA
Receipts and Disbursements
As of November 30, 2023

Type	Date	Num	Name	Debit	Credit
Chase - General Checking					
Payment	07/07/2023	4397	Groundwater Extraction Fees:Sunrise Olive Ranch, LLC	21,138.84	
Bill Pmt -Check	07/12/2023	1145	HGCPM, Inc.		31,707.72
Bill Pmt -Check	07/12/2023	1146	Klein DeNatale Goldner		18,234.50
Bill Pmt -Check	07/12/2023	1147	Provost & Pritchard Consulting Group		6,239.42
Bill Pmt -Check	07/12/2023	1148	Woodard & Curran Inc		161,164.95
Bill Pmt -Check	07/12/2023	1149	Provost & Pritchard Consulting Group		2,005.00
Payment	07/14/2023	21532	Groundwater Extraction Fees:Cuyama Orchards, Inc	12,682.80	
Payment	07/14/2023	1867	Groundwater Extraction Fees:Highland Vineyard SB, LLC	20,109.36	
Bill Pmt -Check	09/08/2023	1150	HGCPM, Inc.		42,426.72
Bill Pmt -Check	09/08/2023	1151	Klein DeNatale Goldner		8,782.05
Bill Pmt -Check	09/08/2023	1152	Provost & Pritchard Consulting Group		7,879.96
Bill Pmt -Check	09/08/2023	1153	U.S. Geological Survey		13,150.00
Bill Pmt -Check	09/08/2023	1154	Woodard & Curran Inc		218,671.47
Payment	10/17/2023	05-251132	Department of Water Resources	391,357.90	
Deposit	10/26/2023			0.71	
Bill Pmt -Check	11/01/2023	1155	HGCPM, Inc.		32,091.98
Bill Pmt -Check	11/01/2023	1156	Klein DeNatale Goldner		14,302.50
Bill Pmt -Check	11/01/2023	1157	Provost & Pritchard Consulting Group		11,238.91
Bill Pmt -Check	11/01/2023	1158	U.S. Geological Survey		13,150.00
Bill Pmt -Check	11/01/2023	1159	Woodard & Curran Inc		246,535.78
Total Chase - General Checking				445,289.61	827,580.96
TOTAL				445,289.61	827,580.96

CUYAMA BASIN GSA
A/R Aging Summary
As of November 30, 2023

	<u>Current</u>	<u>1 - 30</u>	<u>31 - 60</u>	<u>61 - 90</u>	<u>> 90</u>	<u>TOTAL</u>
Department of Water Resources	<u>0</u>	<u>0</u>	<u>0</u>	<u>377,300</u>	<u>343,515</u>	<u>720,815</u>
TOTAL	<u>0</u>	<u>0</u>	<u>0</u>	<u>377,300</u>	<u>343,515</u>	<u>720,815</u>

CUYAMA BASIN GSA
A/P Aging Summary
As of November 30, 2023

	Current	1 - 30	31 - 60	61 - 90	> 90	TOTAL
BC2 Environmental	0	74,721	52,764	0	0	127,485
Daniells Phillips Vaughan & Bock	1,000	6,500	0	0	0	7,500
HGCPM, Inc.	14,936	23,611	0	0	0	38,547
Klein DeNatale Goldner	11,552	3,300	0	0	0	14,852
Provost & Pritchard Consulting Group	0	7,850	0	3,002	0	10,852
Woodard & Curran Inc	174,800	0	123,935	0	0	298,735
TOTAL	202,288	115,982	176,699	3,002	0	497,971

CUYAMA BASIN GSA
Statement of Operations with Budget Variance
 July through November 2023

	Jul - Nov 23	Budget	\$ Over Budget	% of Budget
Ordinary Income/Expense				
Income				
Direct Public Funds				
Groundwater Extraction Fees	530,133	530,133	-0	100%
Grant Reimbursements	376,456	1,055,356	-678,900	36%
Total Direct Public Funds	906,589	1,585,489	-678,900	57%
Total Income	906,589	1,585,489	-678,900	57%
Cost of Goods Sold				
Program Expenses				
Technical Consulting				
Monitoring Network Enhancements	220,932	275,000	-54,068	80%
GSP Implementation - W&C	40,755	87,500	-46,745	47%
Stakeholder Engagement	81,848	55,000	26,848	149%
Technical Support for DWR	0	6,662	-6,662	0%
Outreach	0	12,775	-12,775	0%
Grant Proposals	0	17,500	-17,500	0%
Grant Administration	36,453	41,662	-5,210	87%
Improve Basin Water Use Info	34,738	42,500	-7,762	82%
Project & Mgmt Action Impl	120,685	120,000	685	101%
5 Year GSP Update - Technical	245,311	286,853	-41,542	86%
Fault Investigation	33,769	207,500	-173,731	16%
Well Permit Review - Technical	0	5,000	-5,000	0%
Total Technical Consulting	814,491	1,157,952	-343,462	70%
Other Technical Consulting				
Monitoring Network	41,749	46,500	-4,751	90%
Stream Gauge Maintenance	0	14,163	-14,163	0%
Total Other Technical Consulting	41,749	60,663	-18,914	69%
Total Program Expenses	856,239	1,218,615	-362,376	70%
Total COGS	856,239	1,218,615	-362,376	70%
Gross Profit	50,349	366,874	-316,525	14%
Expense				
General and Administrative				
GSA Executive Director				
GSA BOD Meetings	42,050	46,416	-4,366	91%
Consult Mgmt and GSP Devel	21,225	30,560	-9,335	69%
Financial Information Coord	12,138	21,397	-9,260	57%
Funding Process (GWE Fee)	1,588	2,320	-733	68%
CBGSA Outreach	8,250	4,463	3,787	185%
Adjudication Support	488	805	-318	61%
Management Area Admin	0	4,905	-4,905	0%
5-Year GSP Update - Admin	0	7,591	-7,591	0%
Water Use Enforcement	0	10,581	-10,581	0%
Well Permit Review - Admin	0	831	-831	0%
Travel and Direct Costs	0	2,373	-2,373	0%
Total GSA Executive Director	85,738	132,242	-46,505	65%
Other Administrative				
Legal	32,530	83,331	-50,801	39%
Auditing/Accounting Fees	7,500	7,500	0	100%
Printing and Copying	1,137	0	1,137	100%
Other Admin Expense	3,100	0	3,100	100%
Contingency	0	8,331	-8,331	0%
Total Other Administrative	44,267	99,162	-54,895	45%
Total General and Administrative	130,004	231,404	-101,400	56%
Total Expense	130,004	231,404	-101,400	56%
Net Ordinary Income	-79,655	135,470	-215,125	-59%
Net Income	-79,655	135,470	-215,125	-59%

CUYAMA BASIN GSA
FY 23/24 Budget Overview
 July 2023 - June 2024

	<u>Jul '23 - Jun 24</u>
Ordinary Income/Expense	
Income	
Direct Public Funds	
Groundwater Extraction Fees	530,133
Grant Reimbursements	4,221,424
Total Direct Public Funds	<u>4,751,557</u>
Total Income	4,751,557
Cost of Goods Sold	
Program Expenses	
Technical Consulting	
Monitoring Network Enhancements	2,443,000
GSP Implementation - W&C	210,000
Stakeholder Engagement	132,000
Technical Support for DWR	16,000
Outreach	30,667
Grant Proposals	42,000
Grant Administration	100,000
Basin Water Use Surveys	102,000
Project & Mgmt Action Impl	491,000
5 Year GSP Update - Technical	688,450
Fault Investigation	330,000
Well Permit Review - Technical	12,000
Total Technical Consulting	<u>4,597,117</u>
Other Technical Consulting	
Monitoring Network	68,000
Stream Gauge Maintenance	56,650
Total Other Technical Consulting	<u>124,650</u>
Total Program Expenses	<u>4,721,767</u>
Total COGS	<u>4,721,767</u>
Gross Profit	29,790
Expense	
General and Administrative	
GSA Executive Director	
GSA BOD Meetings	111,397
Consult Mgmt and GSP Devel	73,351
Financial Information Coord	51,357
Funding Process (GWE Fee)	5,562
CBGSA Outreach	10,721
Adjudication Support	1,932
Management Area Admin	11,772
5-Year GSP Update - Admin	18,217
Water Use Enforcement	25,400
Well Permit Review - Admin	2,000
Travel and Direct Costs	5,691
Total GSA Executive Director	<u>317,400</u>
Other Administrative	
Legal	200,000
Insurance - D&O and General	16,603
Auditing/Accounting Fees	10,000
Other Admin Expense	200
Contingency	20,000
Total Other Administrative	<u>246,803</u>
Total General and Administrative	<u>564,203</u>
Total Expense	<u>564,203</u>
Net Ordinary Income	<u>-534,413</u>
Net Income	<u><u>-534,413</u></u>



TO: Board of Directors
Agenda Item No. 11

FROM: Joe Hughes / Alex Dominguez

DATE: January 10, 2024

SUBJECT: Consider for Approval Resolution No. 2024-01 Authorizing the Submission of Calendar Year 2020, Fiscal Years 20-21, 21-22, 22-23 and 23-24 Delinquent Groundwater Extraction Fees to County Tax Collectors for Collection

Recommended Motion

Adopt Resolution No. 2024-01 authorizing “the Collection of Delinquent Groundwater Extraction Fees for Calendar Year 2020 and Fiscal Years 2020-2021, 2021-2022, 2022-2023, and 2023-2024 by County Tax Collectors.

Discussion

The Board of Directors (Board) of Cuyama Basin Groundwater Sustainability Agency (CBGSA) directed staff to identify, investigate, and resolve un-reported/un-paid groundwater extractors in the Cuyama Basin. Upon such investigation, staff identified one groundwater extractor who has not reported groundwater extractions nor paid groundwater extraction fees since Calendar Year 2020. Staff recommends adding these unpaid groundwater extraction fees to the County tax roll for collection, inclusive of late penalties. Resolution No. 2024-01 authorizes such action and is provided as Attachment 1 for consideration of approval.

RESOLUTION NO. 2024-01**A RESOLUTION OF
THE BOARD OF DIRECTORS OF
CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY
AUTHORIZING THE COLLECTION OF
DELINQUENT GROUNDWATER EXTRACTION FEES FOR
CALENDAR YEAR 2020 AND FISCAL YEARS 2020-2021, 2021-2022,
2022-2023, AND 2023-2024 BY COUNTY TAX COLLECTORS**

WHEREAS, on November 6, 2019, the Cuyama Basin Groundwater Sustainability Agency (CBGSA) approved and adopted a groundwater extraction fee of \$19 per acre-foot for Calendar Year 2020 pursuant to Water Code section 10730; and

WHEREAS, collected groundwater extraction fees for Calendar Year 2020 did not cover 2020 CBGSA expenses, so, the CBGSA approved and adopted a supplemental groundwater extraction fee of \$44 per acre-foot on August 13, 2020 for Fiscal Year (FY) 2020-2021 pursuant to Water Code section 10730; and

WHEREAS, on May 5, 2021, the CBGSA approved and adopted a reduced groundwater extraction fee of \$39 per acre-foot for FY 2021-2022 pursuant to Water Code section 10730; and

WHEREAS, on May 4, 2022, the CBGSA approved and adopted a reduced groundwater extraction fee of \$38 per acre-foot for FY 2022-2023 pursuant to Water Code section 10730; and

WHEREAS, on May 3, 2023, the CBGSA approved and adopted a reduced groundwater extraction fee of \$12 per acre-foot for FY 2023-2024 pursuant to Water Code section 10730; and

WHEREAS, as of the date of this resolution, certain parcels within the CBGSA's boundary are delinquent in paying their respective groundwater extraction fees for Calendar Year 2020, FY 2020-2021, FY 2021, 2022, FY 2022-2023, and FY 2023-2024; and

WHEREAS, section 10730.6, subdivision (d) of the Water Code authorizes a groundwater sustainability agency, organized as a joint powers authority, to collect any groundwater charge and any civil penalties and interest on the delinquent groundwater charge pursuant to the laws applicable to the entity designated pursuant to section 6509 of the Government Code; and

WHEREAS, on June 6, 2017, the CBGSA was formed as a joint powers authority by and between the Cuyama Basin Water District, the Cuyama Community Services District, the County of Kern, the County of San Luis Obispo, the County of Santa Barbara, the Santa Barbara County Water Agency, and the County of Ventura; and

WHEREAS, pursuant to section 6509 of the Government Code, the CBGSA designated the Cuyama Basin Water District as the entity upon which the authority's powers would be exercised.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Cuyama Basin Groundwater Sustainability Agency that the delinquent groundwater extraction fees for Calendar Year 2020, FY 2020-2021, FY 2021, 2022, FY 2022-2023, and FY 2023-2024 shall

be collected pursuant to process set forth under Water Code section 37212, as described below:

1. The Executive Director, or his designee, shall: (i) prepare lists of the delinquent parcels in Kern County, San Luis Obispo County, Santa Barbara County, and Ventura County for which Calendar Year 2020, FY 2020-2021, FY 2021, 2022, FY 2022-2023, and FY 2023-2024 groundwater extraction fees remain unpaid; (ii) certify that the lists are true and correct; and (iii) transmit a copy of each list to the county auditor of the appropriate county along with a certified copy of this resolution.
2. The unpaid groundwater extraction fees shall be a lien on the parcel upon receipt of the list and resolution by the county auditor.
3. The unpaid groundwater extraction fees shall be collected at the same time and in the same manner as ordinary municipal ad valorem taxes, and shall be subject to the same penalties, and the same procedure and sale in case of delinquency as provided for those taxes.
4. The county shall deduct from the charges an amount sufficient to compensate the county for the costs incurred in collecting the delinquent groundwater extraction fees, following the same policies as applicable to similar collections with county ad valorem taxes. The remaining funds shall be remitted to the CBGSA.
5. The Executive Director of his designee is hereby authorized and directed to execute any forms or agreements with the appropriate county (if required), submit any supporting documents or other documents as requested by the county, and perform any other action as required by the county in collecting the delinquent Calendar Year 2020, FY 2020-2021, FY 2021, 2022, FY 2022-2023, and FY 2023-2024 groundwater extraction fees.

PASSED, APPROVED, AND ADOPTED this 10th day of January 2024.

Cory Bantilan, Board Chair

ATTEST:

James M. Beck
Executive Director



TO: Board of Directors
Agenda Item No. 12a

FROM: Jim Beck / Brian Van Lienden

DATE: January 10, 2024

SUBJECT: Update on GSP Component Schedule

Recommended Motion

None – information only.

Discussion

On July 12, 2023, the Cuyama Basin Groundwater Sustainability Agency Board of Directors reviewed and approved a schedule for updating the Groundwater Sustainability Plan (GSP) ahead of the January 2025 deadline and that schedule is provided as Attachment 1 for reference.

Cuyama Basin Groundwater Sustainability Agency

12. Update on GSP Component Schedule

January 10, 2024



GSP Update and Board Policy Discussions Schedule

	2023			2024				2025		
	July	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	Jan
Board Direction:	<p>Finalize: Feedback on engagement strategy</p>	<p>Basin-wide pumping restrictions/Central Management Area (CMA) boundary</p> <p>Finalize: Groundwater (GW) levels & storage monitoring networks</p> <p>GW levels & storage sustainable management criteria (SMC) and undesirable results (UR) criteria options</p> <p>Allocation methodology</p>	<p>Finalize: Subsidence, Interconnected surface water (ISW), and water quality (WQ) monitoring networks</p> <p>GW subsidence ISW, and WQ SMC and UR options</p> <p>Glidepath methodology</p>	<p>Finalize: GW levels, storage, subsidence, ISW, WQ SMC and UR</p>	<p>Project and Management Action (PMA) options</p> <p>Sustainable yield (SY) methodology</p> <p>Issue 90-Day Notice</p>	<p>Finalize:</p> <ul style="list-style-type: none"> Basin-wide Pumping Restrictions/MA Boundary (updated model) Allocation methodology Glidepath methodology PMA options SY approach 		<p>Review Public draft</p>	<p>**Public Hearing to adopt Amended GSP</p>	
GSP Chapter Review:				<p>Ch 1. Agency Info/Plan Area</p> <p>Ch 4. Monitoring Network</p>		<p>Ch 2. Basin Setting</p> <p>Ch 3. URs</p> <p>Ch 5. SMCs</p>	<p>Ch 6. DMS</p> <p>Ch 7. PMAs</p>	<p>Ch 8. Plan Implementation Executive Summary</p>		
Public Workshop		✓			✓			✓		



TO: Board of Directors
Agenda Item No. 12b

FROM: Jim Beck / Brian Van Lienden

DATE: January 10, 2024

SUBJECT: Discussion and Take Appropriate Action on Sustainable Management Criteria and Undesirable Results for 1) Groundwater Levels, 2) Groundwater Storage, 3) Subsidence, and 4) Water Quality [Final Discussion]

Recommended Motion

Final Board direction requested on sustainable management criteria and undesirable results for each of the below components.

Discussion

The final discussion on Sustainable Management Criteria and Undesirable Results for the items listed below is provided as Attachment 1. Feedback from the Cuyama Basin Groundwater Sustainability Agency (CBGSA) Standing Advisory Committee (SAC) and Board on January 4th and 10th, respectively, will be used by staff to develop the draft chapters that will be presented to the SAC and Board in May 2024 (according to the schedule as presented under item 12a) for consideration of approval.

- i. Groundwater Levels
- ii. Groundwater Storage
- iii. Subsidence
- iv. Water Quality

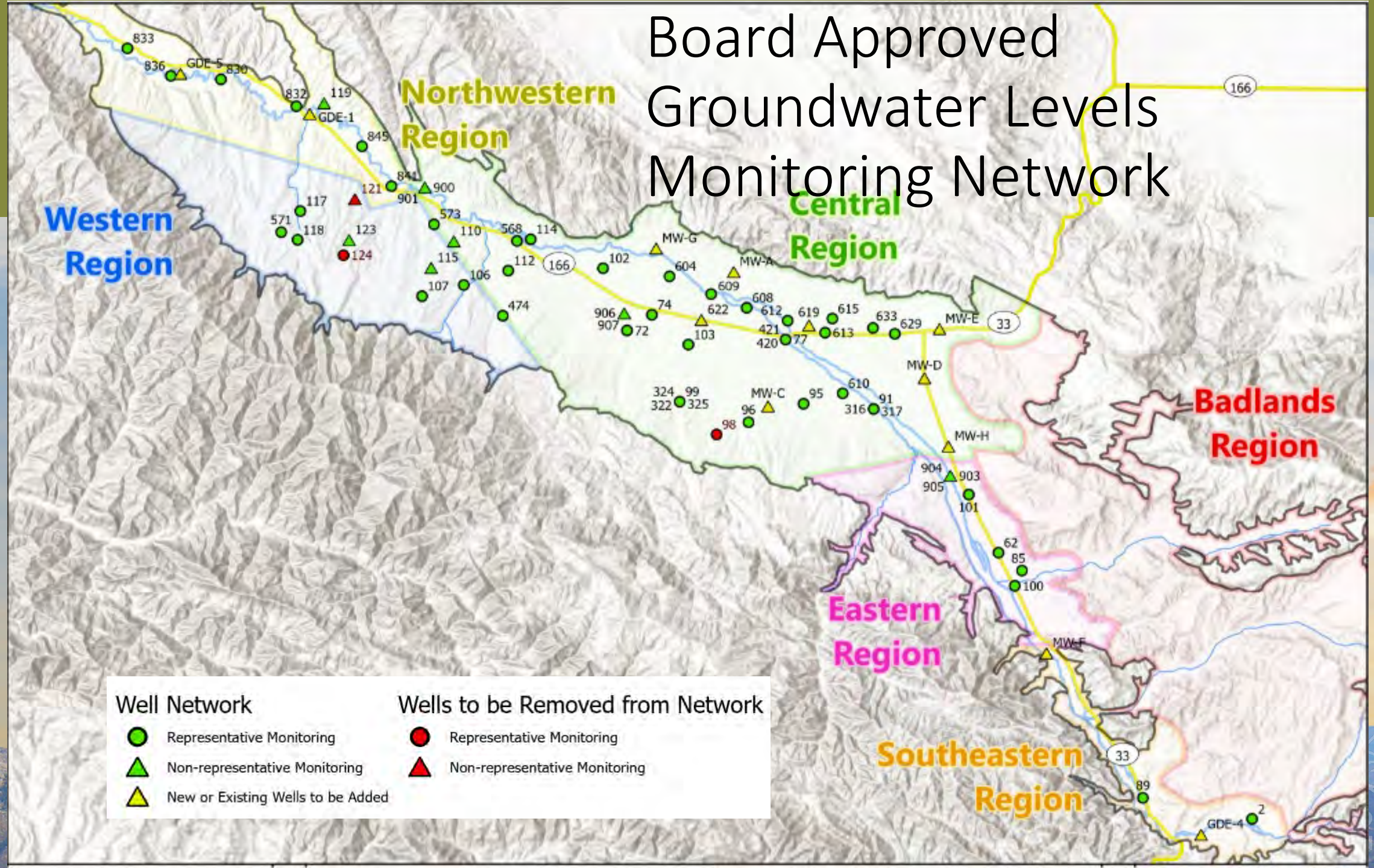
Cuyama Basin Groundwater Sustainability Agency

12bi. Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Result Statement for Groundwater Levels

January 10, 2024



Board Approved Groundwater Levels Monitoring Network



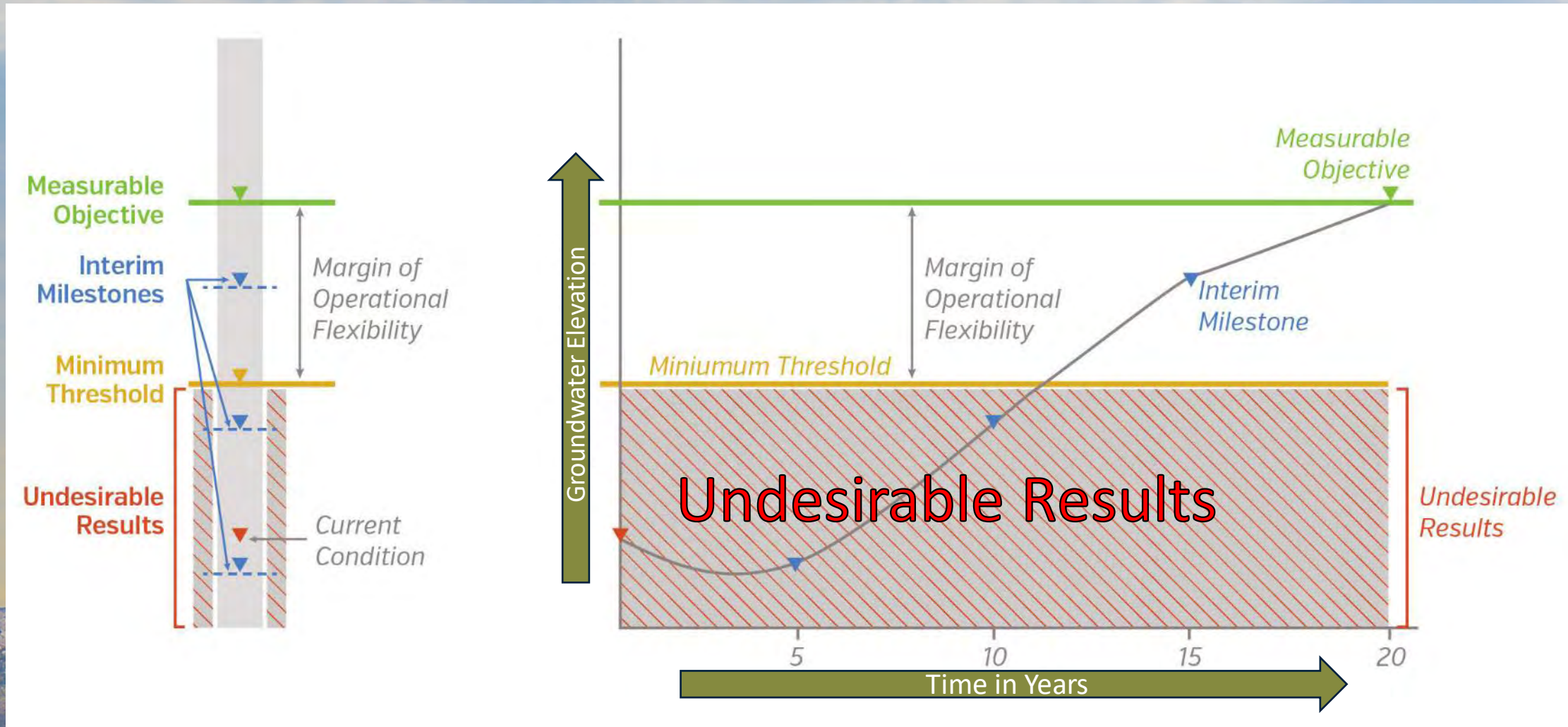
Well Network

- Representative Monitoring
- ▲ Non-representative Monitoring
- ▲ New or Existing Wells to be Added

Wells to be Removed from Network

- Representative Monitoring
- ▲ Non-representative Monitoring

Review of Sustainability Thresholds

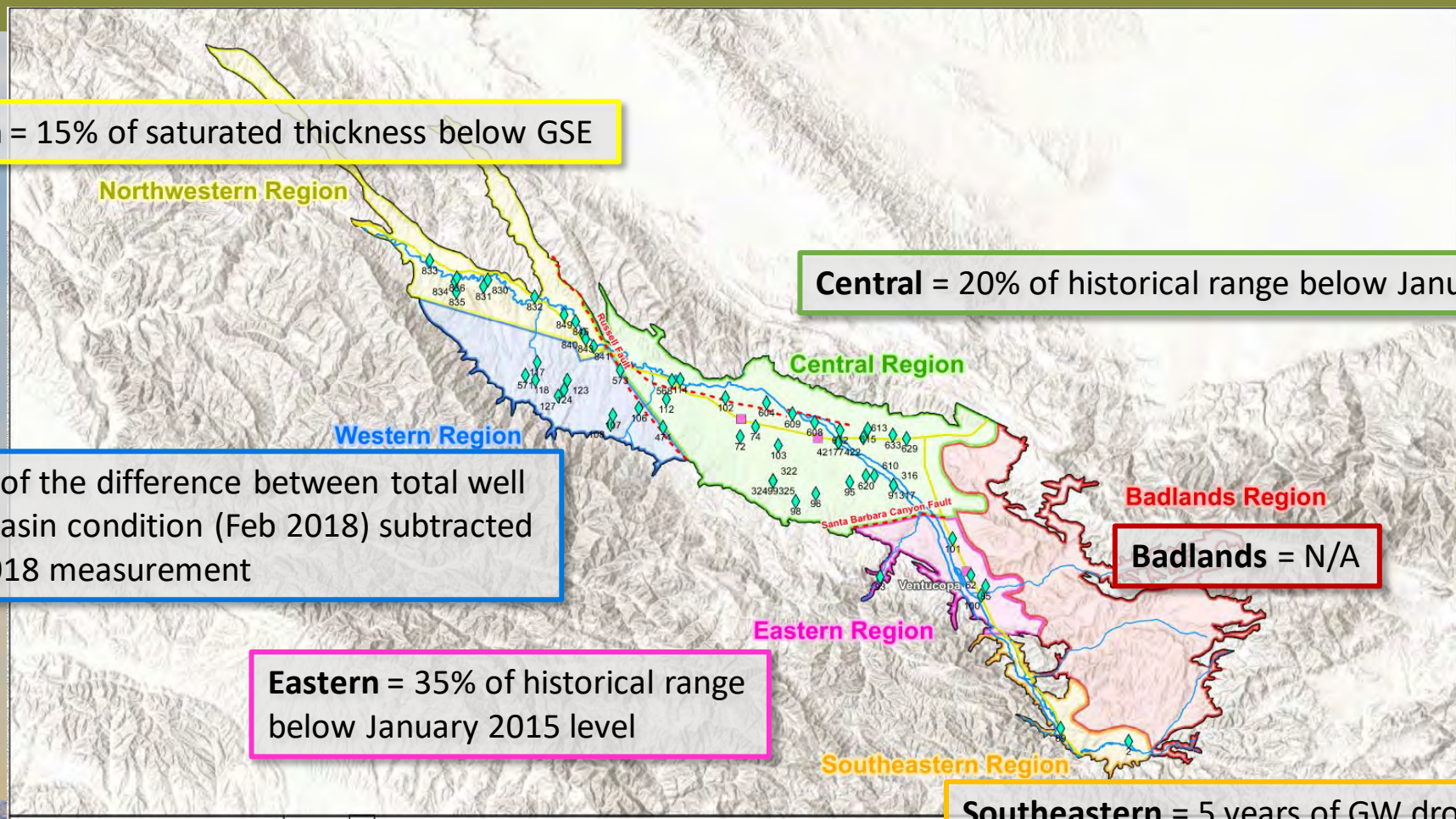


GSP Approach

- **GSP Section 3.2.1 Identification of Undesirable Results (p. 3-2):** “This result is considered to occur during GSP implementation when 30 percent of representative monitoring wells (i.e., 18 of 60 wells) fall below their minimum groundwater elevation thresholds for two consecutive years.”
- **GSP Section 5.2.1 Threshold Regions (p. 5-2):** “Six threshold regions were defined to allow areas with similar conditions to be grouped together for calculation of MOs, MTs, and IMs.”
- **GSP Section 5.2.2 Minimum Thresholds, Measurable Objectives, and Interim Milestones (p. 5-6):** “This section describes how MTs, MOs, and IMs were established by threshold region, and explains the rationale behind each selected methodology.”

GSP Threshold Region MT Strategies

Northwestern = 15% of saturated thickness below GSE



Central = 20% of historical range below January 2015 level

Western = 15% of the difference between total well depth and full basin condition (Feb 2018) subtracted from the Feb 2018 measurement

Badlands = N/A

Eastern = 35% of historical range below January 2015 level

Southeastern = 5 years of GW drought storage from MO
MO = January 2015
Drought storage = decline between 2013 and 2018

New Evaluation Tool: Well Protection Depth





What is it and How is it Used?

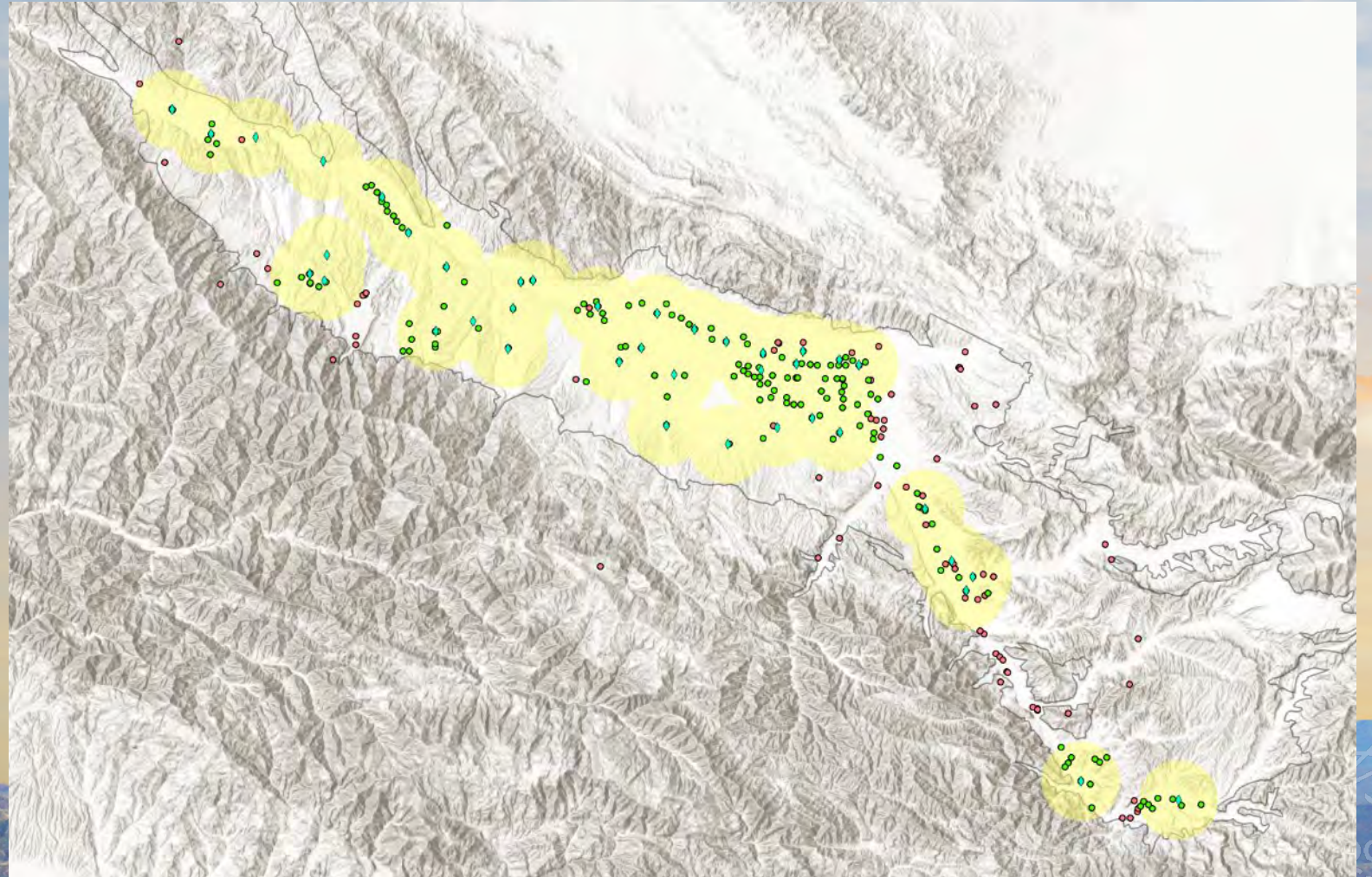
- The well protection depth is a numerical value representing the approximate depth at which – if exceeded – beneficial use could be impacted
- This is calculated for each production or domestic well based on pump depth, screen interval or well depth (as available)
- Utilizes data associated with each well, and where data is limited, generalized assumptions are used as a proxy
- Well protection depths were used to estimate if a well is at risk of going dry with each set of proposed minimum thresholds
 - Wells that are too far removed from the representative well network are screened out for this purpose
 - Wells were also screened that were determined to be dry in 2015 based on available data

Tech Forum Feedback – 12-12-23

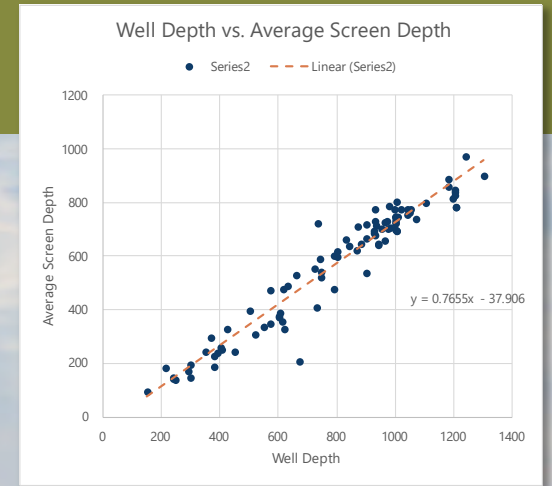
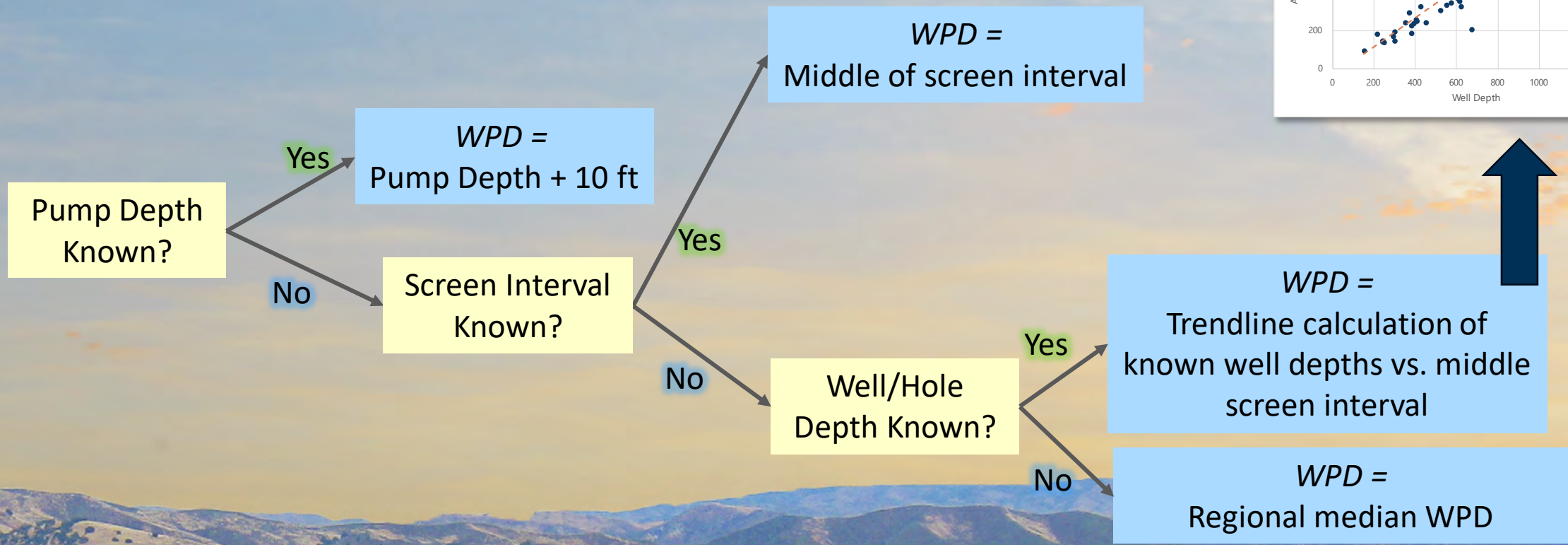
Topic	Well Protection Depth Calculation
Comment	Update buffer to include 10' above pump depth
Comment by	<ul style="list-style-type: none">• Jeff Shaw, Cuyama Basin Water District• Matt Young, Santa Barbara County
Notes	CBGSA staff incorporated suggestion

Well Protection Depth (WPD) Selection Process

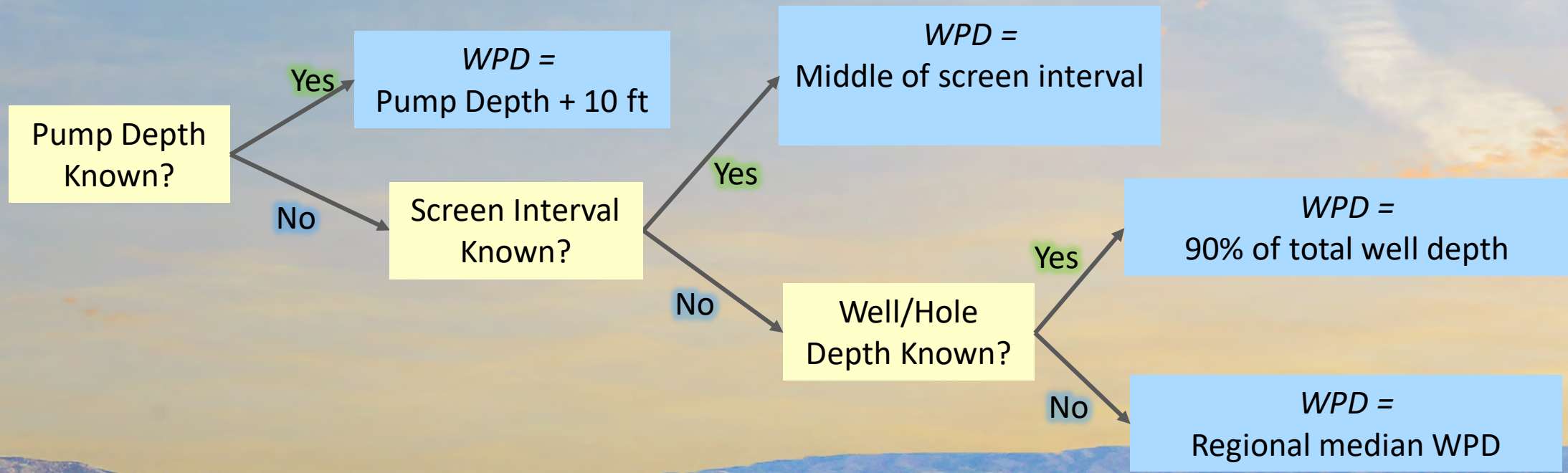
-  Representative Well
-  Active well included
-  Active well not included
(too far from RMW or dry in 2015)
-  1.5 mi buffer around RMWs



Protection Depth Calculation – Production Wells



Protection Depth Calculation – Domestic Wells

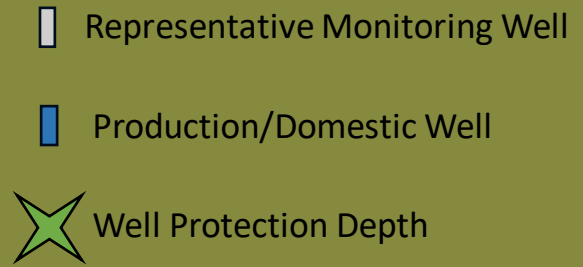


Options for Groundwater Levels Sustainability Criteria – Minimum Thresholds

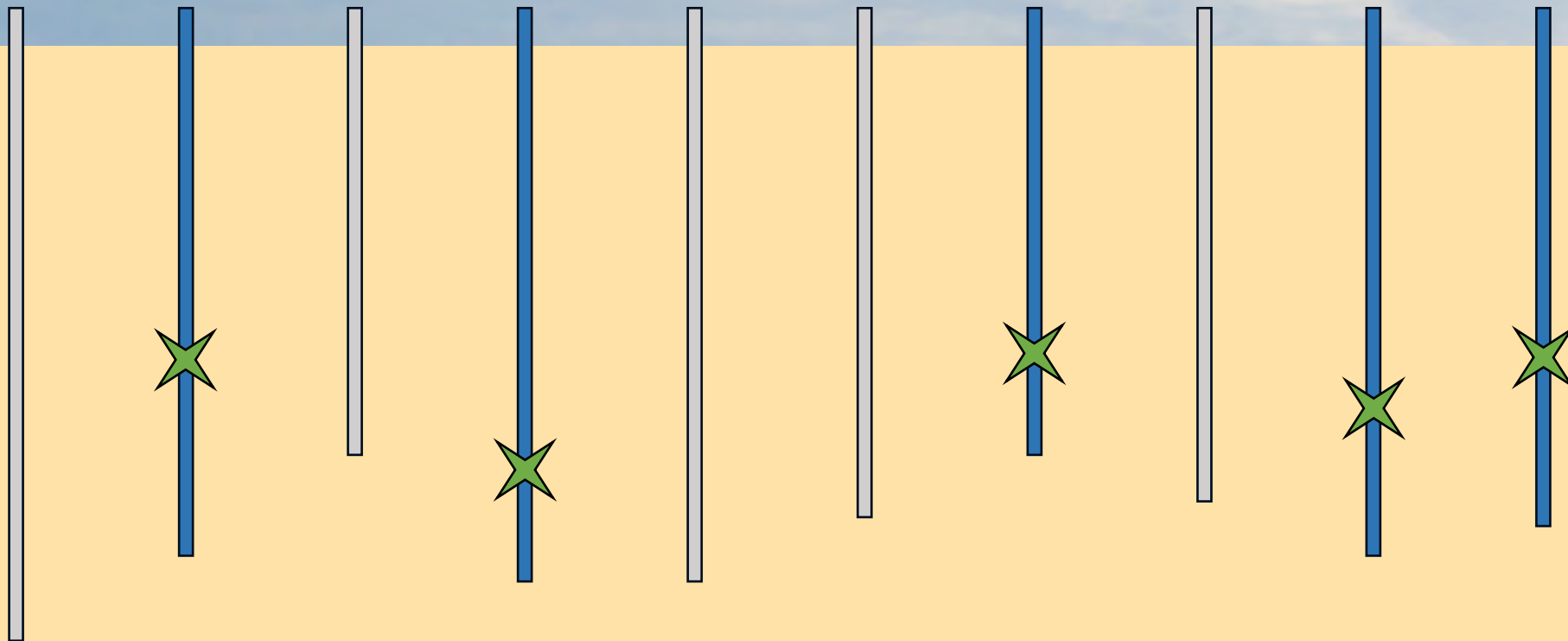
1. Keep existing MTs
2. Set MTs based on well protection depth for active pumping wells and protective depths for wells near GDE locations*
3. Set MTs based on projected 2040 groundwater levels from modeling projection of pumping allocation glidepath
4. Hybrid option – Set MT at shallowest level between well protection depth and [deeper of the deepest measurement in the last 10 years or glidepath projection]

*Eight wells near GDEs were individually assessed to ensure that either the WPD or the GDE protective groundwater elevation (whichever was more protective) was used. These eight wells are 2, 114, 568, 573, 830, 832, 833, and 836.

Option 2: From Well Protection Depth to Threshold



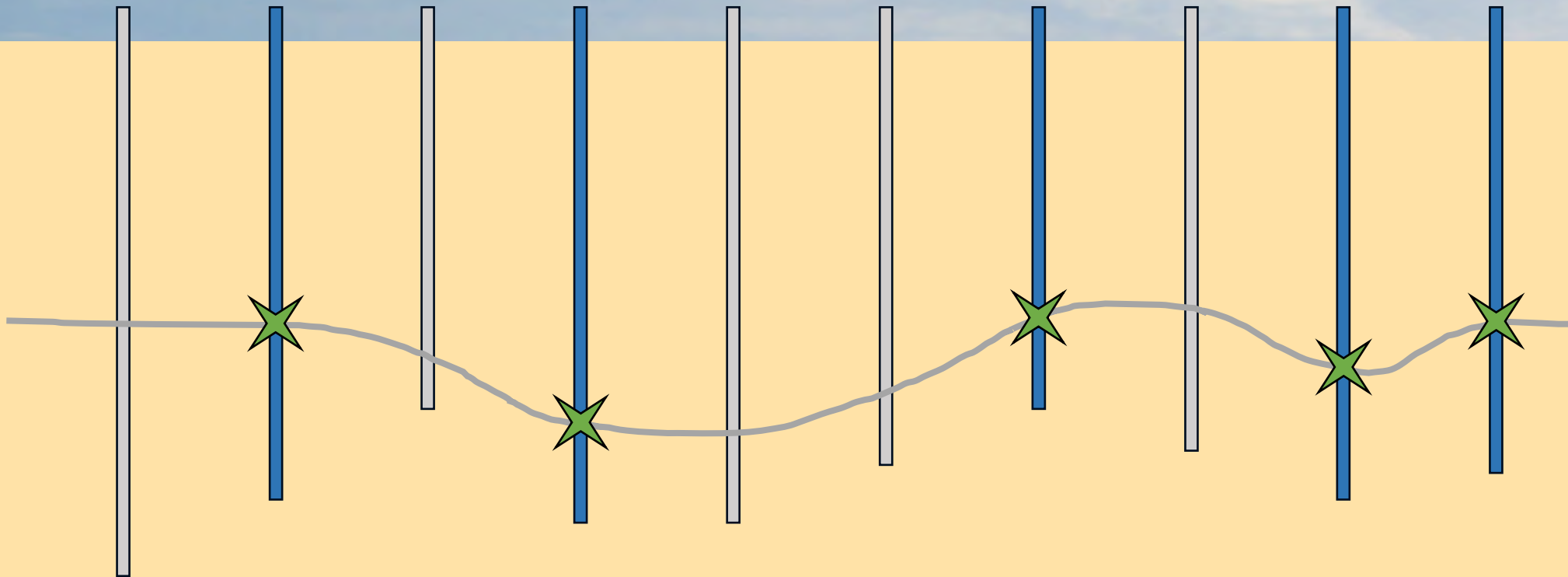
1) Establish WPD for each production/domestic well



Option 2: From Well Protection Depth to Threshold

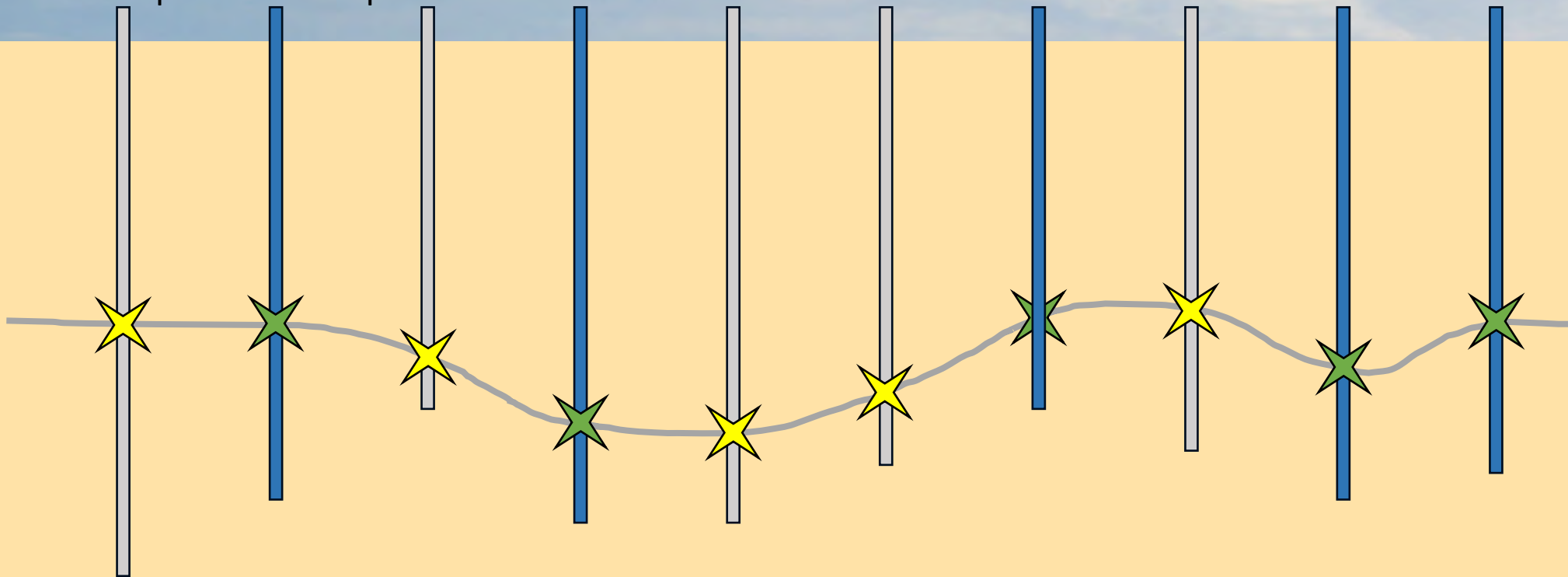
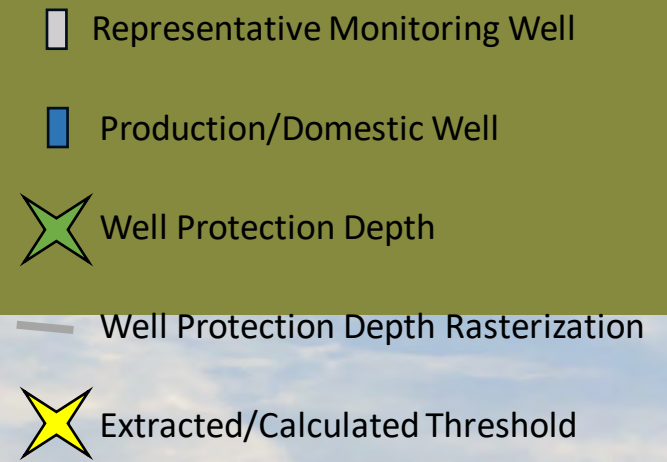
- Representative Monitoring Well
- Production/Domestic Well
- Well Protection Depth
- Well Protection Depth Rasterization

- 1) Establish WPD for each production/domestic well
- 2) Create a raster of the WPD

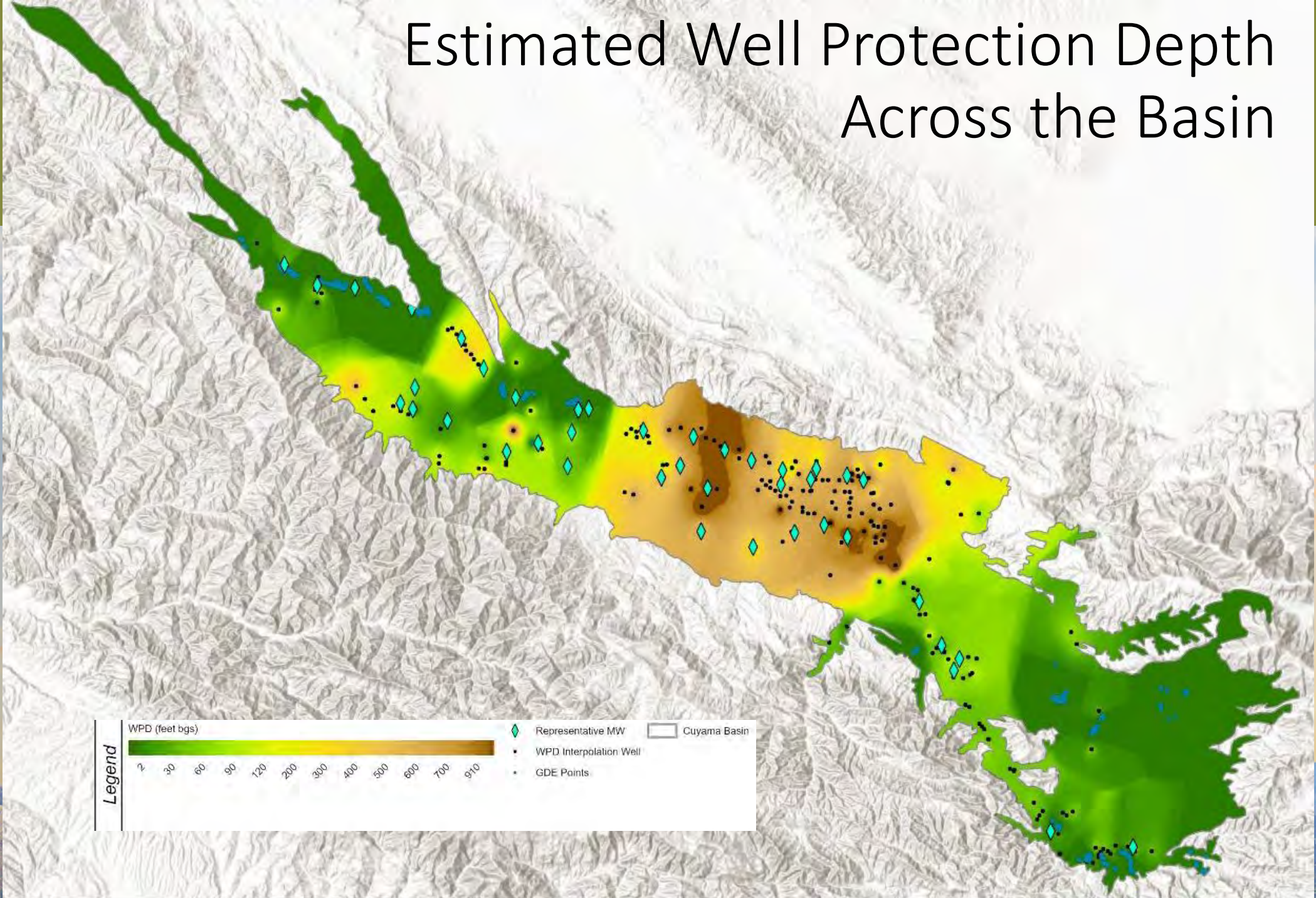


Option 2: From Well Protection Depth to Threshold

- 1) Establish WPD for each production/domestic well
- 2) Create a raster of the WPD
- 3) Extract depth at each representative well = threshold

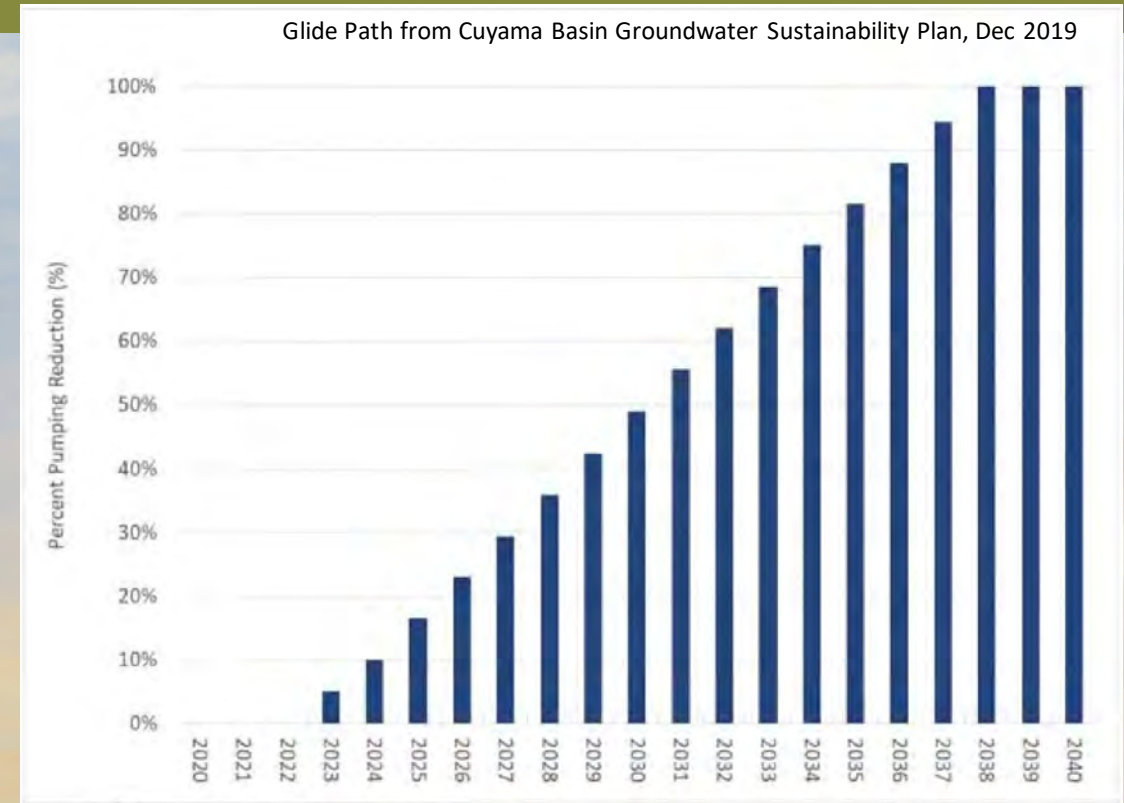


Estimated Well Protection Depth Across the Basin



Option 3: CBWRM Analysis of Estimated Groundwater Conditions with GSP Pumping Reductions

- Groundwater pumping was reduced for irrigated acreage in the central management area plus farming units following the “glide path” specified in the GSP
 - The reduction is gradual, beginning in 2023, reaching the final reduction in 2038
 - The reduction was applied to all crop types
- Model estimated groundwater levels in 2040 were used to set proposed minimum thresholds under Option 3



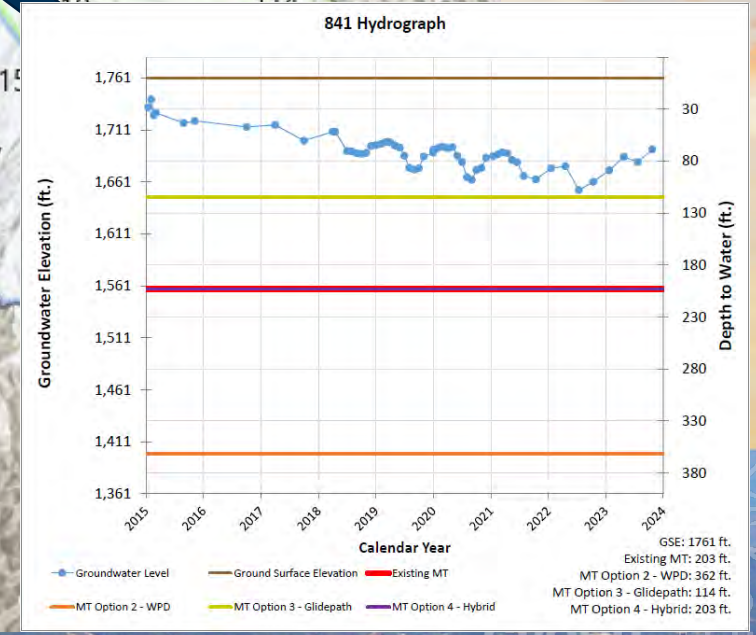
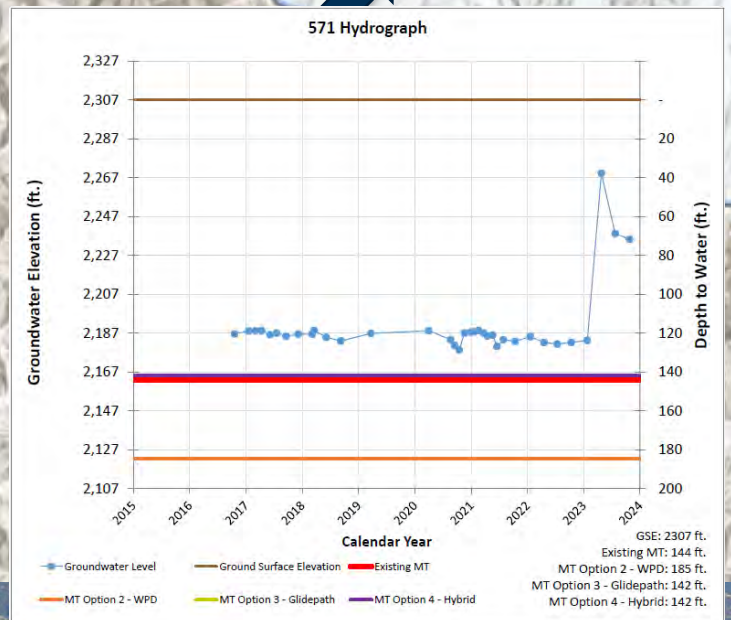
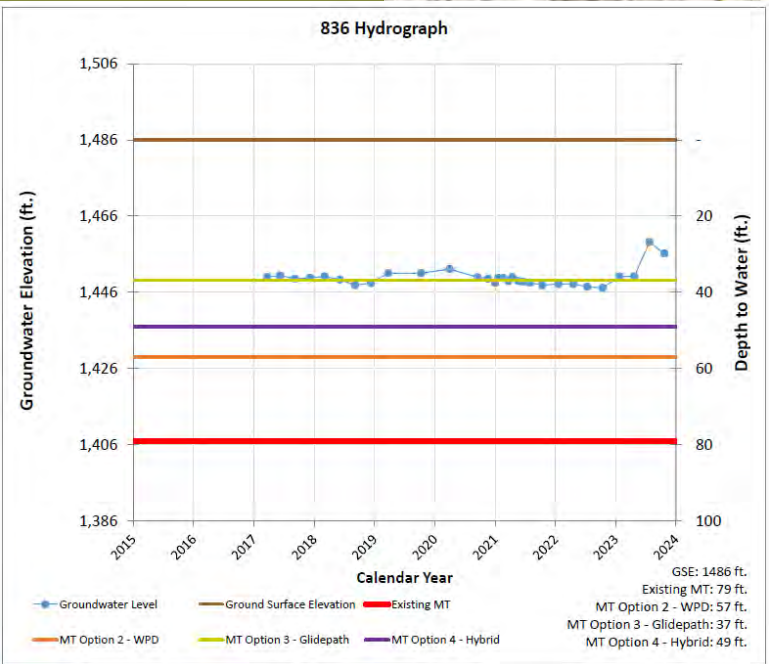
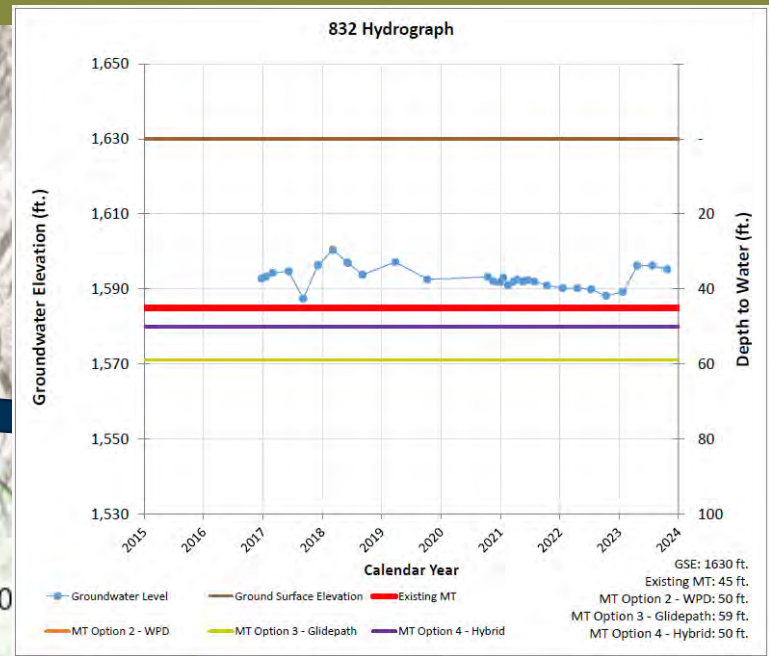
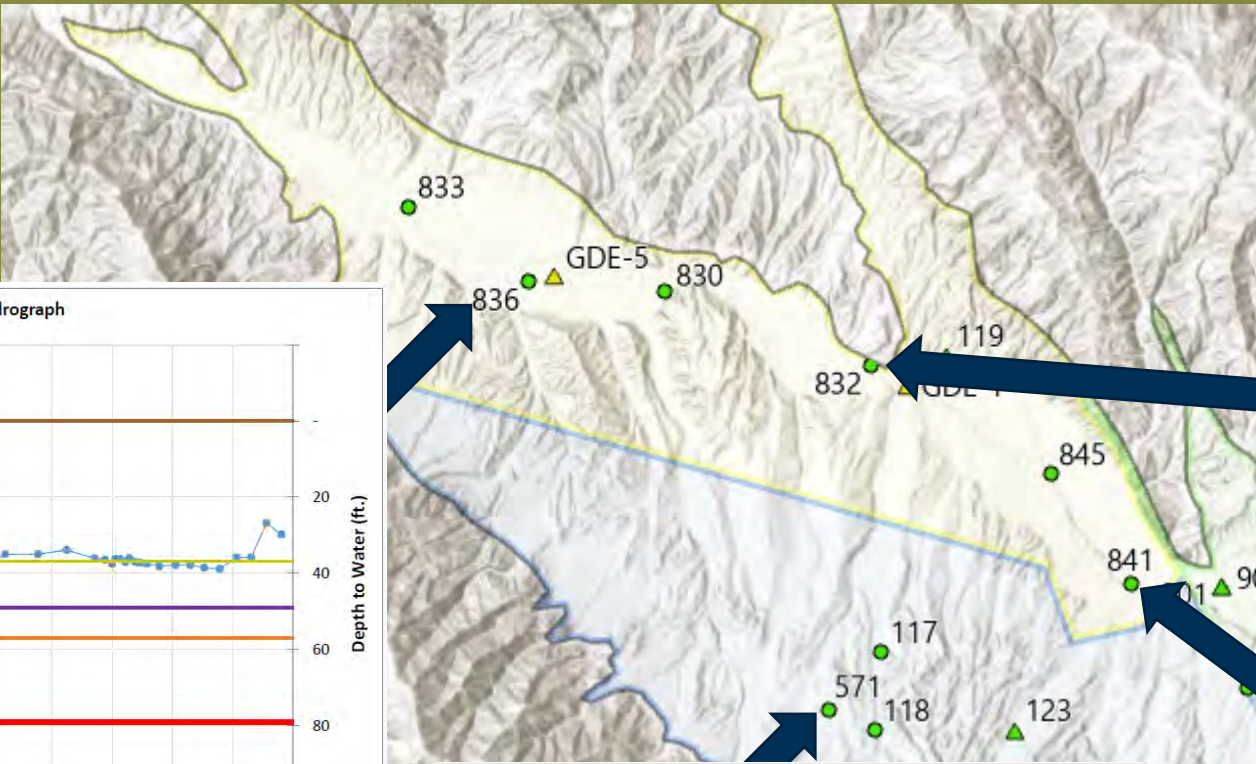
Option 4: Hybrid Option

- Under the Hybrid Option, set the Minimum Threshold at each well equal to the shallower of:
 - The Well Protection Depth or
 - The deeper of:
 - The deepest measurement in the past 10 years plus a buffer*
 - The projected depth to water in 2040 with the glidepath
- Wells that previously used a “saturated thickness” methodology would continue to use that methodology

*The buffer equals 10 feet or 5% of the DTW of the most recent measurement, whichever is greater

Tech Forum Feedback – 12-12-23

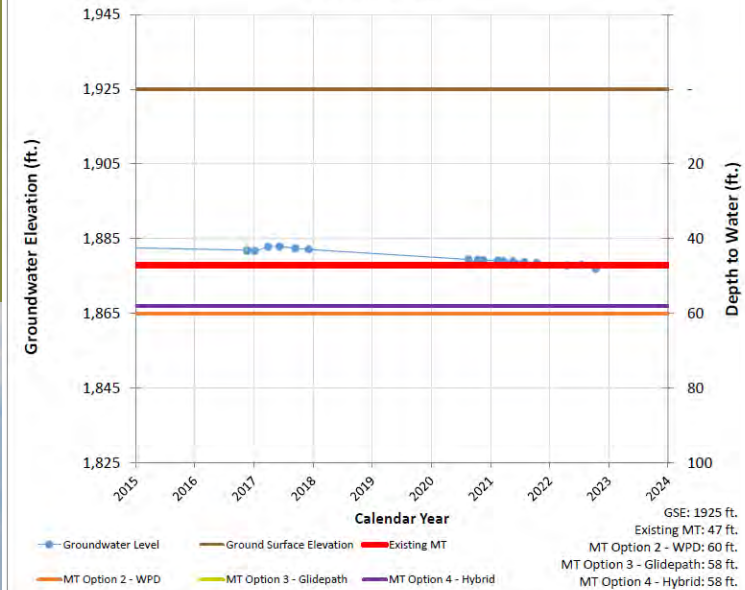
Topic	SMC Option No. 4
Comment	Concerned with using the model to calculate option 4 since the model is underperforming in the more complex portions of the basin (i.e. western area, Ventucopa area, etc.)
Comment by	Neil Currie, Grapevine Capital
Notes	NA



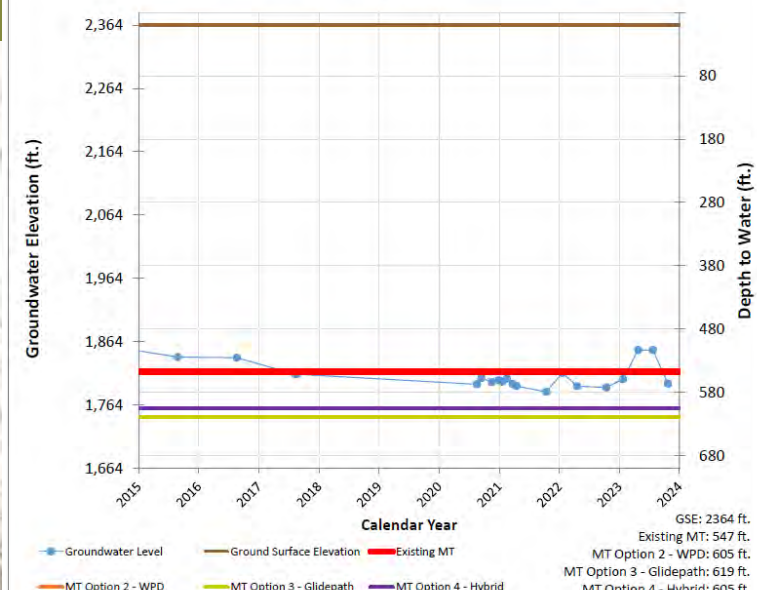
Well Network

- Representative Monitoring
- ▲ Non-representative Monitoring
- ▲ New or Existing Wells to be Added

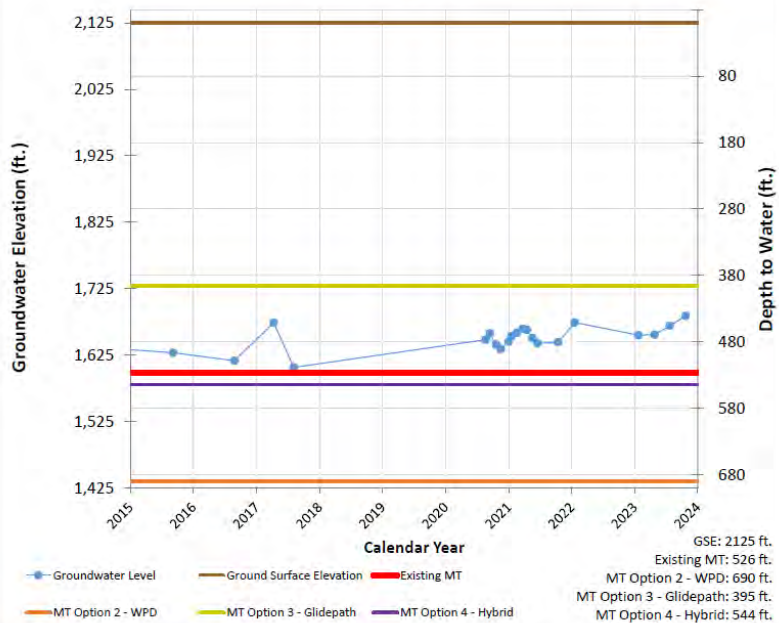
114 Hydrograph



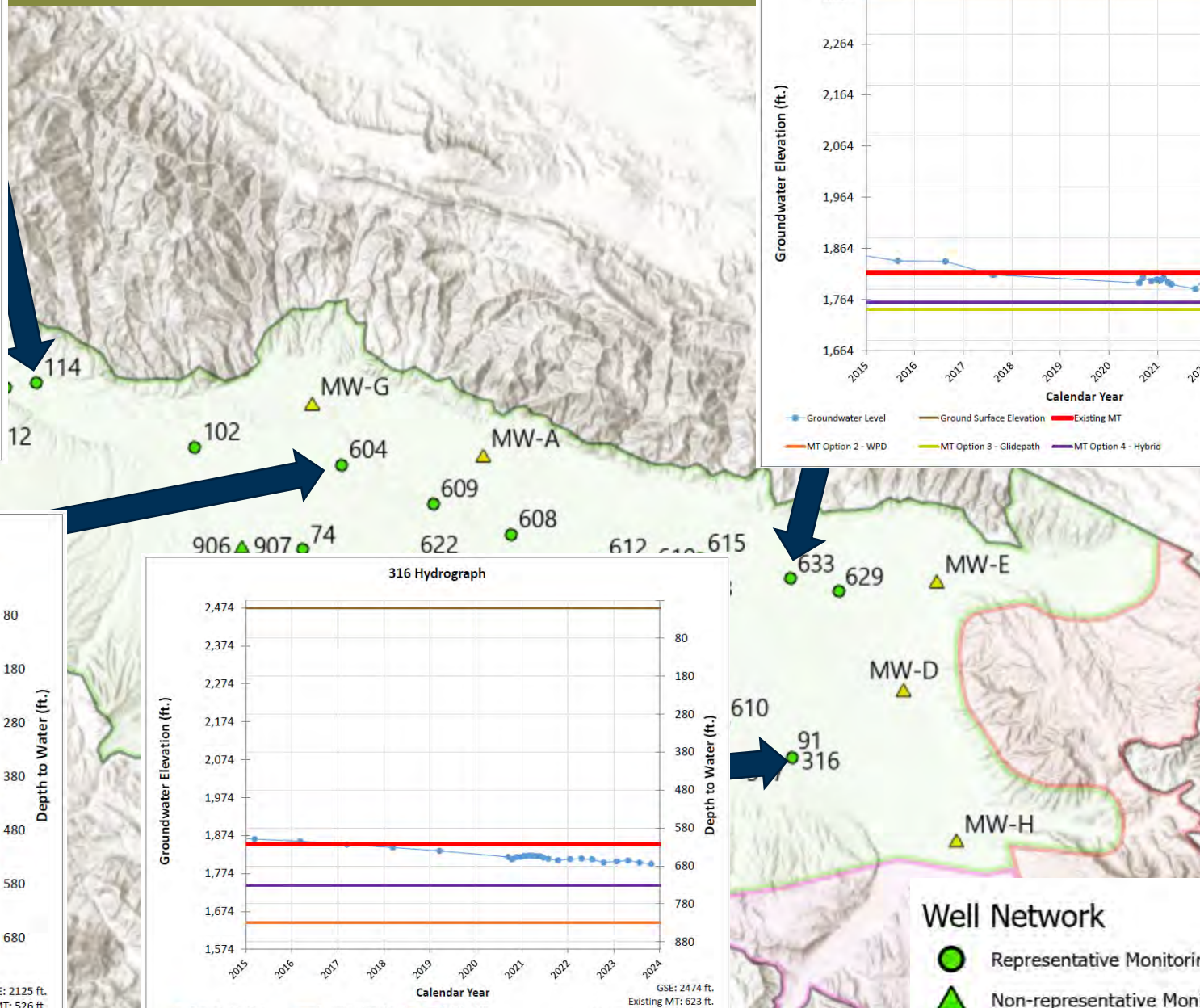
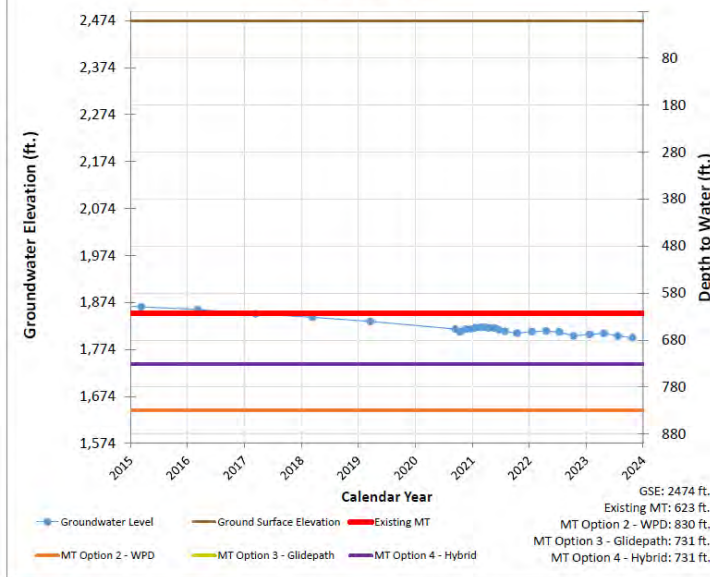
633 Hydrograph



604 Hydrograph



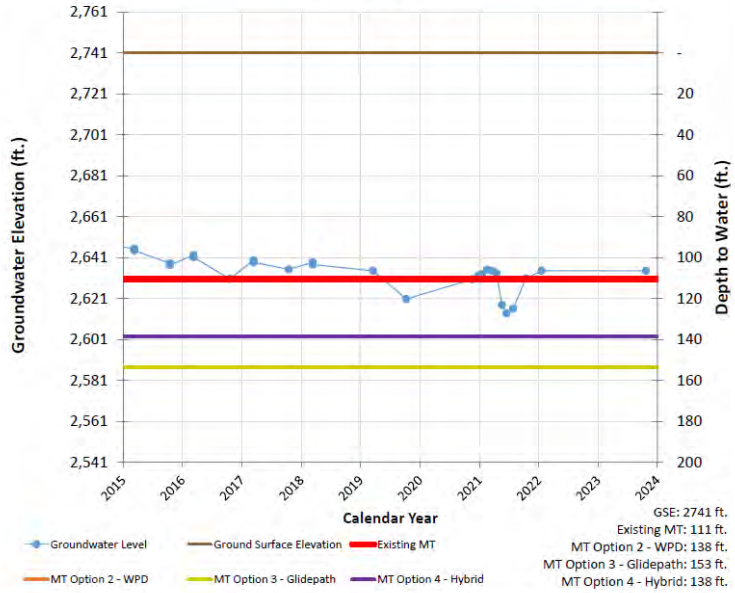
316 Hydrograph



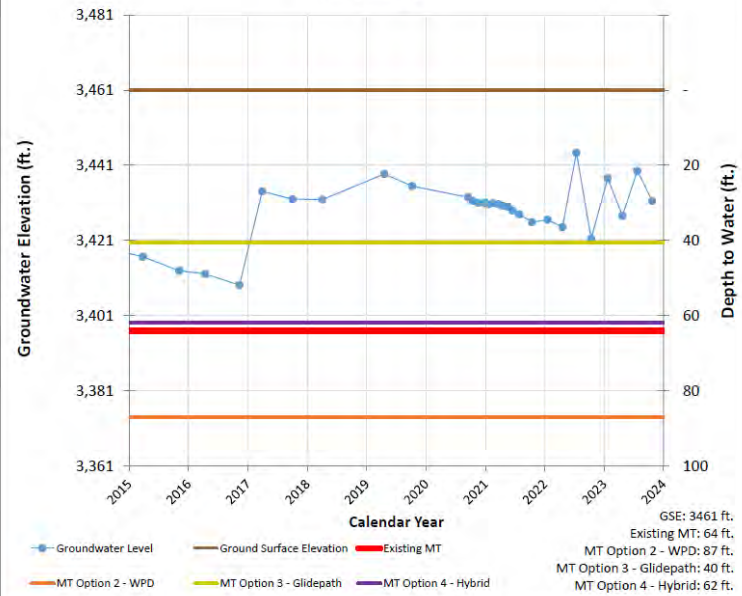
Well Network

- Representative Monitoring
- ▲ Non-representative Monitoring
- ▲ New or Existing Wells to be Added

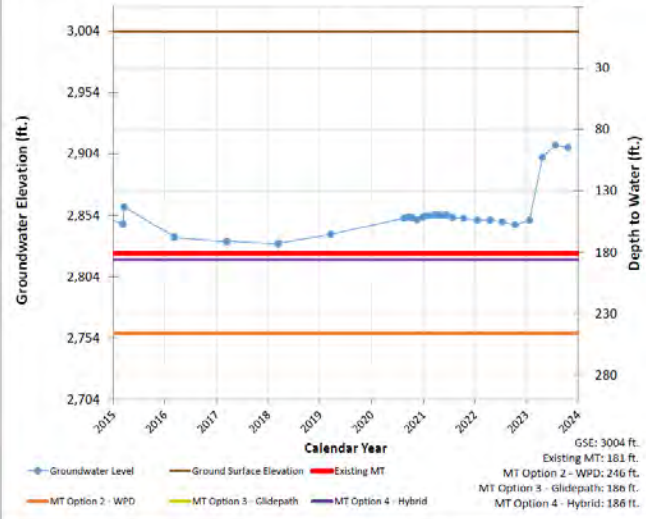
101 Hydrograph



89 Hydrograph



100 Hydrograph

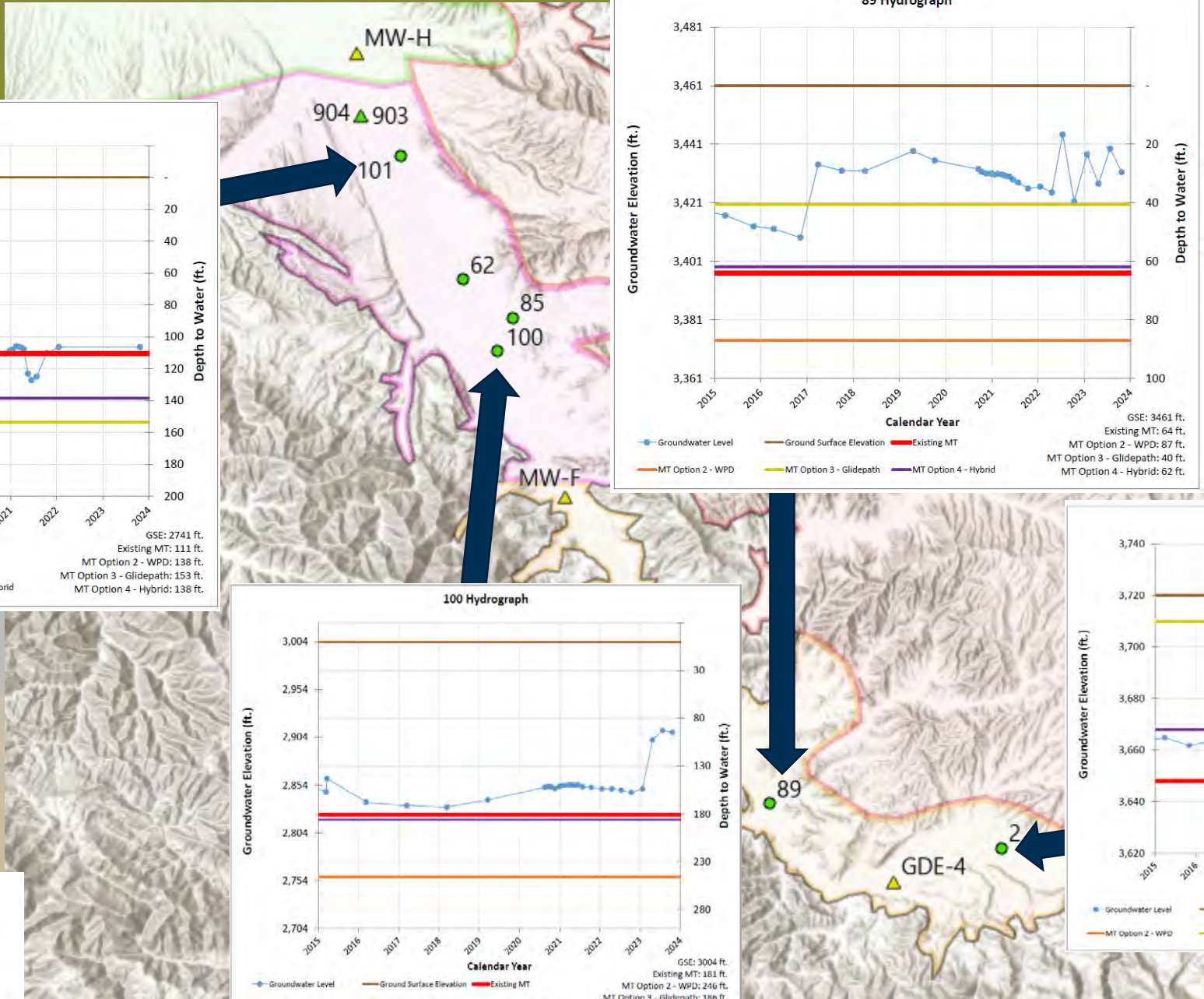


2 Hydrograph



Well Network

- Representative Monitoring
- ▲ Non-representative Monitoring
- ▲ New or Existing Wells to be Added



Change in Minimum Thresholds Under Each Option Compared to Current Minimum Thresholds (in Depth to Water (feet))

RMW Opti	Deepest DTW Between 2013-2023	Current MT	MT Option 2 WPD	WPD Difference	MT Option 3 Glide path	Glide path Difference	MT Option 4 Hybrid	Hybrid Difference
2	61	72	52	20	10	62	52	20
62	164	182	212	-30	212	-30	212	-30
72	355	169	598	-429	257	-88	373	-204
74	273	256	599	-343	322	-66	322	-66
77	513	450	524	-74	494	-44	514	-64
85	216	233	210	23	233	0	200	33
89	52	64	87	-23	40	24	62	2
91	680	625	900	-275	730	-105	730	-105
95	612	573	607	-34	705	-132	597	-24
96	340	333	400	-67	369	-36	369	-36
99	361	311	541	-230	271	40	379	-68
100	173	181	256	-75	186	-5	186	-5
101	127	111	148	-37	153	-42	138	-27
102	448	235	492	-257	367	-132	470	-235
103	337	290	743	-453	379	-89	379	-89
106	144	154	228	-74	164	-10	164	-10
107	112	91	167	-76	121	-30	122	-31
112	86	87	282	-195	102	-15	102	-15
114	48	47	60	-13	58	-11	58	-11
117	153	160	211	-51	161	-1	163	-3
118	62	124	50	74	78	46	40	84
316	675	623	830	-207	731	-108	731	-108
317	673	623	700	-77	700	-77	700	-77

RMW Opti	Deepest DTW Between 2013-2023	Current MT	MT Option 2 WPD	WPD Difference	MT Option 3 Glide path	Glide path Difference	MT Option 4 Hybrid	Hybrid Difference
322	369	307	541	-234	343	-36	387	-80
324	348	311	541	-230	365	-54	365	-54
325	315	300	380	-80	328	-28	331	-31
420	561	450	524	-74	555	-105	514	-64
421	510	446	524	-78	554	-108	514	-68
474	187	188	213	-25	195	-7	197	-9
568	76	37	47	-10	65	-28	47	-10
571	129	144	195	-51	142	2	142	2
573	72	118	161	-43	93	25	93	25
604	518	526	700	-174	395	131	544	-18
608	462	436	601	-165	504	-68	504	-68
609	475	458	660	-202	364	94	499	-41
610	641	621	567	54	629	-8	557	64
612	487	463	541	-78	513	-50	513	-50
613	550	503	598	-95	577	-74	578	-75
615	532	500	600	-100	588	-88	588	-88
629	578	559	739	-180	613	-54	613	-54
633	579	547	615	-68	619	-72	605	-58
830	63	59	63	-4	77	-18	63	-4
832	43	45	50	-5	59	-14	50	-5
833	52	96	48	48	46	50	48	48
836	39	79	57	22	37	42	49	30
841	108	203	372	-169	114	89	203	0
845	78	203	247	-44	109	94	203	0



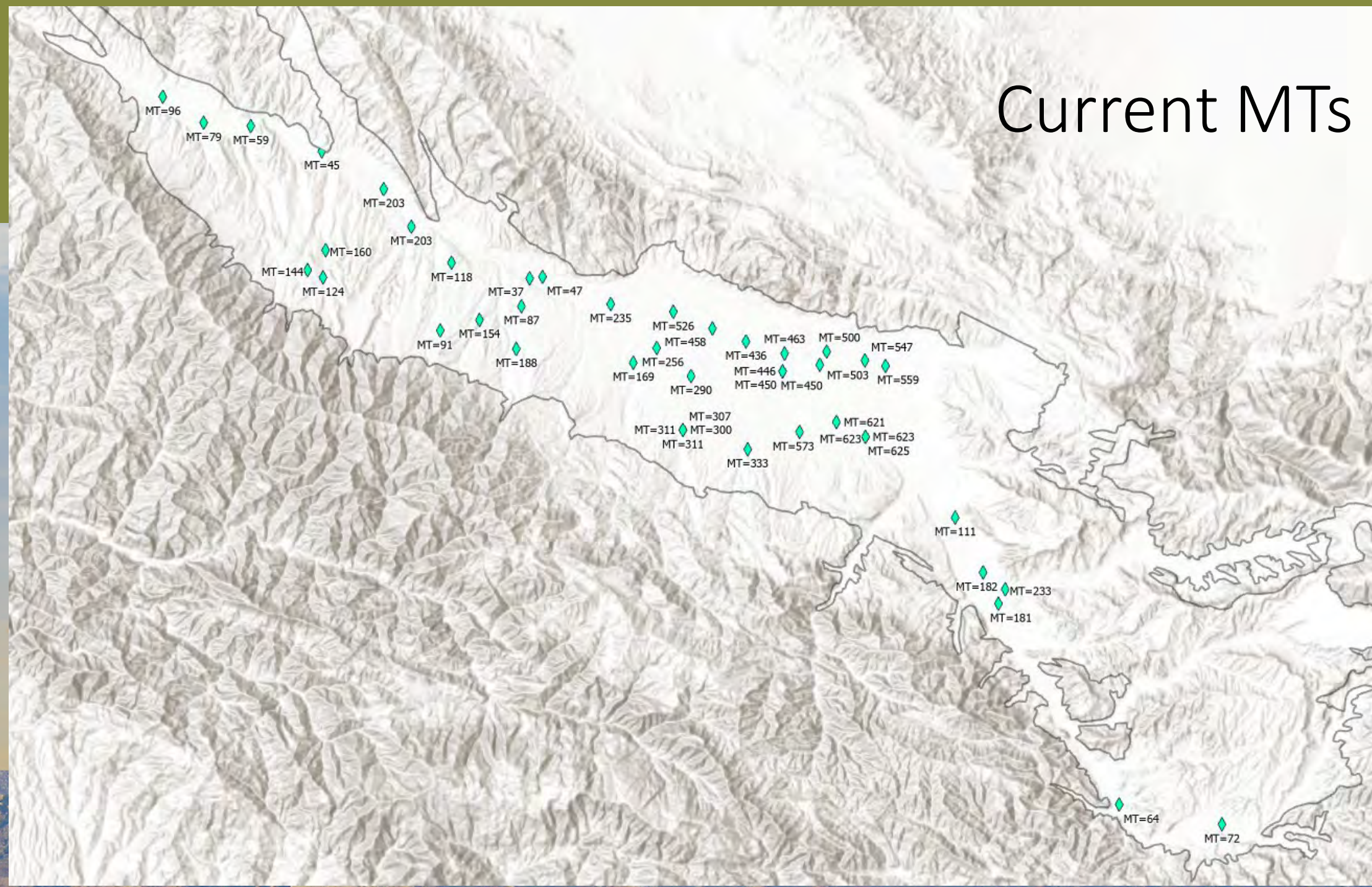
Summary of Differences Between Minimum Threshold Options

	1. Existing MT	2. WPD MT	3. Glidepath MT	4. Hybrid
Number of RMWs where MT goes up (i.e. deeper)	N/A	44	34	36
Number of RMWs where MT does not change	N/A	0	1	2
Number of RMWs where MT goes down (i.e. shallower)	N/A	3	12	9
Average MT delta (ft) (negative = deeper)	N/A	-97	-24	-36
Median MT delta (ft) (negative = deeper)	N/A	-65	-28	-30
Number of domestic wells at risk of exceeding WPD	5	0	8	0
Number of production wells at risk of exceeding WPD	7	0	30	0
Number of wells that would currently exceed MT	16	3	5	3

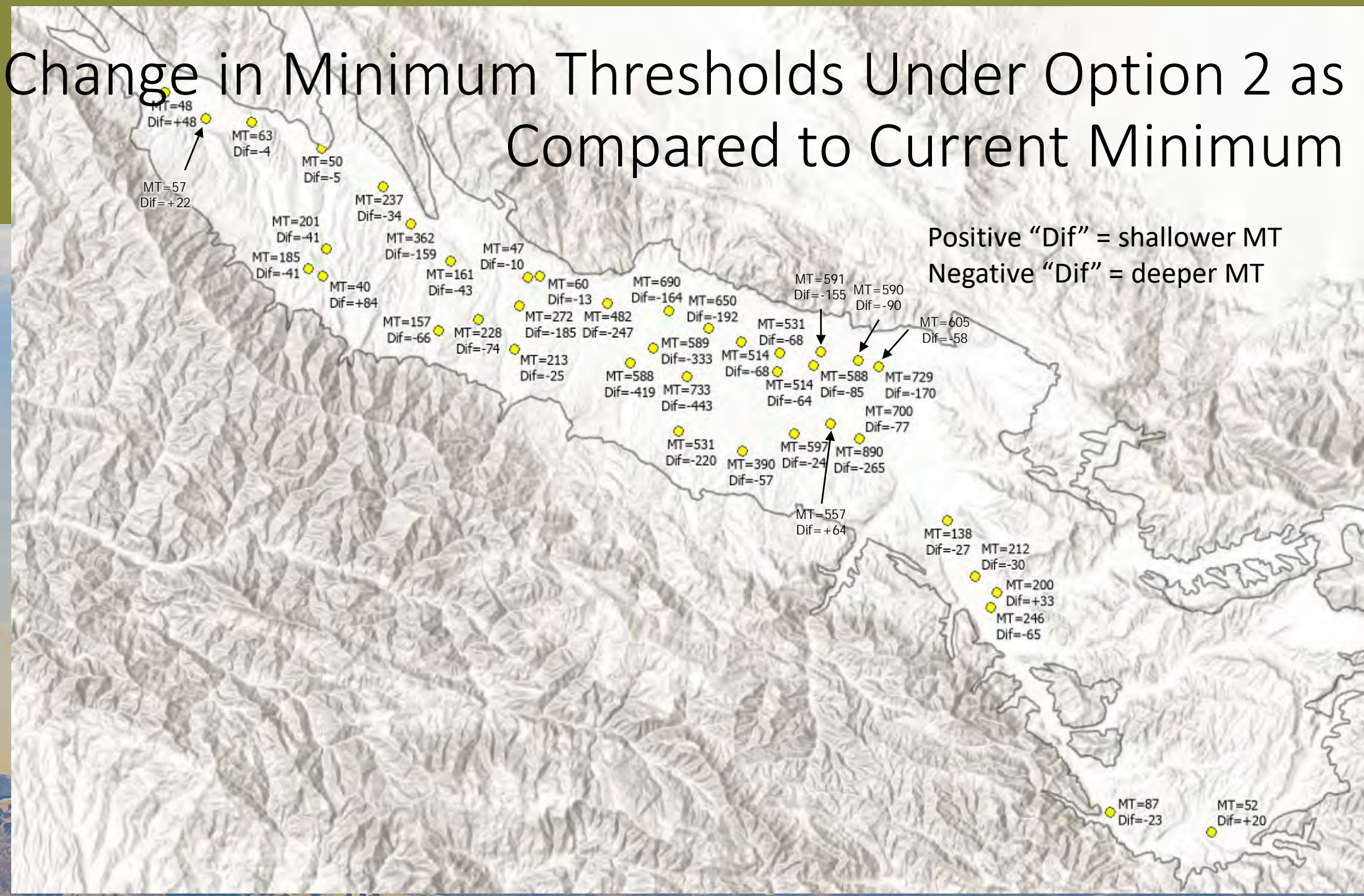
Tech Forum Feedback – 12-12-23

Topic	Summary of differences between the minimum threshold options
Comment	Need to consider impacts of SMC options on each threshold region to determine appropriateness due to technical differences in geology of the basin
Comment by	Neil Currie, Grapevine Capital
Notes	NA

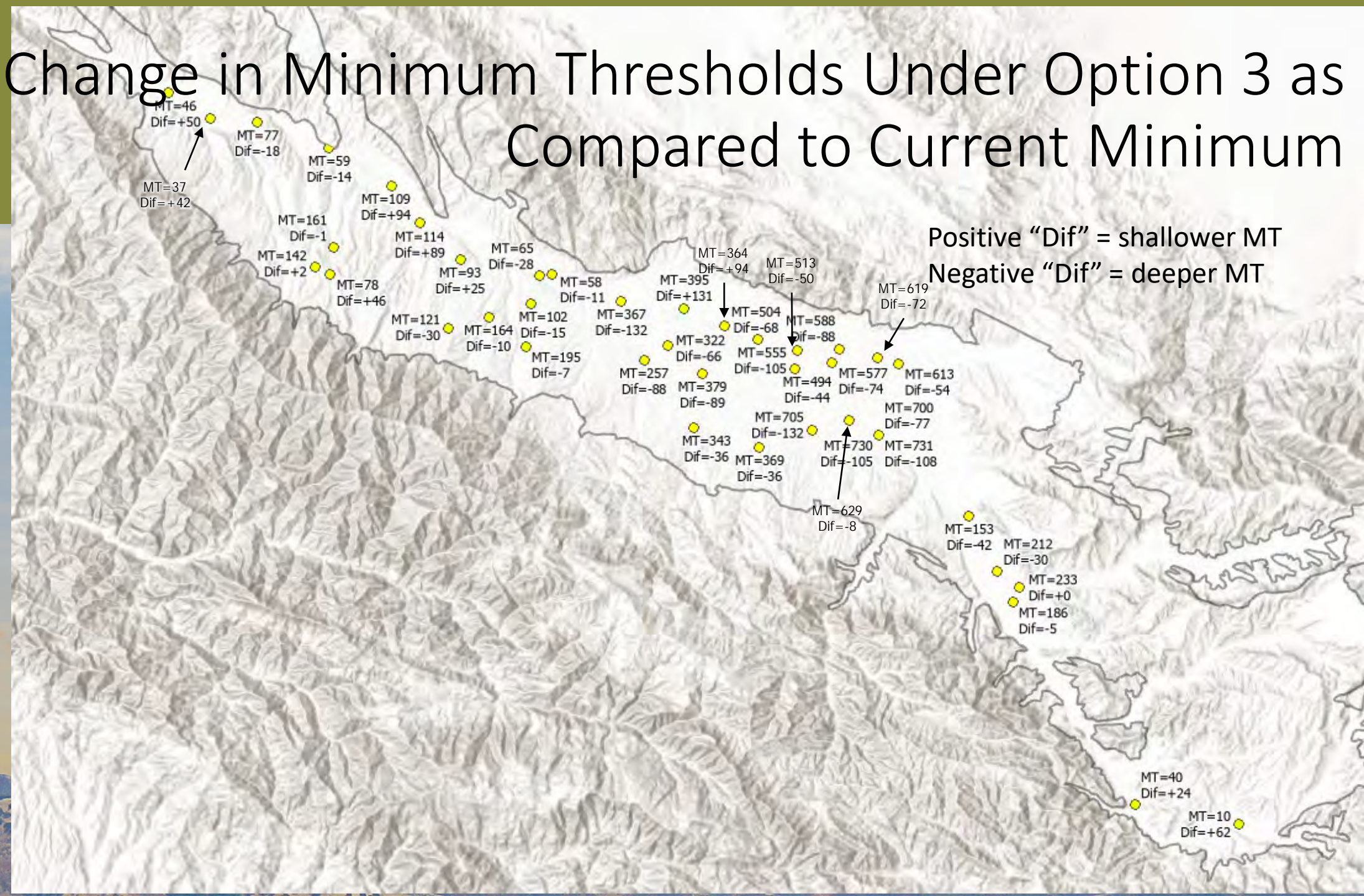
Current MTs



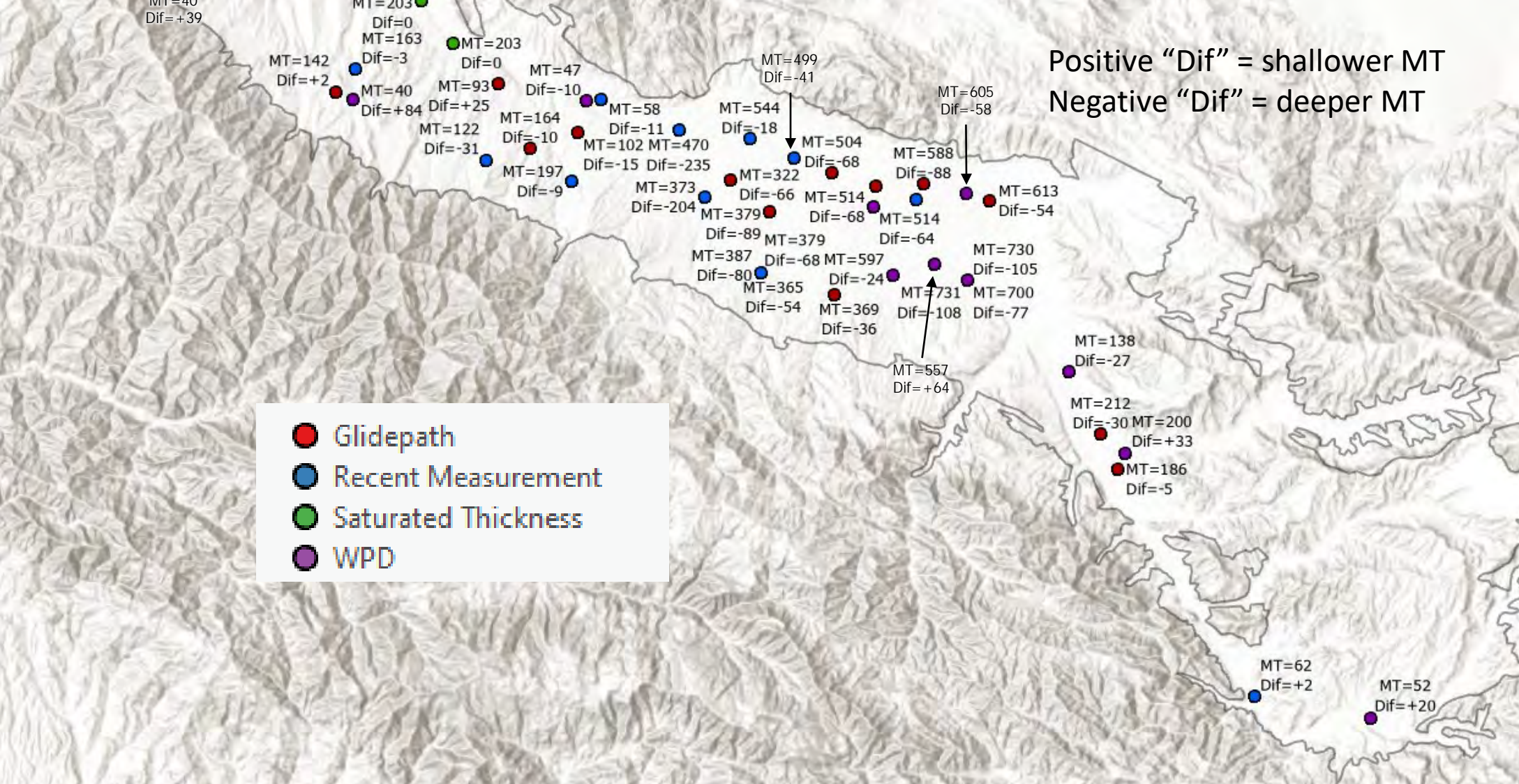
Change in Minimum Thresholds Under Option 2 as Compared to Current Minimum



Change in Minimum Thresholds Under Option 3 as Compared to Current Minimum



Change in Minimum Thresholds Under Option 4 as Compared to Current Minimum



Options for Groundwater Levels Sustainability Criteria – Measurable Objectives

1. Keep same Measurable Objectives (MOs)
2. Retain existing Margin of Operational Flexibility (MOoF) – with MO level adjusted for new MT
3. **Staff Recommendation:** Same as Option #2, except that the MOoF must be at least 10 feet

Options for Groundwater Levels Undesirable Results Definitions

- 1. Staff Recommendation: Keep the existing definitions**
2. Update to 30% of wells over 3 years instead of 2 years
3. Attempt to develop a percentage threshold based on projected impacts to beneficial users

Cuyama Basin Groundwater Sustainability Agency

12bii. Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Result Statement for Groundwater Storage

January 10, 2024



GSP Approach and Potential Options

- **GSP Section 3.2.2 Identification of Undesirable Results (p. 3-3):** “This result is considered to occur during GSP implementation when 30 percent of representative monitoring wells (i.e., 18 of 60 wells) fall below their minimum groundwater elevation thresholds for two consecutive years.”
- **GSP Section 5.3.2 Reduction of Groundwater Storage (p. 5-15):** “Reduction of groundwater storage in the Basin uses groundwater levels as a proxy for determining sustainability, as permitted by Title 23 of the California Code of Regulations in Section 354.26 (d), Chapter 1.5.2.5. Additionally, there are currently no state, federal, or local standards that regulate groundwater storage. As described above, any benefits to groundwater storage are expected to coincide with groundwater level management.”
- **Potential Options:**
 1. **Staff Recommendation:** Continue to use groundwater levels as a proxy for groundwater storage
 2. Define sustainability criteria in terms of annual change in groundwater storage as estimated by the groundwater model

Cuyama Basin Groundwater Sustainability Agency

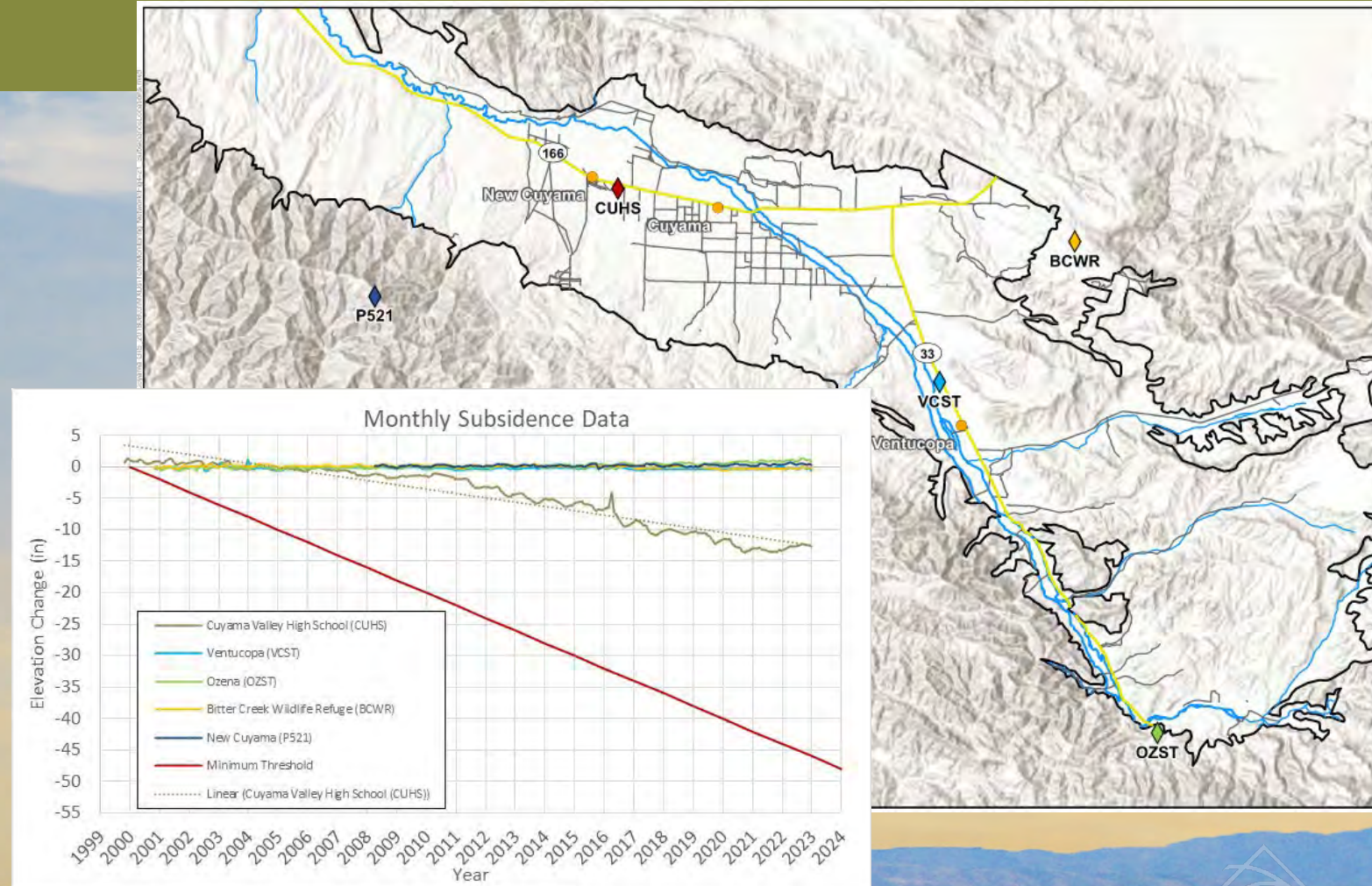
12biii. Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Result Statement for Subsidence

January 10, 2024



GSP Subsidence Monitoring Network

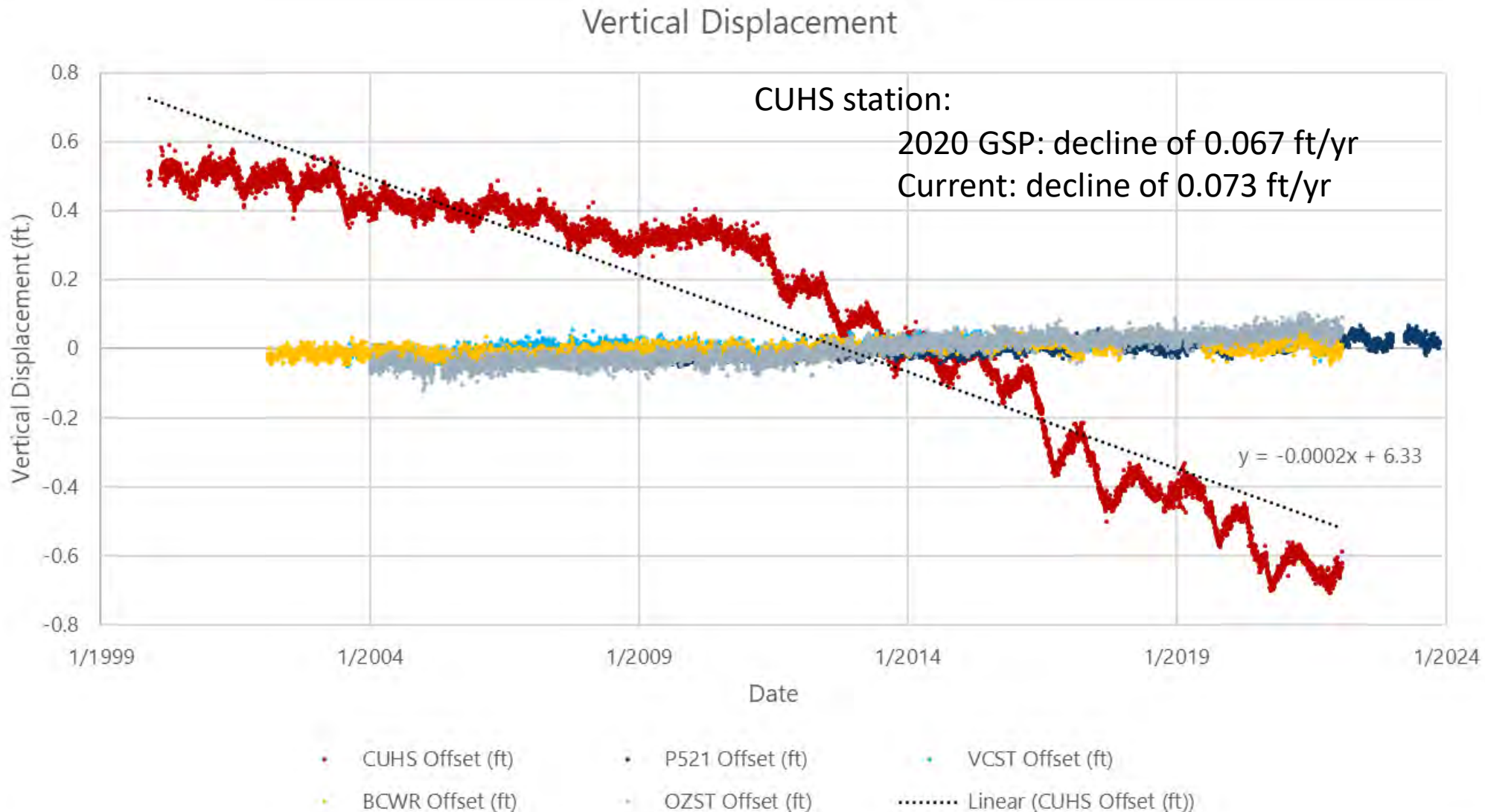
- **GSP Section 4.9 (p. 4-60)** describes the development of the subsidence monitoring network
- Five existing stations are included; the two within the basin are representative
- none are managed by the CBGSA



GSP Approach for Undesirable Results Identification and Sustainable Management Criteria

- **GSP Section 3.3.5 Identification of Undesirable Results (p. 3-7):** “(This result) is considered to occur during GSP implementation when 30 percent of representative monitoring wells (i.e., 1 of 2 wells) exceed minimum threshold for subsidence for two consecutive years.”
- **GSP Section 5.6.3 Subsidence (p. 5-23):**
 - “Because current subsidence rates (approximately 0.8 inches per year) are not significant and unreasonable, the MT rate for subsidence was set at 2 inches per year to allow for flexibility as the Basin works toward sustainability in 2040.”
 - “The MO for subsidence is set for zero lowering of ground surface elevations.”

Trendlines based on most recent data



Investigation of Subsidence Station CUHS

- At the September meeting, the Board asked Woodard & Curran to review the CUHS station to confirm that it is appropriate for subsidence monitoring
- Steps taken to review:
 - Performed field visit (see example photo at right)
 - Discussion with Ryan Turner (USGS) on station operation and quality control methods
- Based on the review, it is concluded that the station is producing appropriate data for use by the CBGSA



Options for Sustainability Criteria and Identification of Undesirable Results

- **Minimum Thresholds**
 1. **Staff Recommendation:** Keep existing MT = 0.167 ft/yr (2 in/yr)
 2. Adjust for new trend line = 0.18 ft/yr (2.2 in/yr)
 3. Lower flexibility option = 0.1 ft/yr (1.2 in/yr)
- **Measurable Objectives**
 1. **Staff Recommendation:** Keep existing MO = 0 ft/yr
- **Identification of Undesirable Results**
 1. **Staff Recommendation:** Keep existing definition
- **Keep in mind:**
 - DWR accepted GSPs Subsidence MTs and discussion
 - No major infrastructure in the Basin (no known beneficial uses/users impacted)
 - Goal is to make sure subsidence rates do not exceed historical rates

Cuyama Basin Groundwater Sustainability Agency

12biv. Discuss and Take Appropriate Action on Sustainable Management Criteria and Undesirable Result Statement for Water Quality

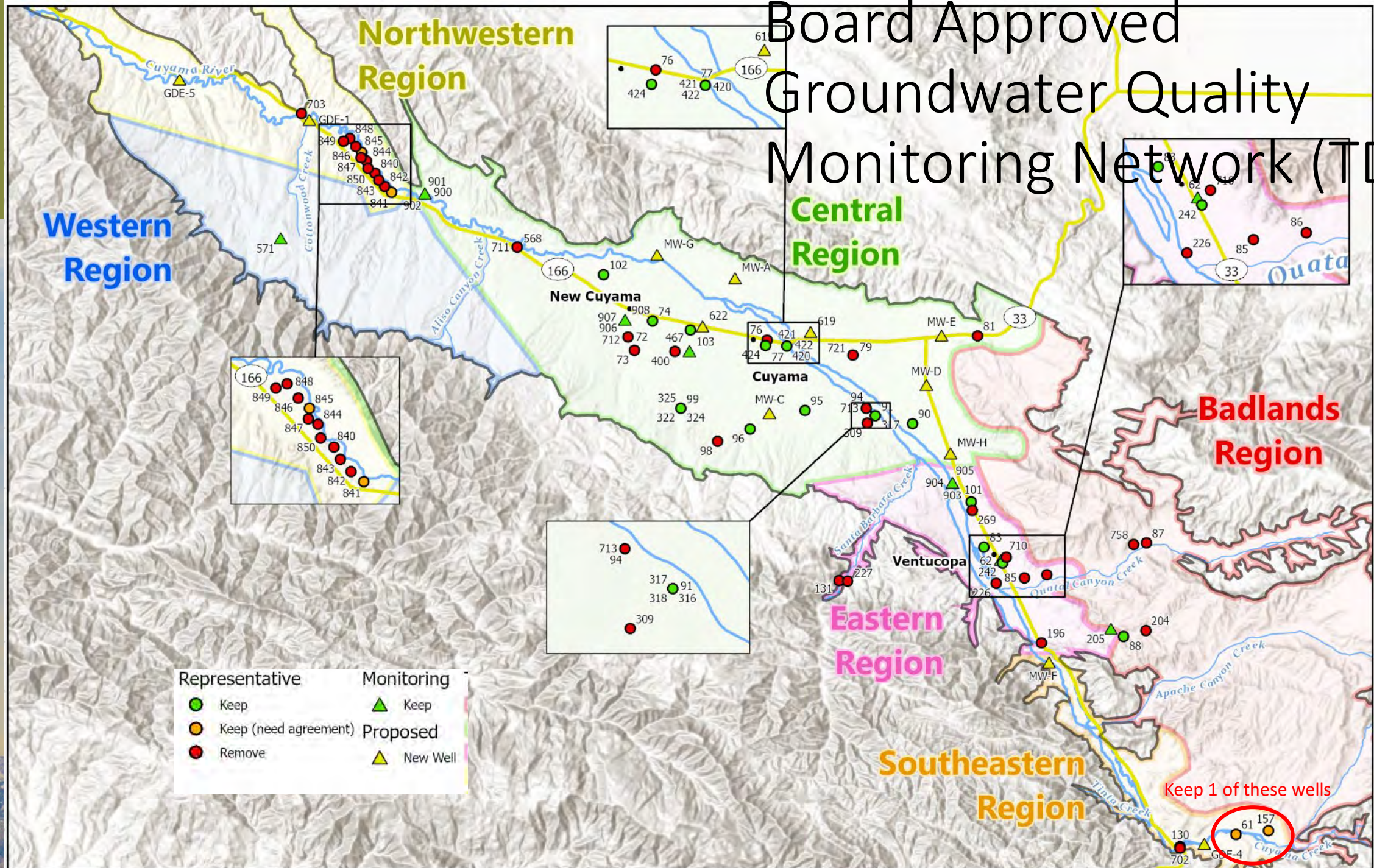
January 10, 2024



GSP Approach and DWR Recommended Corrective Action

- **GSP Section 3.3.4 Identification of Undesirable Results (p. 3-7):** “This result is considered to occur during GSP implementation when 30 percent of representative monitoring wells (i.e., 20 of 64 wells) fall below their minimum groundwater elevation thresholds for two consecutive years.”
- **GSP Section 5.5.3 Minimum Thresholds, Measurable Objectives, and Interim Milestones (p. 5-6):**
 - Sustainability criteria were established for TDS at representative wells:
 - MTs were set to be the 20 percent of the total range of each representative monitoring site above the 90th percentile of measurements for each site
 - MOs were set at the lower of 1,500 mg/L or the most recent measurement as of 2018
 - No sustainability criteria were established for arsenic or nitrates
- **DWR Recommended Corrective Actions:**
 - **Action 3:** “Provide an update regarding the project to construct a new replacement production well near the community of New Cuyama ... If this project is not effective or not implemented by the periodic evaluation, the GSA should develop sustainable management criteria for arsenic.”
 - **Action 4:** “Department staff recommend the GSA develop sustainable management criteria for nitrate.”

Board Approved Groundwater Quality Monitoring Network (TDS)



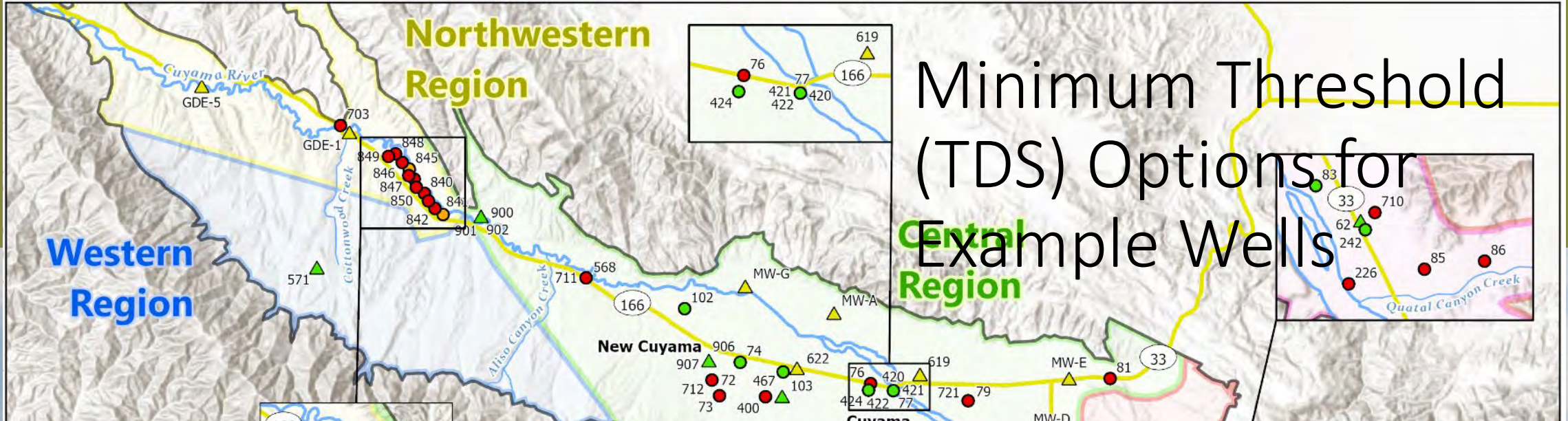
Example Computation for Current Groundwater Quality Thresholds (TDS)

- **MT:** 20% of total range of representative well above the 90th percentile of measurements for that well.
 - Example (from original GSP): Opti Well 72
 - Min = 955 mg/L
 - Max = 1,020 mg/L.
 - Range = 1,020 – 955 = 65 mg/L
 - 20% of 65 = 13 mg/L
 - 90th percentile of Opti Well 72 = 1,010 mg/L
 - 1,010 + 13 = **1,023 mg/L**
- **MO:**
 - Where recent 2018 measurements are greater than 1,500 mg/L = Temporary MCL 1,500 mg/L
 - Where recent 2018 measurements are less than 1,500 mg/L = Most recent 2018 measurement
- This approach incorporates:
 - Historical trends and data
 - A small buffer for varying conditions
 - Acknowledges limited data availability

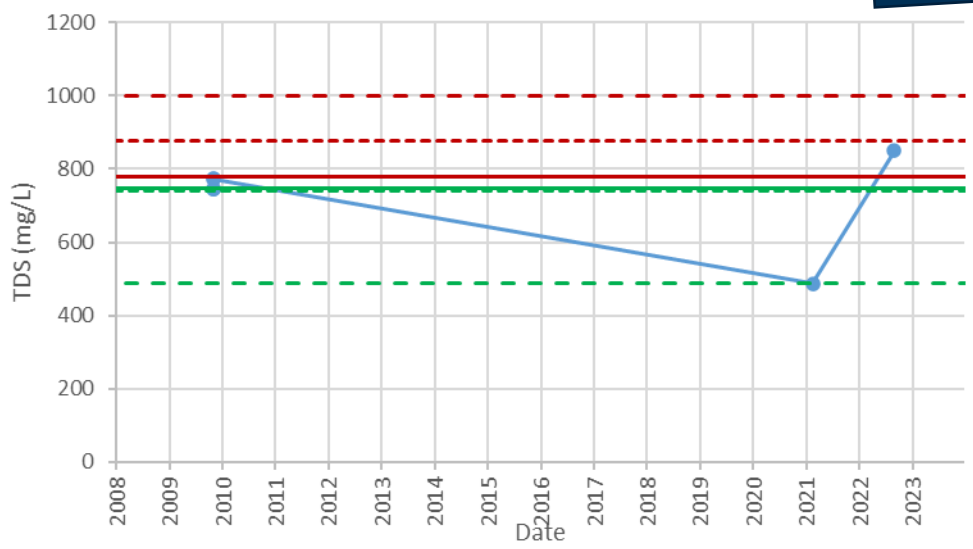
Options for Groundwater Quality Sustainability Criteria – TDS

- **Minimum Thresholds:**
 1. Keep existing Minimum Thresholds
 2. Update MTs using same calculation but incorporating more recent monitoring measurement data
 - Primarily GSA collected data from 2021-2023
 3. **Staff Recommendation:** Same as Option 2 but if a well's calculated MT is lower than 1000 mg/L, set MT = 1000 mg/L
- **Measurable Objectives**
 1. Keep existing Measurable Objectives
 2. **Staff Recommendation:** Update MOs using same calculation but incorporating more recent monitoring measurement data
 - Primarily GSA collected data from 2021-2023
 3. Use each well's historical low TDS measurement

Minimum Threshold (TDS) Options for Example Wells

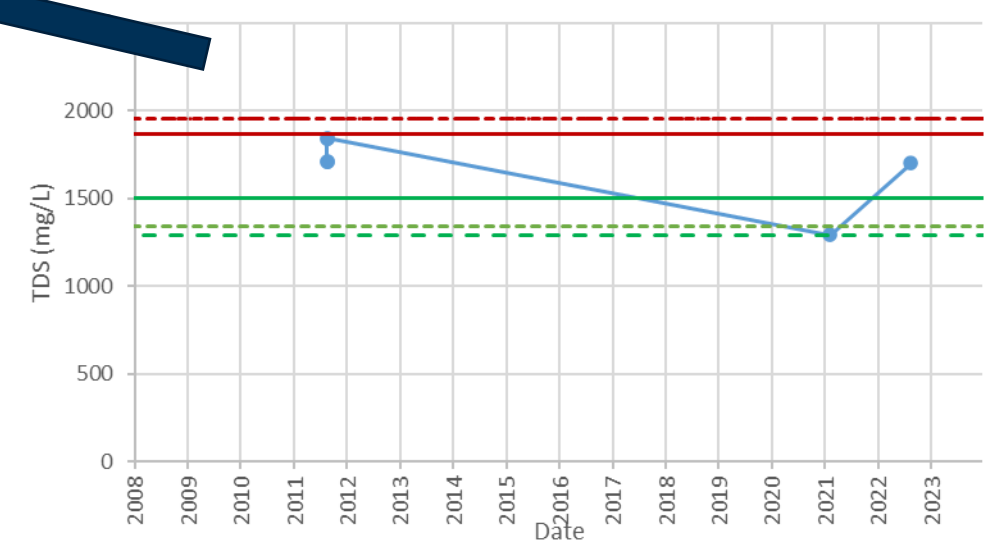


Well 324

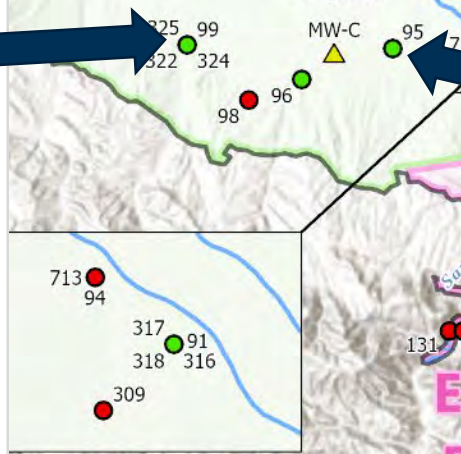


- TDS
- 324 Existing MT
- - - 324 MT 2
- · - 324 MT 3
- 324 Existing MO
- - - 324 MO 2
- · - 324 MO 3

Well 95



- Well 95 TDS
- 95 Existing MT
- - - 95 MT 2
- · - 95 MT 3
- 95 Existing MO
- - - 95 MO 2
- · - 95 MO 3



Water Quality (TDS) Minimum Threshold Options (mg/L)

Opti ID	Existing MT	MT Option 2	Difference	MT Option 3	Difference
61	615	615	0	1000	385
72	1023	1106	83	1106	83
74	1833	1872	39	1872	39
77	1592	1682	90	1682	90
79	2320	2318	-2	2318	-2
83	1726	1816	90	1816	90
88	302	333	31	1000	698
90	1593	1596	3	1596	3
91	1487	1558	71	1558	71
95	1866	1950	84	1950	84
96	1632	1676	44	1676	44
99	1562	1658	96	1658	96
101	1693	1735	42	1735	42
102	2351	2551	200	2551	200
157	2360	2468	108	2468	108
242	1518	1656	138	1656	138
316	1468	1524	56	1524	56
317	1337	1444	107	1444	107
322	1386	1504	118	1504	118
324	777	876	99	1000	223
325	1569	1687	118	1687	118
420	1490	1560	70	1560	70
421	1616	1761	145	1761	145
424	1588	1658	70	1658	70
467	1764	1846	82	1846	82
568	1191	1118	-73	1118	-73
841	561	561	0	1000	439
845	1250	1250	0	1250	0

Water Quality (TDS) Measurable Objective Options (mg/L)

Opti ID	Existing MO	MO Option 2	Difference	MO Option 3	Difference
61	585	585	0	468	-117
72	996	900	-96	559	-437
74	1500	1310	-190	1260	-240
77	1500	1120	-380	1070	-430
79	1500	1500	0	1790	290
83	1500	1120	-380	1120	-380
88	302	320	18	300	-2
90	1500	1400	-100	1400	-100
91	1410	1020	-390	1020	-390
95	1500	1340	-160	1290	-210
96	1500	1100	-400	1100	-400
99	1490	1140	-350	1010	-480
101	1500	1210	-290	1210	-290
102	1500	1500	0	905	-595
157	1500	1360	-140	1360	-140
242	1470	780	-690	780	-690
316	1380	1060	-320	1060	-320
317	1260	692	-568	692	-568
322	1350	1140	-210	1120	-230
324	746	740	-6	488	-258
325	1470	1070	-400	746	-724
420	1430	1080	-350	1080	-350
421	1500	1280	-220	797	-703
424	1500	1260	-240	1260	-240
467	1500	1070	-430	1070	-430
568	871	860	-11	860	-11
841	561	561	0	561	0
845	1250	1250	0	1250	0

Options for Groundwater Quality (TDS) Undesirable Results Definitions

- For TDS:
 1. **Staff Recommendation:** Keep the existing definitions
 2. Update to 30% of wells over 3 years instead of 2 years

Options for Groundwater Quality Sustainability Criteria – Nitrates and Arsenic

■ **DWR Recommended Corrective Actions:**

- **Action 3:** “Provide an update regarding the project to construct a new replacement production well near the community of New Cuyama ... If this project is not effective or not implemented by the periodic evaluation, the GSA should develop sustainable management criteria for arsenic.”
- **Action 4:** “Department staff recommend the GSA develop sustainable management criteria for nitrate.”

■ **Board direction needed:**

- Should staff develop minimum thresholds, measurable objectives and an undesirable result definition for **arsenic** for inclusion in the GSP?
- Should staff develop minimum thresholds, measurable objectives and an undesirable result definition for **nitrates** for inclusion in the GSP?

Review of SMC Approach for Nitrates and Arsenic in Other Basins

- Woodard & Curran reviewed the approach for setting sustainable management criteria (SMCs) in approved GSPs.
- GSPs in 16 subbasins were reviewed:
 - 11/16 set SMCs for Nitrate
 - 7/11 set SMCs for Arsenic
 - (in 5 basins, arsenic was not identified as a concern)
 - In most cases, the SMC was set equal to the California MCL
 - In most cases where an SMC was not set, DWR requested additional info/rationale in determination letter

Summary of Minimum Thresholds Approach for Nitrates and Arsenic in Basins with Approved GSP

Basin	Nitrate MT Criteria Used	Arsenic MT Criteria Used
East San Joaquin	No MT set	No MT set
Kings	MCL (10 mg/L as N) or 20% above recent value	MCL (0.01 mg/L as N) or 20% above recent value
Las Posas	Based on Groundwater Levels criteria	No MT set; not identified as a concern
Merced	No MT set	No MT set
Mound	MCL (10 mg/L as N)	No MT set; not identified as a concern
Ojai Valley	MCL (10 mg/L as N)	No MT set; not identified as a concern
Oxnard	No MT set	No MT set; not identified as a concern
Paso Robles	MCL (10 mg/L as N)	No MT set; not identified as a concern
Petaluma	MCL (10 mg/L as N)	MCL (0.01 mg/L)
Pleasant Valley	Based on Groundwater Levels criteria	Based on Groundwater Levels criteria
Santa Cruz Mid-County	MCL (10 mg/L as N)	MCL (0.01 mg/L)
Santa Margarita	San Lorenzo River TMDL (5mg/L)	MCL (0.01 mg/L)
Turlock	MCL (10 mg/L as N)	MCL (0.01 mg/L)
White Wolf	MCL (10 mg/L as N)	MCL (0.01 mg/L)
Yolo	No MT set	No MT set
Yuba	No MT set	No MT set



TO: Board of Directors
Agenda Item No. 12c

FROM: Jim Beck / Brian Van Lienden

DATE: January 10, 2024

SUBJECT: Discussion and Take Appropriate Action on GSP Draft Chapters [Final Discussion]

Recommended Motion

Approve GSP chapters 1 and 4.

Discussion

A brief overview of draft Groundwater Sustainability Plan (GSP) chapters 1 and 4 is provided as Attachment 1, and draft final redline GSP chapters are provided as Attachment 2 for consideration of approval. The below draft chapters reflect Cuyama Basin Groundwater Sustainability Agency Standing Advisory Committee, tech forum, public stakeholder, and Board comments and direction from public meetings held September through November 2023.

- i. Chapter 1. Agency Information, Plan Area, Communication
- ii. Chapter 4. Monitoring Networks

Cuyama Basin Groundwater Sustainability Agency

12c. Discuss and Take Appropriate Action
on GSP Draft Chapters

January 10, 2024



Discuss and Take Appropriate Action on GSP Draft Chapters

- Updated versions of the following chapters have been provided for approval:
 - Chapter 1: Agency Information, Plan Area, and Communications
 - Chapter 4: Monitoring Networks
- Updates account for:
 - New information not available when 2020 GSP was developed
 - Updated policies approved by the CBGSA Board at the Sep 2023 and Nov 2023 Board meetings
- Staff is requesting Board approval of these chapters at this Board meeting
- Comments can be provided by email or by mail to Taylor Blakslee
 - These will be considered when preparing the full Public Draft version of the GSP in September 2024



1. AGENCY INFORMATION, PLAN AREA, AND COMMUNICATION

1.1 Introduction and Agency Information

This section describes the Cuyama Basin Groundwater Sustainability Agency (CBGSA), its authority in relation to the Sustainable Groundwater Management Act (SGMA), and the purpose of this Groundwater Sustainability Plan (GSP).

This GSP meets regulatory requirements established by the California Department of Water Resources (DWR) as shown in the completed *Preparation Checklist for GSP Submittal* (Appendix A). The CBGSA's Notification of Intent to Develop a Groundwater Sustainable Plan is in Appendix B.

On June 6, 2016, Santa Barbara County Water Agency (SBCWA) sent DWR a notice of intent to form a Groundwater Sustainability Agency (GSA). Following this submittal, the CBGSA Board of Directors was organized, and now includes the following individuals:

- ~~Derek Yurosek—Chairperson, Cuyama Basin Water District (CBWD)~~
- ~~Lynn Compton—Vice Chairperson, County of San Luis Obispo~~
- ~~Byron Albano—CBWD~~
 - ~~Cory Bantilan—, Chair, SBCWA~~
- ~~Tom Braeken—CBWD~~
- ~~George Cappello—CBWD~~
 - ~~Paul Chounet—Matt Vickery, Vice Chair, Cuyama Community Services Basin Water District (CCSD)CBWD)~~
 - ~~Arne Anselm, Secretary, County of Ventura~~
 - ~~Byron Albano, Treasurer, CBWD~~
 - ~~Rick Burnes, CBWD~~
 - ~~Jimmy Paulding, County of San Luis Obispo~~
- ~~Zack Scrivner—County of Kern~~
 - ~~Glenn Shephard—, County of Ventura Kern~~
 - ~~Das Williams—, SBCWA~~
 - ~~Deborah Williams, Cuyama Community Services District (CCSD)~~
 - ~~Jane Wooster—, CBWD~~
 - ~~Derek Yurosek, CBWD~~

In addition, the following individuals serve as alternatives to regular CBGSA Board members:

- Darcel Elliott – SBCWA
- Steve Lavagnino – SBCWA
- ~~Louise Draucker~~Juan Gonzalez – CCSD



- Brad DeBranch – CBWD
- Matt Klinchuch – CBWD
- ~~Arne Anselm~~[Kim Loeb](#) – County of Ventura
- ~~Debbie Arnold~~[Blaine Reely](#) – County of San Luis Obispo
- ~~Alan Christensen~~[Katelyn Zenger](#) – County of Kern

During development of ~~this~~[the 2020](#) GSP, board meetings were held on the first Wednesday of every month at 4 pm in the Cuyama Family Resource Center, at 4689 California State Route 166, in New Cuyama, California. [During development of the 2025 GSP update, the board meets 6 times per year at the same location.](#)

The CBGSA’s established boundary corresponds to DWR’s *California’s Groundwater Bulletin 118 – Update 2003* (Bulletin 118) groundwater basin boundary for the Cuyama Valley Groundwater Basin (Basin) (DWR, 2003). No additional areas were incorporated.

1.1.1 Contact Information

Contact information for the CBGSA is shown below.

- Cuyama Basin General Manager/CBGSA Director: Jim Beck
- Phone Number: (661) 447-3385
- Email: tblakslee@hgcpm.com
- Physical and Mailing Address: 4900 California Avenue, Tower B, 2nd Floor, Bakersfield, CA. 93309
- Website: <http://cuyamabasin.org/index.html>

1.1.2 Management Structure

The CBGSA is governed by an 11-member Board of Directors that meets ~~monthly~~[six times a year](#). The General Manager manages [the](#) day-to-day operations of the CBWD, while Board Members vote on actions of the CBGSA; the Board is the CBGSA’s decision-making body.

During GSP development, a Standing Advisory Committee (SAC) was formed to act in an advisory capacity to the CBGSA Board of Directors. The SAC includes the following individuals:

- ~~Roberta Jaffe~~ [Chairperson](#)
- ~~Brenton_Kelly~~ [Vice Chairperson \(Chair\)](#)
- ~~Brad_DeBranch~~ [\(Vice Chair\)](#)
- ~~Louise_Draucker~~
- ~~Jake_Furstenfeld~~
- [Jean Gaillard](#)



- [Joe Haslett](#)
- ~~[Mike Post](#)~~
- ~~[Hilda Leticia Valenzuela](#)~~
- ~~[The ninth position on the SAC, which would be filled by a person representing the Hispanic community, is currently vacant. The CBGSA is currently in the process of identifying a person to fill this position.](#)~~ [Roberta Jaffe](#)
- [Karen Adams](#)
- [John Caufield](#)
- [David Lewis](#)

1.1.3 Legal Authority

Per Section 10723.8(a) of the California Water Code, SBCWA gave notice to DWR on behalf of the CBGSA of its decision to form a GSA, which is Basin 3-013, per DWR's Bulletin 118 (Appendix C).

1.2 Plan Area

This section describes the Basin, including major streams and creeks, institutional entities, agricultural and urban land uses locations of groundwater production wells, locations of state lands and geographic boundaries of surface water runoff areas. This section also describes existing surface water and groundwater monitoring programs, existing water management programs, and general plans in the Basin. The information contained in this section reflects information from publicly available sources, and may not reflect all information that will be used for GSP technical analysis.

This section of the GSP satisfies Section 354.8 of the SGMA regulations.

1.2.1 Plan Area Definition

The Basin is in California's Central Coast Hydrologic Region. It is beneath the Cuyama Valley, which is bounded by the Caliente Range to the northwest and the Sierra Madre Mountains to the southeast. The Basin was initially defined in Bulletin 118. The boundaries of the Cuyama Basin were delineated by DWR because they were the boundary between permeable sedimentary materials and impermeable bedrock. DWR defines this boundary as "impermeable bedrock with lower water yielding capacity. These include consolidated rocks of continental and marine origin and crystalline/or metamorphic rock."

1.2.2 Plan Area Setting

Figure 1-1 shows the Basin and its key geographic features. The Basin encompasses an area of about 378 square miles and includes the communities of New Cuyama and Cuyama, which are located along State Route (SR) 166 and Ventucopa, which is located along SR 33. The Basin encompasses an



approximately 55-mile stretch of the Cuyama River, which runs through the Basin for much of its extent before leaving the Basin to the northwest and flowing towards the Pacific Ocean. The Basin also encompasses stretches of Wells Creek in its north-central area, Santa Barbara Creek in the south-central area, the Quatal Canyon drainage and Cuyama Creek in the southern area of the Basin. Most of the agriculture in the Basin occurs in the central portion east of New Cuyama, and along the Cuyama River near SR 33 through Ventucopa.



Figure 1-2 shows the CBGSA boundary. The CBGSA boundary covers all of Cuyama Basin. The CBGSA was created by a Joint Exercise of Powers Agreement among the following agencies:

- Counties of Kern, San Luis Obispo, and Ventura
- SBCWA, representing the County of Santa Barbara
- CBWD
- CCSD

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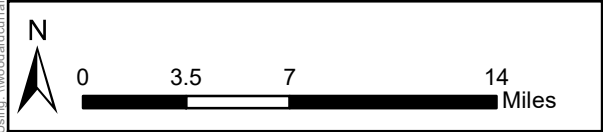
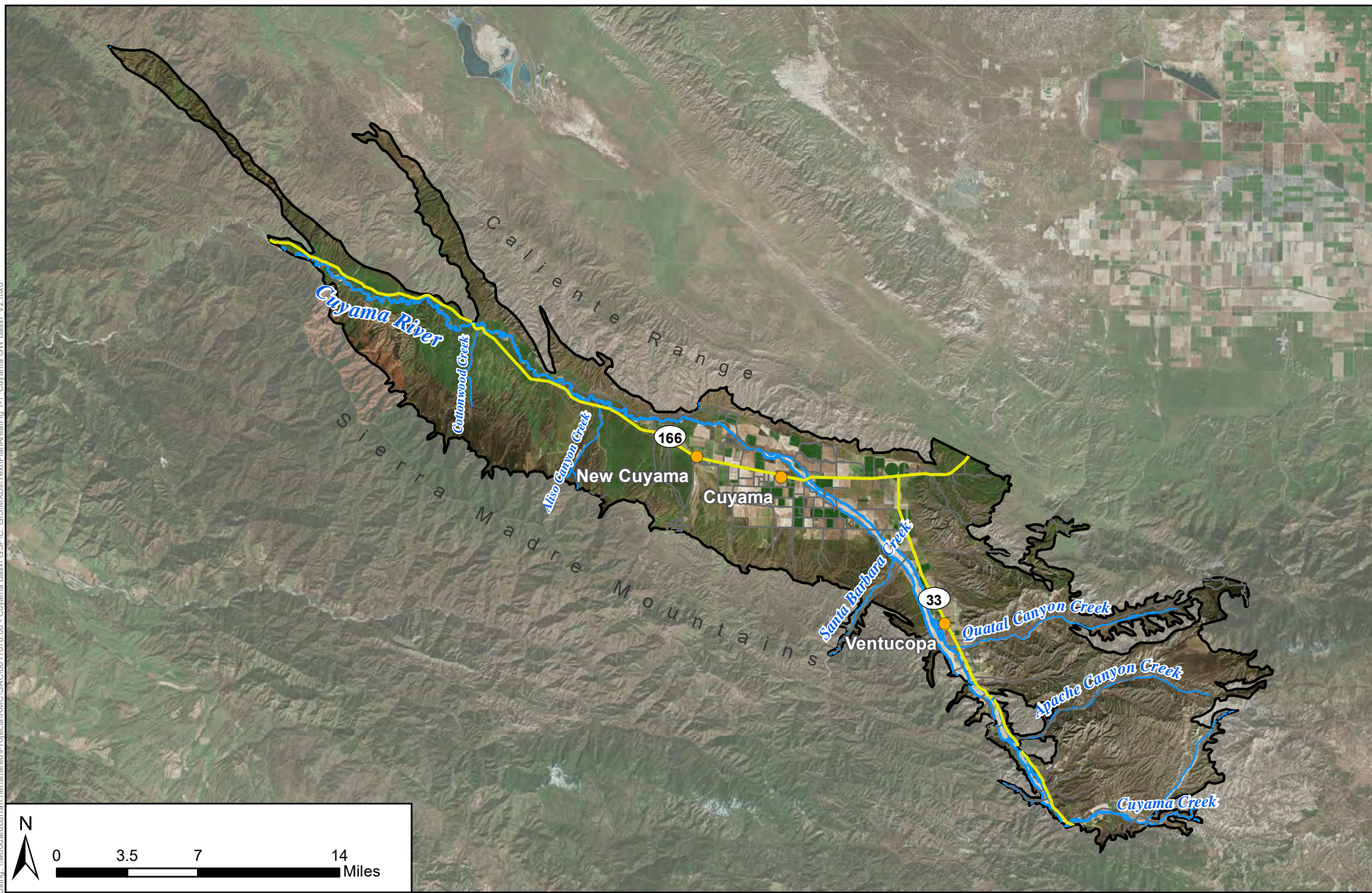


Figure 1-1 - Cuyama Valley Groundwater Basin

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Towns
- Cuyama Basin
- Highways
- Local Roads
- Cuyama River
- Streams/Creeks

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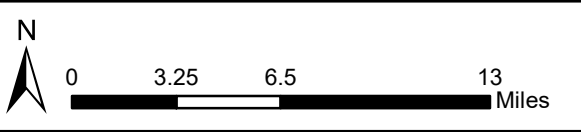
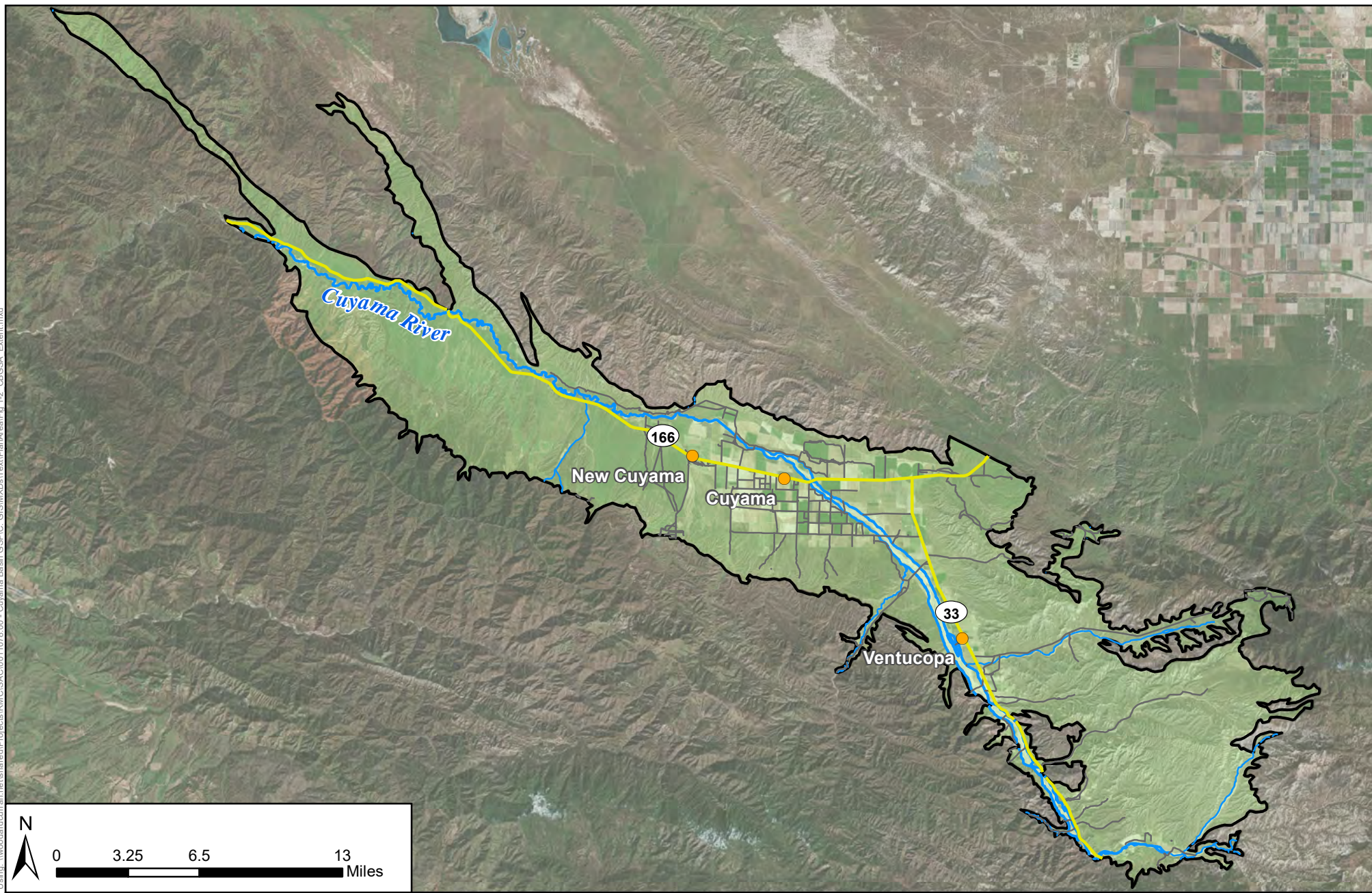


Figure 1-2 - Cuyama Valley Groundwater Sustainability Agency Boundary

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Towns
- Cuyama Basin GSA
- Highways
- Local Roads
- Cuyama River
- Streams/Creeks



Figure 1-3 shows the Basin and neighboring groundwater basins. The Carrizo Plain Basin is located immediately northeast of the Cuyama Basin and they share a boundary ~~at a location~~ about 5 miles east of the intersection of SR 166 and SR 133. The San Joaquin Valley Basin is located just east of the Carrizo Plain Basin. The Basin also shares a boundary with the Mil Potrero Area Basin, which is located just east of one of the Basin's southeastern tips, and the Lockwood Valley Basin is located close to the Basin's southern area but does not share a boundary with it. To the southwest, and more distant from the Basin, are the Santa Maria, San Antonio Creek Valley and Santa Ynez River Valley basins, which are located about 30 to 40 miles southwest of the Cuyama Basin.

Figure 1-4 depicts the Basin's extent relative to the boundaries of the various counties that overlie the Basin. Santa Barbara County has jurisdiction over the largest portion of the Basin (168 square miles), covering most of the area south of the Cuyama River, as well as Ventucopa and a small area to the north of that community. San Luis Obispo County has jurisdiction over areas north of the Cuyama River (covering 77 square miles). The Cuyama River marks the boundary between San Luis Obispo County and Santa Barbara County. Kern County has jurisdiction over the smallest extent of Cuyama Basin area compared to the other counties (13 square miles). Its jurisdictional coverage is located just east of the SR 166 and SR 33 intersection, as well as tips of the Basin in the Quatal Canyon area. Ventura County has jurisdiction over the southeastern area of the Basin (covering 120 square miles), including the area east of Ventucopa.

Figure 1-5 shows the non-county jurisdictional boundaries in the Basin. The CBWD was formed in 2016 and covers a large area of the Basin (about 130 square miles), from a location about 5 miles west of Wells Creek to 2 miles east of the intersection of SR 166 and SR 33, and south of Ventucopa along SR 33. The CCSD was formed in 1977 and covers a small area of the Basin (about 0.5 square miles) located along SR 166 in the community of New Cuyama.

Figures 1-6 through 1-~~13~~16 show the agricultural and urban land uses in the Cuyama Basin for the years 1996, 2000, 2003, 2006, 2009, 2012, 2014, 2016, 2018, 2020, and 2016~~2022~~, respectively. The 1996 land use data are from historical DWR county land use surveys¹ while the 2014 ~~and 2016~~through 2022 land use data were developed for DWR using remote sensing data.²Data for the remaining years were developed by the CBGSA using the same remote sensing method that DWR used for 2014 ~~and 2016~~through 2022. Agricultural land is located primarily in the New Cuyama and Ventucopa areas, and along the SR 166 and SR 33 corridors between those communities. There were about 34,000 acres of irrigated land in 2022, including about 19,000 acres of idle land. There is a regular rotation of crops with between 9,000 and ~~45~~19,000 acres of agricultural area left idle each year between 2000 and ~~2016~~(the 1996 dataset does not include records of idle land).2022. Areas that are in active agricultural use primarily produce miscellaneous truck crops, carrots, potatoes and sweet potatoes, miscellaneous grains and hay,

¹ <https://www.water.ca.gov/Programs/Water-Use-And-Efficiency/Land-And-Water-Use/Land-Use-Surveys>

² <https://gis.water.ca.gov/app/CADWRLandUseViewer/>



and grapes. Various other crop types are produced in the Basin as well, such as fruit and nut trees, though at smaller production scales.

In addition to the crop types shown on the maps, much of the land area in the Basin, particularly in the western and eastern areas, consists of non-irrigated pasture. These are not present on the map because they are not detected by the remote sensing approach. Some recently planted crops are also not shown on the maps because they were either not detected by the remote sensing approach or were planted subsequent to the most recently mapped year of 2016. These include a new vineyard along SR 166 in the western part of the basin (which the remote sensing approach identifies as “idle” in 2016) and new olive orchards along SR 33. These additional land uses will be accounted for in the numerical modeling used to develop water budgets for the GSP.

[Figure 1-17](#) shows ~~2016~~[2022](#) land use by water source in the Basin. Almost all of the water use in the Basin is served by groundwater. There are 37 surface water rights permits in the Basin that allow up to 116 acre-feet per year. Much of the surface water use is for stockwatering of pasture land, which may not be included in the land use dataset shown in ~~the figure~~[Figure 1-17](#).

[Figure 1-18](#) shows the number of domestic wells per square mile and the average depth of domestic wells in each square mile in the Basin. [Figure 1-15](#)~~18~~ shows a grid pattern where each block on the grid is a section that covers 1 square mile of land. The number in each square represents the average depth of the well(s) in the section. Most of the sections in the Basin that have domestic wells contain only one well, while ~~twelve~~[fourteen](#) sections contain two wells each, three sections contain three wells each, ~~four~~[six](#) sections contain four wells each, ~~and one section contains six wells~~. Wells range in depth broadly across the Basin, from as shallow as 120 feet below ground surface in the southeast portion of the Basin to 1,000 feet below ground surface in the central portion of the Basin.

[Figure 1-19](#) shows the density and average depth of production wells in the Basin per square mile. There is a wide distribution of production well density in the Basin (between 1 and ~~11~~[12](#) wells per square mile). Depths of production wells range from 50 feet below ground surface (bgs) on the outer edges of the Basin, to over 1,200 feet bgs in the central portion of the Basin. [Figure 1-20](#) shows the density and average depth of public wells in the Cuyama Basin. The Basin contains ~~three~~[four](#) public wells, one just south of [New Cuyama](#), one southwest of New Cuyama, one east of Ventucopa and one at the southern tip of the Basin. These wells have depths of 855, ~~400~~, 280 and 800 feet, respectively.

Information presented in [Figures 1-15](#)~~18~~ through [1-17](#)~~20~~ reflect information contained in DWR’s well completion report database, which contains information about the majority of wells drilled after 1947. However, some wells may not have been reported to DWR (potentially up to 30 percent of the total), and therefore are not included in the database or in these figures. Furthermore, designations of each well as a domestic, production, or public well were developed by DWR based on information contained in the well completion reports and have not been modified for this document.

[Figure 1-18](#) shows the public lands in and around the Basin. In addition, the database includes wells which have been abandoned or destroyed but have not been noted as such.



[Figure 1-21 shows the active pumping well list in the Basin as confirmed since adoption of the 2020 GSP by the CBGSA. There are 262 active wells in the basin split into two categories production and domestic. Since the GSP adoption the CBGSA has undertaken steps to create this active well list by reaching out directly to landowners to receive information on their wells and locations, including a landowner well survey that got distributed to the community. This active well dataset was posted on the Cuyama Basin website for landowners to review and provide feedback to verify accuracy of the data. A survey was also conducted specifically for de-minimus users to obtain locations of their wells. Because it is the most complete and accurate dataset available, this active well dataset will be utilized by the CBGSA in place of the DWR well completion report data for any future analysis of potential impacts to beneficial users. Figure 1-22 shows the public lands in and around the Basin.](#) Some portions of the land that overlies the Cuyama Basin, and most of the areas immediately surrounding the Basin, have a federal or State jurisdictional designation. The Los Padres National Forest covers most of the Basin's northwestern arm, then runs just outside the Basin's western boundary until the Forest boundary turns east at about Ventucopa where it covers the southern part of the basin. The balance of the northwestern arm consists of private holdings and the state-owned Carrizo Plains Ecological Reserve which extends into the basin to the Santa Barbara County-San Luis Obispo County line at the Cuyama River. A portion of the Basin north of Ventucopa, as well as an area nearby that is immediately outside the Basin, is designated as the Bitter Creek National Wildlife Refuge. The Bureau of Land Management has jurisdiction over a large area outside the Basin, and along the Basin's northern boundary, including small parts of the Basin north of the Cuyama River. Most of the northeastern arm of the Basin is designated as State Lands. [Figure 1-23](#) shows that the Basin is located within the Cuyama Watershed, which lies within the larger Santa Maria watershed, with the Basin occupying roughly the entirety of the Santa Maria Basin's eastern contributing watershed, and a small part of the Cuyama Basin's northeastern arm that flows into the Estrella River Basin due to the topography present in this area. [Figure 1-23](#) illustrates the Cuyama Watershed's location in the Santa Maria Basin, as well as the larger Basin's major receiving water bodies, which include the Santa Maria River, the Cuyama River, Aliso Canyon Creek, Cottonwood Creek, Apache Canyon Creek, Santa Barbara Creek, the Quatal Canyon drainage, and Cuyama Creek.

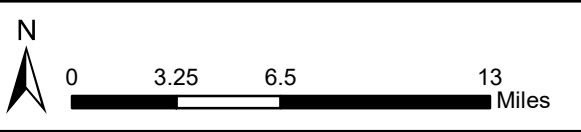
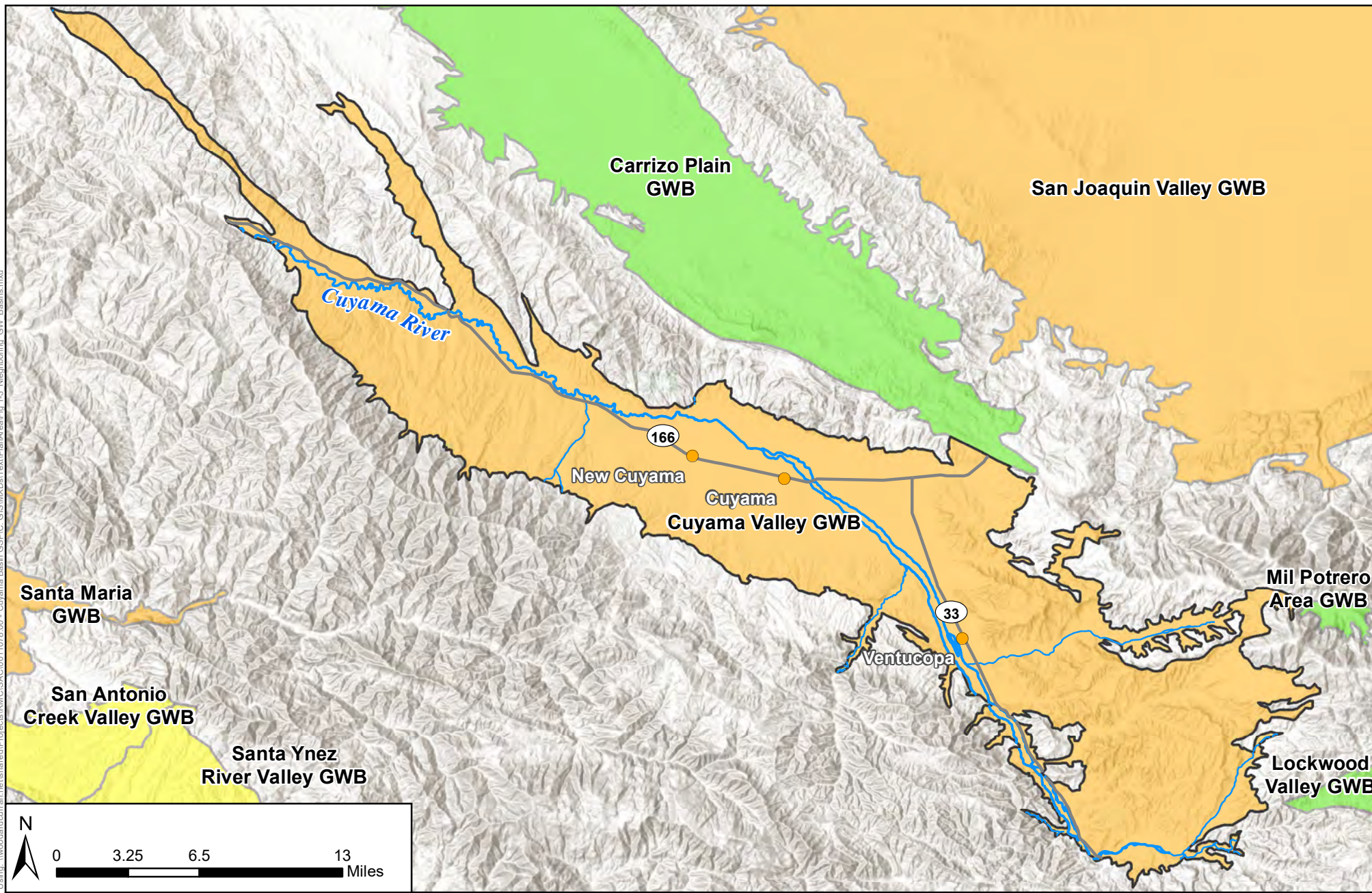


Figure 1-3 - Neighboring Groundwater Basins

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Towns
- Cuyama Basin
- Highways
- Cuyama River
- Streams/Creeks
- Basin Priority
- High Priority
- Medium Priority
- Low Priority
- Very Low Priority

Figure Exported: 6/19/2018 10:18: By: mwicks Using: \\woodardcurran.net\share\proj\proj\GIS\MapArea\MapArea\Fig_1-3_Neighboring_GW_Basins.mxd

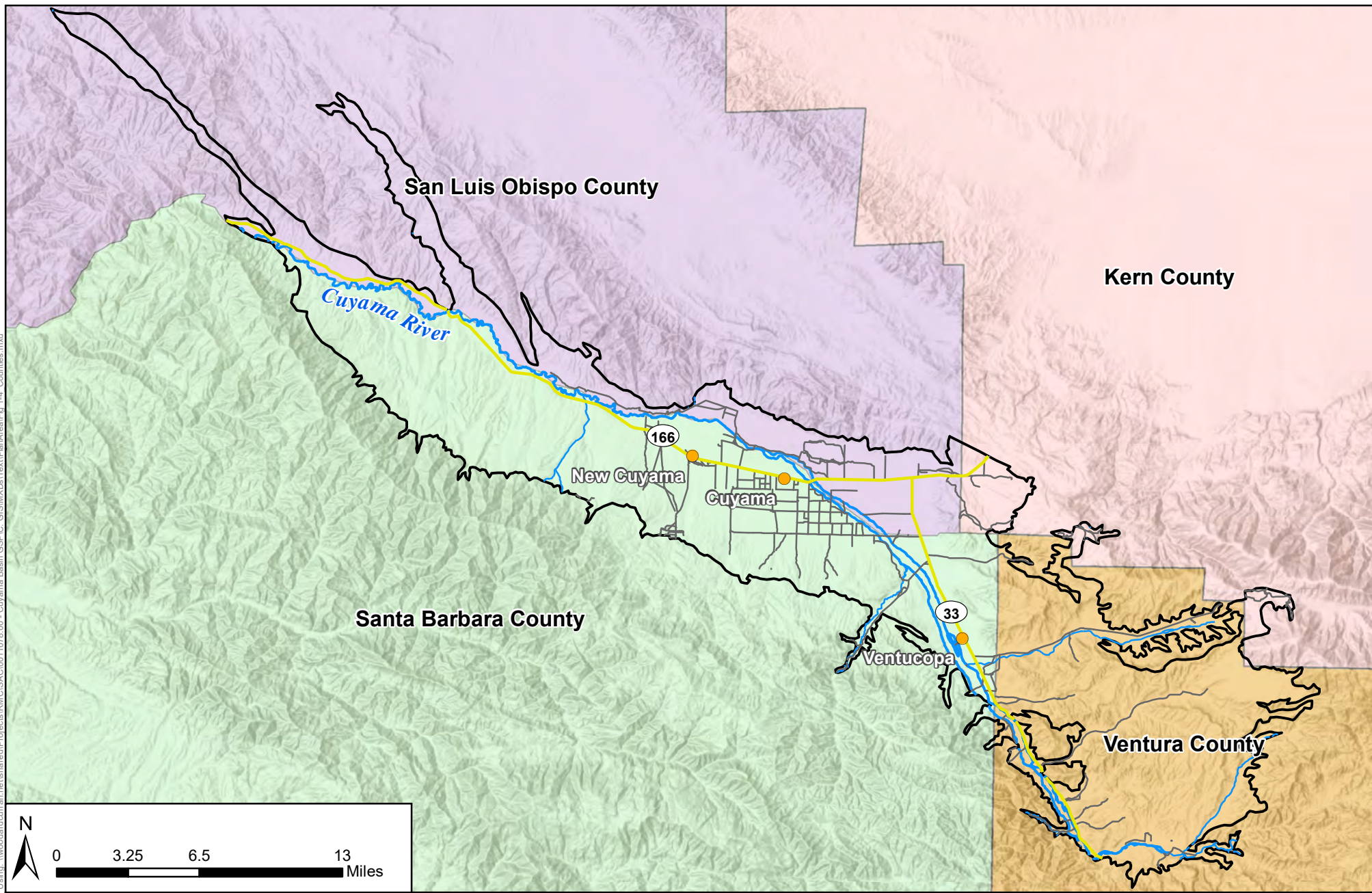


Figure Exported: 6/19/2018 10:18 AM By: mwricks Using: \\woodardcurran.net\shared\Projects\RM\CSAC\0011078_00 - Cuyama Basin GSPIC_GIS\MXD\Text\PlanArea\Fig_1-4_County.mxd

Figure 1-4 - Counties Overlying Cuyama Basin

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- | | | |
|---|----------------|------------------------|
| ● Towns | Local Roads | County |
| Cuyama Basin | Cuyama River | Kern County |
| Highways | Streams/Creeks | San Luis Obispo County |
| | | Santa Barbara County |
| | | Ventura County |

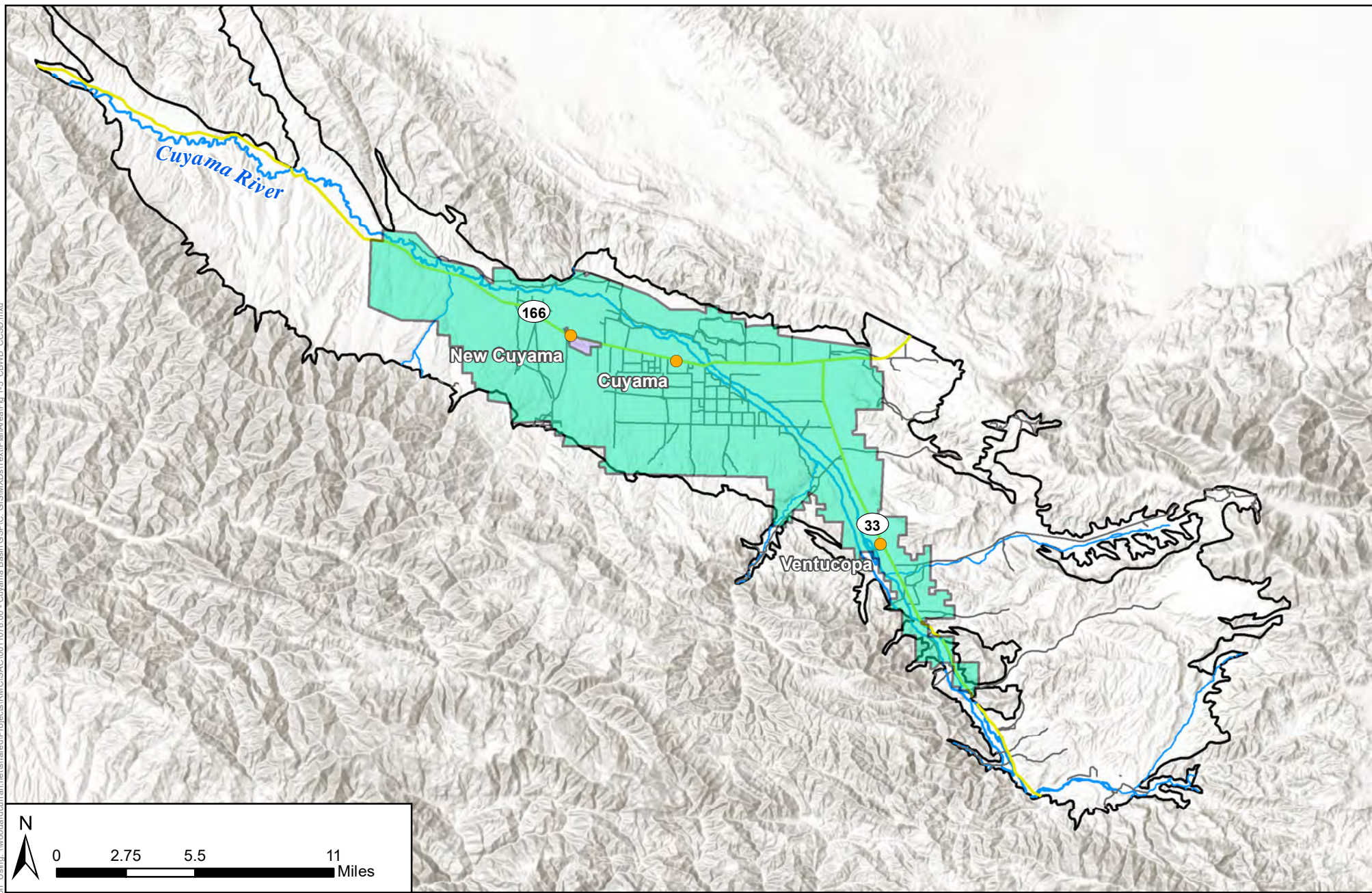


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Figure 1-5 - Non-County Jurisdictional Boundaries

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019









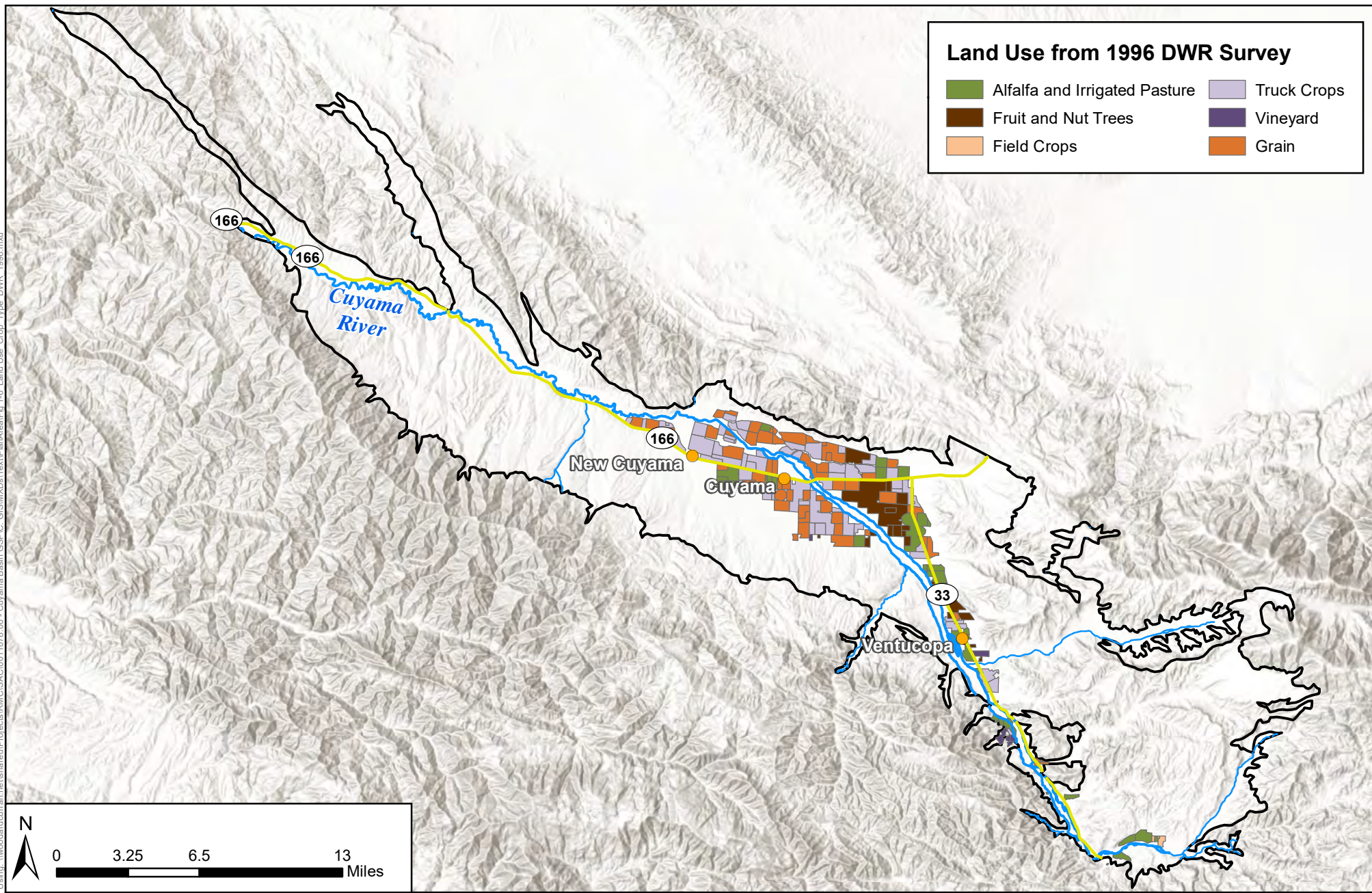
Legend

- Cuyama Basin
- Towns
- Cuyama Community Service District
- Cuyama Basin Water District
- Highways
- Local Roads
- Cuyama River
- Streams/Creeks


Figure Exported: 6/19/2018 10:18 AM By: mwricks Using: \\woodardcurran.net\shared\Projects\RM\GIS\Map\MapArea\Fig_1-6_Land_Use_Crop_Type_DWR_1996.mxd

Land Use from 1996 DWR Survey

 Alfalfa and Irrigated Pasture	 Truck Crops
 Fruit and Nut Trees	 Vineyard
 Field Crops	 Grain



N



0 3.25 6.5 13 Miles




Figure 1-6 - 1996 Land Use

Cuyama Basin Groundwater Sustainability Agency






Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019

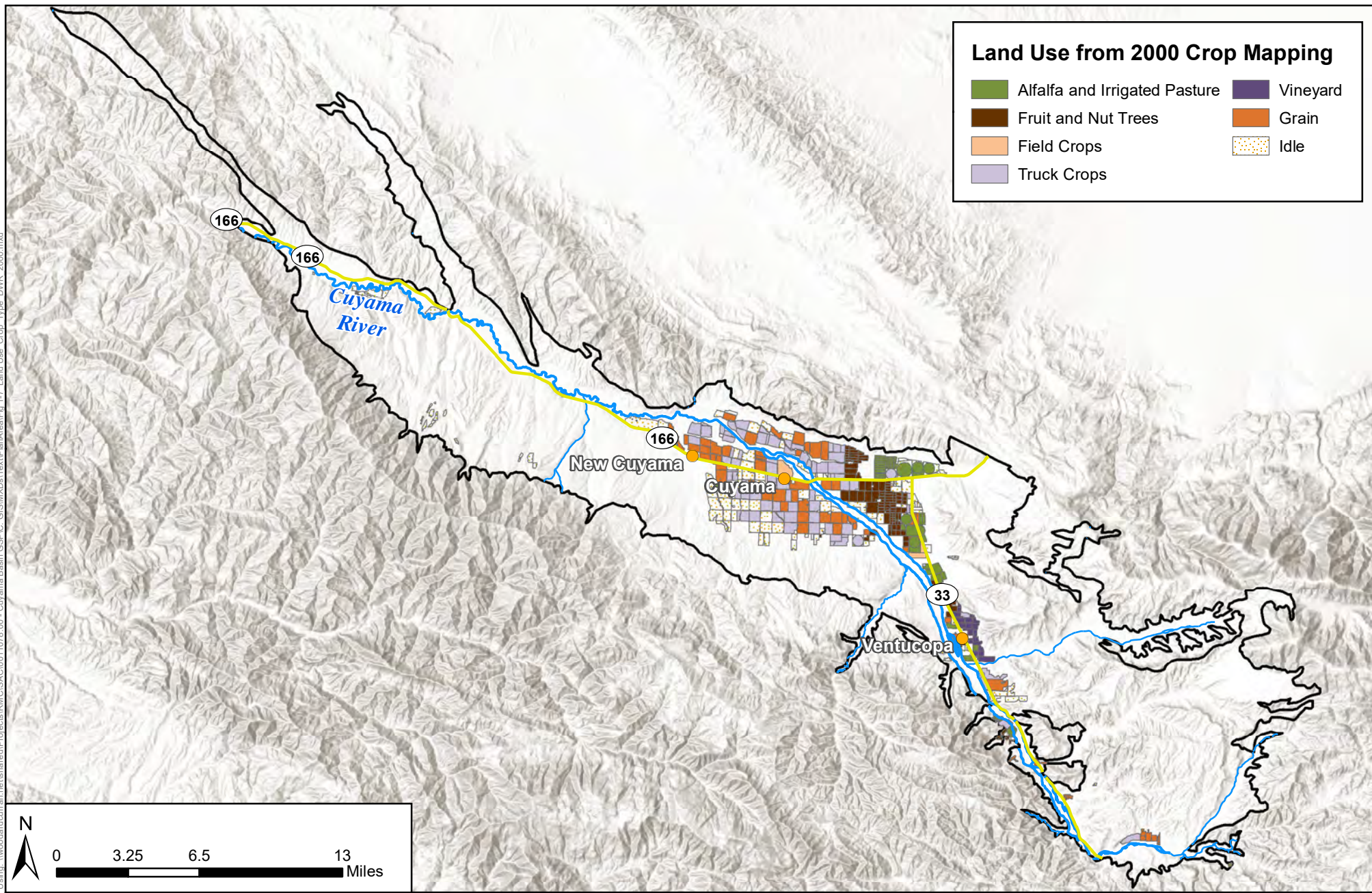


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Legend

 Cuyama Basin	 Cuyama River
 Towns	 Streams/Creeks
 Highways	

Source: California Department of Water Resources County Land Use Surveys, 1996 dataset
<https://www.water.ca.gov/Programs/Water-Use-And-Efficiency/Land-And-Water-Use/Land-Use-Surveys>



Land Use from 2000 Crop Mapping

Alfalfa and Irrigated Pasture	Vineyard
Fruit and Nut Trees	Grain
Field Crops	Idle
Truck Crops	

N

0 3.25 6.5 13 Miles

Figure 1-7 - 2000 Land Use

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



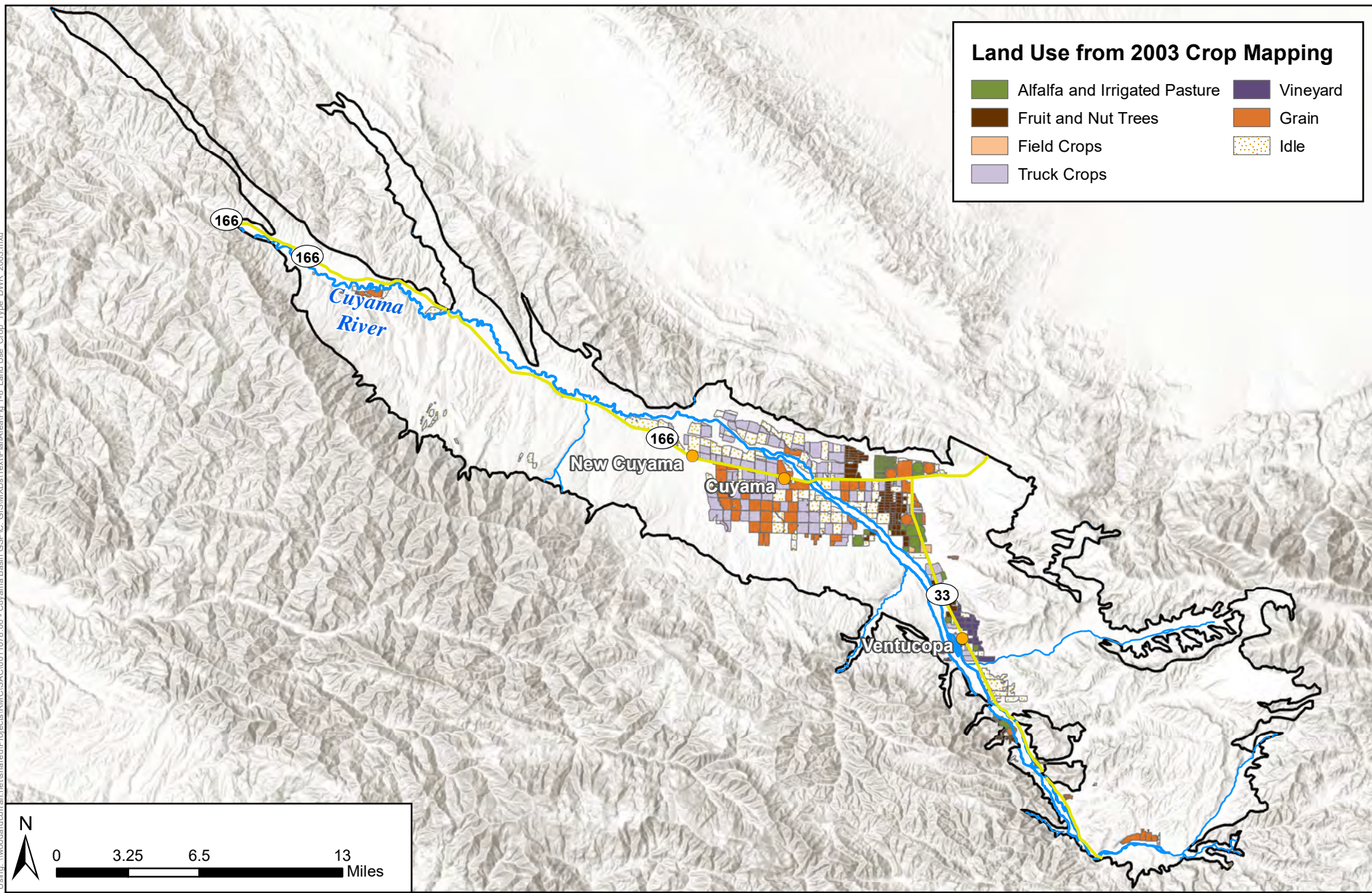
Legend

Cuyama Basin	Cuyama River
Towns	Streams/Creeks
Highways	

Source: Crop Mapping developed by LandIQ for the Cuyama Basin GSA, 2000 dataset

Figure Exported: 6/19/2018 8:00 AM By: mwricks Using: \\woodardcurran.net\shared\Projects\RM\O\SAC\01\1078_00 - Cuyama Basin GSP\C_GIS\MapDocs\Text\PlanArea\Fig_1-7_Land Use_Crop_Type_DWR_2000.mxd

Figure Exported: 6/19/2018 10:18 AM By: mwricks Using: \\woodardcurran.net\shared\Projects\RM\O\SAC\01\1078_00 - Cuyama Basin GSP\O - GIS\MapDocs\Text\PlanArea\Fig 1-8 Land Use Crop Type DWR 2003.mxd



Land Use from 2003 Crop Mapping

Alfalfa and Irrigated Pasture	Vineyard
Fruit and Nut Trees	Grain
Field Crops	Idle
Truck Crops	

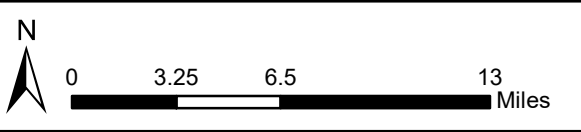


Figure 1-8 - 2003 Land Use

Cuyama Basin Groundwater Sustainability Agency
 Cuyama Valley Groundwater Basin Groundwater Sustainability Plan
 April 2019

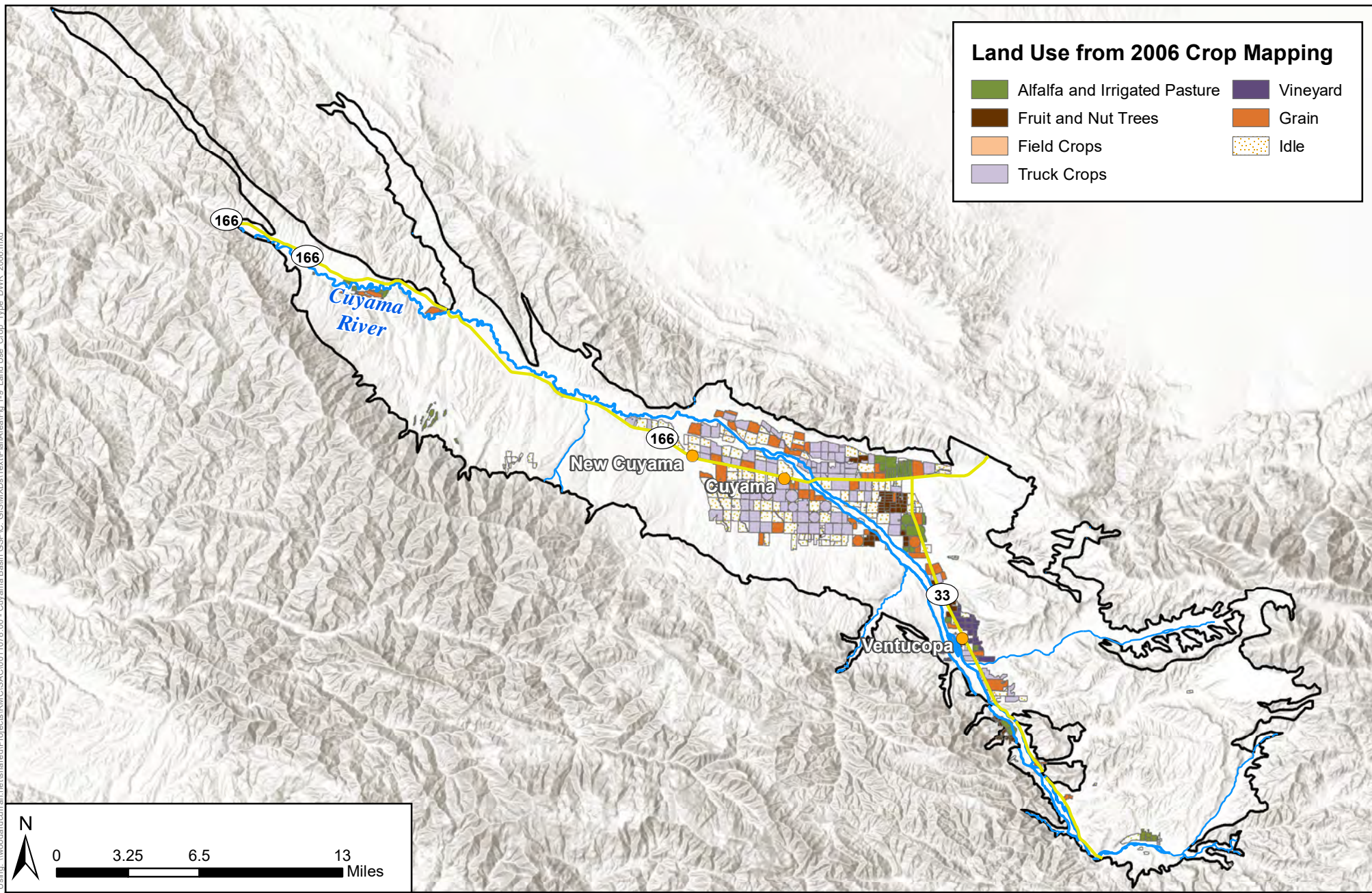


Legend

Cuyama Basin	Cuyama River
Towns	Streams/Creeks
Highways	

Source: Crop Mapping developed by LandIQ for the Cuyama Basin GSA, 2003 dataset.

Figure Exported: 6/19/2018 8:00 AM By: mwricks Using: \\woodardcurran.net\shared\Projects\RM\GIS\MapDocs\Text\PlanArea\Fig_1-9_Land Use_Crop_Type_DWR_2006.mxd



Land Use from 2006 Crop Mapping

Alfalfa and Irrigated Pasture	Vineyard
Fruit and Nut Trees	Grain
Field Crops	Idle
Truck Crops	

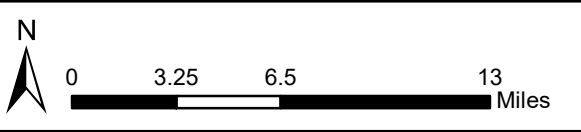


Figure 1-9 - 2006 Land Use

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 Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019

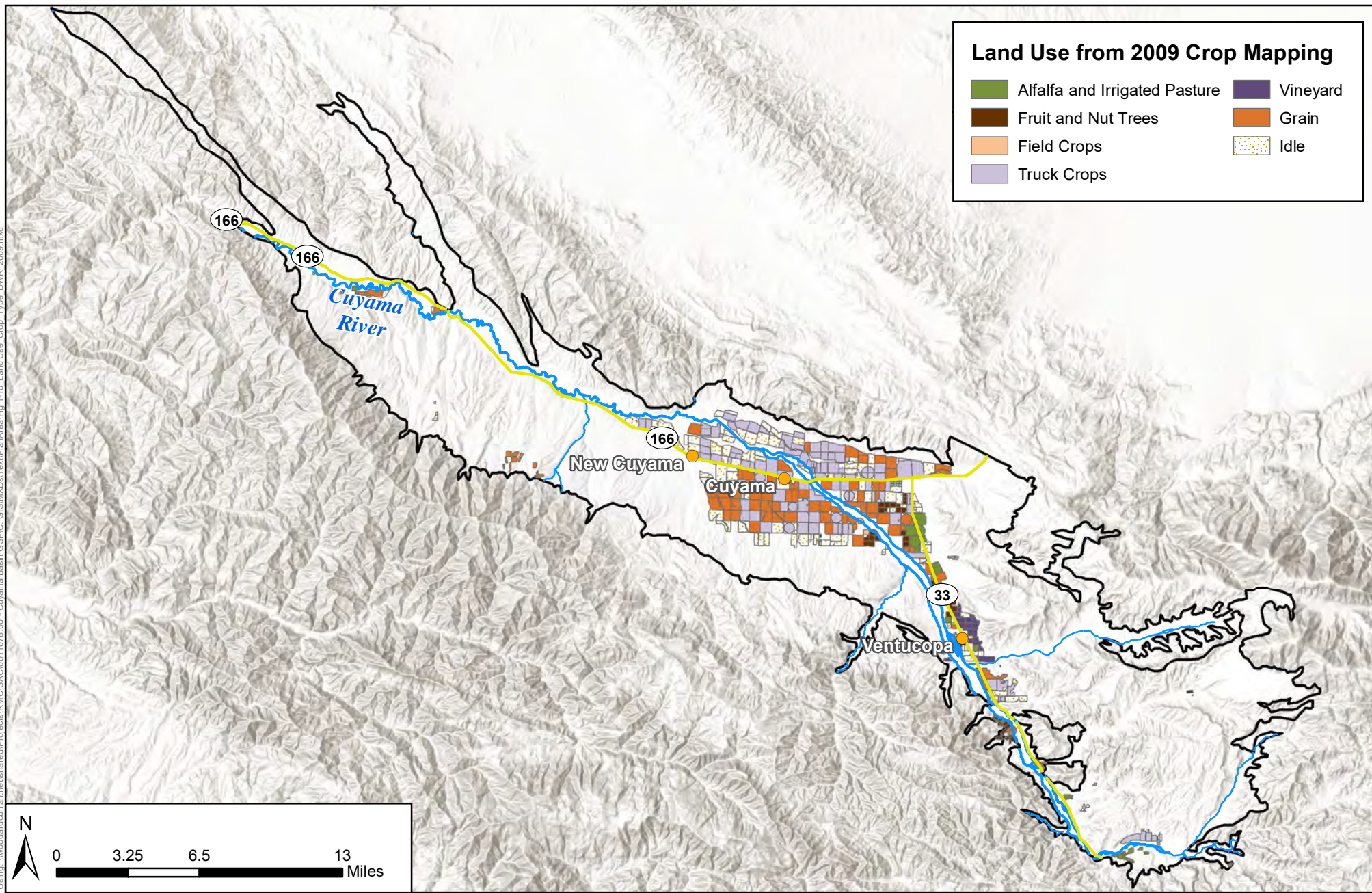


Legend

Cuyama Basin	Cuyama River
Towns	Streams/Creeks
Highways	

Source: Crop Mapping developed by LandIQ for the Cuyama Basin GSA, 2006 dataset.

Figure Exported: 6/19/2018 10:18 AM By: mwricks Using: \\woodardcurran.net\shared\Projects\RM\O\SAC\01011078_00 - Cuyama Basin GSP\GIS\MapDocs\Text\PlanArea\Fig_1-10_Land Use_Crop_Type_DWR_2009.mxd



Land Use from 2009 Crop Mapping

Alfalfa and Irrigated Pasture	Vineyard
Fruit and Nut Trees	Grain
Field Crops	Idle
Truck Crops	

N

0 3.25 6.5 13 Miles

Figure 1-10 - 2009 Land Use

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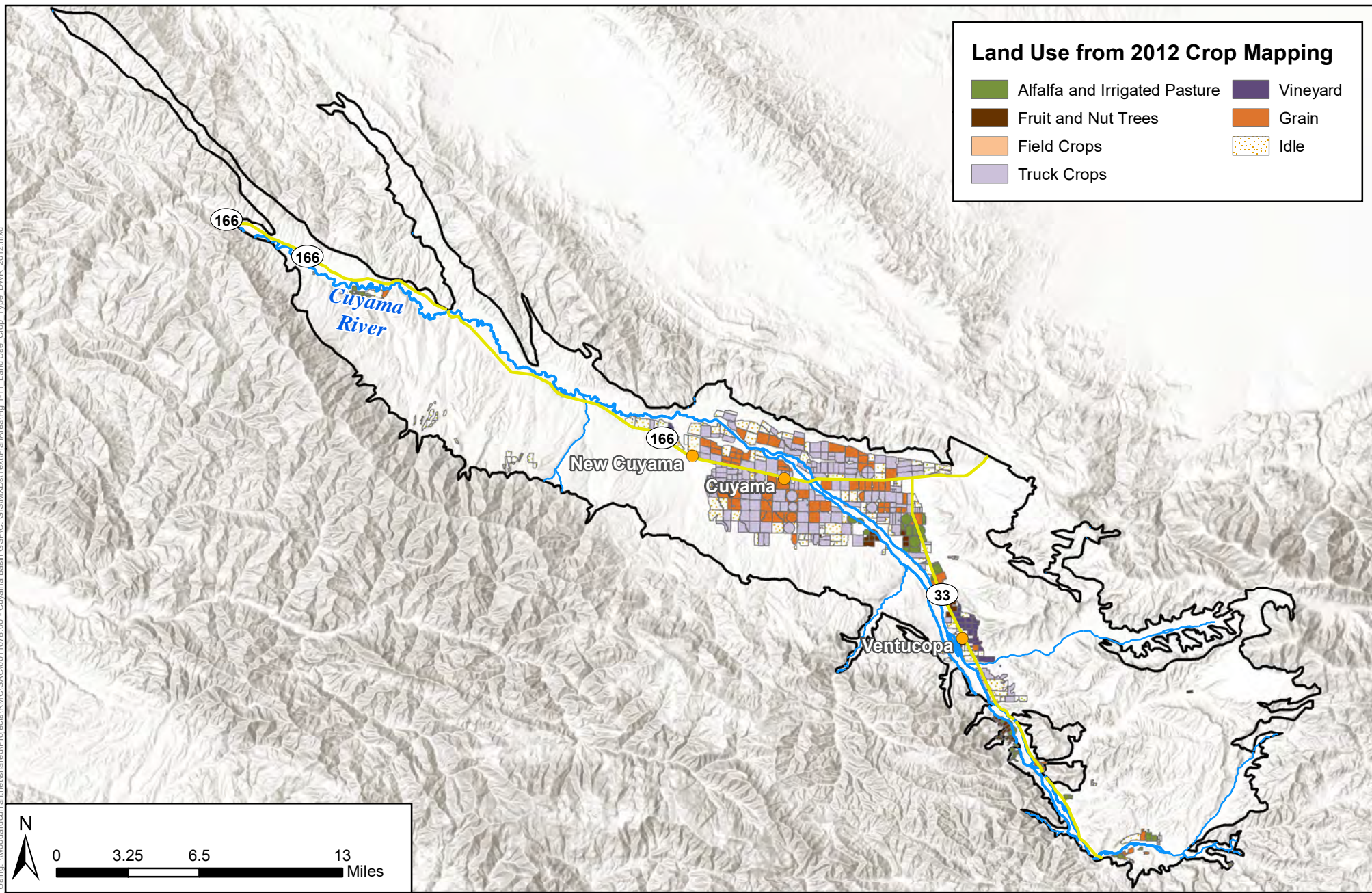


Legend

Cuyama Basin	Cuyama River
Towns	Streams/Creeks
Highways	

Source: Crop Mapping developed by LandIQ for the Cuyama Basin GSA, 2009 dataset.

Figure Exported: 6/19/2018 8:00 AM By: mwricks Using: \\woodardcurran.net\shared\Projects\RM\O\SAC\01\1078_00 - Cuyama Basin GSP\GIS\MapArea\Fig 1-11 Land Use_Crop_Type DWR 2012.mxd



Land Use from 2012 Crop Mapping

Alfalfa and Irrigated Pasture	Vineyard
Fruit and Nut Trees	Grain
Field Crops	Idle
Truck Crops	

N

0 3.25 6.5 13 Miles

Figure 1-11 - 2012 Land Use

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April 2019

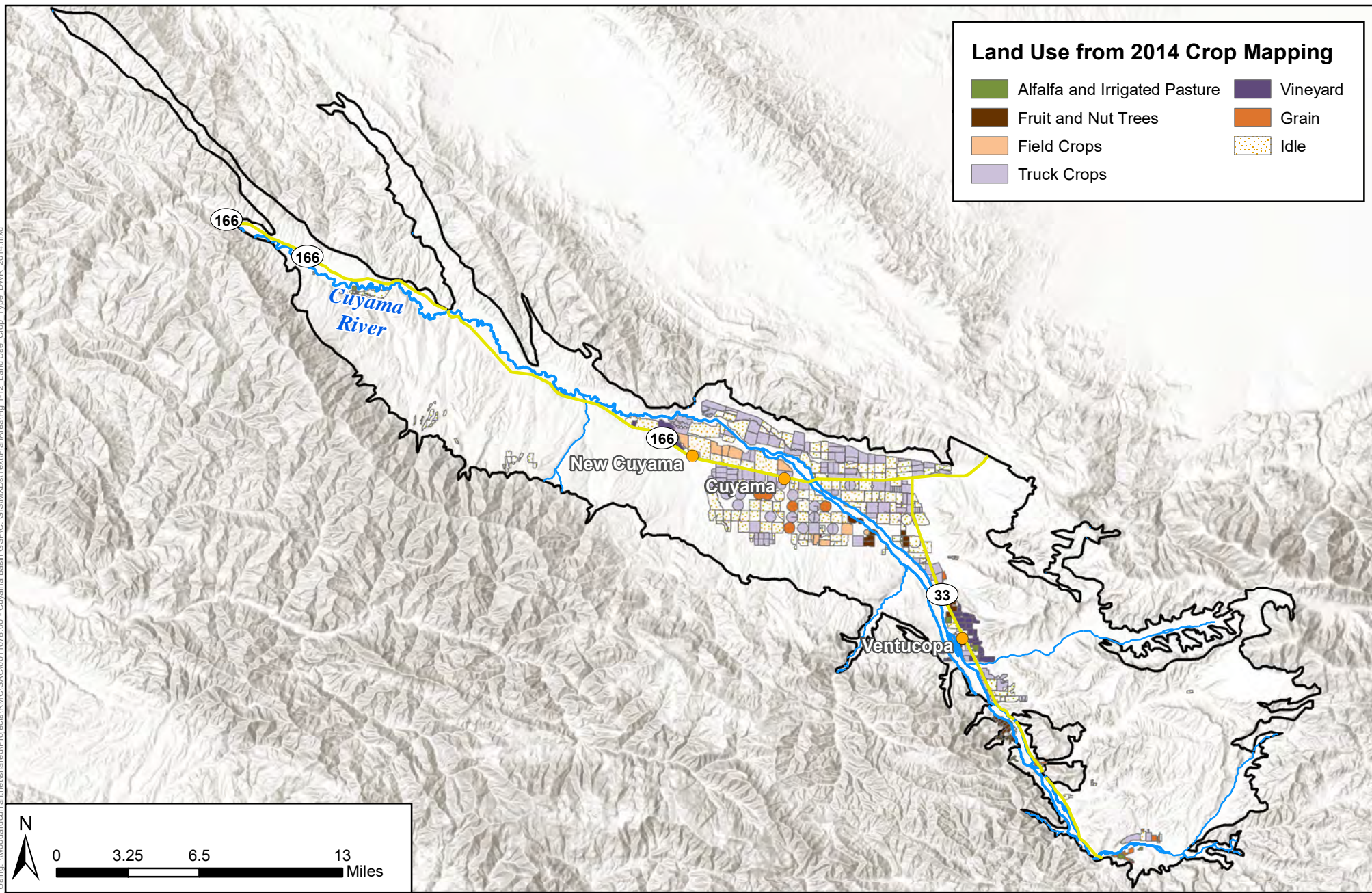


Legend

Cuyama Basin	Cuyama River
Towns	Streams/Creeks
Highways	

Source: Crop Mapping developed by LandIQ for the Cuyama Basin GSA, 2012 dataset.

Figure Exported: 6/19/2018 8: By: mwicks Using: \\woodardcurran.net\shared\Projects\RM\O\SAC\01\1078_00 - Cuyama Basin GIS\XDS\Text\PlanArea\Fig_1-12_Land Use_Crop_Type_DWR_2014.mxd



Land Use from 2014 Crop Mapping

Alfalfa and Irrigated Pasture	Vineyard
Fruit and Nut Trees	Grain
Field Crops	Idle
Truck Crops	

N

0 3.25 6.5 13 Miles

Figure 1-12 - 2014 Land Use

Cuyama Basin Groundwater Sustainability Agency

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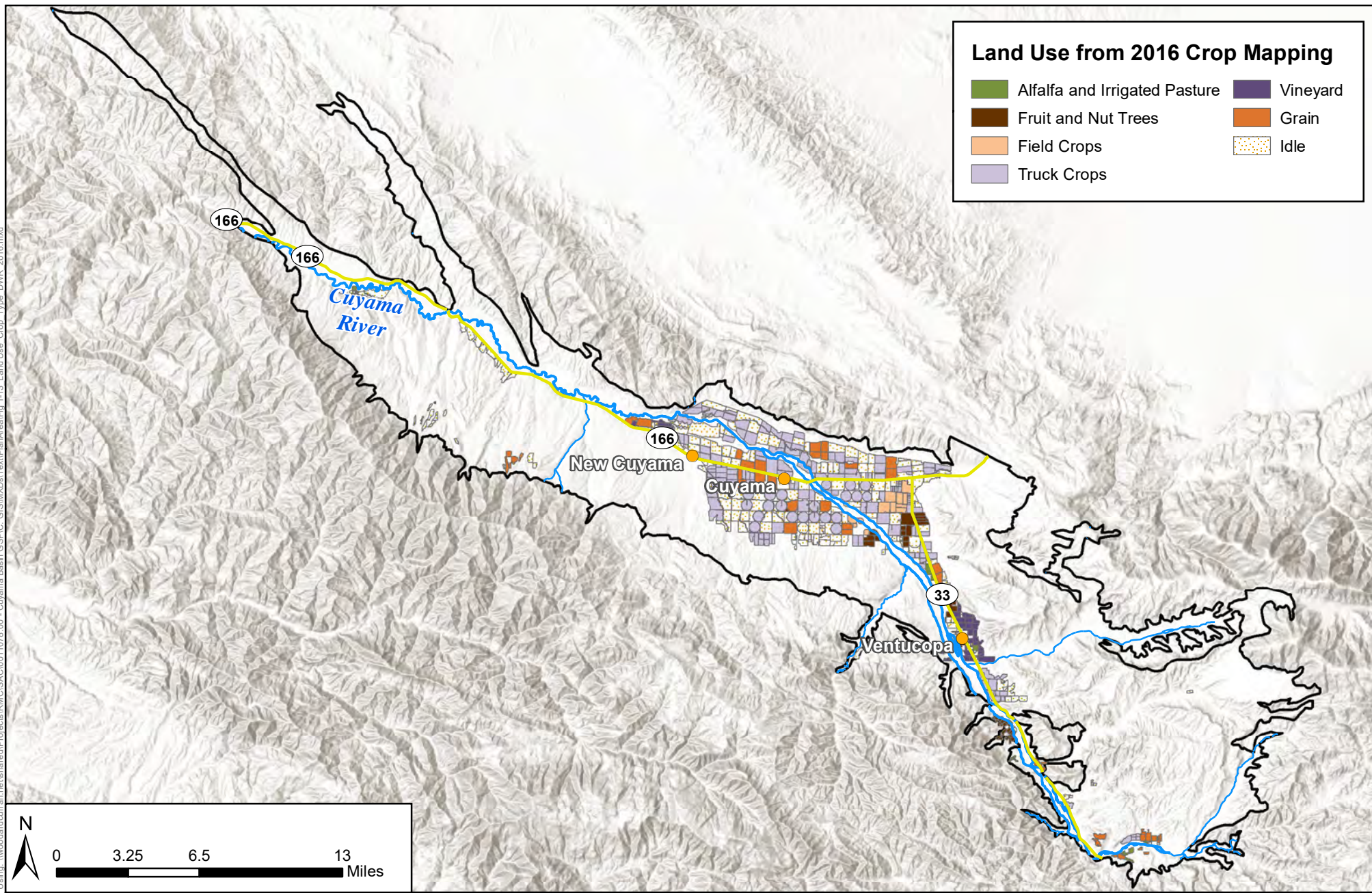


Legend

Cuyama Basin	Cuyama River
Towns	Streams/Creeks
Highways	

Source: California Department of Water Resources County Land Use Surveys, 2014 dataset
<https://gis.water.ca.gov/app/CADWRLandUseViewer/>

Figure Exported: 6/19/2018 8: By: mwicks Using: \\woodardcurran.net\shared\Projects\RM\O\SAC\01\1078_00 - Cuyama Basin GIS\XDS\Text\PlanArea\Fig_1-13_Land Use_Crop_Type_DWR_2016.mxd



Land Use from 2016 Crop Mapping

Alfalfa and Irrigated Pasture	Vineyard
Fruit and Nut Trees	Grain
Field Crops	Idle
Truck Crops	

N

0 3.25 6.5 13 Miles

Figure 1-13 - 2016 Land Use

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Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

Cuyama Basin	Cuyama River
Towns	Streams/Creeks
Highways	

Source: California Department of Water Resources County Land Use Surveys, 2016 dataset
<https://gis.water.ca.gov/app/CADWRLandUseViewer/>

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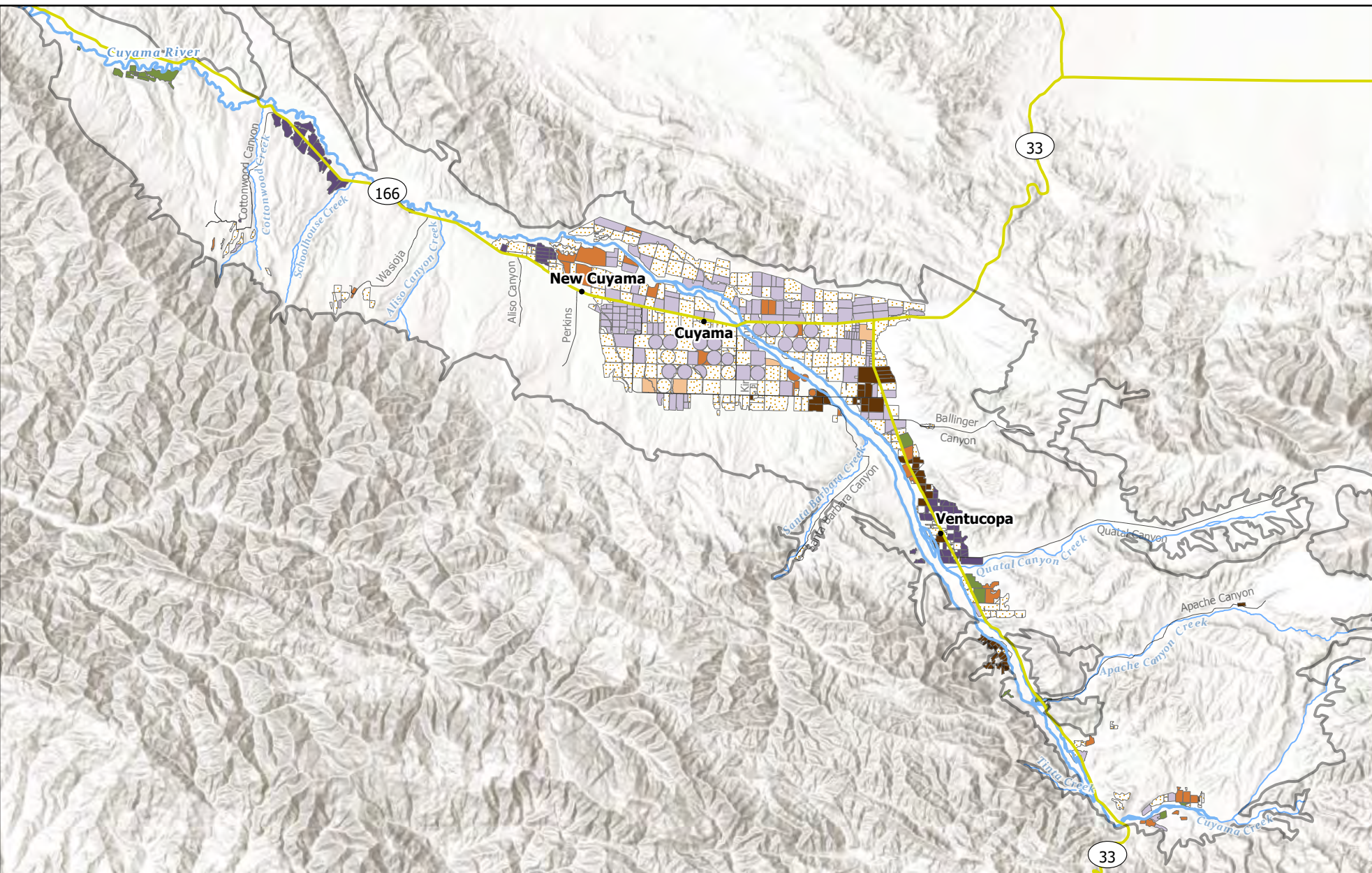


Figure 1-14: 2018 Land Use

Cuyama Valley Groundwater Basin

Legend	Land Use from 2018 Crop Mapping	Vineyard	Highway	Cuyama River
	Alfalfa and Irrigated Pasture	Grain	Local Road	Creek
	Fruit and Nut Trees	Idle	Town	Cuyama Basin
	Field Crops	Truck Crops		

WOODARD & CURRAN
GROUNDWATER SUSTAINABILITY AGENCY

Map Created: December 2023

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Figure Exported: 12/27/2023, By: DHunt, Using: \woodardcurran\external\shared\Projects\CA\Cuyama Basin_GSA\0011078\01_GSP\Fwip\Z_GIS2_Maps\2023_GSP_Update\01_Agency_Info_Plan Area_Comb\14_16_Historical_Land_Use\historical_land_use.aprx



Figure 1-15: 2020 Land Use

Cuyama Valley Groundwater Basin

Legend	Land Use from 2020 Crop Mapping	Vineyard	Highway	Cuyama River
	Alfalfa and Irrigated Pasture	Grain	Local Road	Creek
	Fruit and Nut Trees	Idle	Town	Cuyama Basin
	Field Crops			
	Truck Crops			

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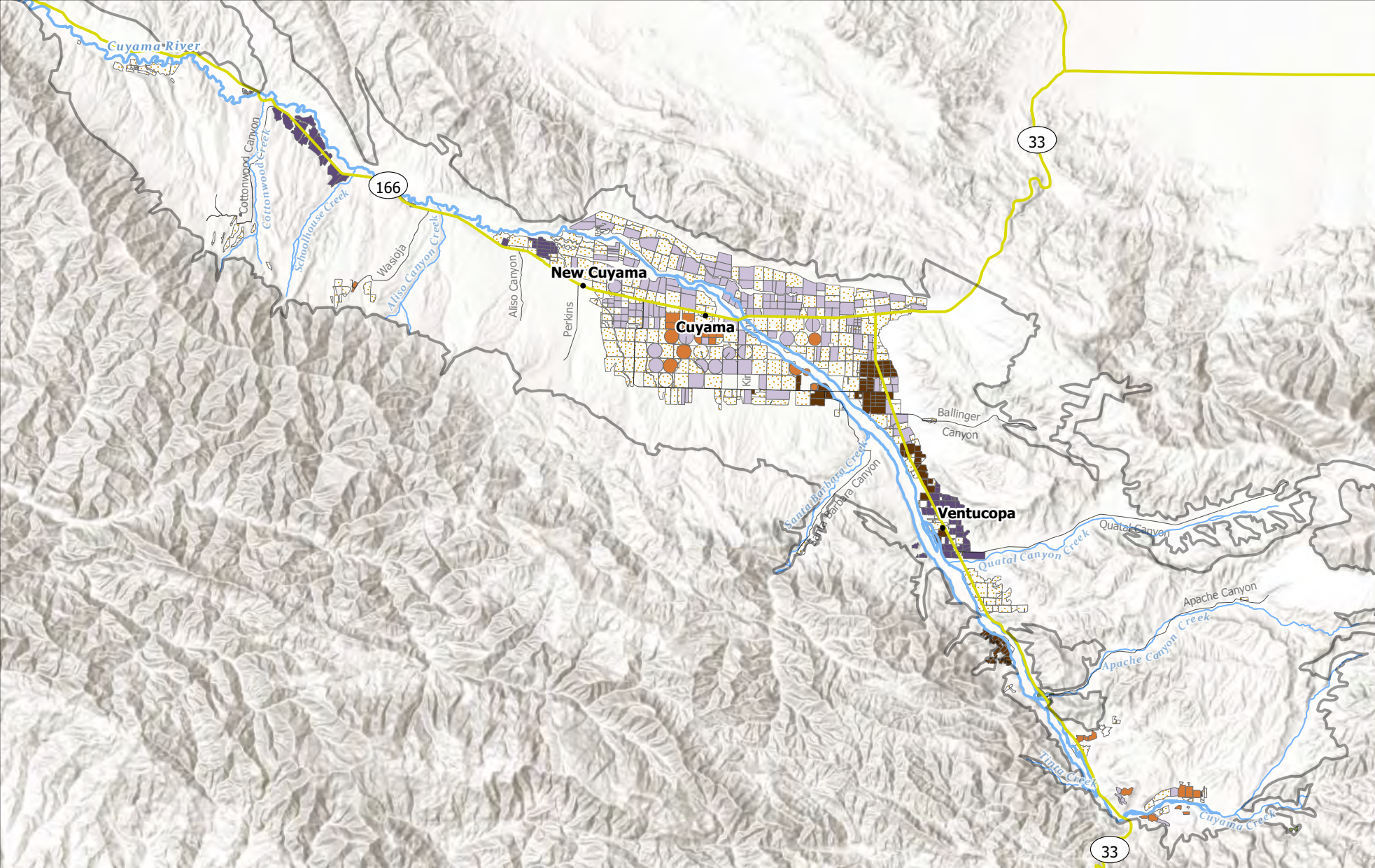


Figure 1-16: 2022 Land Use

**Cuyama Valley
Groundwater Basin**

Legend	Alfalfa and Irrigated Pasture	Vineyard	Highway	Cuyama River
	Fruit and Nut Trees	Grain	Local Road	Creek
	Field Crops	Idle	Town	Cuyama Basin
	Truck Crops			

N

0 1.25 2.5 5 Miles

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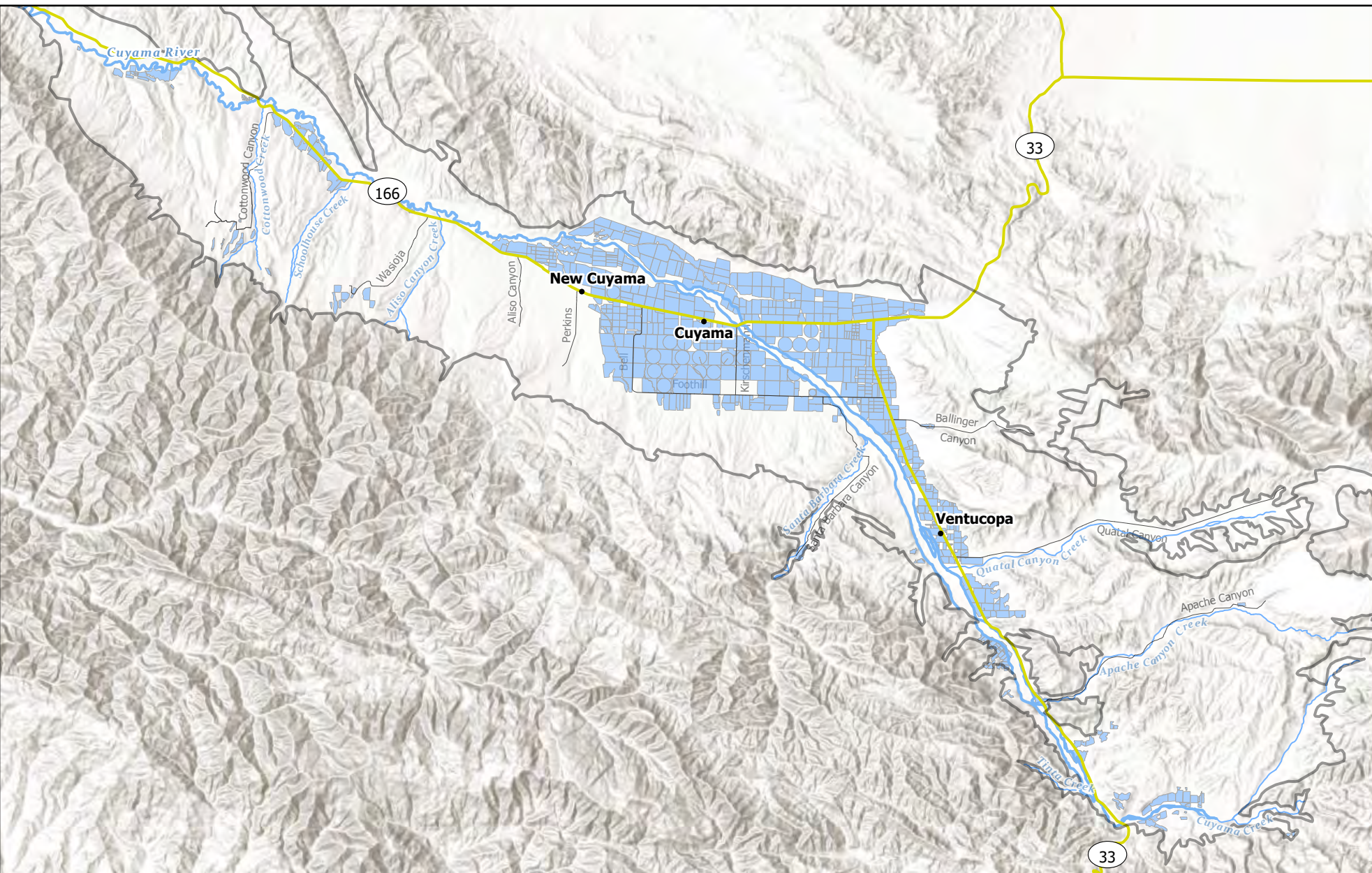


Figure 1-17: Water Source for Land Use
Cuyama Valley Groundwater Basin

Legend	Water Source	Highway	Cuyama River
	Irrigated by Surface Water	Local Road	Creek
	irrigated by Surface and Groundwater	Town	Cuyama Basin
Irrigated by Groundwater			

N

0 1.25 2.5 5 Miles

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CUYAMA BASIN
GROUNDWATER SUSTAINABILITY AGENCY

Map Created: December 2023

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Draft

Figure Exported: 12/21/2023, By: DHunt, Using: \woodwardcurran.net\shared\Projects\CA\Cuyama Basin_GSA\00110728_01_GSP\Fwip\Z_GIS2_Maps\2023_GSP_Update\01_Agency_Info_Plan Area_Comb\19_20_well_density\WellDensity.aprx

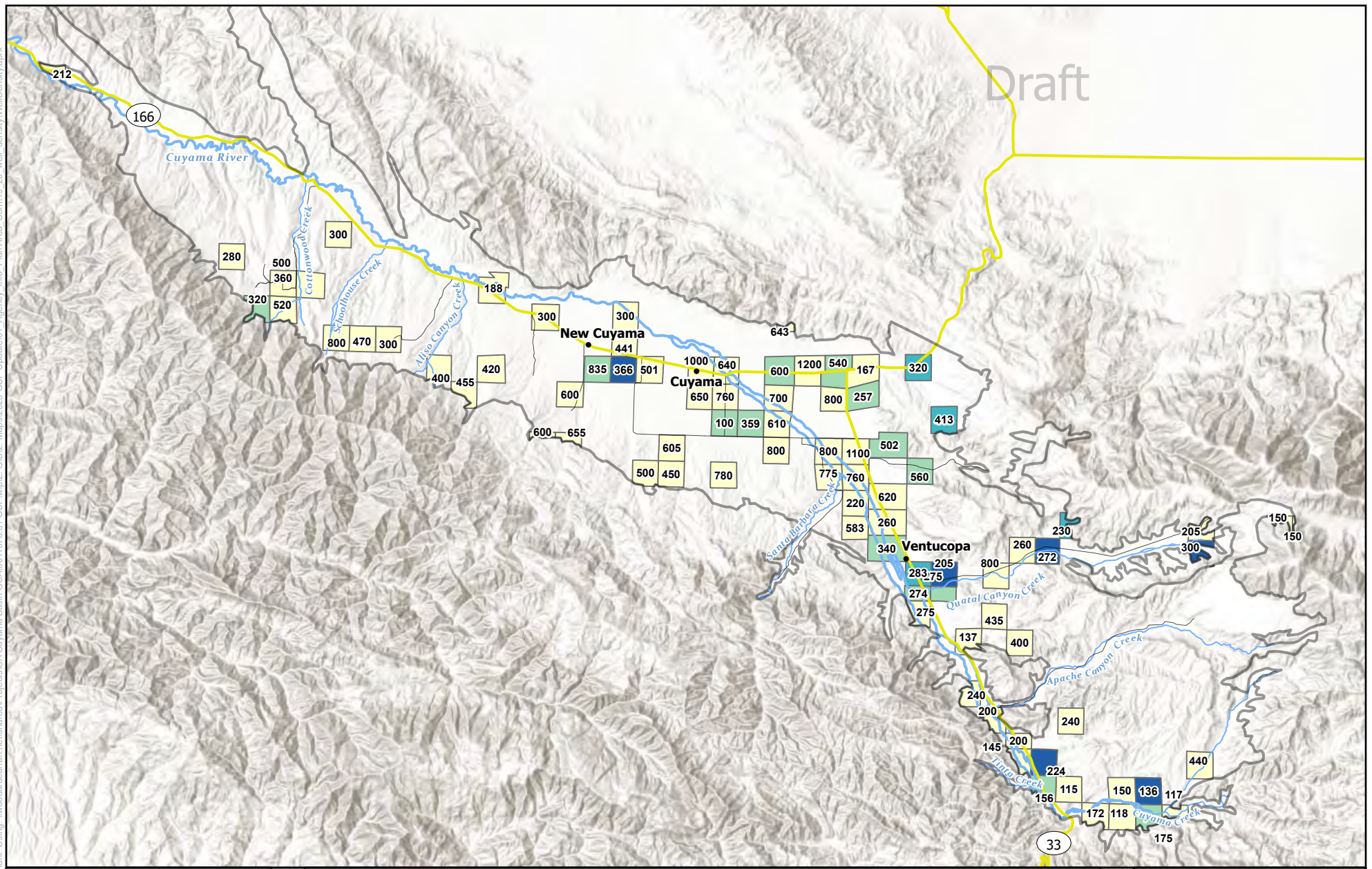


Figure 1-18: Domestic Well Density and Average Depth
 Depth reported in feet bgs
Cuyama Valley Groundwater Basin

Legend	1	Domestic Well Count by Township & Range	Highway	Cuyama River
	2		Local Road	Creek
	3		Town	Cuyama Basin
	4			

0 1.25 2.5 5 Miles

Map Created: December 2023

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk.
 Data sources: CA DWR, esri, USGS. Well data (December 2023): <https://dwr.maps.arcgis.com/apps/webappviewer/index.html?id=181078580a214c0986e2da28f8623b37>

Draft

Figure Exported: 12/21/2023, By: DHunt, Using: \woodardcurran\external\shared\Projects\CA\Cuyama Basin_GSA\0011078_01_GSP\wip\Z_GIS2_Maps\2023_GSP_Update\01_Agency_Info_Plan Area_Comb\19_20_well_density\WellDensity.aprx

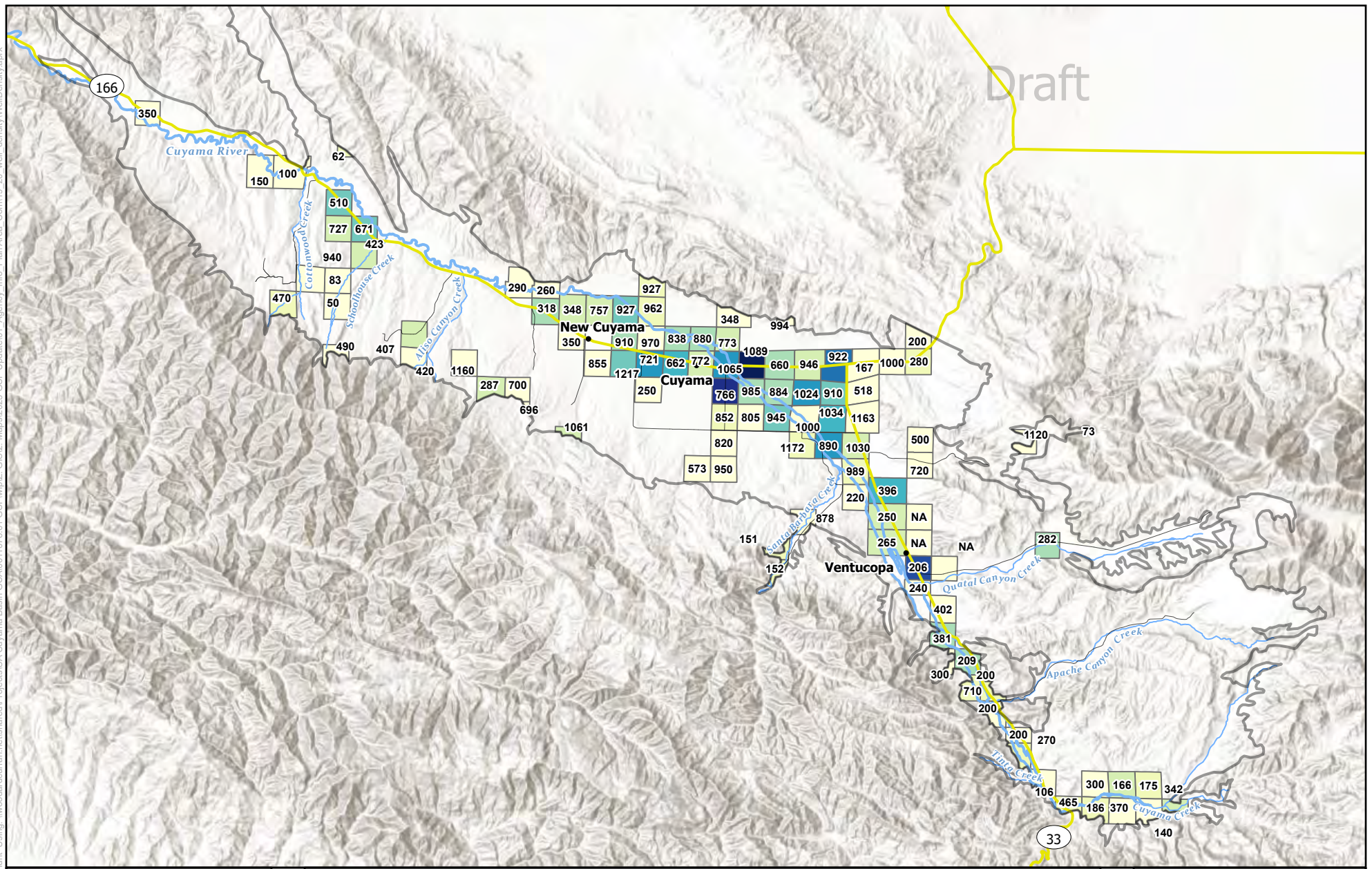


Figure 1-19: Production Well Density and Average Depths
 Depth reported in feet bgs
Cuyama Valley Groundwater Basin

Legend	1	6	Highway	Cuyama River
	2	7	Local Road	Creek
	3	8	Town	Cuyama Basin
	4	9		
	5	10		
	12			

0 1.25 2.5 5 Miles

Map Created: December 2023

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk.
 Data sources: CA DWR, esri, USGS. Well data (December 2023): <https://dwr.maps.arcgis.com/apps/webappviewer/index.html?id=181078580a214c0986e2da28f8623b37>

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Figure 1-20: Public Well Density and Average Depths
 Depth reported in feet bgs
Cuyama Valley Groundwater Basin

Legend	Public Well Count by Township & Range	— Highway	— Cuyama River
	1	— Local Road	— Creek
		• Town	Cuyama Basin

0 1.25 2.5 5 Miles

Map Created: December 2023

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk.
 Data sources: CA DWR, esri, USGS. Well data (December 2023): <https://dwr.maps.arcgis.com/apps/webappviewer/index.html?id=181078580a214c0986e2da28f8623b37>

Figure Exported: 12/26/2023 10:41:11 AM By: DHunt Using: \woodardcurran\external\Projects\CA\Cuyama Basin_GSA\0011078_01_GSP\Map\Z_GIS2_Map\2023_GSP_Update\01_Agency_Info_Plan Area_Combiactive_opt_wells_active_opt_wells.aprx

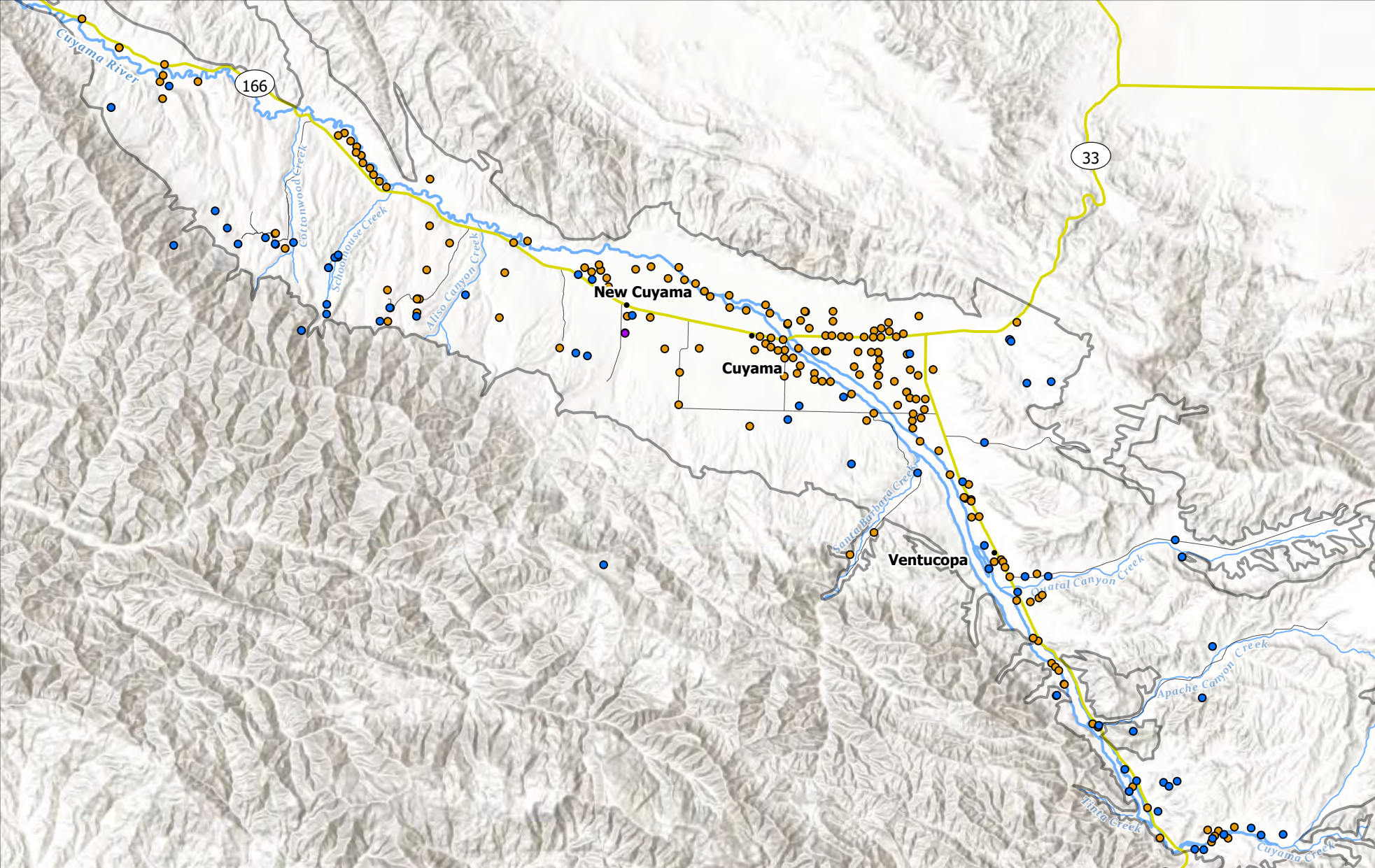




Figure 1-21: Active Wells in Network
Cuyama Valley Groundwater Basin

Legend

- | | | |
|--------------|--------------|----------------|
| Well Type | — Highway | — Cuyama River |
| ● Domestic | — Local Road | — Creek |
| ● Production | ● Town | □ Cuyama Basin |
| ● Public | | |

0 1.25 2.5 5 Miles

Map Created: December 2023

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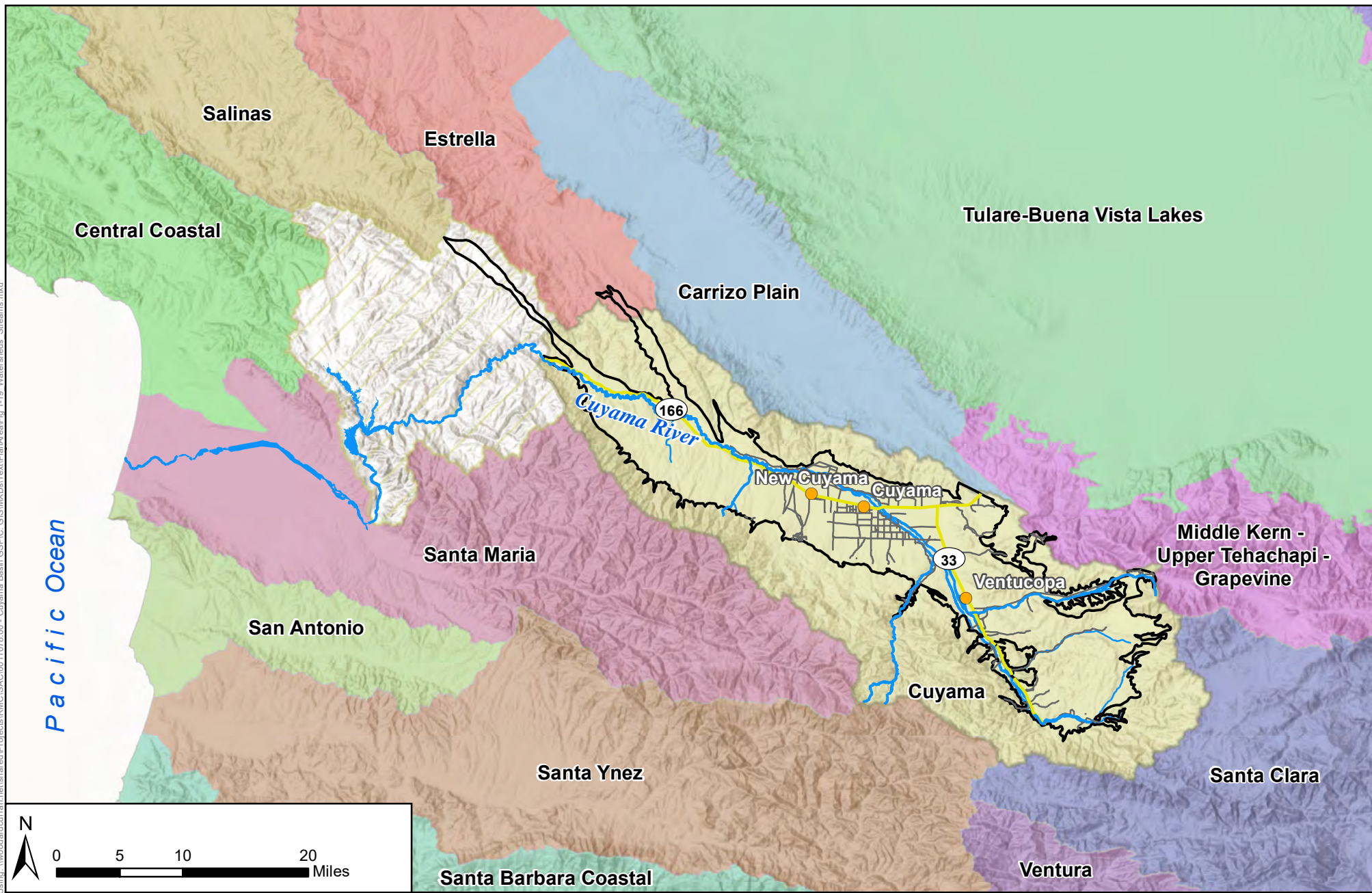


Figure Exported: 7/4/2018, By: mwicks, Using: \\woodardcurran.net\share\Projects\RM\CA\0011079_00 - Cuyama Basin_GSP\C_GIS\MapData\Text\PlanArea\Fig 1-19 - Watersheds - Streams.mxd

Figure 1-22 - Regional Watersheds

Cuyama Basin Groundwater Sustainability Agency
Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Cuyama Basin
- Towns
- Highways
- Local Roads
- Cuyama River
- Streams/Creeks
- Contributes to Cuyama GW Basin
- Does Not Contribute to Cuyama GW Basin

Watershed Data Source: USGS TNM Hydrography (WBD), U.S. Geological Survey - National Geospatial Program
Watersheds are 8-digit Hydrologic Units

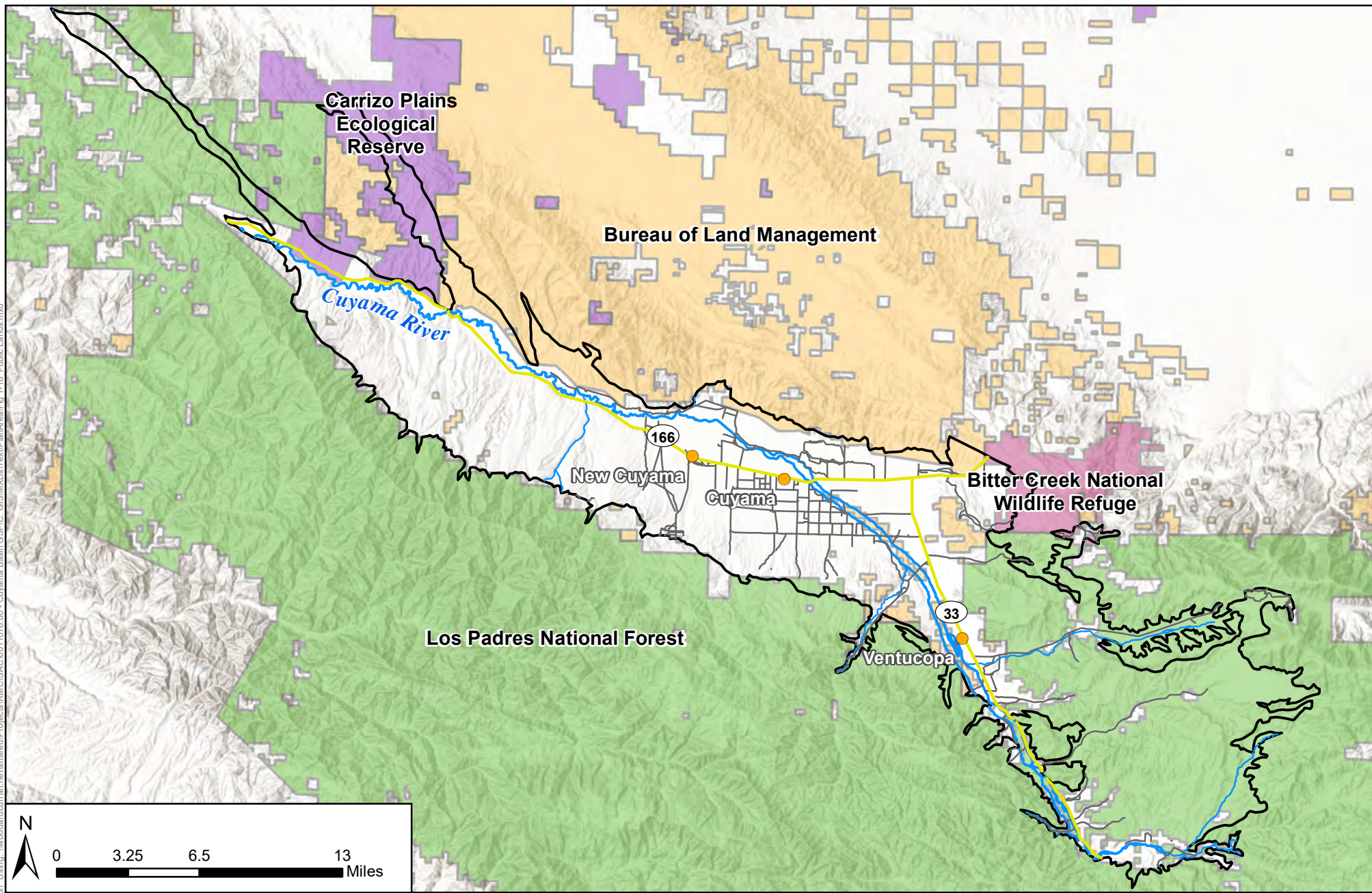


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Figure 1-23 - Federal and State Lands

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019

	Legend	 Cuyama Basin	 Local Roads	 Bureau of Land Management
		 Towns	 Cuyama River	 US Forest Service
		 Highways	 Streams/Creeks	 US Fish and Wildlife
				 State Lands



4.2.21.2.3 Existing Surface Water Monitoring Programs

Existing surface water monitoring in the Cuyama Basin is extremely limited. Surface water monitoring in the basin is limited to DWR's California Data Exchange Center program, and monitoring performed by the United States Geological Survey (USGS). The only California Data Exchange Center gage in the Cuyama River watershed is at Lake Twitchell, which is downstream of the Cuyama Basin. The USGS has ~~two~~four active gages that capture flows in the Cuyama River watershed upstream of Lake Twitchell, as well as four deactivated gages (Figure 1-~~20~~-24). A new stream gage was installed in 2021 on the Cuyama River near New Cuyama (ID11136710). In addition, gage 11136500, which was previously deactivated, was reactivated in 2021. Table 1-1 lists the active and deactivated gages in the Basin.

Table 1-1: USGS Surface Flow Gages in the Cuyama Basin

Gage Number	Location	Status	Years of Record
11136800	Cuyama River below Buckhorn Canyon near Santa Maria	Active	1959- 2017 <u>2023</u>
<u>11136710</u>	<u>Cuyama River near New Cuyama</u> <u>Active</u>	<u>2021-2023</u>	
11136650	Aliso Canyon Creek near New Cuyama	Deactivated	1963-1972
11136600	Santa Barbara Canyon Creek near Ventucopa	Active	2009- 2017 <u>2023</u>
11136500	Cuyama River near Ventucopa	Deactivated <u>Active</u>	1945-1958; 2009-2014; <u>2021-2023</u>
11136480	Reyes Creek near Ventucopa	Deactivated	1972-1978
11136400	Wagon Road Creek near Stauffer	Deactivated	1972-1978

The ~~two~~four active gages include one gage on the Cuyama River downstream of the Basin (ID 11136800), which is located just upstream of Lake Twitchell. This gage has ~~5864~~ recorded years of streamflow measurements from 1959 to ~~2017~~-2023. ~~The other~~Another active gage is south of the city of Ventucopa along Santa Barbara Canyon Creek (ID 11136600) and has ~~seventhirteen~~ recorded years of streamflow measurements ranging from 2010 to ~~2017~~-2023. ~~Although neither~~The new gage located farther upstream of the Twitchell Reservoir near New Cuyama began measurements on October 1, 2021; t. here are currently 3 years of recorded data. The reactivated gage near Ventucopa now has about 21 years of recorded data. These stream gages provide a more comprehensive picture of surface water flows in the Cuyama Basin, ~~they provide some than was previously available, including~~ information about the inflow and outflow of surface water ~~throughin different parts of~~ the Basin.

The ~~need for~~2020 GSP identified surface water gages to measure flowstream flows on the Cuyama River ~~is recognized~~ as a data gap ~~for this GSP~~. The CBGSA ~~is working to identify~~identified the optimal locations for a new gages; new gages installations will be funded ~~gage and for the reactivation of the previous gage and they were installed~~ by USGS under the ~~current~~ SGMA Category 1 grant from DWR, ~~or may be funded by the DWR Technical Support Services program, in 2021.~~ With the addition of these new



[active stream gages in the Cuyama Basin, CBSGA has filled this data gap and effectively monitors surface water flows in the basin.](#)

DRAFT

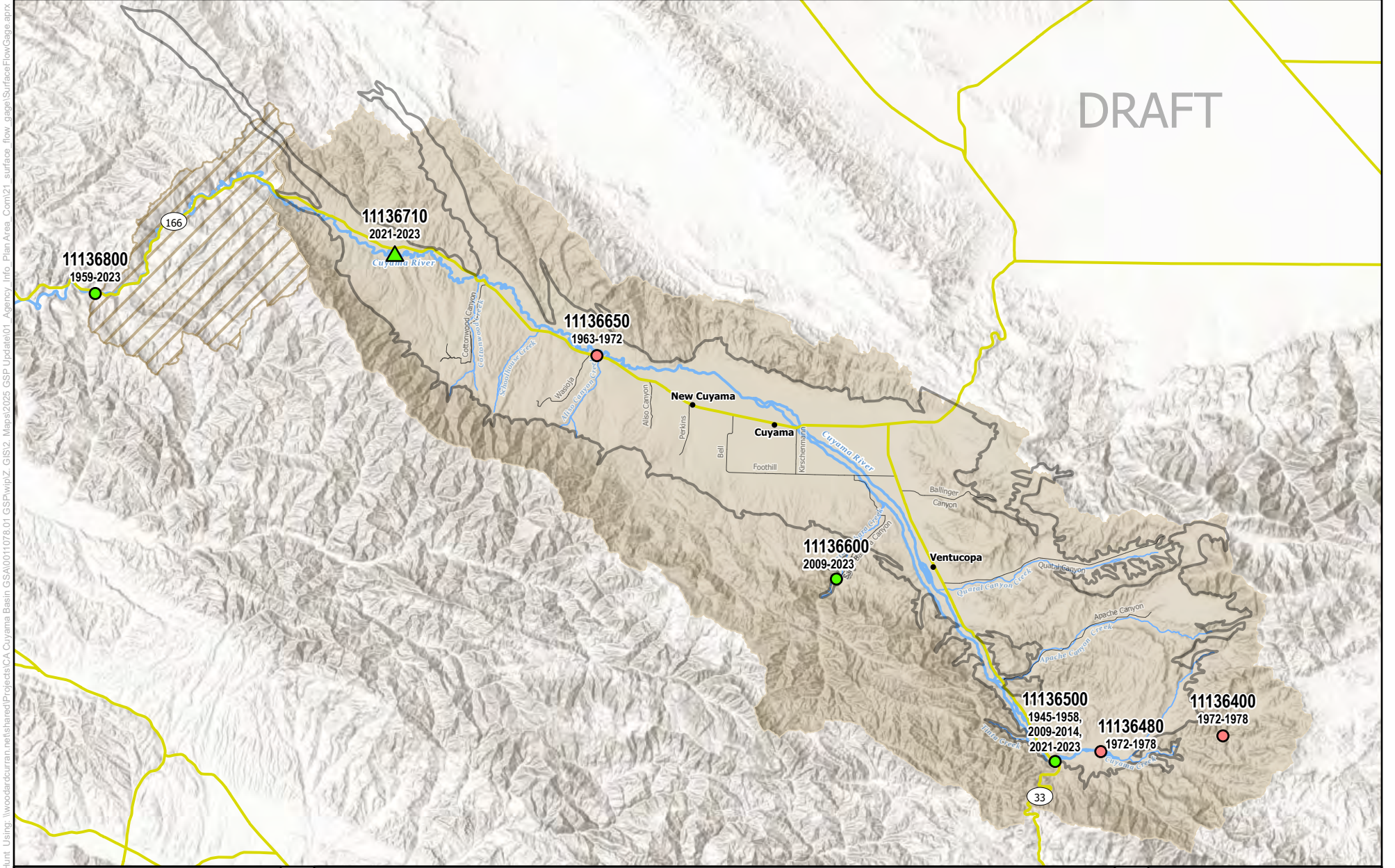


Figure Exported: 12/21/2023 11:21:20 AM By: DHunt User: \woodcurran\esri\shared\Projects\CA\Cuyama Basin_GSA\0111078_01_GSP\Fig1-24_GIS2_Map\2023_GSP\Updated01_Agency_Info_Plan_Area_Comb21_Surface_Flow_Gage_Surface_Flow_Gage.aprx

Figure 1-24: Rivers, Streams, and Surface Flow Gages

Cuyama Valley Groundwater Basin

Legend

- | | | | |
|--|---|---|--|
| <ul style="list-style-type: none"> Cuyama Watershed Contributes to Cuyama GW Basin Does not Contribute to Cuyama GW Basin | <ul style="list-style-type: none"> ● Active Flow Gages ▲ New Active Flow Gages ● Inactive | <ul style="list-style-type: none"> Highway Local Road Town | <ul style="list-style-type: none"> Cuyama River Creek Cuyama Basin |
|--|---|---|--|



0 1.75 3.5 7 Miles

Map Created: December 2023

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4.2.31.2.4 Existing Groundwater Monitoring Programs

Existing groundwater monitoring programs in the Basin are primarily operated by regional, state, and federal agencies. Existing groundwater monitoring programs in the Basin collect data on groundwater elevation, groundwater quality and subsidence at varying temporal frequencies. Each groundwater monitoring program in the Basin is described below, ~~and additional information is.~~ The following sections describe the different monitoring programs that were described in the 2020 GSP. The existing groundwater monitoring programs have stayed the same with the addition of different datasets being integrated into these platforms to increase public access. Specially, the DWR's Water Data Library and Groundwater Ambient Monitoring and Assessment (GAMA) have included additional datasets published in their databases since the first GSP. Specific activities and data sources utilized by the CBGSA for the current Cuyama Basin groundwater elevation and quality monitoring networks are provided in Chapter 4.

Groundwater Elevation Monitoring

DWR Water Data Library

DWR's Water Data Library (WDL) is a database that stores groundwater elevation measurements from wells in the Basin measured from 1946 through the present. Data contained in the WDL are from several different monitoring entities, including the Ventura County Watershed Protection District (VCWPD), SBCWA, Santa Barbara County Flood Control and Water Conservation District, and San Luis Obispo County Flood Control and Water Conservation District (SLOCFC&WCD), ~~and USGS.~~

USGS – National Water Information System

The USGS's National Water Information System contains extensive water data, including manual measurements of depth to water in wells throughout California. Wells are monitored by the USGS in the Santa Barbara County Flood Control and Water Conservation District's jurisdictional area. ~~Most of the~~ There are eight wells currently categorized as active while most wells groundwater monitoring points in the basin are inactive and no longer collect measurements. All these active wells have measurements that were monitored start in 2017 have been monitored since 2008, although a few have measurements dating back to 1983 or 2018. Groundwater level measurements at these wells are taken approximately ~~once per quarter every few years~~

California Statewide Groundwater Elevation Monitoring Program

The California Statewide Groundwater Elevation Monitoring (CASGEM) Program monitors seasonal and long-term groundwater elevation trends in dedicated groundwater basins throughout California. Monitoring entities establish CASGEM dedicated monitoring wells and report seasonal groundwater levels to CASGEM's database. ~~The information below describes sources where CASGEM data can be retrieved.~~ The GASGEM database has 77 wells that are all reported on a voluntary basis with measurements starting in 1968. The primary collecting organizations include Ventura County Flood Control District and CA DWR with one well submitted by Santa Barbra County Water Agency.



DWR Sustainable Groundwater Information Center Interactive Map Management Act Data Viewer

DWR's [Sustainable Groundwater Management Act \(SMGA\) data viewer](#) has replaced [Groundwater Information Center Interactive Map \(GICIMA\)](#) ~~is a~~. This database ~~that~~ collects and stores groundwater elevations and depth-to-water measurements [among other groundwater quantity and quality information](#). Groundwater elevations are measured biannually in the spring and fall by local monitoring agencies. Depth-to-water and groundwater elevation data are submitted to the [GICIMA by the various monitoring entities including the SLOCFC&WCD, SBCWA, and VCWPD](#) ~~SGMA data viewer by various entities including the Cuyama Basin GSA, CA DWR, SBCWA, County of Ventura Watershed Protection district and San Luis Obispo County Flood Control and Water Conservation District~~. The [SGMA Data Viewer](#) contains 96 wells with groundwater elevation data from 2017 to 2023 with a total of 3204 groundwater elevation measurements submitted during this time frame. [Historically, these agencies had individual monitoring programs and databases. However, the CBGSA is now able to download all of this data directly from the SGMA Data Viewer.](#)

SBCWA CASGEM Monitoring Plan

~~The SBCWA's CASGEM Monitoring Plan discusses the SBCWA's 19-well monitoring network, which includes 16 actively monitored wells and three inactive wells no longer monitored due to accessibility and permission issues. Initially, SBCWA was the sole monitoring entity for the entire Basin, but in 2014 SBCWA reapplied to CASGEM as a partial monitoring entity to reduce their monitoring activities and grant permission for neighboring counties (San Luis Obispo and Ventura) to monitor their portions of the Basin.~~

~~Of the 16 active wells in SBCWA's monitoring network, three are CASGEM dedicated monitoring wells and 13 are voluntary. Wells are monitored by either SBCWA staff or USGS staff. The three CASGEM dedicated monitoring wells are measured biannually in April and October, whereas the 13 voluntary wells are measured annually. All wells are single completion. CASGEM dedicated wells have known Well Completion Reports and perforated intervals.~~

SLOCFC&WCD CASGEM Monitoring Plan

~~The SLOCFC&WCD's CASGEM Monitoring Plan identifies two wells in their CASGEM monitoring network. Upon recognition as a CASGEM monitoring entity in 2014, San Luis Obispo County Department of Public Works staff monitored these wells biannually. Static water level measurements are obtained biannually in April and October (corresponding to seasonal highs and low groundwater elevations).~~

VCWPD CASGEM Monitoring Plan

~~The VCWPD CASGEM Monitoring Plan identifies the two wells in their CASGEM monitoring network. Upon recognition as a CASGEM monitoring entity in 2014, VCWPD staff have monitored the two wells biannually. Static water level measurements are obtained biannually, due to the remoteness of the area, in April and October (corresponding to seasonal highs and low groundwater elevations). The two wells are in the southernmost portion of the Basin.~~



~~VCWPD does not have information beyond location and water elevation measurements for the two wells. There are no well completion reports for either well, and the perforation intervals are unknown. VCWPD identifies the southeastern portion of the Basin as a spatial data gap, given that the area contains no monitoring wells.~~

Groundwater Quality Monitoring

DWR WDL

~~DWR's WDL monitors groundwater quality data.~~ Groundwater Ambient Monitoring and Assessment Program (GAMA)

~~The State Water Resources Control Board (SWRCB) established the Groundwater Ambient Monitoring and Assessment (GAMA) Program to monitor groundwater quality throughout the state of California in 2020. The GAMA Program compiles and standardizes groundwater quality data across different regulatory agencies to increase public availability and access to data. This program also conducts groundwater studies related to groundwater vulnerability, groundwater quality for domestic wells and impact of non-point source contamination. The GAMA Program receives data from a variety of monitoring entities including DWR, USGS, and the SWRCB. In the Basin, these three agencies submit data from monitoring wells for a suite of constituents including TDS, nitrates and nitrites, arsenic, and manganese.~~

DWR Water Data Library

~~DWR's Water Data Library (WDL) contains monitoring data for groundwater quality. Samples are collected from a variety of well types including irrigation, stock, domestic, and some public supply wells. Wells are not regularly sampled, and most wells have only one- or two-days' worth of sampling measurements and large temporal gaps between the results. Constituents most frequently monitored include dissolved chloride, sodium, calcium, boron, magnesium, and sulfate. Measurements taken include conductance, pH, total alkalinity and hardness (more than 1,000 total samples per parameter). Additional dissolved nutrients, metals, and total dissolved solids (TDS) are also sampled but have fewer sample results available (one to 1,000 samples per parameter). This data is updated to GAMA yearly.~~

~~GeoTracker~~ Groundwater Ambient Monitoring and Assessment Program

~~Established in 2000, the Groundwater Ambient Monitoring and Assessment (GAMA) Program monitors groundwater quality throughout the state of California. The GAMA Program will create a comprehensive groundwater monitoring program throughout California and increase public availability and access to groundwater quality and contamination information. The GAMA Program receives data from a variety of monitoring entities including DWR, USGS, and the State Water Resources Control Board. In the Basin, three agencies submit data from monitoring wells for a suite of constituents including TDS, nitrates and nitrites, arsenic, and manganese.~~

~~GeoTracker is the SWRCB's data management system for sites that have potential to impact or currently impact groundwater, especially those sites that require groundwater cleanup. These sites include leaking underground storage tanks, Department of Defense and site cleanup programs, and permitted facilities~~



[which could impact groundwater such oil and gas production. GeoTracker is a portal that has a GIS interface and retrieve records from SWRCB programs. This data is updated in GAMA monthly.](#)

National Water Information System

The USGS's National Water Information System monitors groundwater for chemical, physical, and biological properties in water supply wells throughout the Basin and data are updated to [GeoTrackerGAMA](#) on a quarterly basis. The majority of wells with groundwater quality data were monitored prior to 2015.

Irrigated Lands Regulatory Program

The Irrigated Lands Regulatory Program, established in 2003, regulates discharges from irrigated agriculture to surface and ground waters and establishes waste discharge orders for selected regions. The Irrigated Lands Regulatory Program focuses on priority water quality issues, such as pesticides and toxicity, nutrients, and sediments. Wells are sampled biannually, once between March and June, and once between September and December. [This data is now available in GAMA and updated monthly.](#)

Division of Drinking Water

The State Water Resources Control Board's Division of Drinking Water, (formerly the Department of Health Services) monitors public water system wells per the requirements of Title 22 of the California Code of Regulations relative to levels of organic and inorganic compounds such as metals, microbial compounds and radiological analytes. Data are available for active and inactive drinking water sources, for water systems that serve the public, and wells defined as serving 15 or more connections, or more than 25 people per day. In the Basin, Division of Drinking Water wells were monitored for Title 22 requirements, including pH, alkalinity, bicarbonate, calcium, magnesium, potassium, sulfate, barium, copper, iron, zinc, and nitrate. [This data is now available in GAMA and updated quarterly.](#)

Subsidence Monitoring

In the Basin, subsidence monitoring is performed using continuous global positioning system (CGPS) stations monitored by the University NAVSTAR Consortium's (UNAVCO) Plate Boundary Observatory (PBO) program. There are no known extensometers in the Basin.



UNAVCO PBO

The UNAVCO PBO network consists of a network of about 1,100 CGPS and meteorology stations in the western United States used to monitor multiple pieces of information, including subsidence. There are two stations in the Cuyama Basin: CUHS, located near the city of New Cuyama, and VCST, located south of the city of Ventucopa. The CUHS station has subsidence data from 2000 through [20172023](#), and the VCST station has subsidence data from 2001 through [20172023](#).

4.2.41.2.5 Existing Water Management Programs

Santa Barbara County Integrated Regional Water Management Plan [20132019](#)

The *Santa Barbara County Integrated Regional Water Management Plan [20132019](#)* (IRWM Plan [20132019](#)) is the main integrated regional water management planning document for the Santa Barbara County IRWM Region (County of Santa Barbara, [2013](#)). [IRWM Plan 20132019](#). [A plan was developed in 2013 with an update in 2019 to reflect changes in DWR's 2016 IRWM Guidelines, Volume 2. IRWM Plan 2019](#) emphasizes multi-agency collaboration, stakeholder involvement and collaboration, regional approaches to water management, water management involvement in land use decisions, and project monitoring to evaluate results of current practices. [IRWM Plan 2013](#) [The changes made in IRWM Plan 2019 focus on cooperating partners and their key water management issues for involved agency collaboration, the impact of SGMA, changes to the sub-regions for synergistic project planning, change in prioritization of climate change vulnerabilities including drought. Additionally, a new county hosted database was developed for their data management system and 3 subcommittees were created for cultural and disadvantage communities.](#) [IRWM Plan 2019](#) identifies regionally and locally focused projects that help achieve regional objectives and targets while working to address water-related challenges in the region.

The following IRWM Plan [20132019](#) objectives related to groundwater use would potentially influence implementation of the GSP:

- Protect, conserve, and augment water supplies
- Protect, manage, and increase groundwater supplies
- Practice balanced natural resource stewardship
- Protect and improve water quality
- Maintain and enhance water and wastewater infrastructure efficiency and reliability.

IRWM Plan [20132019](#) provides valuable resources related to potential concepts, projects and monitoring strategies that can be incorporated into the CBGSA GSP.

San Luis Obispo County [20142019](#) IRWM Plan

The San Luis Obispo [20142019](#) IRWM Plan presents a comprehensive water resources management approach to managing the region's water resources, focusing on strategies to improve the sustainability of current and future needs of San Luis Obispo County (County of San Luis Obispo, [2019](#)). [The 2019 Plan](#)



builds off the 2014) IRWM Plan with changes to a few relevant sections including governance and stakeholder involvement, region description of groundwater and quality issues to reflect SGMA. Much of the 2014 IRWM Plan was based on the San Luis Obispo County Water Master Report (SLOCFC&WCD, 2012) There were no significant changes to the goals in the 2019 update.



The following [20142019](#) IRWM Plan goals related to groundwater use would potentially influence implementation of the GSP:

- **Water Supply Goal:** Maintain or improve water supply quantity and quality for potable water, fire protection, ecosystem health, and agricultural production needs; as well as to cooperatively address limitations, vulnerabilities, conjunctive-use, and water-use efficiency.
- **Ecosystem and Watershed Goal:** Maintain or improve the health of the Region’s watersheds, ecosystems, and natural resources through collaborative and cooperative actions, with a focus on assessment, protection, and restoration/enhancement of ecosystem and resource needs and vulnerabilities.
- **Groundwater Monitoring and Management (Groundwater) Goal:** Achieve sustainable use of the region’s water supply in groundwater basins through collaborative and cooperative actions.
- **Water Resources Management and Communications (Water Management) Goal:** Promote open communications and regional cooperation in the protection and management of water resources, including education and outreach related to water resources conditions, conservation/water use efficiency, water rights, water allocations, and other regional water resource management efforts.

The [20142019](#) IRWM Plan provides valuable resources related to potential concepts, projects, and monitoring strategies that can be incorporated into the CBGSA GSP.

Ventura County [20142019](#) IRWM Plan

The Ventura County [20142019](#) IRWM Plan reflects the unique needs of a diverse region in Ventura County, which encompasses three major watersheds, 10 cities, portions of the Los Padres National Forest, a thriving agricultural economy, and is home to more than 823,000 people ([County Watersheds Coalition of Ventura, 2014 County, 2019](#)). The [20142019](#) IRWM Plan is a comprehensive document that primarily addresses region-wide water management and related issues. [The 2019 Plan amendment was developed for the existing 2014 Plan to address revisions required by DWR 2016 Prop 1 IRWM program guidelines and plan standards.](#)

The following [20142019](#) IRWM Plan goals related to groundwater use would potentially influence implementation of the GSP:

- [Reduce dependence on imported water and protect](#)~~Protect~~, conserve, and augment [local water-supply portfolio to increase local](#) water ~~supplies~~[resilience](#)
- Protect and improve water quality
- Protect and restore habitat and ecosystems in watersheds

The [20142019](#) IRWM Plan provides valuable resources related to potential concepts, projects and monitoring strategies that can be incorporated into the CBGSA GSP.



Kern County ~~2011~~2020 IRWM Plan

The Kern County ~~2011~~2020 IRWM Plan covers most of Kern County but does not include the portion of the county that includes the Cuyama Basin (Kern County Water Agency, ~~2011~~2020). Therefore, the IRWM Plan is not relevant to the Cuyama GSP and is not addressed here.

1.2.51.2.6 General Plans in Plan Area

As illustrated in Figure 1-4, the Cuyama Basin is located within the geographic boundaries of four counties, including Kern, San Luis Obispo, Santa Barbara and Ventura. Each of these counties have an existing process for permitting new or replacement groundwater wells, which ~~would continue after~~ has continued during implementation of this GSP. In addition, implementation of the CBGSA GSP would be affected by the policies and regulations outlined in the General Plans of these counties, given that the Cuyama Basin, and long-term land use planning decisions that would affect the Basin, are under the jurisdiction of these counties.

This section describes how implementation of the various General Plans may change water demands in the Basin, for example due to population growth and development of the built environment, how the General Plans may influence the GSP's ability to achieve sustainable groundwater use, and how the GSP may affect implementation of General Plan land use policies.

Santa Barbara County Comprehensive Plan

The Santa Barbara County Comprehensive Plan is a means by which more orderly development and consistent decision making in the county can be accomplished. The Plan involves a continuing process of research, analysis, goal-setting and citizen participation, the major purpose of which is to enable the County Board of Supervisors and Planning Commission to more effectively determine matters of priority in the allocation of resources, and to achieve the physical, social and economic goals of the communities in the county (County of Santa Barbara, 2016).

Relevant Santa Barbara County Comprehensive Plan Principles and Policies

The following Santa Barbara County Comprehensive Plan Land Use Element policies related to groundwater use would potentially influence implementation of the GSP:

- **Land Use Development Policy 4:** Prior to issuance of a development permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public or private services and resources (i.e., water, sewer, roads, etc.) are available to serve the proposed development.
- **Hillside and Watershed Protection Policy 7:** Degradation of the water quality of groundwater basins, nearby streams, or wetlands shall not result from development of the site. Pollutants, such as chemicals, fuels, lubricants, raw sewage, and other harmful waste, shall not be discharged into or alongside coastal streams or wetlands either during or after construction.



The following Santa Barbara County Comprehensive Plan Conservation Element, Groundwater Resources Section goals and policies related to groundwater use would potentially influence implementation of the GSP:

- **Goal 1:** To ensure adequate quality and quantity of groundwater for present and future county residents, and to eliminate prolonged overdraft of any groundwater basins.
 - **Policy 1.1:** The County shall encourage and assist all of the county's water purveyors and other groundwater users in the conservation and management, on a perennial yield basis, of all groundwater resources.
 - **Policy 1.2:** The County shall encourage innovative and/or appropriate, voluntary water conservation activities for increasing the efficiency of agricultural water use in the county.
 - **Policy 1.3:** The County shall act within its powers and financial abilities to promote and achieve the enhancement of groundwater basin yield.
- **Goal 2:** To improve existing groundwater quality, where feasible, and to preclude further permanent or long-term degradation in groundwater quality.
 - **Policy 2.1:** Where feasible, in cooperation with local purveyors and other groundwater users, the County shall act to protect groundwater quality where quality is acceptable, improve quality where degraded, and discourage degradation of quality below acceptable levels.
 - **Policy 2.2:** The County shall support the study of adverse groundwater quality effects which may be due to agricultural, domestic, environmental and industrial uses and practices.
- **Goal 3:** To coordinate County land use planning decisions and water resources planning and supply availability.
 - **Policy 3.1:** The County shall support the efforts of the local water purveyors to adopt and implement groundwater management plans pursuant to the Groundwater Management Act and other applicable law.
 - **Policy 3.2:** The County shall conduct its land use planning and permitting activities in a manner which promotes and encourages the cooperative management of groundwater resources by local agencies and other affected parties, consistent with the Groundwater Management Act and other applicable law.
 - **Policy 3.3:** The County shall use groundwater management plans, as accepted by the Board of Supervisors, in its land use planning and permitting decisions and other relevant activities.
 - **Policy 3.4:** The County's land use planning decisions shall be consistent with the ability of any affected water purveyor(s) to provide adequate services and resources to their existing customers, in coordination with any applicable groundwater management plan.
 - **Policy 3.5:** In coordination with any applicable groundwater management plan(s), the County shall not allow, through its land use permitting decisions, any basin to become seriously overdrafted on a prolonged basis.
 - **Policy 3.6:** The County shall not make land use decisions which would lead to the substantial over commitment of any groundwater basin.



- **Policy 3.7:** New urban development shall maximize the use of effective and appropriate natural and engineered recharge measures in project design, as defined in design guidelines to be prepared by the Santa Barbara County Flood Control and Water Conservation District in cooperation with P&D.
- **Policy 3.8:** Water-conserving plumbing, as well as water-conserving landscaping, shall be incorporated into all new development projects, where appropriate, effective, and consistent with applicable law.
- **Policy 3.9:** The County shall support and encourage private and public efforts to maximize efficiency in the pre-existing consumptive M&I use of groundwater resources.
- **Policy 3.10:** The County, in consultation with the cities, affected water purveyors, and other interested parties, shall promote the use of consistent "significance thresholds" by all appropriate agencies with regard to groundwater resource impact analysis.
- **Goal 4:** To maintain accurate and current information on groundwater conditions throughout the county.
 - **Policy 4.1:** The County shall act within its powers and financial abilities to collect, update, refine, and disseminate information on local groundwater conditions.

The following Santa Barbara County Comprehensive Plan Agricultural Element goal and policy related to groundwater use would potentially influence implementation of the GSP:

- **Goal 1:** Santa Barbara County shall assure and enhance the continuation of agriculture as a major viable production industry in Santa Barbara County. Agriculture shall be encouraged. Where conditions allow, (taking into account environmental impacts) expansion and intensification shall be supported.
 - **Policy 1F:** The quality and availability of water, air, and soil resources shall be protected through provisions including but not limited to, the stability of Urban/Rural Boundary Lines, maintenance of buffer areas around agricultural areas, and the promotion of conservation practices.

Santa Barbara County Comprehensive Plan's Influence on Water Demand and Groundwater Sustainability Plan's Goals

Review of relevant *Santa Barbara County Comprehensive Plan* goals and policies reveals that the County's goals and policies relative to future land use development and conservation complement the use and conservation of groundwater resources goals anticipated to be included in the CBGSA GSP. The Comprehensive Plan explicitly states as a goal ensuring that adequate quality and quantity of groundwater will be available for present and future county residents, as well as the elimination of prolonged overdraft of any groundwater basins through land use planning decisions and water resources planning.

The county is expected to grow from [428,600](#) to [521,700](#) residents between [2015](#) and [2050](#) (Santa Barbara County Association of Governments, [2012](#)). These growth estimates are County-wide, and the General Plan does not specify how much growth, if any, is expected to occur within the Basin. Ensuring sustainable management of the Basin through implementation of the GSP will



be critical in terms of supporting projected population growth in the county while maintaining sustainable groundwater levels in the Basin.

GSP's Influence on Santa Barbara County Comprehensive Plan's Goals and Policies

Successful implementation of the GSP will help to ensure that the Cuyama Basin's groundwater supply is managed in a sustainable manner. Given the amount of population growth projected in the county in the coming years, it is possible that changes in groundwater management by the GSP will result in changes to the pace, location and type of development that will occur in the county in the future. It is anticipated that GSP implementation will be consistent with the Comprehensive Plan's goals related to sustainable land use development in the county.

San Luis Obispo County General Plan

The *San Luis Obispo County General Plan* describes official County policy on the location of land uses and their orderly growth and development. It is the foundation upon which all land use decisions are based, guides action the County takes to assure a vital economy, ensures a sufficient and adequate housing supply, and protects agricultural and natural resources (County of San Luis Obispo, 2015).

Relevant San Luis Obispo General Plan Principles and Policies

The following San Luis Obispo General Plan Land Use Element principles and policies related to groundwater use would potentially influence implementation of the GSP:

- **Principle 1:** Preserve open space, scenic natural beauty and natural resources. Conserve energy resources. Protect agricultural land and resources.
 - **Policy 1.2:** Keep the amount, location and rate of growth allowed by the Land Use Element within the sustainable capacity of resources, public services and facilities.
 - **Policy 1.3:** Preserve and sustain important water resources, watersheds and riparian habitats.

The following San Luis Obispo General Plan Conservation and Open Space Element goals and policies related to groundwater use would potentially influence implementation of the GSP:

- **Goal WR 1:** The county will have a reliable and secure regional water supply.
 - **Policy WR 1.2:** Conserve Water Resources. Water conservation is acknowledged to be the primary method to serve the county's increasing population. Water conservation programs should be implemented countywide before more expensive and environmentally costly forms of new water are secured.
 - **Policy WR 1.3:** New Water Supply. Development of new water supplies should focus on efficient use of our existing resources. Use of reclaimed water, interagency cooperative projects, desalination of contaminated groundwater supplies, and groundwater recharge projects should be considered prior to using imported sources of water or seawater desalination, or dams and on-stream reservoirs.



- **Policy WR 1.7:** Agricultural Operations. Groundwater management strategies will give priority to agricultural operations. Protect agricultural water supplies from competition by incompatible development through land use controls.
- **Policy WR 1.12:** Impacts of New Development. Accurately assess and mitigate the impacts of new development on water supply. At a minimum, comply with the provisions of Senate Bills 610 and 221.
- **Policy WR 1.14:** Avoid Net Increase in Water Use. Avoid a net increase in non-agricultural water use in groundwater basins that are recommended or certified as Level of Severity II or III for water supply. Place limitations on further land divisions in these areas until plans are in place and funded to ensure that the safe yield will not be exceeded.
- **Goal WR 2:** The County will collaboratively manage groundwater resources to ensure sustainable supplies for all beneficial uses.
 - **Policy WR 2.1:** Groundwater quality assessments Prepare groundwater quality assessments, including recommended monitoring, and management measures.
 - **Policy WR 2.2:** Groundwater Basin Reporting Programs. Support monitoring and reporting programs for groundwater basins in the region.
 - **Policy WR 2.3:** Well Permits. Require all well permits to be consistent with the adopted groundwater management plans.
 - **Policy WR 2.4:** Groundwater Recharge. Where conditions are appropriate, promote groundwater recharge with high-quality water.
 - **Policy WR 2.5:** Groundwater Banking Programs. Encourage groundwater-banking programs.
- **Goal WR 3:** Excellent water quality will be maintained for the health of the people and natural communities.
 - **Policy WR 3.2:** Protect Watersheds. Protect watersheds, groundwater and aquifer recharge areas, and natural drainage systems from potential adverse impacts of development projects.
 - **Policy WR 3.3:** Improve Groundwater Quality. Protect and improve groundwater quality from point and non-point source pollution, including nitrate contamination; MTBE and other industrial, agricultural, and commercial sources of contamination; naturally occurring mineralization, boron, radionuclides, geothermal contamination; and seawater intrusion and salts.
 - **Policy WR 3.4:** Water Quality Restoration. Pursue opportunities to participate in programs or projects for water quality restoration and remediation with agencies and organizations such as the Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and Resource Conservation Districts (RCDs) in areas where water quality is impaired.
- **Goal 4:** Per capita water use in the county will decline by 20% by 2020.
 - **Policy WR 4.1:** Reduce Water Use. Employ water conservation programs to achieve an overall 20% reduction in per capita residential and commercial water use in the unincorporated area by 2020. Continue to improve agricultural water use efficiency consistent with Policy AGP 10 in the Agricultural Element.



- **Policy WR 4.2:** Water Pricing Structures. Support water-pricing structures to encourage conservation by individual water users and seek to expand the use of conservation rate structures in areas with Levels of Severity II and III for water supply.
- **Policy WR 4.3:** Water conservation The County will be a leader in water conservation efforts.
- **Policy WR 4.5:** Water for Recharge. Promote the use of supplemental water such as reclaimed sewage effluent and water from existing impoundments to prevent overdraft of groundwater. Consider new ways to recharge underground basins and to expand the use of reclaimed water. Encourage the eventual abandonment of ocean outfalls.
- **Policy WR 4.6:** Graywater. Encourage the use of graywater systems, rainwater catchments, and other water reuse methods in new development and renovation projects, consistent with state and local water quality regulations.
- **Policy WR 4.7:** Low Impact Development. Require Low Impact Development (LID) practices in all discretionary and land division projects and public projects to reduce, treat, infiltrate, and manage urban runoff.
- **Policy WR 4.8:** Efficient Irrigation. Support efforts of the resource conservation districts, California Polytechnic State University, the University of California Cooperative Extension, and others to research, develop, and implement more efficient irrigation techniques.
- **Goal 5:** The best possible tools and methods available will be used to manage water resources.
- **Policy WR 5.1:** Watershed Approach. The County will consider watersheds and groundwater basins in its approach to managing water resources in order to include ecological values and economic factors in water resources development.

The following San Luis Obispo General Plan Agriculture Element goals and policies related to groundwater use would potentially influence implementation of the GSP:

- **Policy AGP10a:** Encourage water conservation through feasible and appropriate “best management practices.” Emphasize efficient water application techniques; the use of properly designed irrigation systems; and the control of runoff from croplands, rangelands, and agricultural roads.
- **Policy AGP10b:** Encourage the U.C. Cooperative Extension to continue its public information and research program describing water conservation techniques that may be appropriate for agricultural practices in this county. Encourage landowners to participate in programs that conserve water.
- **Policy AGP11b:** Do not approve proposed general plan amendments or re-zonings that result in increased residential density or urban expansion if the subsequent development would adversely affect: (1) water supplies and quality, or (2) groundwater recharge capability needed for agricultural use.
- **Policy AGP11c:** Do not approve facilities to move groundwater from areas of overdraft to any other area, as determined by the Resource Management System in the Land Use Element.



San Luis Obispo County General Plan's Influence on Water Demand and Groundwater Sustainability Plan

The semi-arid climate in the county is subject to limited amounts of rainfall and recharge of groundwater basins and surface reservoirs. A focus of the County General Plan is that future development should take place recognizing that the dependable supply of some county groundwater basins is already being exceeded. If mining of groundwater continues in those areas without allowing aquifers to recharge, water supply and water quality problems will eventually result, which may be costly to correct and could become irreversible.

The General Plan explicitly encourages preservation of the county's natural resources, and states that future growth should be accommodated only while ensuring that this growth occurs within the sustainable capacity of these resources.

The county was expected to grow between 0.44 and 1 percent per year from 2013 through 2018, an increase of approximately 12,000 persons over the five-year period and is expected to grow by over 41,000 from 2010 to 2030 (County of San Luis Obispo, 2014). These growth estimates are County-wide and the General Plan does not specify how much growth, if any, is expected to occur within the Basin. Ensuring sustainable management of the basin through implementation of the GSP will be critical in terms of supporting projected population growth in the county while maintaining sustainable groundwater levels in the basin.

GSP's Influence on San Luis Obispo County General Plan's Goals and Policies

Successful implementation of the GSP will help to ensure that the Cuyama Basin's groundwater supply is managed in a sustainable manner. Given the amount of population growth projected in the county in the coming years, it is possible that changes in groundwater management by the GSP will impact the location and type of development that will occur in the Basin in the future. It is anticipated that GSP implementation will reinforce the General Plan's goals related to sustainable land use development in the county.

Ventura County General Plan

The Ventura County General Plan [guides decision making and provides direction for growth and development. The 2040 General Plan](#) consists of the following:

- County-wide Goals, Policies and Programs containing ~~fourteen~~ chapters (~~Resources, Hazards~~Introduction, Land Use, and ~~Public~~Community, Housing Element, Circulation Transportation and Mobility element, ~~Pubic~~ Facilities and ~~Services~~Infrastructure, Conservation and Open space, ~~Hazards and Safety, Agricultural, Water Resource, Economic Viability and Area Plan.~~)
- Four appendices (~~Resources, Hazards,~~Plan Area and Existing Community Land Use, and ~~Public Facilities~~ Maps, Climate Change, Count of Ventura Measure (SAOR) Save Open Space and ~~Services~~), ~~which contain background information~~Agricultural Resource Initiative – 2050 and ~~data in support of the Countywide Goals, Policies and Programs~~Guidelines for Orderly Development.)



- Several Area Plans which contain specific goals, policies and programs for specific geographical areas of the county

[A few of these chapters and guiding principles which could potentially influence the GSP are described below.](#)

Relevant Ventura County General Plan Principles and Policies

The following Ventura County General Plan (~~Resources~~[Water Resource Element](#) Chapter, ~~Water Resources Section, 1.3.1 Goals, 1.3.2 Policies~~) [9](#) goals and policies related to groundwater use would potentially influence implementation of the GSP:

- ~~Goal 1: Inventory and monitor the quantity and quality of the county's water resources.~~
 - ~~Goal 2: Effectively~~ [To effectively](#) manage ~~the water resources of the county~~ [supply](#) by adequately planning for the development, conservation, and protection of water resources for present and future generations.
 - ~~Goal 3: Maintain and~~ [Policy 1: The County should encourage water suppliers, groundwater management agencies, and groundwater sustainability agencies to inventory and monitor the quantity and quality of the county's water resources.](#)
 - [Policy 2: The County shall consider the location of a discretionary project within a watershed to determine whether or not it could negatively impact a water source.](#)
 - [Policy 3: The County shall support the use of, conveyance of, and seek to secure water from varied sources that contribute to a diverse water supply portfolio.](#)
 - [Policy 4: The County shall continue to support the conveyance of, and seek to secure water from, state sources.](#)
 - [Policy 5: The County shall participate in regional committees to coordinate planning efforts for water and land use that is consistent with the Urban Water Management Planning Act, Sustainable Groundwater Management Act, the local Integrated Regional Water Management Plan, and the Countywide National Pollutant Discharge Elimination System Permit \(stormwater and runoff management and reuse\)](#)
 - [Policy 6: The County shall encourage the continued cooperation among water suppliers in the county, through entities such as the Association of Water Agencies of Ventura County and the Watersheds Coalition of Ventura County, to ensure immediate and long-term water needs are met efficiently.](#)
 - [Policy 7: The County shall encourage continued cooperation among water suppliers in the county.](#)



- Policy 8: The County shall encourage the consolidation of water suppliers where necessary to ensure all residents are receiving water of adequate quality and quantity.
- Policy 9: Where technically feasible, restore the chemical, physical and biological integrity of the County shall support the use of groundwater basins for water storage.
- Policy 10: The County shall continue to support and participate with the Watersheds Coalition of Ventura County in implementing and regularly updating the Integrated Regional Water Management Plan.
- Policy 11: The County shall require all discretionary development to demonstrate an adequate long-term supply of water.
- Policy 12: The County shall evaluate the potential for discretionary development to cause deposition and discharge of sediment, debris, waste and other pollutants into surface runoff, drainage systems, surface water bodies, and groundwater.
- Policy 13: The County shall require that all County-owned water pumps use 100 percent renewable sourced electricity for water pumping, when feasible, and shall encourage private entities to use 100 percent renewable-sourced electricity when feasible.
- Policy 14: The County shall require that discretionary development for new golf courses shall be subject to conditions of approval that prohibit landscape irrigation with water from groundwater basins or inland surface waters.
- Goal 2: To implement practices and designs that improve and protect water resources.
 - Policy 1: The County shall cooperate with Federal, State and local agencies in identifying and eliminating or minimizing all sources of existing and potential point and non-point sources of pollution to ground and surface waters.
 - Policy 2: The County shall evaluate the potential for discretionary development to cause deposition and discharge of sediment, debris, waste, and other contaminants into surface runoff, drainage systems, surface water bodies, and groundwater.
 - Policy 3: The County shall require that discretionary development not significantly impact the quality or quantity of water resources within watersheds, groundwater recharge areas or groundwater basins.
- ~~Goal 4: Ensure that the demand for water does not exceed available water resources.~~
- ~~Goal 5: Protect and, where feasible, enhance watersheds and aquifer recharge areas.~~
- ~~Goal 6: Promote reclamation and reuse of wastewater for recreation, irrigation and to recharge aquifers.~~



- Goal 7: Promote Policy 4: The County shall require discretionary development for out-of-river mining below the historic or predicted high groundwater level in the Del Norte/El Rio (Oxnard Forebay Basin) to demonstrate that exaction activities will not interfere with or affect water quality and quantity pursuant to the County's Initial Study Assessment Guidelines.
- Goal 3: To promote efficient use of water resources through water conservation, protection, and restoration.
- ~~Policy 1: Discretionary development which is inconsistent with the goals and policies of the County's Water Management Plan (WMP) shall be prohibited, unless overriding considerations are cited by the decision-making body.~~
 - ~~Policy 2: Discretionary development shall comply with all applicable~~ The County and States shall encourage the use of non-potable water, such as tertiary treated wastewater and household graywater, for industrial, agricultural, environmental, and landscaping needs consistent with appropriate regulations.
- ~~Policy 3: The installation of on-site septic systems shall meet all applicable State and County regulations.~~
 - ~~Policy 4: Discretionary~~ Policy 2: The County shall require the use of water conservation techniques for discretionary development, as appropriate.
 - Policy 3: The County shall require discretionary development to incorporate low impact development design features and best management practices, including integration of stormwater capture facilities, consistent with County's Stormwater Permit.
 - Policy 4: The County shall strive for efficient use of potable water in County buildings and facilities through conservation measures, and technological advancements.
- Goal 4: To maintain and restore the chemical, physical, and biological integrity and quantity of groundwater resources.
 - Policy 1: The County shall work with water suppliers, water users, groundwater management agencies, and groundwater sustainability agencies to implement the Sustainable Groundwater Management Act (SGMA).
 - Policy 2: In areas identified as important recharge areas by the County or the applicable Groundwater Sustainability Agency, the County shall condition discretionary development to limit impervious surfaces where feasible and shall require mitigation in cases where there is the potential for discharge of harmful pollutants within important groundwater recharge areas.



- Policy 3: The County shall support groundwater recharge and multi-benefit projects consistent with the Sustainable Groundwater Management Act and the Integrated Regional Water Management Plan to ensure the long-term sustainability of groundwater.
- Policy 4: The County shall encourage the use of in-stream water flow and recycled water for groundwater recharge while balancing the needs of urban and agricultural uses, and healthy ecosystems, including in-stream waterflows needed for endangered species protection.
- Policy 5: The County shall require that discretionary development shall not significantly impact the quantity or quality of water resources ~~in~~within watersheds, groundwater recharge areas or groundwater basins.
- Policy 5: Landscape plans for 6: The County shall require discretionary development shall incorporate water conservation measures as prescribed by the County's Guide to Landscape Plans, including use for out-of-low water usage landscape plants and irrigation systems and/or low water usage plumbing fixtures and other measures designed to reduce water usage.
 - Policy 10: All new golf courses shall be conditioned to prohibit landscape irrigation with water from groundwater basins or inland surface waters identified as Municipal and Domestic Supply or Agricultural Supply in the California Regional Water Quality Control Board's Water Quality Control Plan unless either: a) the existing and planned water supplies for a Hydrologic Area, including interrelated Hydrologic Areas and Subareas, are shown to be adequate to meet the projected demands for existing uses as well as reasonably foreseeable probable future uses in the area, or b) it is demonstrated that the total groundwater extraction/recharge for the golf course will be equal to or less than river mining below the historic groundwater extraction/recharge (as defined in the Ventura County or predicted high groundwater level in the Del Norte/El Rio (Oxnard Forebay Basin) to demonstrate that extraction activities will not interfere with or affect groundwater quality and quantity pursuant to the County's Initial Study Assessment Guidelines) for the site. Where feasible, reclaimed water shall be utilized for new golf courses.
- Policy 7: The following Ventura County General Plan (Land Use Chapter, 3.1.1 Goals) goal related shall require that discretionary development be subject to groundwater use would potentially influence implementation conditions of the GSP:
 - Goal 1: Ensure that the county can accommodate anticipated future growth approval requiring proper drilling and development while maintaining a safe construction of new oil, gas, and healthful environment by preserving valuable natural resources, guiding development away from hazardous areas, water wells and planning for adequate public facilities removal and services. Promote planned, well-ordered and efficient land use and development patterns plugging of all abandoned wells on-site.



The following Ventura County General Plan (Public Facilities Chapter, Water Supply Facilities section 4.3.1 Goals and 4.3.2 Policies) goals and policies related to groundwater use would potentially influence implementation of the GSP:

- ~~Goal 1: Ensure the provision of water in quantities sufficient to satisfy current and projected demand.~~
- ~~Goal 2: Encourage the employment of water conservation measures in new and existing development.~~
- ~~Goal 3: Encourage the continued cooperation among water suppliers in the county in meeting the water needs of the county as a whole.~~
- ~~Policy 1: Development that requires potable water shall be provided a permanent potable water supply of adequate quantity and quality that complies with applicable County and State water regulations. Water systems operated by or receiving water from Casitas Municipal Water District, the Calleguas Municipal Water District or the United Water Conservation District will be considered permanent supplies unless an Urban Water Management Plan (prepared pursuant to Part 2.6 of Division 6 of the Water Code) or a water supply and demand assessment (prepared pursuant to Part 2.10 of Division 6 of the Water Code) demonstrates that there is insufficient water supply to serve cumulative development in the district's service area. When the proposed water supply is to be drawn exclusively from wells in areas where groundwater supplies have been determined by the Environmental Health Division or the Public Works Agency to be questionable or inadequate, the developer shall be required to demonstrate the availability of a permanent potable water supply for the life of the project.~~
 - Policy 8: The County shall require all new water wells located within Groundwater Sustainability Agency (GSA) boundaries to be compliant with GSAs and adopted Groundwater Sustainability Plans (GSPs)
 - Policy 2: Discretionary development as defined in section 10912 of the Water Code⁹: The County shall prohibit new water wells in the Oxnard Plain Pressure Basin if the new water wells would increase seawater intrusion in the Oxnard or Mugu aquifers.
- Goal 5: To protect and, where feasible, enhance watersheds and aquifer recharge areas through integration of multiple facets of watershed-based approaches.
 - Policy 1: The County shall work with water suppliers, Groundwater Sustainability Agencies (GSAs), wastewater utilities, and stormwater management entities to manage and enhance the shift toward integrated management of surface and groundwater, stormwater treatment and use, recycled water and conservation, and desalination.
 - Policy 2: The County shall ~~comply with the water supply~~ continue to seek funding and support coordination of watershed planning and watershed-level project implementation to protect and enhance local watersheds.



- Goal 6: To sustain the agricultural sector by ensuring an adequate water supply through water efficiency and conservation.
 - Policy 1: The County should support the appropriate agencies in their efforts to effectively manage and enhance water quantity and demand-assessment quality to ensure long-term, adequate availability of high quality and economically viable water for agricultural uses, consistent with water use efficiency programs.
 - Policy 2: The County should support programs designed to increase agricultural water use efficiency and secure long-term water supplies for agriculture.
 - Policy 3: The County should encourage the use of reclaimed irrigation water and treated urban wastewater for agricultural irrigation in accordance with federal and state requirements of Part 2.10 of Division 6 of the Water Code in order to conserve untreated groundwater and potable water supplies.
- ~~Policy 3: Discretionary development shall be conditioned to incorporate water conservation techniques and the use of drought resistant native plants pursuant to the County's Guide to Landscape Plans.~~
- Goal 7: To consider the water needs of the natural environment with other water uses in the county.
 - Policy 1: The County shall encourage the appropriate agencies to effectively manage water quantity and quality to address long-term adequate availability of water for environmental purposes, including maintenance of existing groundwater-dependent habitats and in-stream flows needed for riparian habitats and species protection.

Ventura County Plan's Influence on Water Demand and Groundwater Sustainability Plan's Goals

Review of relevant Ventura County General Plan goals and policies reveals that the County's goals and policies relative to future land use development and conservation complement the use and conservation of groundwater resources goals included in the CBGSA GSP. The General Plan explicitly states as a goal ensuring that adequate quality and quantity of groundwater will be available for present and future county residents, as well as accommodating anticipated future growth and development while maintaining a safe and healthful environment by preserving valuable natural resources, including groundwater.

The county is expected to ~~grow~~decline from ~~865,090~~837,845 to ~~969,271~~722,411 residents between ~~2018~~2021 and ~~2040~~2050 (Caltrans, ~~2015~~2022). These ~~growth~~ estimates are County-wide and the General Plan does not specify how much ~~growth~~population decline, if any, is expected to occur within the Basin. Ensuring sustainable management of the basin through implementation of the GSP will be critical in terms of supporting ~~projected~~forecasted population ~~growth~~ in the county while maintaining sustainable groundwater levels in the Basin.



GSP's Influence on Ventura County General Plan's Goals and Policies

Successful implementation of the GSP will help to ensure that the Cuyama Basin's groundwater supply is managed in a sustainable manner. Given the amount of population growth projected in the county in the coming years, it is possible that changes in groundwater management by the GSP will result in changes to the pace, location and type of development that will occur in the county in the future. It is anticipated that GSP implementation will reinforce the General Plan's goals related to sustainable land use development in the county.

Kern County General Plan

Because of the close interrelationship between water supplies, land use, conservation, and open space issues, the Land Use, Conservation, and Open Space Element sections of the Kern County General Plan are the most relevant elements for development of the GSP. These elements provide for a variety of land uses for future economic growth while also assuring the conservation of Kern County's agricultural, natural, and resource attributes (County of Kern, 2009).

Relevant Kern County General Plan Goals and Policies

The following Land Use, Conservation, and Open Space Element goals and policies related to groundwater use would potentially influence implementation of the GSP:

- **Goal 1.4.5:** Ensure that adequate supplies of quality water (appropriate for intended use) are available to residential, industrial, and agricultural users in Kern County.
 - **Policy 1.4.2:** The efficient and cost-effective delivery of public services and facilities will be promoted by designating areas for urban development which occur in or adjacent to areas with adequate public service and facility capacity.
 - **Policy 1.4.2.a:** Ensure that water quality standards are met for existing users and future development.
- **Goal 1.6.6:** Promote the conservation of water quantity and quality in Kern County.
- **Goal 1.6.7:** Minimize land use conflicts between residential and resource, commercial, and industrial land uses.
 - **Policy 1.6.11:** Provide for an orderly outward expansion of new urban development so that it maintains continuity of existing development, allows for the incremental expansion of infrastructure and public service, minimizes impacts on natural environmental resources, and provides a high-quality environment for residents and businesses.
 - **Policy 1.9.10:** To encourage effective groundwater resource management for the long-term economic benefit of the county, the following shall be considered:
 - **Policy 1.9.10.a:** Promote groundwater recharge activities in various zone districts.
 - **Policy 1.9.10.c:** Support the development of groundwater management plans.



- **Policy 1.9.10.d:** Support the development of future sources of additional surface water and groundwater, including conjunctive use, recycled water, conservation, additional storage of surface water and groundwater and desalination.
- **Goal 1.10.1:** Ensure that the county can accommodate anticipated future growth and development while maintaining a safe and healthful environment and a prosperous economy by preserving valuable natural resources, guiding development away from hazardous areas, and assuring the provision of adequate public services.
 - **Policy 1.10.6.39:** Encourage the development of the county’s groundwater supply to sustain and ensure water quality and quantity for existing users, planned growth, and maintenance of the natural environment.
 - **Policy 1.10.6.40:** Encourage utilization of community water systems rather than the reliance on individual wells.
 - **Policy 1.10.6.41:** Review development proposals to ensure adequate water is available to accommodate projected growth.

Kern County General Plan’s Influence on Water Demand and Groundwater Sustainability Plan’s Goals

Review of relevant Kern County General Plan goals and policies reveals that the County’s goals and policies relative to future land use development and conservation complement the use and conservation of groundwater resources goals that are anticipated to be included in the CBGSA GSP. The General Plan explicitly encourages development of the county’s groundwater supply to ensure that existing users have access to high quality water, and states that future growth should be accommodated only while ensuring that adequate high-quality water supplies are available to existing and future users.

GSP’s Influence on Kern County General Plan’s Goals and Policies

Successful implementation of the GSP will help to ensure that the Cuyama Basin’s groundwater supply is managed in a sustainable manner. Given the small portion of the Cuyama Basin that lies in Kern County, it is anticipated that GSP implementation will have little to no effects on the General Plan’s goals related to sustainable land use development in the county.



1.2.61.2.7 Plan Elements from CWC Section 10727.4

The plan elements from California Water Code Section 10727.4 require GSPs to address or coordinate the addressing of the components listed in Table 1-1. As noted in the table, several components of California Water Code Section 10727.4 address issues that are not within the CBGSA's authority, and are coordinated with local agencies.

Table 1-2: Plan Elements from CWC Section 10727.4

Element	Location
(a) Control of saline water intrusion	Not applicable
(b) Wellhead protection areas and recharge areas.	To be coordinated with counties
(c) Migration of contaminated groundwater.	Coordinated with Regional Water Quality Control Board (RWQCB)
(d) A well abandonment and well destruction program.	To be coordinated with counties
(e) Replenishment of groundwater extractions.	Chapter 7, Projects and Management Actions
(f) Activities implementing, opportunities for, and removing impediments to, conjunctive use or underground storage.	Chapter 7, Projects and Management Actions
(g) Well construction policies.	To be coordinated with counties
(h) Measures addressing groundwater contamination cleanup, groundwater recharge, in-lieu use, diversions to storage, conservation, water recycling, conveyance, and extraction projects.	Chapter 7, Projects and Management Actions, and coordinated with RWQCB
(i) Efficient water management practices, as defined in Section 10902, for the delivery of water and water conservation methods to improve the efficiency of water use.	Coordinated with Cuyama Basin Water District
(j) Efforts to develop relationships with state and federal regulatory agencies.	Chapter 8, Plan Implementation
(k) Processes to review land use plans and efforts to coordinate with land use planning agencies to assess activities that potentially create risks to groundwater quality or quantity.	To be coordinated with counties
(l) Impacts on groundwater dependent ecosystems.	Chapter 2, Basin Settings, Section 2.2. Groundwater Conditions



1.3 Notice and Communication

The Notice and Communication chapter of this plan will be updated when a final draft of the 2025 GSP Update is completed.

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Chapter 4 Monitoring Networks

This chapter ~~of the *Cuyama Basin Groundwater Sustainability Plan (GSP)*~~ discusses the planned monitoring networks needed to guide the Cuyama Basin Groundwater Sustainability Agency (CBGSA) toward their sustainability goals. Monitoring networks need to be established for each sustainability indicator either directly or through monitoring through a proxy. This section satisfies Subarticle 4 of the Sustainable Groundwater Management Act (SGMA) regulations. This chapter also discusses the following:

- Monitoring network objectives
- Existing monitoring programs used ~~as part of each~~ [to develop the network in the 2020 GSP](#)
- [Development of revised monitoring networks for the 2025 GSP Update](#)
- Monitoring network establishment for each sustainability indicator
- Monitoring network data gaps, and a plan to fill data gaps if they are present for each monitoring network

4.1 Useful Terms

This chapter describes groundwater wells, water quality measurements, subsidence stations, and other related components. Technical terms are defined below. Figure 4-1 is a diagram of a monitoring well with well-related terms identified on the diagram. Terms are defined here to guide readers through this chapter, and are not a definitive definition of each term:

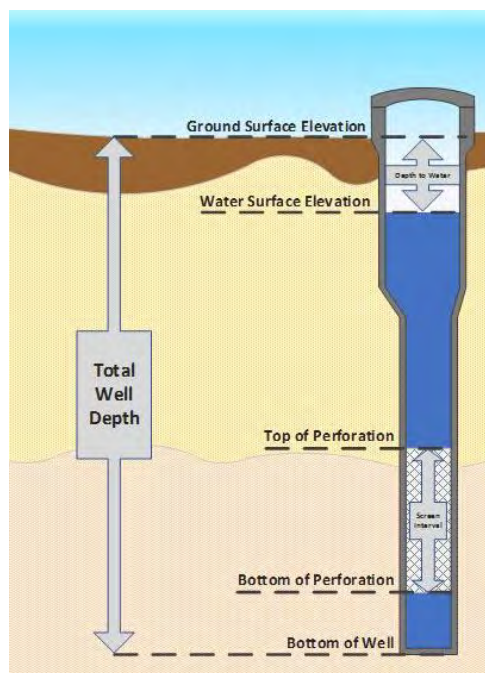


Figure 4-1: Well Completion Diagram

4.1.1 Well-Related Terms

- **Bottom perforation** – The distance to the bottom of the perforation from the ground surface elevation.
- **Depth to water** – The distance from the ground surface or the well' to where water is encountered inside the well
- **Ground surface elevation** – The elevation in feet above mean sea level at the well's location.
- **Screened interval** – The portion of a well casing that is screened to allow water from the surrounding soil into the well pipe. There can be several screened intervals within the same well. Screened interval is usually reported in feet below ground surface (bgs) for both the upper most limit and lower most limit of the screen.
- **Top perforation** – The distance to the top of the perforation from the ground surface elevation.
- **Total well depth** – The depth that a well is installed to. This is often deeper than the bottom of the screened interval.
- **Water surface elevation** – The elevation above mean sea level that water is encountered inside the well



4.1.2 Other Terms

- **Best management practice** – Refers to a practice, or combination of practices, that are designed to achieve sustainable groundwater management and have been determined to be technologically and economically effective, practicable, and based on best available science (Title 23 of the California Code of Regulations [CCR], Article 2).
- **Constituent** – Refers to a water quality parameter measured to assess groundwater quality.
- **Data gap** – Refers to a lack of information that significantly affects the understanding of the Basin setting or evaluation of the efficacy of Plan implementation and could limit the ability to assess whether a Basin is being sustainably managed (Title 23 of the CCR, Article 2).
- **Depth to groundwater** – This is the distance from the ground surface to groundwater typically reported at a well.
- **Historical high groundwater elevations** – This is the highest recorded measurement of static groundwater elevation (closest to the ground surface) in a monitoring well. Measurements of groundwater elevation are used to indicate the elevation of groundwater levels in the area near the monitored well.
- **Historical low groundwater elevations** – This is the lowest measurement of static groundwater elevation (furthest from the ground surface) in a monitoring well that was recorded. Measurements of groundwater elevation are used to indicate the elevation of groundwater levels in the area near the monitored well.
- **Hydrograph** – A hydrograph is a graph that shows the changes in groundwater elevation over time for each monitoring well. Hydrographs show how groundwater elevations change over the years and indicate whether groundwater is rising or descending over time.
- **Representative monitoring** – Refers to a monitoring site within a broader network of sites that typifies one or more conditions within the Basin or an area of the Basin (Title 23 of the CCR, Article 2).
- **Subsidence** – Refers to the sinking or downward settling of the earth's surface, not restricted in rate, magnitude, or area involved, and is often the result of over-extraction of subsurface water. For more information, see the Groundwater Conditions chapter.

4.2 Monitoring Network Objectives

This chapter describes the Cuyama Valley Groundwater Basin (Basin) monitoring networks for the five sustainability indicators that apply to the Basin. The objective of these monitoring networks is to detect undesirable results in the Basin, as described in Chapter 3, using the sustainability thresholds described in Chapter 5. Other related objectives of the monitoring network are defined via the SGMA regulations as follows:



- Demonstrate progress toward achieving measurable objectives described in the GSP
- Monitor impacts to the beneficial uses or users of groundwater
- Monitor changes in groundwater conditions relative to measurable objectives and minimum thresholds
- Quantify annual changes in water budget components

The monitoring network plan provided to the Basin is intended to monitor:

- Chronic lowering of groundwater levels
- Reduction in groundwater storage
- Degraded water quality
- Land subsidence
- Depletions of interconnected surface water

The monitoring networks described in this chapter were ~~designed by evaluating~~ developed for the 2020 GSP using data provided by the California Department of Water Resources (DWR), the United States Geological Survey (USGS), participating counties, and private landowners. The monitoring network ~~consists~~ consisted of wells that are already being used for monitoring in the Basin. ~~Decisions to include wells in the~~ These monitoring ~~network were based on the criteria~~ networks have been revised for the 2025 GSP Update as described ~~in the sections~~ below.

4.2.1 Basin Conditions Relevant to Measurement Density and Frequency

This section summarizes key Basin conditions that influence the development of monitoring networks. These key conditions include hydrogeologic considerations, land use considerations, and historical groundwater conditions.

The Basin, as described in the Section 2.1, is composed of one principal aquifer comprised of three geologic groups: Younger Alluvium, Older Alluvium, and Morales Formation. The majority of groundwater in the aquifer is stored in the Younger and Older alluvium. While there are many faults in the Basin, there are no major stratigraphic aquitards or barriers to vertical groundwater movement among the alluvium and Morales Formation. The aquifer has a wide range of thicknesses that vary spatially, with median reported hydraulic conductivity ranges from 1.22 to 72.1 feet per day (see Table 2-1 in Chapter 2 for detailed values). Figures 2-19 and 2-20 in Chapter 2 show the extent of these formations throughout the Basin.

The largest groundwater uses in the Basin are for irrigated agriculture. The figures shown in Chapter 1, Section 1.2, Plan Area show the extent of land used for irrigated agriculture in the Basin. Based on the



most recent data from [20162022](#), there are approximately 53 square miles of agricultural land in the Basin out of approximately 378 square miles, equaling approximately 14 percent of the Basin's land.

Data provided in Chapter 2, Section 2.2 shows the historical decline groundwater levels in the Basin's central portion. Groundwater elevations in this portion of the Basin have decreased by more than 400 feet from the 1940s to the present, as shown in Figure 4-2.

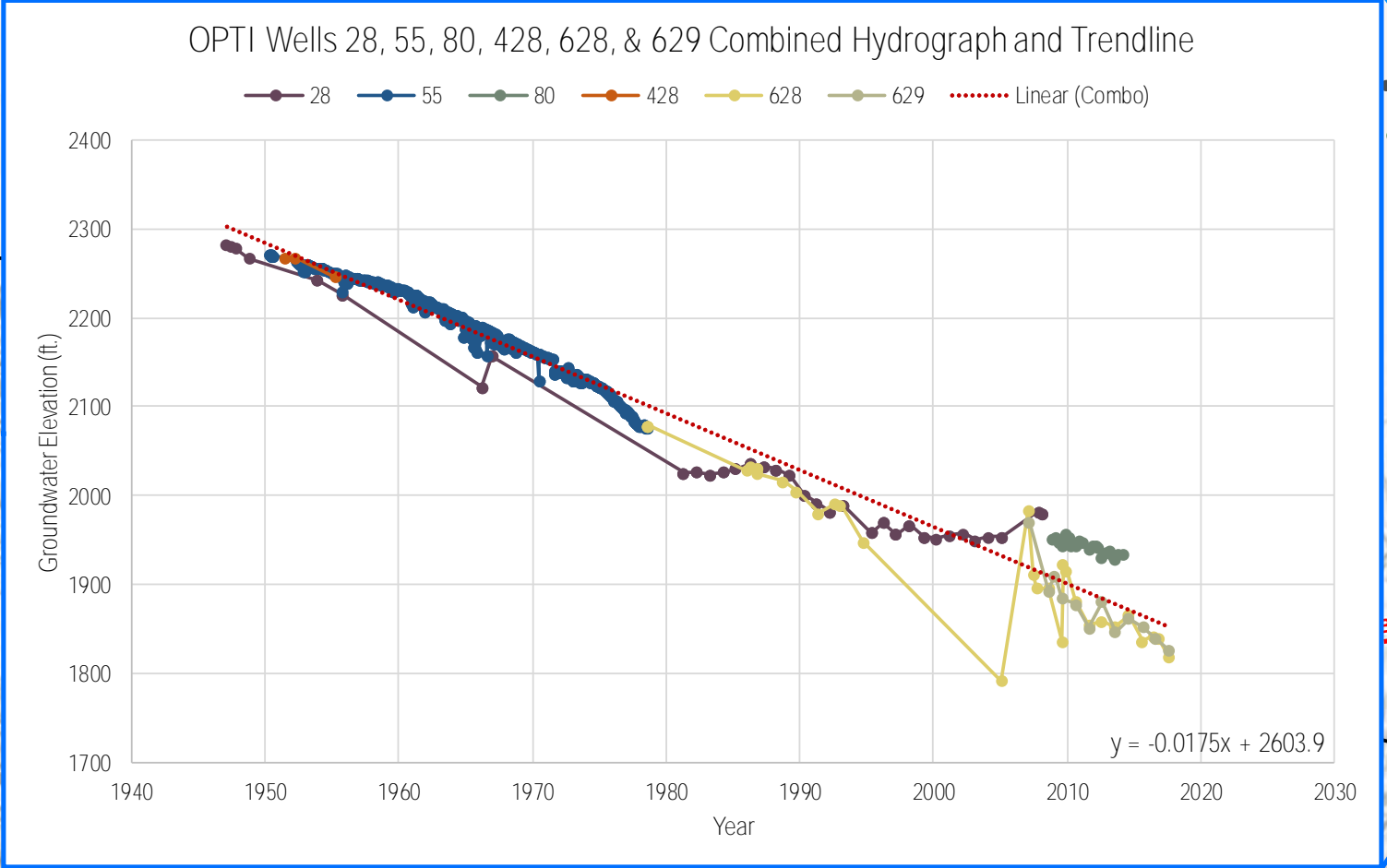
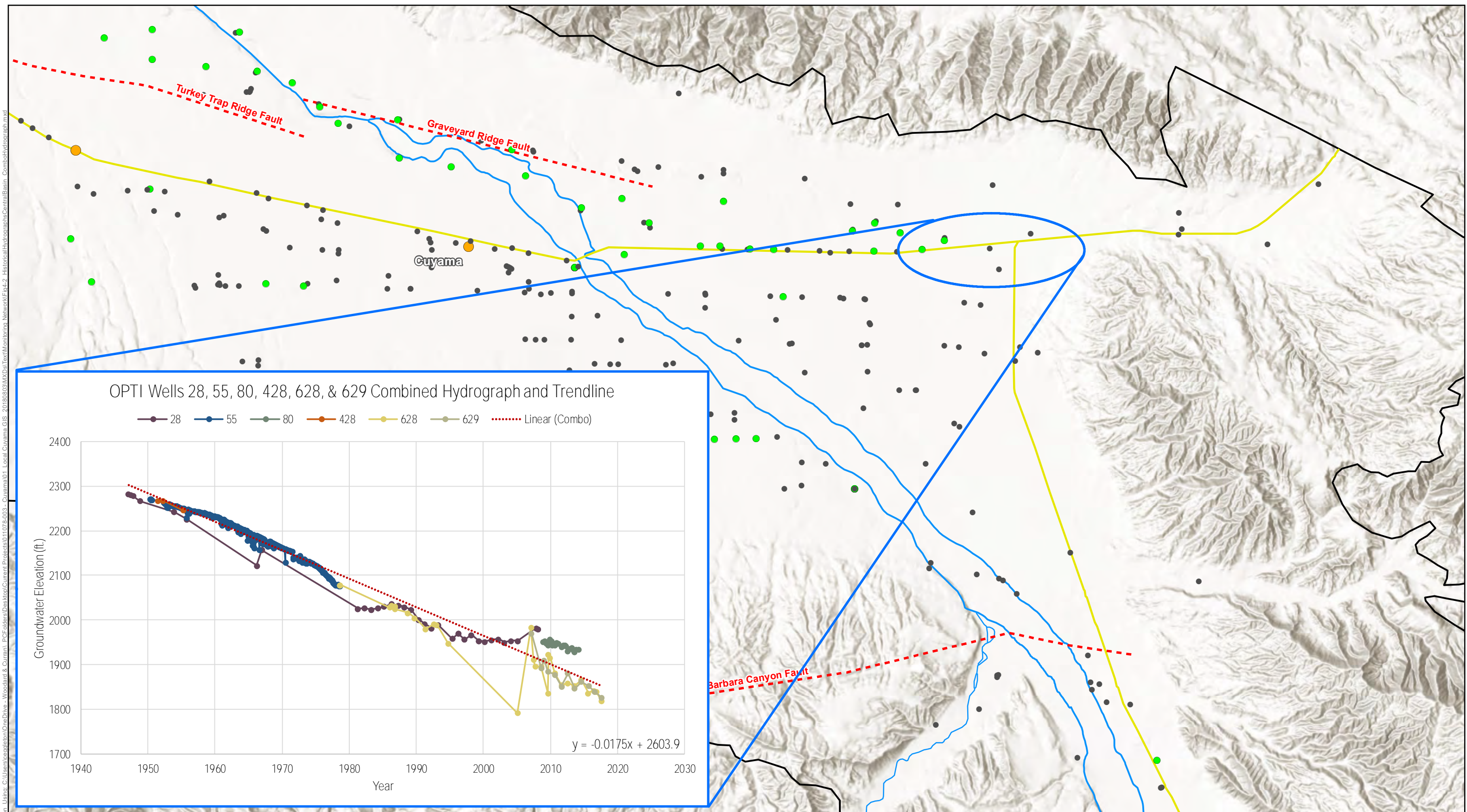


Figure 4-2: Cuyama GW Basin Central Basin with Combined Hydrograph
 Cuyama Basin Groundwater Sustainability Agency
 Cuyama Valley Groundwater Basin Groundwater Sustainability Plan
 April 2019



- Legend**
- Cuyama Basin
 - Towns
 - Highways
 - Cuyama River
 - Streams
 - - - Faults
 - Currently Monitored Wells
 - Not Currently Monitored

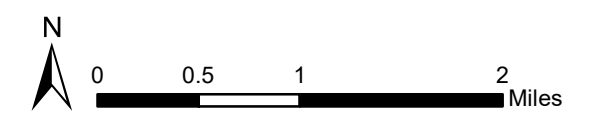


Figure Exported: 1/16/2019 8:21:00 AM
 C:\Users\scapleton\OneDrive - Woodard & Curran\PGF\Projects\Current\Projects\011076-003 - Cuyama GIS - 20180803\MXD\Text\Monitoring_Network\Fig4-2_HistoricalHydrographsCentralBasin_CombinedHydrograph.mxd



4.3 Existing Monitoring Used Prior to 2020 GSP Adoption

4.3.1 Groundwater Level Monitoring

This section describes groundwater level monitoring conducted by agencies and private ~~land owners in the Basin~~ landowners in the Basin prior to GSP adoption in January 2020. Since 2020, the CBGSA has performed its own groundwater level monitoring using the monitoring network approved in the GSP.

DWR, Statewide Dataset/California Statewide Groundwater Elevation Monitoring (CASGEM)

The State of California has several water-related database portals accessible online. These include the following:

- CASGEM Program
- Water Data Library
- Groundwater Information Center Interactive Map Application

The data for these portals are organized and saved in one master database, where each portal accesses and displays data depending on the search criteria and portal used.

The CBGSA contacted DWR directly to acquire all available data related to the Basin. DWR provided a customized hyperlink for CBGSA representatives to download the State's database in whole. Cuyama Basin data were then extracted from this dataset.

Although the master dataset was used to collect initial data, the CASGEM portal was used throughout the planning process to verify that data (DWR CASGEM Online System, 2018). The CASGEM Program is tasked with tracking seasonal and long-term groundwater elevation trends in groundwater basins throughout the State. In 2009, Senate Bill ~~Senate Bill~~-x7-6 ~~establish~~established collaboration between local monitoring parties and DWR, enabling DWR to collect groundwater elevation data, and ultimately establishing the CASGEM Program.



The CASGEM Program allows local agencies to be designated as CASGEM monitoring entities for groundwater basins throughout the State (CASGEM Brochure, 2018). CASGEM monitoring entities can measure groundwater elevations or compile data from other agencies to fulfill a monitoring plan, and each entity is responsible for submitting that data to DWR. Three monitoring entities operate as CASGEM monitoring entities in the Cuyama Basin as follows:

- Santa Barbara County Water Agency (SBCWA)
- Ventura County Watershed Protection District (VCWPD)
- San Luis Obispo Flood Control & Water Conservation District (SLOFC&& WCD)

The CASGEM Program includes two kinds of wells in its database as follows:

- CASGEM wells, all of which include well construction information
- Voluntary wells that are included in the CASGEM database on a volunteer basis; well construction may not be identified or made public

The Basin has six CASGEM wells and 107 voluntary wells. Figure 4-3 shows the locations of these wells.

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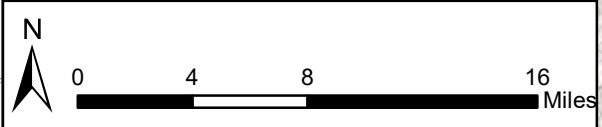
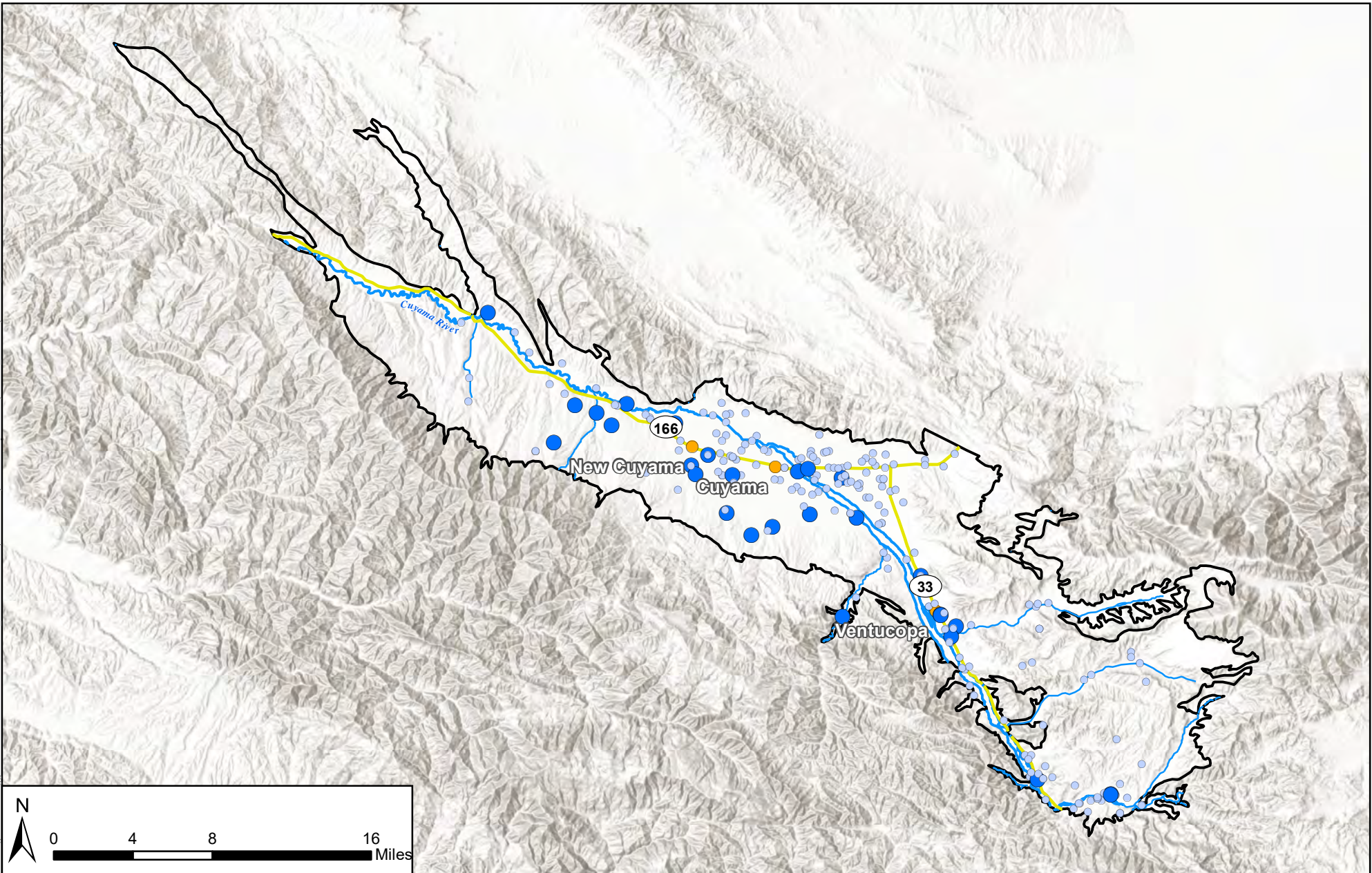


Figure 4-3: Cuyama GW Basin Wells with Monitoring Data Provided by DWR

Cuyama Basin Groundwater Sustainability Agency
 Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams
- DWR Database Wells Last Measured in 2017-2018
- DWR Database Wells Last Measured 2016 and Earlier



Most wells are measured on either a semi-annual or annual schedule. Summary statistics about these wells are listed below.

- Number of CASGEM wells: 6
- Number of voluntary wells: 107
- Total number of DWR and CASGEM wells: 222
- Earliest measurement year: 1946
- Longest period of record: 68 years
- Median period of record: 12 years
- Median number of records for a single well: 19

The greatest well density among current wells is in the central portion of the Basin and in the area around Ventucopa. There are also several monitoring wells in the south eastern portion of the Basin upstream of Ventucopa. CASGEM data are sparser along the north facing slopes of the main Cuyama Valley and the western portion of the Basin, as can be seen in Figure 4-3.

USGS

United States Geological Survey

The USGS has the most groundwater elevation monitoring locations in the Basin. Many of these wells were installed for a 1966 groundwater study and have since been retired.

There are significant overlaps between the DWR provided datasets and the USGS provided datasets. Approximately 106 wells appear in both downloaded datasets. Overlapping data is discussed below.

USGS data may be accessed through their online portals for the National Ground-Water Monitoring Network, Groundwater Watch, and the National Water Information System (NWIS).

The USGS online data portals provide approved data that has been quality-assured and deemed fit to be published by USGS. The portals also provide provisional data that is unverified and subject to revision. The CBGSA contacted USGS directly and coordinated download of USGS monitoring records in the Basin. The CBGSA used the USGS URL Generation tool was used to download all provisional and approved data about the Basin.

USGS has approximately 476 wells in the Basin. Summary statistics about these wells are listed below.

- Total number of USGS wells: 476
- Earliest measurement date: 1946



-
- Longest period of record: 68 years
 - Median period of record: 2 years
 - Median number of records for a single well: 2 years

A significant portion of the wells included in the USGS dataset are located near the Cuyama River and are in the central portion of the Basin. Wells are also found along many of the tributaries that feed the Cuyama River, recording data during large precipitation events. [Figure 4-4](#) Figure 4-4 shows well locations included in the USGS dataset.

Figure Exported: 1/25/2019 10:25:19 AM By: ceagleton Using: C:\Users\ceagleton\OneDrive - Woodard & Curran\PC\Folders\Desktop\Current Projects\011078-003 - Cuyama01 - Local Cuyama GIS 20180803\MXD\Text\Monitoring Network\Fig4-4 USGS Wells.mxd

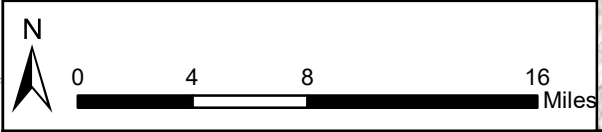
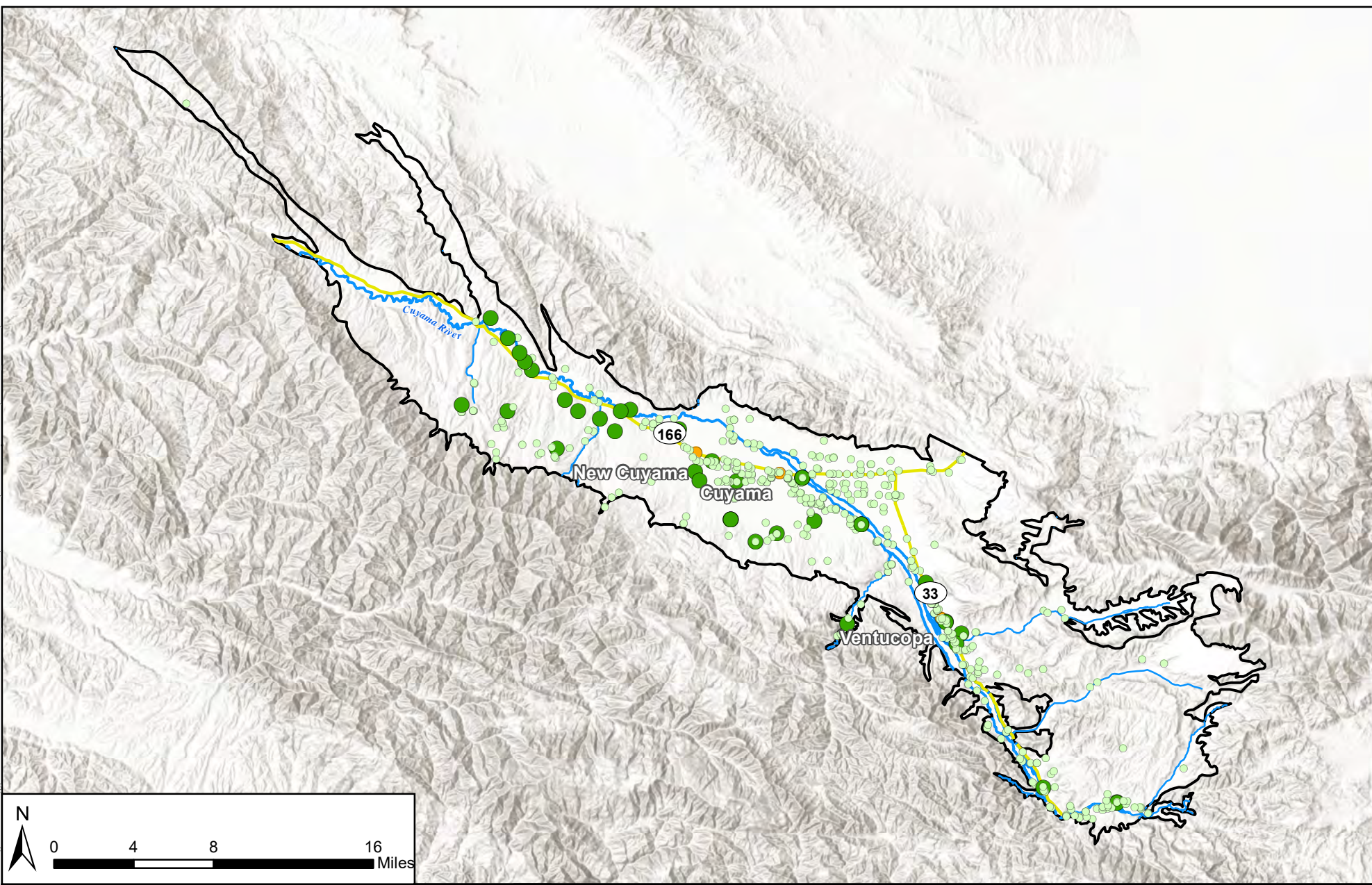


Figure 4-4: Cuyama GW Basin Wells with Monitoring Data Provided by USGS

Cuyama Basin Groundwater Sustainability Agency
 Cuyama Valley Groundwater Basin Groundwater Sustainability Plan
 April 2019



Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams
- USGS Database Wells Last Measured in 2017-2018
- USGS Database Wells Last Measured 2016 or Earlier



Santa Barbara County Water Agency

SBCWA maintains data for 36 wells in the Cuyama Basin. Some of those wells are owned by private land owners, and others are owned by local agencies such as the California Department of Transportation and the California Department of Fish and Wildlife. Summary statistics about these wells are listed below.

- Number of SBCWA-monitored wells: 36
- Earliest measurement date year: 1950
- Longest period of record: 68 years
- Median period of record: 2 years
- Median number of records for a single well: 8

Wells included in the SBCWA dataset are in Santa Barbara County near the Cuyama River, and in the hills to the south of the river. [Figure 4-5](#) Figure 4-5 shows the locations of these wells.

Figure Exported: 1/25/2019 10:25:19 AM By: ceagleton Using: C:\Users\ceagleton\OneDrive - Woodard & Curran\PC\Folders\Desktop\Current Projects\011078-003 - Cuyama01 Local Cuyama GIS 20180803\MXD\Text\Monitoring Network\Fig4-5 SBCWA Wells.mxd

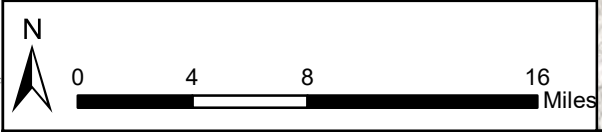
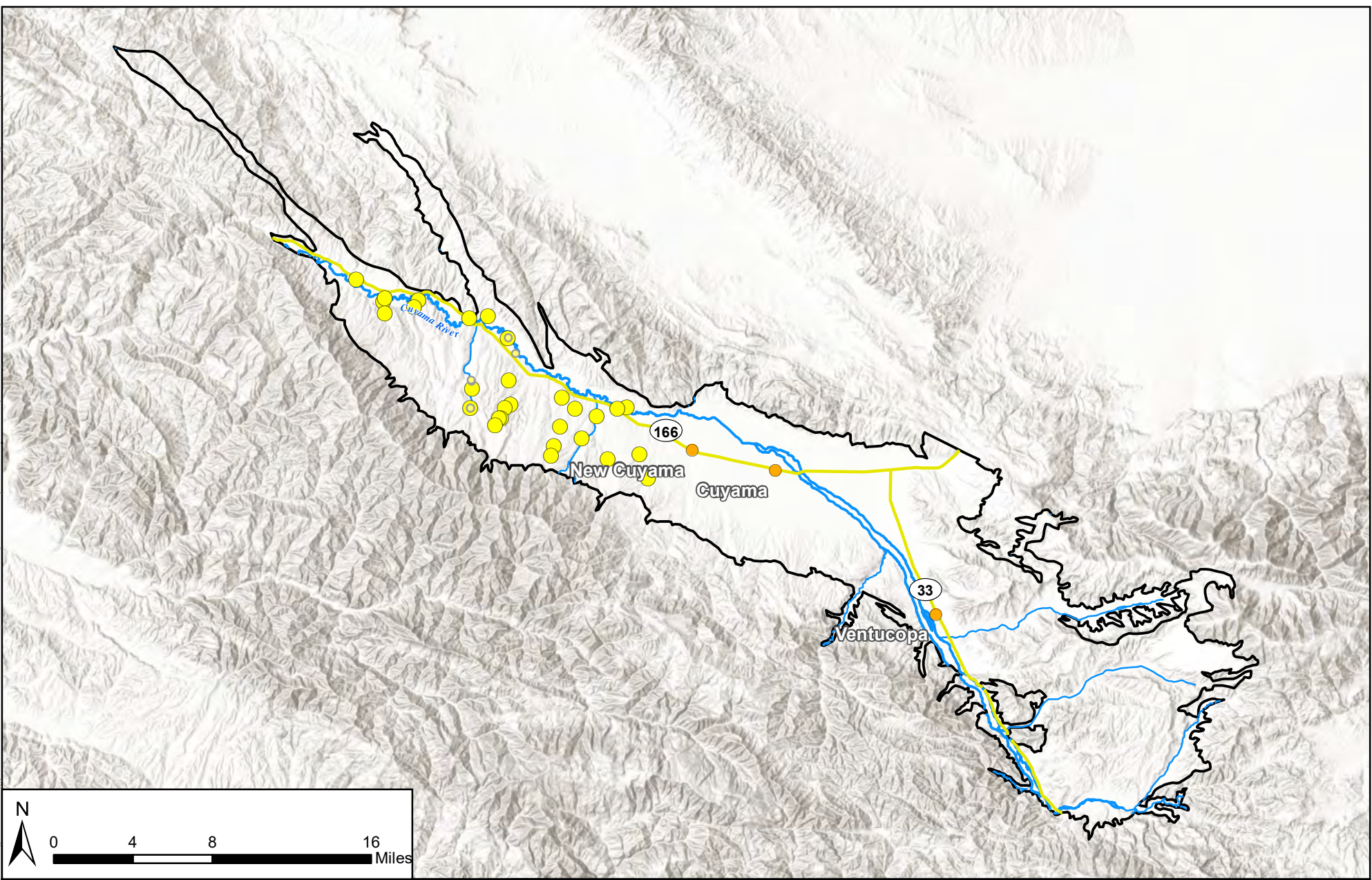


Figure 4-5: Cuyama GW Basin Wells with Monitoring Data Provided by SBCWA

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams
- Santa Barbara County Database Wells Last Measured in 2017-2018
- Santa Barbara County Database Wells Last Measured 2016 or Earlier



San Luis Obispo County Flood Control & Water Conservation ~~Distric~~District

SLOCFC&& WCD maintains data for two wells within the Basin. SLOCFC&& WCD also reports ~~theses~~these data to DWR; all data are for the wells is incorporated through the DWR CASGEM Program dataset.

These wells are in the central portion of the Basin, north of the Cuyama River and west of State Route (SR) 33. Both wells meet the minimum requirements for inclusion in the monitoring network, and summary statistics about these wells are listed below.

- Number of SLOCFC&WCD-monitored wells: 2
- Earliest measurement year: 1990
- Longest period of record: 28 years
- Median period of record: 18 years
- Median number of records for a single well: 35

Figure 4-6 show the well locations.

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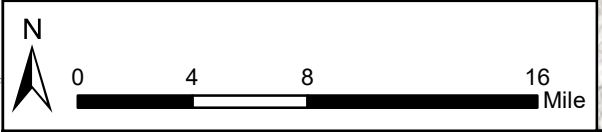
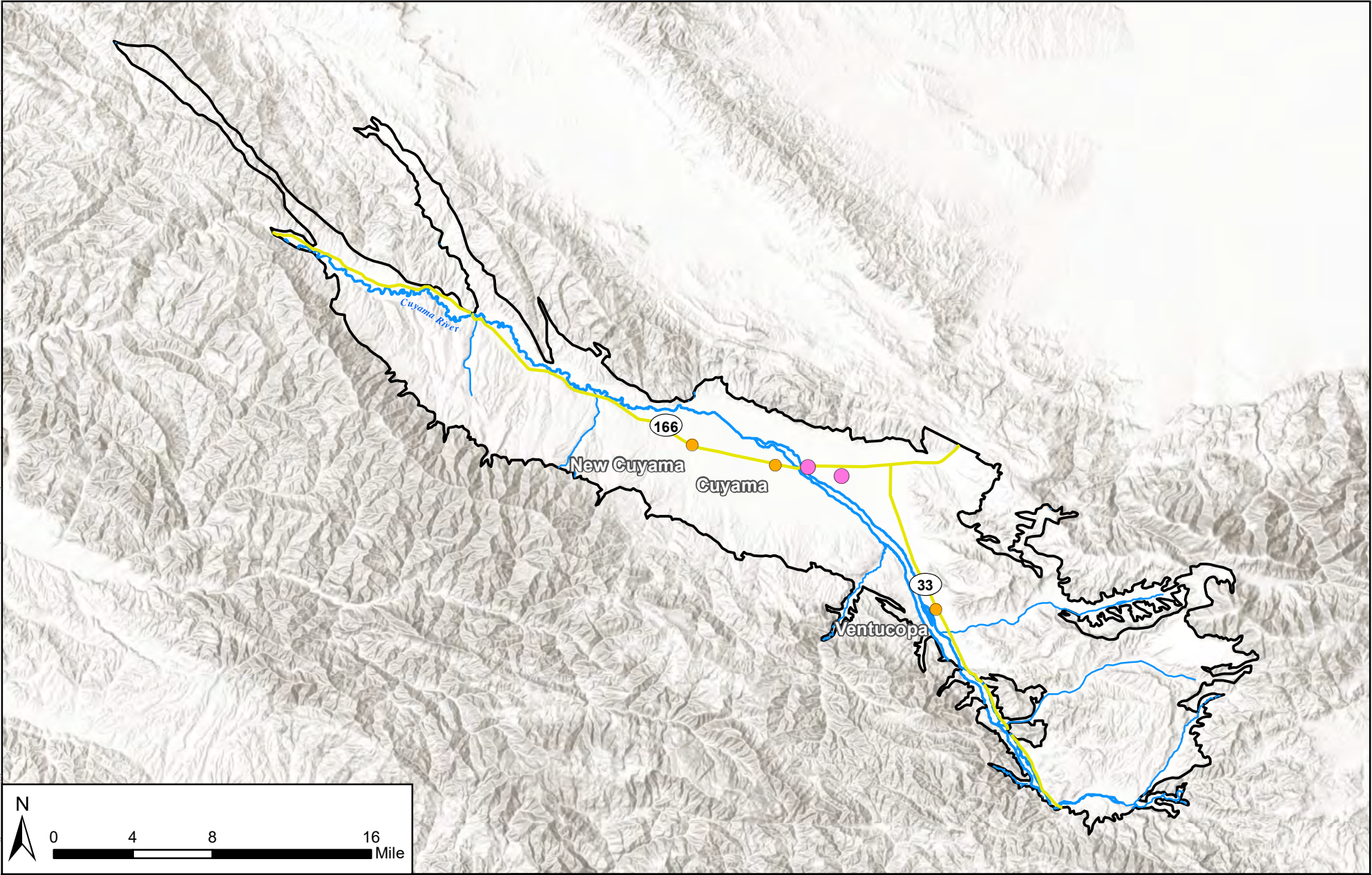


Figure 4-6: Cuyama GW Basin Wells with Monitoring Data Provided by SLOCFC&WCD

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams
- San Luis Obispo County Wells Last Measured in 2017-2018



Ventura County Water Protection District

VCWPD manages 22 groundwater elevation monitoring wells in the Basin. A total of 20 wells are incorporated in the DWR CASGEM Program dataset.

The majority of wells managed by VCWPD are discontinued, and no longer measure groundwater elevations. Of the 22 wells, five have measured elevation data during the last decade. Summary statistics about these wells are listed below.

- Number of VCWPD-monitored wells: 22
- Earliest measurement year: 1971
- Longest period of record: 46 years
- Median period of record: 5.8 years
- Median number of records for a single well: 21.5

The wells included in the VCWPD dataset are in the southeastern portion of the Basin that intersects with Ventura County. The wells are primarily found near the Cuyama River close to agricultural land. Figure 4-7 shows well locations.

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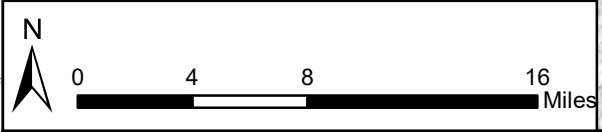
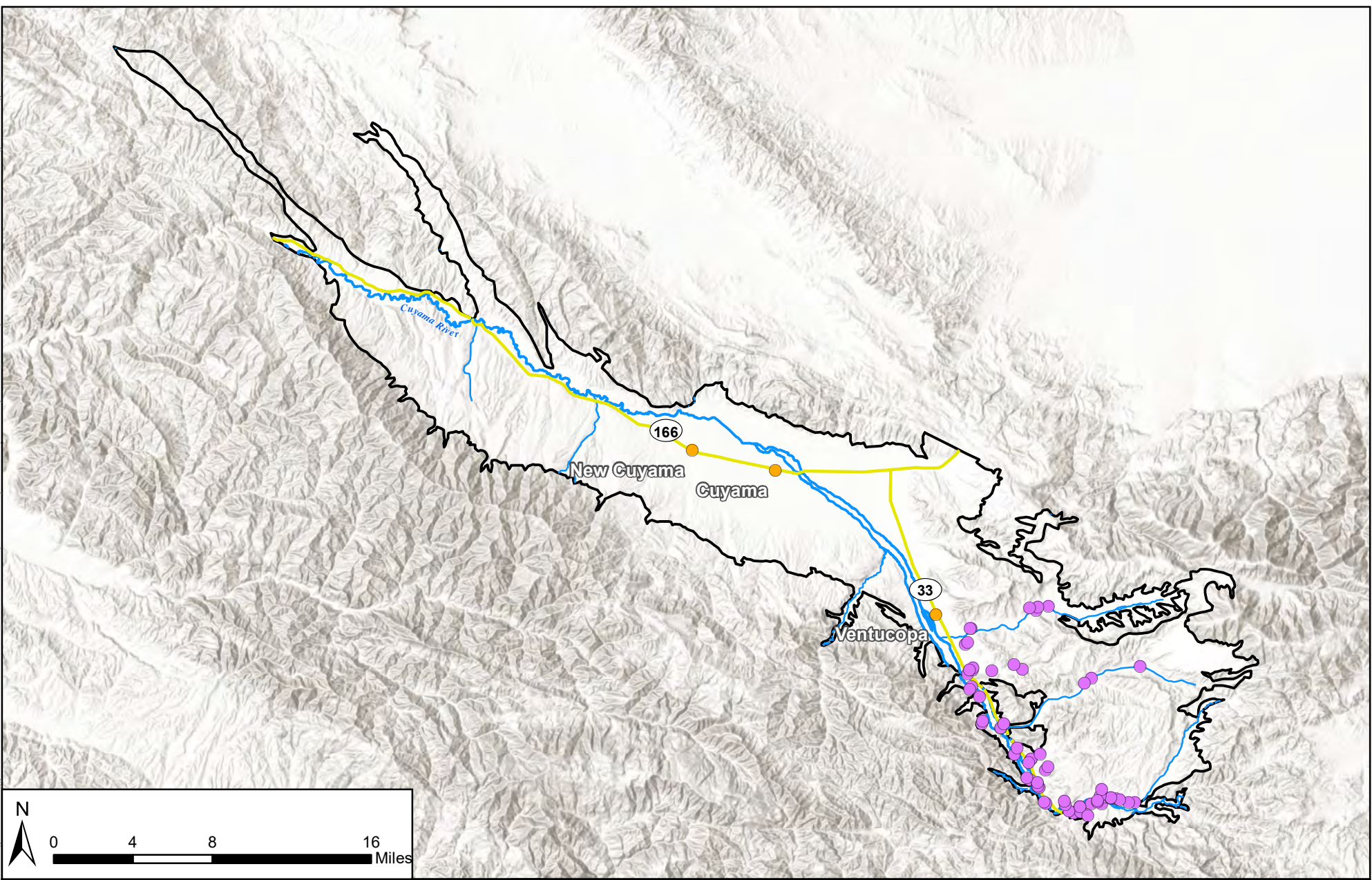









Figure 4-7: Cuyama GW Basin Wells with Monitoring Data Provided by VCWPD

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019

 <p>WOODARD & CURRAN</p>	<p>Legend</p>	 Cuyama Basin	 Ventura County Watershed Protection District
		 Towns	
		 Highways	
		 Cuyama River	
		 Streams	



Cuyama Community Services District

The Cuyama Community Services District (CCSD) performs monitoring on its two production wells, one of which has been retired. The CCSD wells are just south of the CCSD. Data for these wells are included in the SBCWA dataset, and in the DWR and USGS datasets. Summary statistics about these wells are listed below. Figure 4-8 shows the location of these wells.

- Number of CCSD-monitored wells: 2
- Earliest measurement year: 1981
- Longest period of record: 37 years
- Median period of record: 26.5 years
- Median number of records for a single well: 79

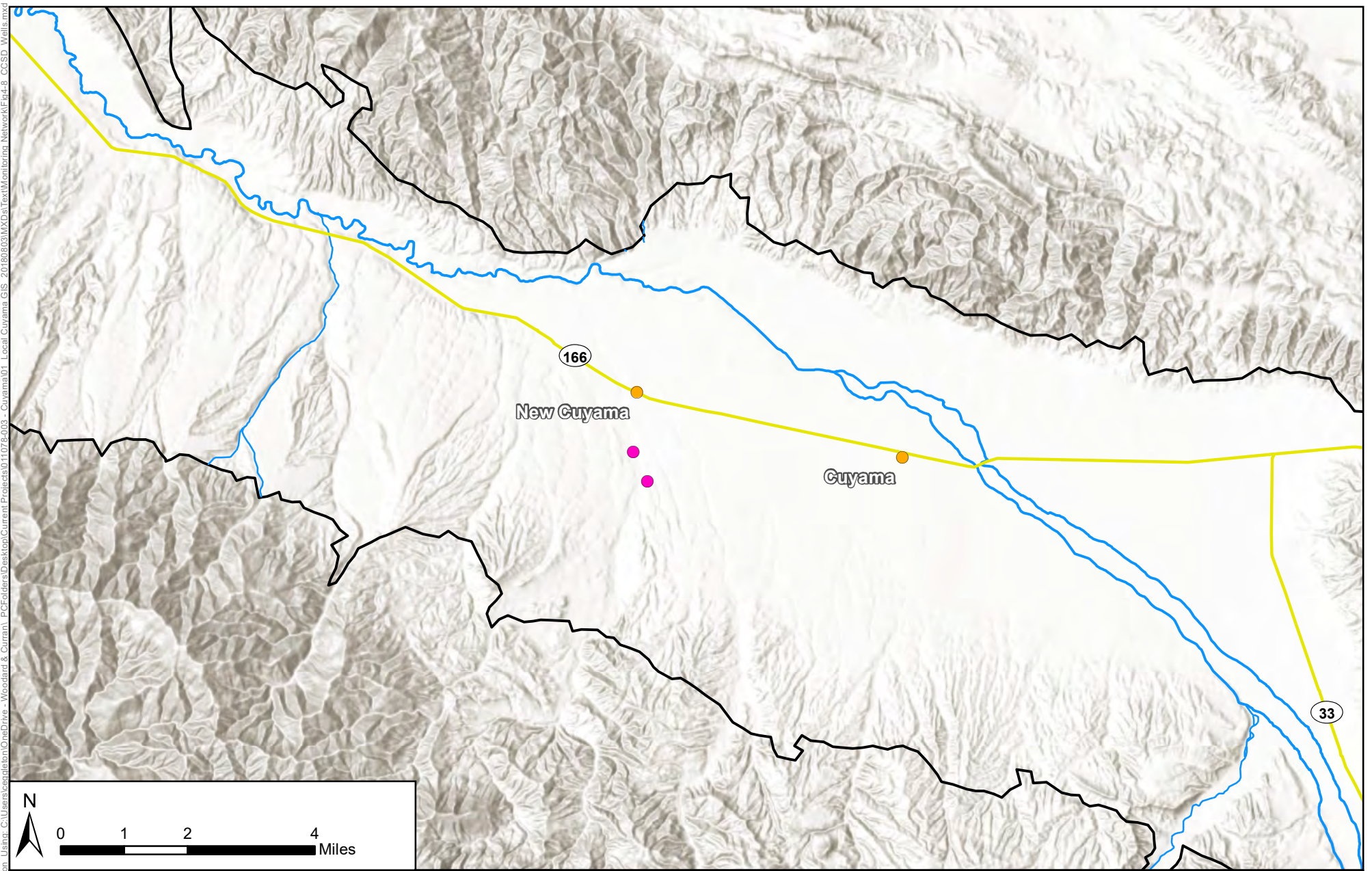


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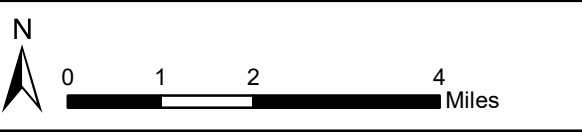


Figure 4-8: Cuyama GW Basin Wells with Data Provided by CCSD

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams
- CCSD Wells



Private Landowners

Private landowners in the Basin own and operate large numbers of wells, primarily for irrigation and domestic use. Many wells owned by private landowners are included in the databases described above. In addition, and at the request of CBGSA, these landowners have provided additional monitoring data about 99 private wells. Summary statistics about these wells are listed below.

- Number of private landowner wells with monitoring data: 99
- Earliest measurement date year: 1975
- Longest period of record: 42 years
- Median period of record: 15 years
- Median number of records for a single well: 16

The private landowner wells are distributed throughout the Basin. The majority of wells are located in the central portion of the Basin near the Cuyama River and SR 166. There is an additional cluster of wells toward the western portion of the Basin running along the Cuyama River. [Figure 4-9](#) Figure 4-9 shows private landowner wells.

Figure Exported: 1/25/2019 1:25:2019 By: ceagleton Using: C:\Users\ceagleton\OneDrive - Woodard & Curran\ PC\Folders\Desktop\Current Projects\011078-003 - Cuyama01 Local Cuyama GIS 20180803\MXD\Text\Monitoring Network\Fig4-9 PrivateLandowner_Wells

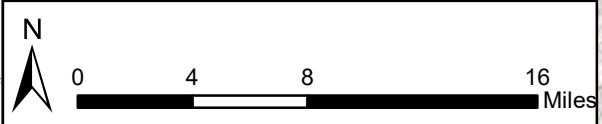
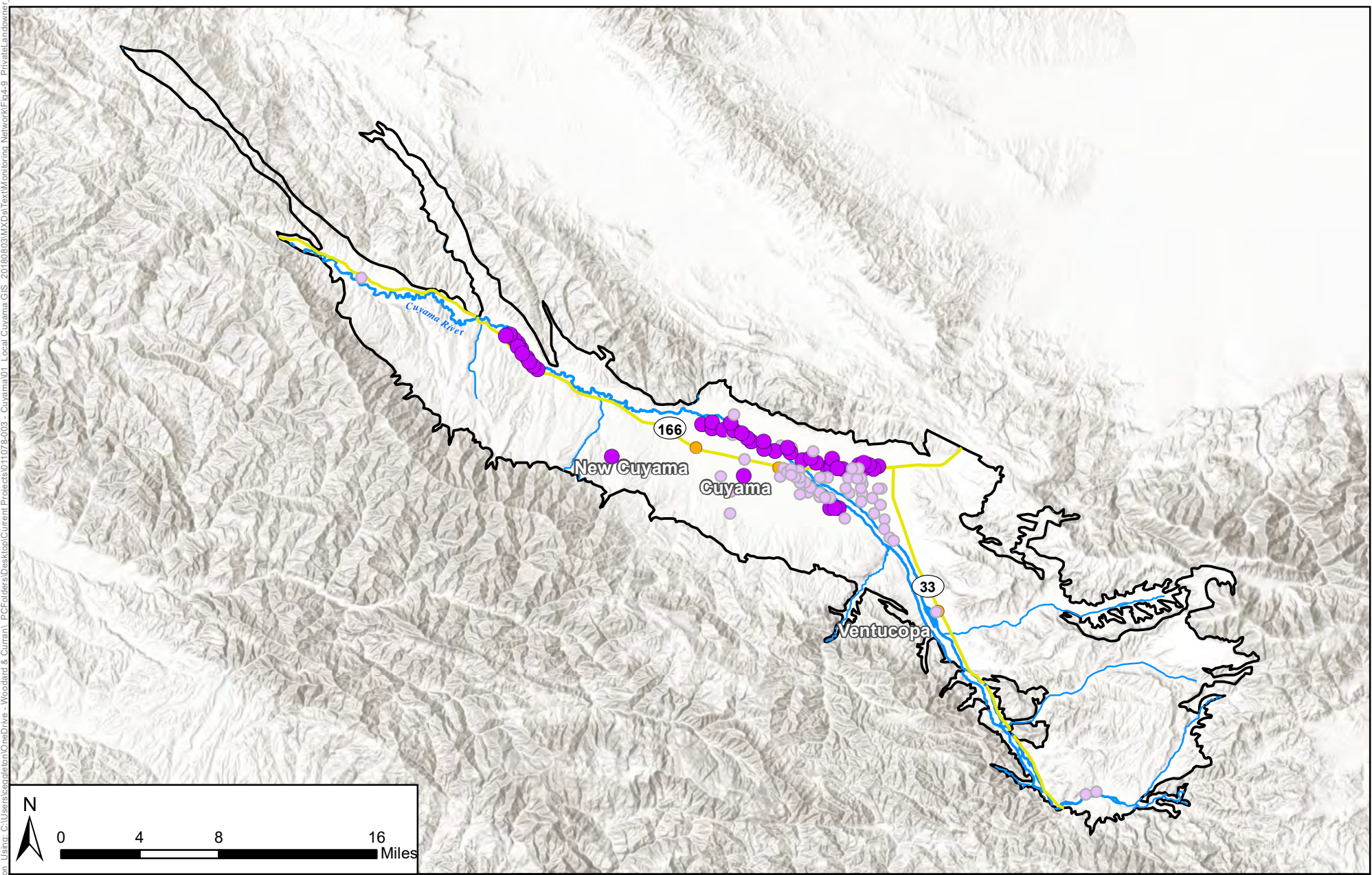


Figure 4-9: Cuyama GW Basin Wells with Monitoring Data Provided by Private Landowners

Cuyama Basin Groundwater Sustainability Agency
 Cuyama Valley Groundwater Basin Groundwater Sustainability Plan
 April 2019



Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams
- Private Landowner Reported Wells Last Measured in 2017-2018
- Private Landowner Reported Wells Last Measured 2016 and Earlier



4.3.2 Overlapping and Duplicate Data

Many of the data sources used to compile and create the Cuyama Basin database contain duplicate entries for wells, metadata, groundwater level measurements, and groundwater quality measurements. Much of the well information managed by counties in the Basin is also provided and incorporated into the DWR dataset. Many of the USGS wells and DWR wells overlap between datasets.

To avoid duplicate entries when compiling the Cuyama Basin database, wells were organized by their State Well Number, Master Site Code, USGS identification number, local name, and name. Analysts identified duplicates and removed or combined entries as necessary. Each unique well was then assigned an OPTI ID which was used as the primary identification number for all other processes and mapping exercises. Additional information about the management of well data is provided in Chapter 6.

OPTI IDs were used to identify Basin wells in the database because not all data sources use similar identification methods, as shown in Table 4-1 below.

Data Maintaining Entity	State Well Number	CASGEM ID	USGS ID	Master Site Code	Local Name	Name
DWR	✓	✓		✓		
USGS	✓		✓		✓	
SLOCFC&WCD	✓					
SBCWA	✓		✓		✓	
VCWPD	✓					
Private Landowners					✓	✓

✓ = All wells had this information, ✓ = Some wells had the information, ✓ = Few wells had the information

4.3.3 Groundwater Quality Monitoring (Combined Existing Programs)

This section discusses existing groundwater quality monitoring programs in the Cuyama Basin.

National Water Quality Monitoring Council (NWQMC)/USGS/ Irrigated Land Regulatory Program (ILRP)

The NWQMC was created in 1997 to provide a collaborative, comparable, and cost-effective approach for monitoring and assessing the United States' water quality. Several organizations contribute to the



database, including the Advisory Committee on Water Information, the United States Department of Agriculture's (USDA's) Agricultural Research Service, the United States Environmental Protection Agency (EPA), and USGS (NWQMC, 2018).

A single online portal provides access to data from the contributing agencies. Data are included from the USGS NWIS, the EPA Storage ~~adndand~~ Retrieval Data Warehouse, and the USDA's Agricultural Research Service Program, Sustaining The Earth's Watersheds – Agricultural Research Database System. Data ~~incorporate~~incorporates hundreds of different water quality constituents from the different contributing agencies. Initial water quality data for the Cuyama Basin was downloaded through NWQMC, and included data about USGS monitoring sites and ILRP monitoring sites. ILRP was initiated in 2003 to prevent agricultural runoff from impairing surface waters, and in 2012, groundwater regulations were added to the program. ILRP water quality measurements are sampled from surface locations (DWR ILRP, 2018). There are currently five ILRP measurement sites in the Cuyama Basin. ILRP uses the California Environmental Data Exchange Network (CEDEN) to manage associate program data. CEDEN data are then integrated with USGS data, and then included in the NWQMC database (DWR CEDEN, 2018).

The NWQMC database provides TDS data about 180 water quality monitoring sites. This database also provides data for a variety of constituents not included here.

Summary statistics for the NWQMC, USGS, and ILRP monitoring sites is shown below.

- Number of measurement sites: 180
- Earliest measurement date year: 1940
- Longest period of record: 53 years
- Median period of record: less than 1 year
- Median number of records for a single site: 2

The majority of the water quality monitoring sites included in the NWQMC database are located in the central portion of the Basin and along the Cuyama River as it follows SR 33. Figure 4-10 shows these monitoring sites.

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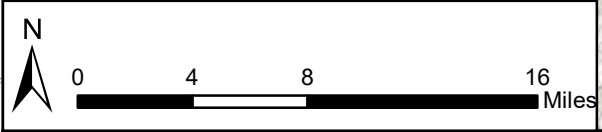
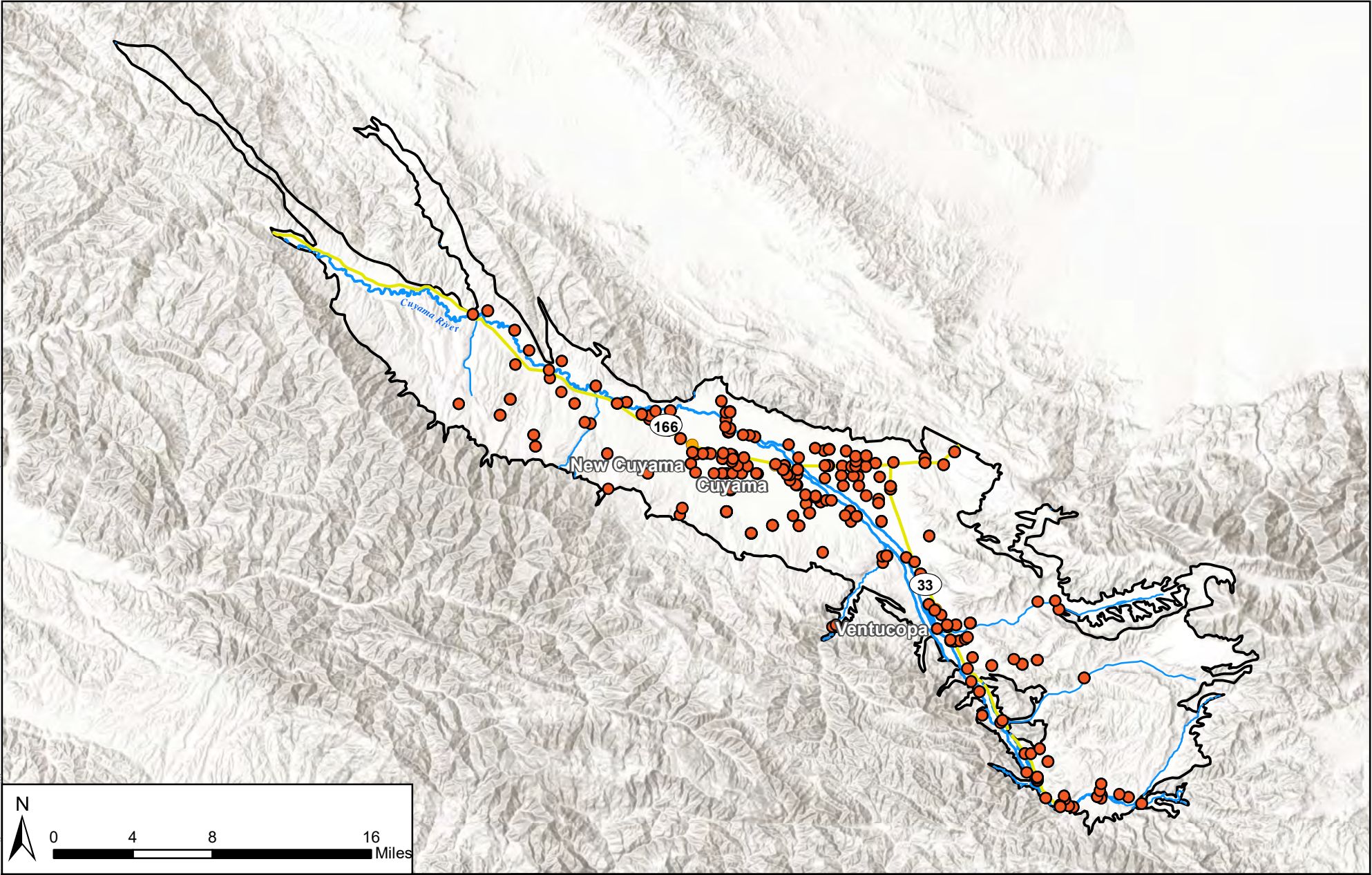


Figure 4-10: Cuyama GW Basin USGS/NWQMC/IRLP Groundwater Quality Monitoring Sites

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Cuyama Basin
- USGS/NWQMC/IRLP Groundwater Quality Sites
- Towns
- Highways
- Cuyama River
- Streams



Groundwater Ambient Monitoring and Assessment (GAMA) Program/DWR

The GAMA Program is the State of California's groundwater quality monitoring program created by the State Water Resources Control Board in 2000. Assembly Bill 599 later expanded the Groundwater Quality Monitoring Act of 2001 (DWR GAMA, 2018). The purpose of GAMA is to improve statewide comprehensive groundwater monitoring and increase the availability of information to the general public about groundwater quality and contamination information. Additionally, the GAMA Program aims to establish groundwater quality on basin-wide scales, continue with groundwater quality sampling and studies, and centralize the information and data for the public and decision makers to enhance groundwater resource protection.

DWR also publishes statewide water quality data via the California Natural Resources Agency. Access to DWR and GAMA information and data are accessible through separate online portals.

There are 213 GAMA and DWR groundwater quality monitoring sites in the Basin. Summary statistics for these sites is shown below.

- Number of measurement sites: 213
- Earliest measurement date year: 1942
- Longest period of record: 41 years
- Median period of record: less than 1 year
- Median number of records for a single site: 2

The GAMA/DWR groundwater quality monitoring locations are spread throughout the Basin, loosely following the Cuyama River. There are 60 water quality monitoring sites per 100 square miles in the Basin. Figure 4-11 shows these locations.

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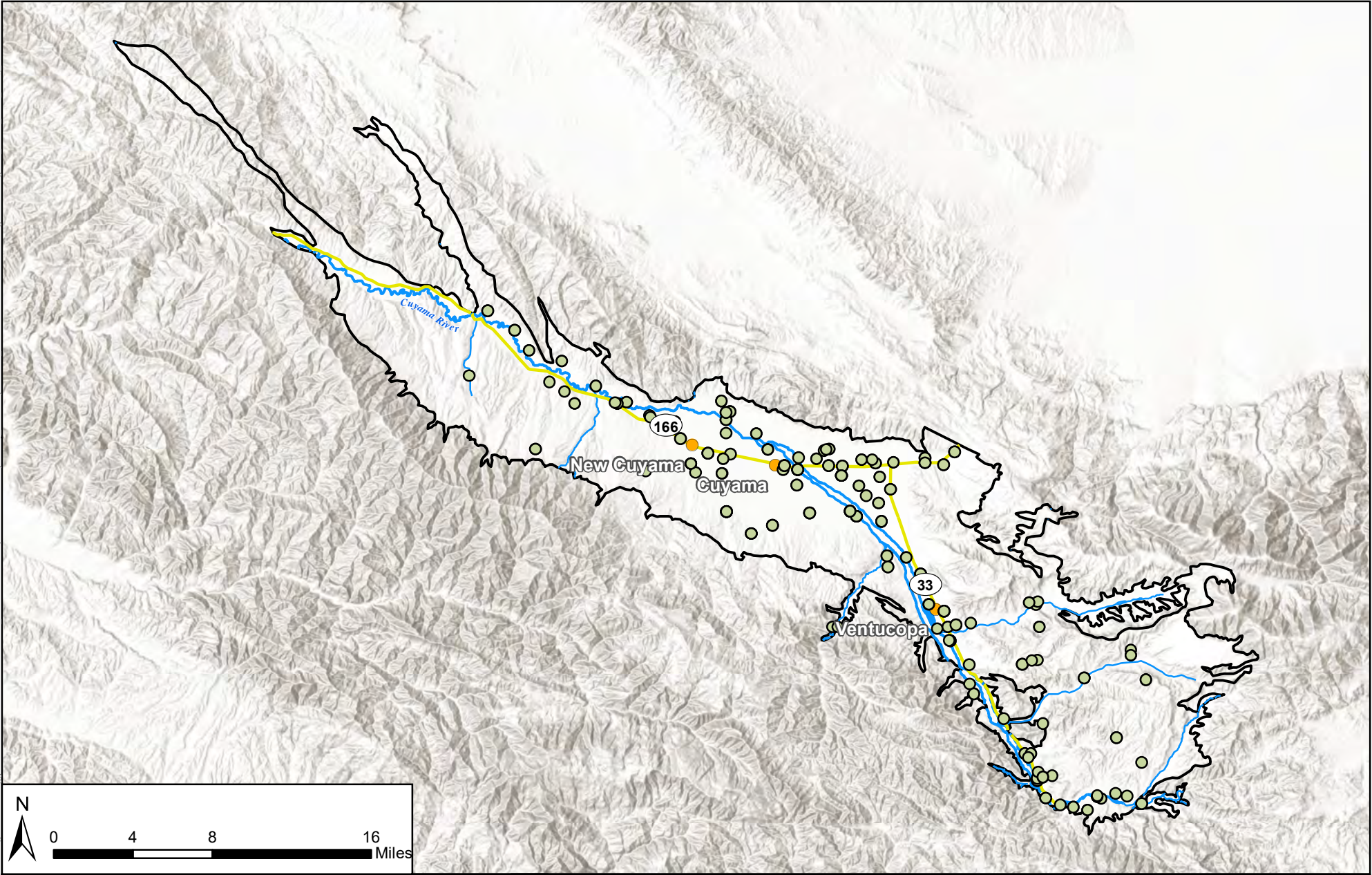


Figure 4-11: Cuyama GW Basin GAMA/DWR Groundwater Quality Monitoring Sites

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Cuyama Basin
- GAMA/DWR Groundwater Quality Sites
- Towns
- Highways
- Cuyama River
- Streams

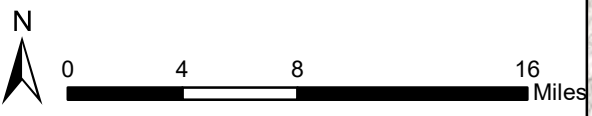
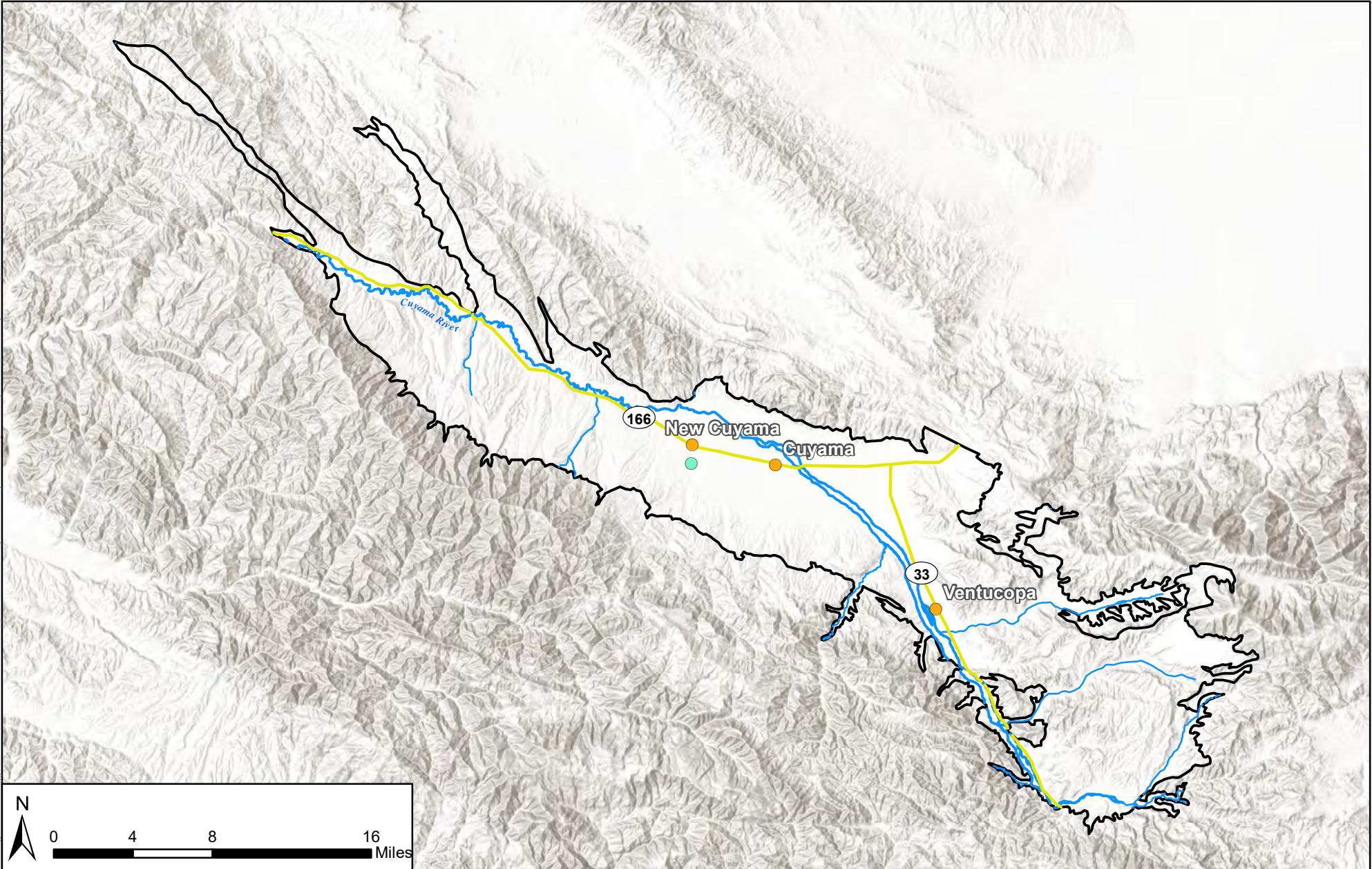


Cuyama Community Services District

CCSD currently operates one production well for residential distribution in the Basin. Although some data for this well are included in the NWQMC dataset, annual Consumer Confidence Reports from 2011 to 2017 were processed for additional water quality data measurements. Summary statistics for the CCSD well are listed below and the well location is shown in Figure 4-12.

- Number of measurement sites: 1
- Earliest measurement date: 2008
- Period of record: 10 years
- Number of records: 21

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**Figure 4-12: Cuyama GW Basin
CCSD Groundwater Quality Well**

Cuyama Basin Groundwater Sustainability Agency
 Cuyama Valley Groundwater Basin Groundwater Sustainability Plan
 April 2019



Legend

- Cuyama Basin
- Cumaya Community Services District Water Quality Monitoring Well
- Towns
- Highways
- Cuyama River
- Streams



Ventura County Water Protection District

VCWPD has 51 groundwater wells that are used for groundwater quality monitoring in the Basin. All of the wells are incorporated into the DWR, GeoTracker, or USGS datasets. Sampling data include numerous water quality constituents; however, this GSP only addresses TDS. Summary statistics for the wells are listed below, and locations of these wells are included in Figure 4-13.

Number of measurement sites: 51

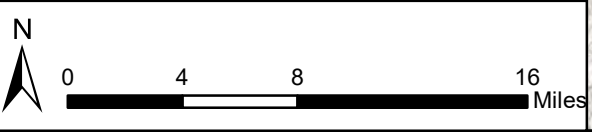
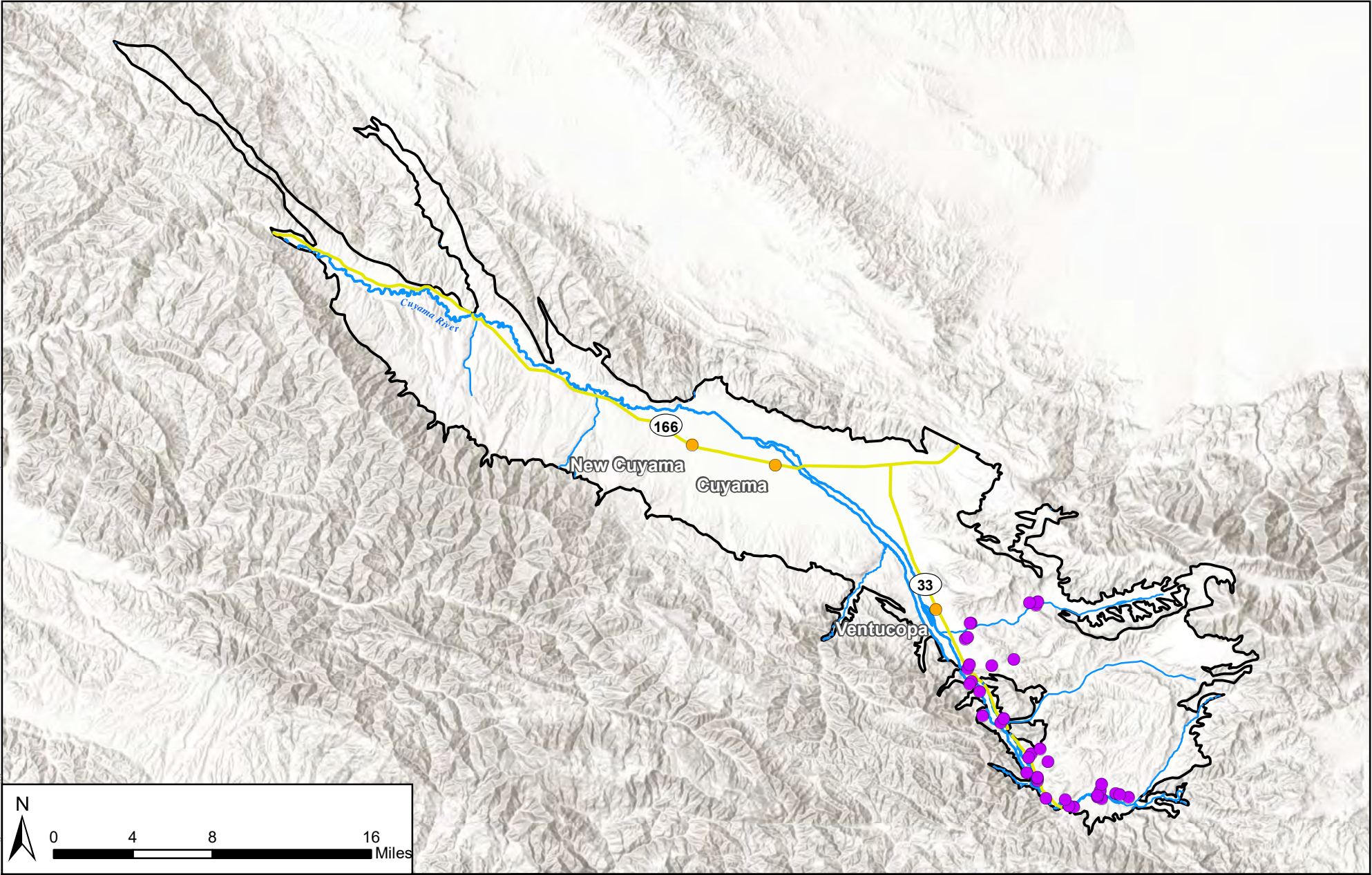
Earliest measurement date: 1957

Longest period of record: 45

Median period of record: 7

Median number of records for a single site: 5








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**Figure 4-13: Cuyama GW Basin
VCWPD Groundwater Quality Wells**

Cuyama Basin Groundwater Sustainability Agency
Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019

	Legend	 Cuyama Basin	 Ventura County Watershed Protection District Groundwater Quality Monitoring Wells
		 Towns	 Highways
		 Cuyama River	
		 Streams	



Private Landowners

Private landowners in the Basin conducted groundwater quality testing, which has been incorporated into this document and associated analysis. In 2015, 11 wells measured for TDS. Summary statistics about these wells are listed below, and locations are shown in Figure 4-14.

- Number of measurement sites: 11
- Earliest measurement date: January 12, 2015
- Longest period of record: Not applicable
- Median period of record: Not applicable
- Median number of records for a single site: 1

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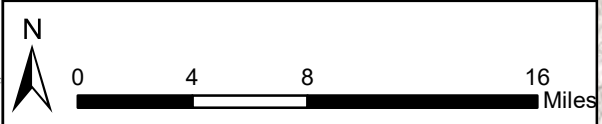
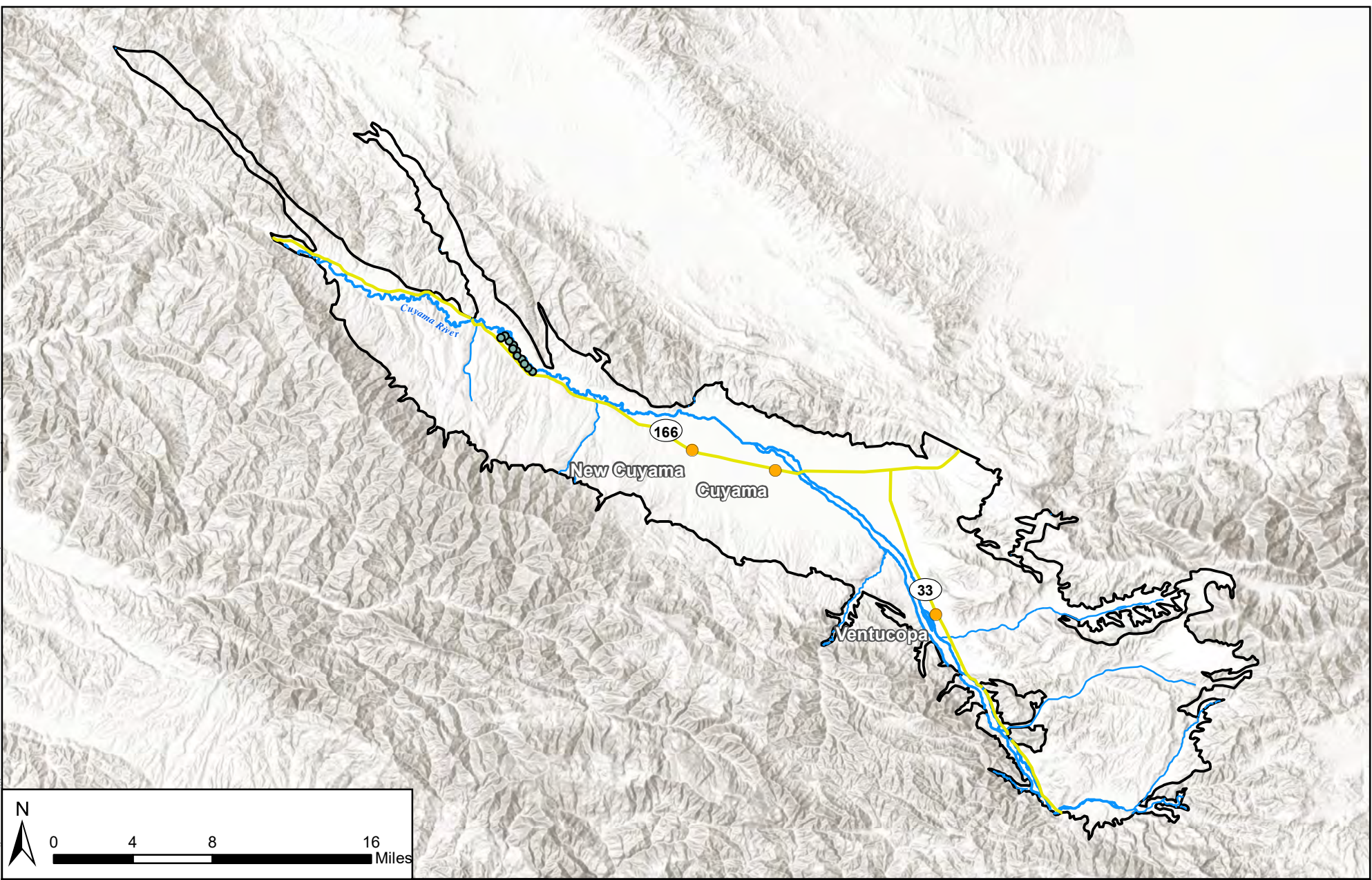


Figure 4-14: Cuyama GW Basin Private Landowner Groundwater Quality Monitoring Sites

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams
- Private Landowner Groundwater Quality Monitoring Sites



4.3.4 Subsidence Monitoring

Subsidence is the sinking or downward settling of the earth's surface, and is often the result of over-extraction of subsurface water. Subsidence can be directly measured using a few different methods, such as light detection and ranging (LiDAR), interferometric synthetic aperture radar (InSAR), continuous geographic positioning system (CGPS), extensometers, and spirit leveling. For more information, see Appendix B in Chapter 2, which contains further information about these methods and the physics behind land subsidence. The subsidence monitoring network described below assumes the use of extensometers to monitor subsidence in the Basin. However, the CBGSA should evaluate other methods, including LiDAR and InSAR during the implementation phase to identify an optimal approach.

The Basin hosts two CGPS stations, and three others are just outside the Basin's boundary, [as shown in Figure 2-51](#). CGPS stations measure surface movement in all three axis directions (i.e., up, down, east, west, north, and south). CGPS stations are in the center of the Cuyama Valley, and measure subsidence, while [other others](#) are placed on ridges around the valley to also measure tectonic movement.

4.3.5 Surface Water Monitoring

Surface water monitoring in the Basin is conducted through stream and river gages placed along the Cuyama River or one of its tributaries. USGS manages most flow gages in California, and currently operates one active stream gage along Santa Barbara Creek. There is [an additional](#) gage (1136800) along the Cuyama River downstream of the Basin before Twitchell Reservoir; however, this gage also receives water from non-Cuyama Basin watershed areas. [In 2021, the CBGSA worked with USGS to reactivate a gage on the Cuyama River near Ventucopa \(11136500\), which had previously been active from 1945-1958 and from 2009-2014, and to install a new gage on the Cuyama River near New Cuyama \(11136710\).](#) Data for surface flow gages are obtained through the NWIS Mapping portal (USGS NWIS, [20172023](#)). Existing and discontinued gages are shown in Figure 4-15.

USGS [has had previously](#) operated [threetwo](#) additional gages in the Basin; however, [two of](#) those gages were discontinued in the 1970s. [Gage 1136500 operated from 1945 to 1958 and was brought back into service from 2009 to 2014.](#)



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Figure 4-15: Rivers, Streams, and Surface Flow Gages

Cuyama Valley Groundwater Basin

Legend

- | | | | |
|--|-----------------------|------------|--------------|
| Cuyama Watershed | Active Flow Gages | Highway | Cuyama River |
| Contributes to Cuyama GW Basin | New Active Flow Gages | Local Road | Creek |
| Does not contribute to Cuyama GW Basin | Inactive | Town | Cuyama Basin |



0 1.75 3.5 7 Miles

Map Created: December 2023

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data sources: CA DWR, esri, USGS**



4.4 Monitoring Rationales

This section discusses the reasoning behind monitoring network selection. Monitoring networks in the CBGSA area were developed to ensure they could detect changes in Basin conditions so CBGSA could manage the Basin and ensure sustainability goals were met. Additionally, monitoring can help assure that no undesirable results are present after 20 years of sustainable management.

The monitoring networks were selected specifically to detect short-term, seasonal, and long-term trends in groundwater levels and storage. The monitoring networks were also selected to include information about temporal frequency and spatial density so the CBGSA can evaluate information about groundwater conditions necessary to evaluate project effectiveness and the effectiveness of any management actions undertaken by the CBGSA.

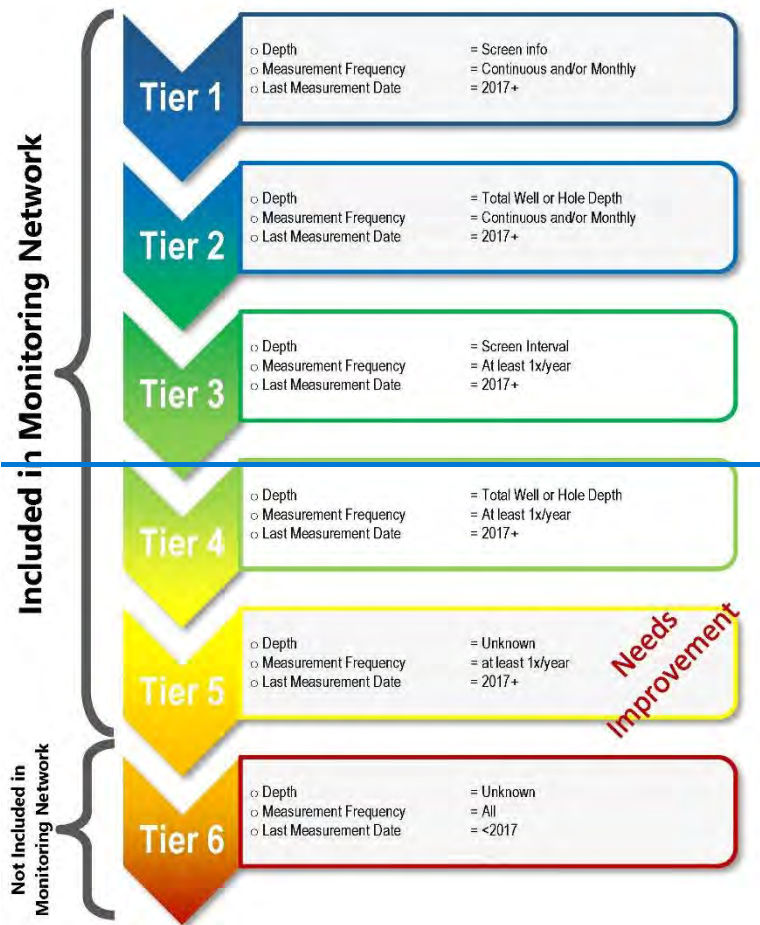
Chapter 8 describes how each monitoring network ~~will be~~ is being developed and implemented as individual projects by the GSA ~~will undertake~~ as part of GSP implementation. The schedule and costs associated with developing and implementing each monitoring network are discussed in ~~the~~ Chapter 8.

4.5 Groundwater Level Monitoring Network

Groundwater level monitoring is conducted through a groundwater well monitoring network. This section will provide information about how the level monitoring network was developed for the 2020 GSP and subsequently revised for the 2025 GSP Update, the criteria for selecting representative wells, monitoring frequency, spatial density, summary protocols, and identification and strategies to fill data gaps.

4.5.1 Monitoring Wells Selected for Monitoring Network

~~A set of~~ The 2020 GSP utilized a tiering network to create the groundwater level monitoring well network. These well- tiering criteria were created to rank existing groundwater level measuring sites in the Basin, and which were arranged into six different tiers, ~~as shown in Figure 4-16.~~



that were defined based on

Figure 4-16: Cuyama Well Tiering Criteria

Tier 1 in the figure above shows wells with the most amount availability of metadata and consistent water elevation data that are still operating were operational and functional. As the tiering levels increase, allowed for different thresholds and requirements around well metadata and frequency of monitoring decrease; however, all wells that were evaluated were active and functioning. Tier 5 captures the remaining active wells, but the metadata and/or frequency of monitoring would benefit from improvement.

Tier 6 includes all other wells that are no longer operational, which are categorized as those who do not have recorded data from January 1, 2017 to August 1, 2018. This approximate two-year cut off was determined as a reasonable amount of time for tiering protocol resulted in a monitoring agency or



organization to obtain, log, and report well information and measurements, and as an indicator of whether a well was currently monitored or not.



Table 4-2 shows the number of network of 101 wells from the monitoring wells selected from each existing monitoring data maintaining entity. Utilization entities described earlier in this chapter. Utilizing these each wells for monitoring purposes will require requires consent agreements with each well owner, which will be sought during GSP implementation.

Monitoring Data Maintaining Entity	Number of Wells Selected for Monitoring Network
CASGEM	28
USGS	43
SBCWA	36
SLOCFC&WCD	2
VCW/PD	5
CCSD	4
Private Landowner	48
Total	101

Note: Total does not equal sum of rows due to duplicate entries in multiple databases

Figure 4-17 shows. Since 2020, the CBGSA has worked with local landowners and monitoring entities to reach consent agreements to sample the wells that were included in the Monitoring Network wells by their tier level monitoring network. The monitoring network from the 2020 GSP is shown in Figure 4-16.

Since the GSP adoption in 2020, the CBGSA has continued the process of refining and improving the groundwater monitoring network within the Basin. Monitoring has been ongoing in the Basin since August 2020, and the information gathered is continuously evaluated. Based on the information gathered to date, the CBGSA board determined at its January 2021 Board meeting to reduce the monitoring network to eliminate spatially redundant wells from the network. This revised the monitoring network to 62 wells at 50 locations, including six multi-completion wells. These included nine new wells at three multi-completion well locations installed as part of DWR's Technical Support Services (TSS) program. The refinement of the monitoring network decreased the spatial density to 16.4 wells per 100 square miles, still greater than the recommended threshold of 0.2-10 wells per 100 square miles. This monitoring network refinement is documented in the Annual Report for the 2019-2020 Water Year (CBGSA 2021).

To refine the monitoring network for the 2025 GSP Update, the CBGSA completed a comprehensive review of the groundwater levels network and the monitoring program for all representative and non-



representative wells. The review included identification of field sampling issues at each well. These included a lack of landowner agreement for monitoring, access issues due to issues at the well site, and access issues due to winter flooding. Other factors were also considered, such as if the well is projected to go dry between now and 2030, whether the well is an active pumping well and the magnitude of pumping, and whether a nearby or similar well shows similar groundwater level changes and therefore makes the well redundant. Figure 4-17 shows the results of this analysis and the sampling analysis for each well. The review concluded that all issues related to onsite access and weather at the wellsite were temporary and did not preclude the well from continued inclusion in the monitoring network. In addition, no wells were identified for removal due to redundancy. However, there were three wells (98, 121, and 124) where the GSA was unable to obtain an access agreement with the landowner; therefore, these three wells have been removed from the monitoring network. Furthermore, monitoring wells that have been identified as active pumping wells are recommended for long-term replacement; this is discussed in the data gaps section below.

In addition, the CBGSA has worked to address the spatial gaps identified in the 2020 GSP. The CBGSA is using funding available from a SGMA implementation grant agreement with DWR to install three piezometers in the vicinity of groundwater dependent ecosystems (GDEs) as well as multi-completion wells at seven other locations within the Basin. The multi-completion wells are expected to have 2 to 3 completions at each location. Two existing wells have also been offered to the CBGSA by landowners for monitoring and have been added to the groundwater levels monitoring network. These additional wells are allowing the CBGSA to fill many of the data gaps identified in the 2020 GSP.

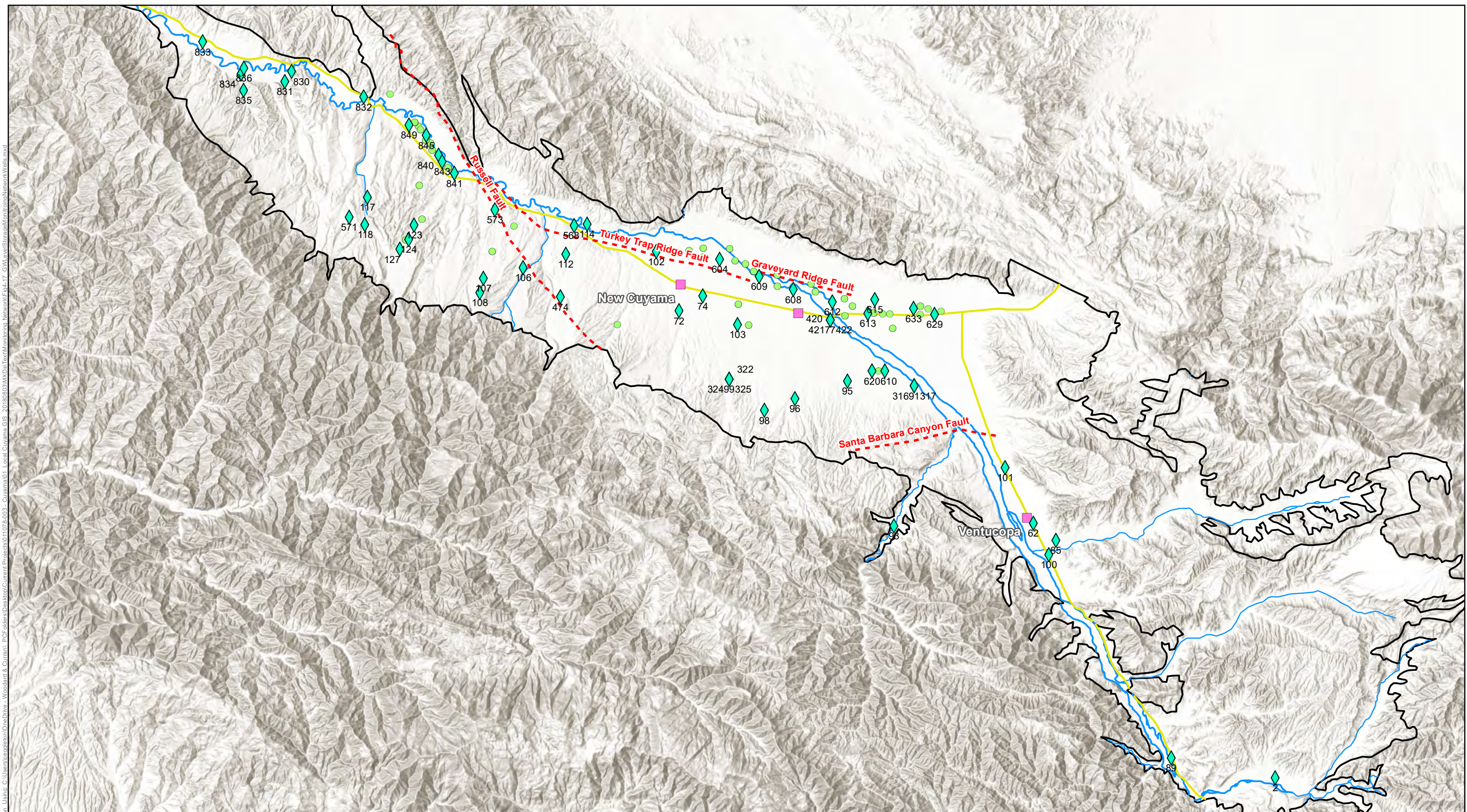
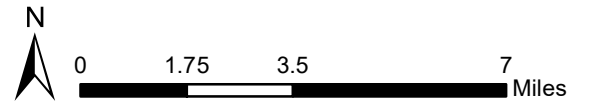


Figure 4-16: Cuyama GW Basin Groundwater Level Monitoring Network Wells (2020)
 Cuyama Basin Groundwater Sustainability Agency
 Cuyama Valley Groundwater Basin Groundwater Sustainability Plan
 April 2019



Legend

- Cuyama Basin
- Faults
- Towns
- Highways
- Cuyama River
- Streams
- Monitoring Network Wells**
- ◆ Representative Wells
- Monitoring Network Wells



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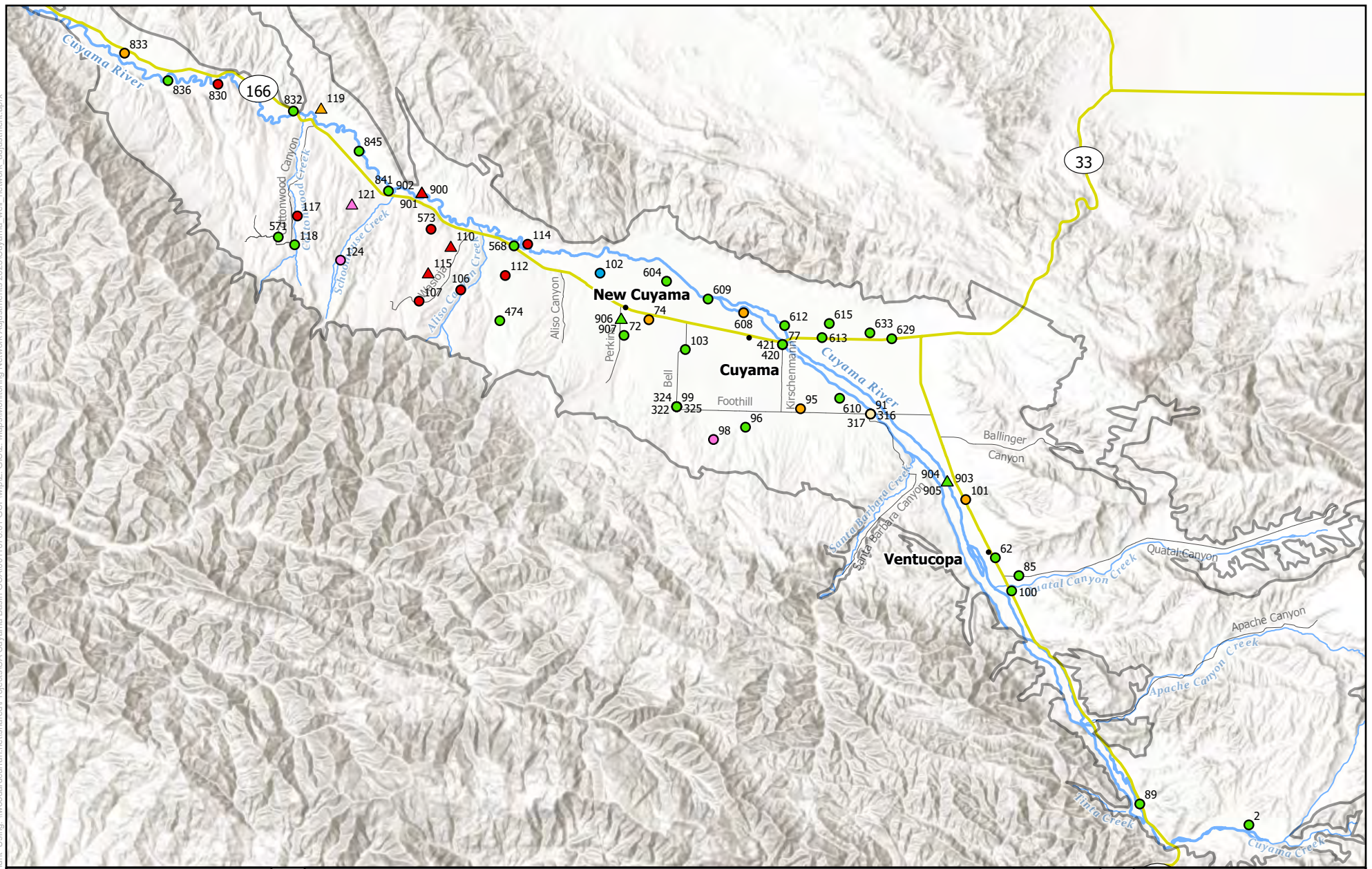


Figure 4-17: Groundwater Level Monitoring Network Review

Cuyama Valley Groundwater Basin

Legend	● No Issues	▲ No Issues	— Highway	— Cuyama River
	● Onsite Issues (Access)	▲ Onsite Issues (Access)	— Local Road	— Creek
	● Onsite Issues (Flooding)	▲ Onsite Issues (Flooding)	● Town	□ Cuyama Basin
	● Transducer Issues	▲ Well Access Agreement		
	● Well Access Agreement			
	● At Risk of Going Dry			

N

Woodard & Curran

CUYAMA BASIN
GROUNDWATER SUSTAINABILITY AGENCY

Map Created: December 2023

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4.5.2 Monitoring Frequency

A successful monitoring frequency and schedule should allow the monitoring network to adequately interpret fluctuations over time ~~of~~ⁱⁿ the groundwater system based on shorter-term and longer-term trends and conditions. These changes may be the result of storm events, droughts, or other climatic variations, seasons, and anthropogenic activities such as pumping.

Monitoring frequency must, at a minimum, occur within the same designated time-period for all wells to ensure that measurements represent the same condition for the aquifer.

The *Monitoring Networks and Identification of Data Gaps Best Management Practices* (BMPs) published by DWR provides guidance for monitoring frequency based on the discussion presented in the *National Framework for Ground-water Monitoring in the United States* (Advisory Committee on Water Information, 2013). This analysis and discussion provide guidance on monitoring frequency based on aquifer properties and degree of use, as shown in Table 4-2.

The BMP guidance recommends that initial characterization of monitoring locations use frequent measurements to establish the dynamic range at each monitoring site and to identify external stresses affecting groundwater levels. An understanding of these conditions based on professional judgement should be reached before normal monitoring frequencies are followed.

Table 4-2: Monitoring Frequency Based on Aquifer Properties and Degree of Use

Aquifer Type	Nearby Long-Term Aquifer Withdrawals		
	Small Withdrawals	Moderate Withdrawals	Large Withdrawals
Unconfined Aquifer			
Low recharge (<5 inches/year)	Quarterly	Quarterly	Monthly
High recharge (>5 inches/year)	Quarterly	Monthly	Daily
Confined Aquifer			
Low hydraulic conductivity (<200 feet/day)	Quarterly	Quarterly	Monthly
High hydraulic conductivity (>200 feet/day)	Quarterly	Monthly	Daily

The Basin is an unconfined aquifer with large withdrawals, with a low recharge rate of less than 5 inches per year. According to the data in Table 4-2, which is provided by DWR, the Basin's groundwater monitoring frequency should be monthly. ~~This~~^{The 2020 GSP recommends recommended monthly} monitoring of the groundwater level network ~~monthly for the first three years of GSP~~



~~implementation initially~~ and consideration of reducing monitoring frequency to quarterly measurements after ~~that. Ideally, allowing time for~~ the monitoring ~~network would be monitored simultaneously~~ program to ~~gain a snapshot of groundwater conditions. As this is not practical currently, be evaluated. Monthly~~ monitoring ~~of the level network should be~~ was conducted ~~for two years from August 2020 through July 2022, with a quarterly monitoring schedule starting in October 2022. Each quarterly sampling event for groundwater levels is routinely completed within one week for each measurement period~~ 2-3 days.

4.5.3 Spatial Density

Spatial density of the monitoring network was considered both for the selection of the entire monitoring network, and for the selection of representative wells (Section ~~4.5.5~~ 4.5.4). The goal of the groundwater level monitoring network is to provide adequate coverage of the entire Basin aquifer. This includes the ability to monitor and identify groundwater changes across the Basin over time. Consideration of the spatial location of monitoring wells should include proximity to other monitoring wells and ensure adequate coverage near other prominent features, such as faults or production wells. Monitoring wells in close proximity to active pumping wells could be influenced by groundwater withdrawals, thus skewing static level monitoring.

The *Monitoring Networks and Identification of Data Gaps BMP* published by DWR provides different sources and condition dependent densities to guide monitoring network implementation (Table ~~4-3~~ 4-3). This information was adapted from the *CASGEM Groundwater Elevation Monitoring Guidelines* (DWR, 2010). While these estimates provide guidance to monitoring well site spatial densities, monitoring points should primarily be influenced by local geology, groundwater use, and GSP-defined undesirable ~~rates~~ results. Professional judgment is essential when determining final locations.

Table 4-4-3: Monitoring Well Density Considerations

Reference	Monitoring Well Density (wells per 100 square miles)
Heath (1976)	0.2-10
Sophocleous (1983)	6.3
Hopkins (1994)	
Basins pumping more than 10,000 acre-feet per year per 100 square miles	4.0
Basins pumping between 1,000 and 10,000 acre-feet per 100 square miles	2.0
Basins pumping between 250 and 1,000 acre-feet per year per 100 square miles	1.0



Basins pumping between 100 and 250 acre-feet per year per 100 square miles	0.7
--	-----

The Basin has 378 square miles of area. According to Hopkins (1994) well density estimate guidelines, the Basin should have four monitoring wells per 100 square miles. Sophocleous (1983) recommends 6.3 monitoring wells per 100 square miles. According to Heath (1976), the Basin should have between 0.2 and 10 monitoring wells per 100 square miles. Due to geologic and topographic variability in the Basin, the severity of groundwater declines, and hydrogeologic uncertainty in various portions of the Basin, this GSP recommends a density greater than the most conservative estimate of 10 wells per 100 square miles, which is over 38 monitoring wells. [The current monitoring network is comprised of 79 wells equating to a well density of 20 wells per 100 square miles. This exceeds the GSP recommended density.](#)

4.5.4 Representative Monitoring

There are two categories of wells identified within the monitoring network as follows:

- **Representative Wells.** These wells will be used to monitor sustainability in the Basin. Minimum thresholds and measurable objectives will also be calculated for these wells.
- **Supplemental Wells: Non Representative wells.** Other wells are included in the monitoring network to provide redundancy for representative wells, and to maintain a robust network for evaluation as part of five-year GSP updates.

Representative monitoring wells were selected as part of monitoring network development.

Representative monitoring wells are wells that represent conditions in the Basin, and are in locations that allow monitoring to indicate long-term, regional changes in its vicinity.

Representative groundwater level and groundwater storage sites ~~within each management area~~ were selected by several different criteria. These criteria include the following:

- **Adequate Spatial Distribution** – Representative monitoring does not require the use of all wells that are spatially grouped together in a portion of the Basin. Adequately spaced wells will provide greater Basin coverage with fewer monitoring sites.
- **Robust and Extensive Historical Data** – representative monitoring sites with longer and more robust historical data provide insight into long-term trends that can provide information about groundwater conditions through varying climatic periods such as droughts and wet periods. Historical data may also show changes in groundwater conditions through anthropogenic effects. While some sites chosen may not have extensive historical data, they may still be selected because there are no wells nearby with longer records.



- **Increased Density in Heavily Pumped Areas** – Selection of additional wells in heavily pumped areas such as in the central portion of the Basin and other agriculturally intensive areas will provide additional data where the most groundwater change occurs.
- **Increased Density near Areas of Geologic, Hydrologic, or Topologic Uncertainty** – Having a greater density of representative wells in areas of uncertainty, such as around faults or large elevation gradients may provide insightful information about groundwater dynamics to improve management practices and strategies.
- **Wells with Multiple Depths** – The use of wells with different screen intervals is important for collecting data about groundwater conditions at different elevations in the aquifer. This can be achieved by using wells with different screen depths that are close to one another, or by using multi-completion wells.
- **Consistency with BMPs** – Using published BMPs provided by DWR will ensure consistency across all basins and ensure compliance with established regulations.
- **Adequate Well Construction Information** – Well information such as perforation depths, construction date, and well depth should be considered and encouraged when considering wells to be included.
- **Professional Judgment** – Professional judgment is used to make the final decision about each well, particularly when more than one suitable well exists in an area of interest.
- **Maximum Coverage** – Any monitoring network well that was suitable for use in the representative network was used to maximize spatial and vertical density of monitoring.

4.5.5 Groundwater Level Monitoring Network

The [Figure 4-18](#) shows the [updated](#) groundwater level monitoring network ~~is comprised of 101 of wells in the Basin. A total of 61 of those wells are , including~~ representative wells. Overall well density is 26.7 wells per 100 square miles. [Figure 4-18](#) shows the locations of the groundwater level monitoring network ~~monitoring wells~~ and [non](#)-representative wells. [Existing wells](#) are labeled with their [Opti](#) identification (ID) number. [Locations of wells currently being installed with grant funding](#) are labeled on the map either as a GDE well or as a multi-completion monitoring (MW) well.

[Table 4-5](#) [Table 4-4](#) lists the wells in the [updated](#) groundwater level monitoring network. Representative wells, [which include](#) those with sufficient data and representative trends within the Basin [to develop sustainability criteria](#), are identified with the asterisk (*) next to the OPTI ID and are sorted first. Metadata for the wells are also included. [With the removal of the three wells identified above and the addition of the newly installed wells, the revised network includes 79 wells, 47 of which are representative wells. However, the table does not currently include the wells that will be installed with the DWR grant funding as Opti ID numbers have not been assigned for these wells.](#)



~~The proposed monitoring frequency is monthly for~~ This network of 79 wells, including the ~~first three~~ ~~years of GSP implementation, with an option~~ wells that are planned to ~~reduce~~ be drilled, equates to quarterly monitoring if the CBGSA Board decides that is appropriate. ~~This monitoring frequency captures short-term, seasonal, and long-term trends in groundwater levels.~~ A well density of ~~26.720~~ wells per 100 square miles ~~in the.~~ This monitoring network provides a spatial density that adequately covers the primary aquifer in the Basin, and is useful for determining flow directions and hydraulic gradients, as well as changes in storage calculations for use in future water budgeting efforts in portions of the Basin with significant land use.

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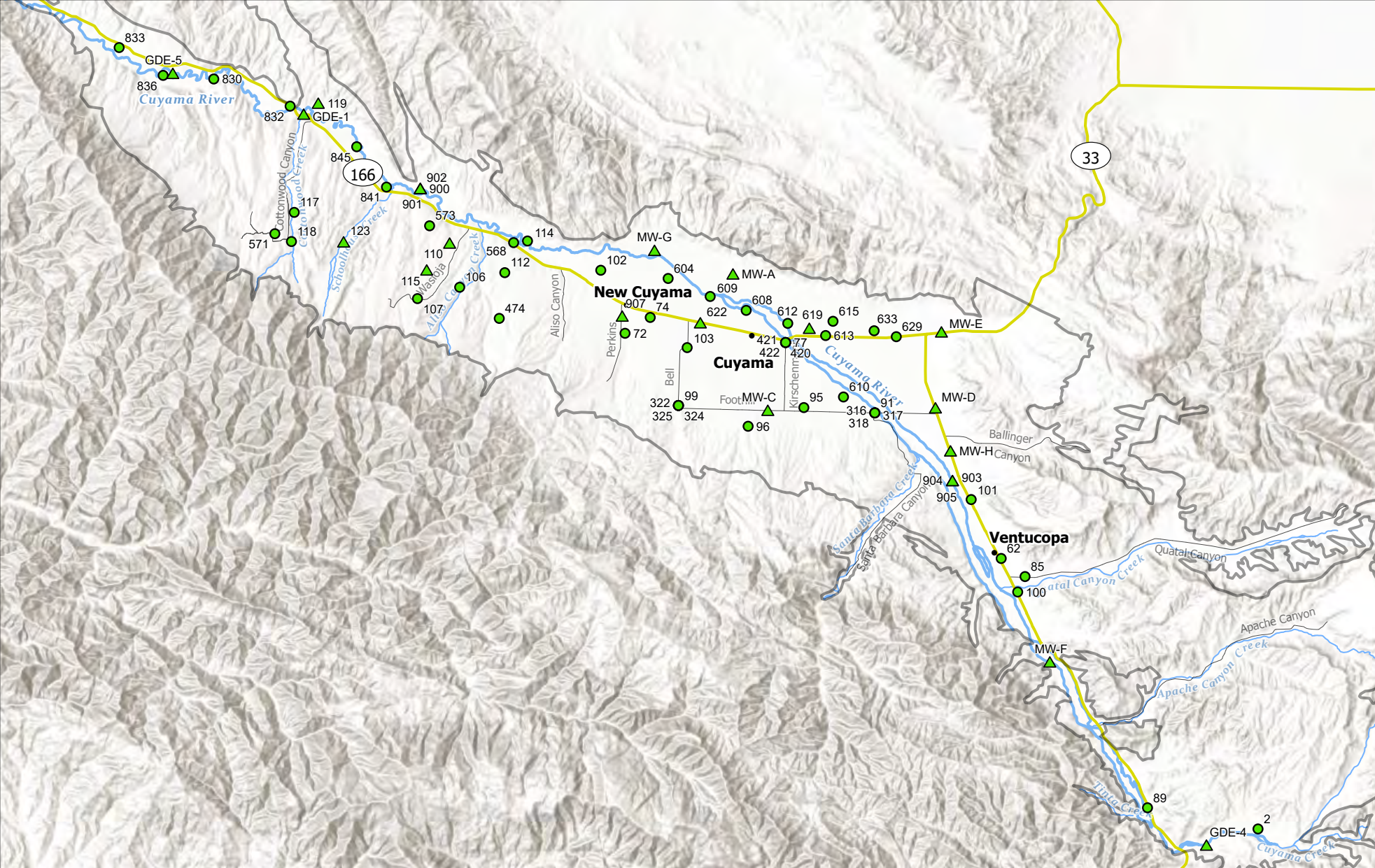


Figure 4-18: Updated Groundwater Level Monitoring Network

Cuyama Valley Groundwater Basin

Legend	Network Well	Highway	Cuyama River
	Representative Monitoring	Local Road	Creek
	Non-representative Monitoring	Town	Cuyama Basin

0 1.25 2.5 5 Miles

Map Created: December 2023

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Table 4-4: Groundwater Level and Storage Monitoring Network

OPTI ID	Well Construction Date	Well Depth (Feet)	Hole Depth (Feet)	Screen Interval (Feet)	Well Elevation (Feet above mean sea level)	Transducer	
2*	-	73	-	-	3720	No	
62*	-	212	-	-	2920	Yes	
72*	1/1/1980	790	820	350-340	2172	No	
74*		-	-	-	2193	No	
77*	12/4/2008	980	1003	980-960	2283	Yes	
85*	1947	233		-	-	3049	No
89*	1/1/1965	125		-	-	3456	No
91*	9/29/2009	980		1000	980-960	2478	Yes
95*	4/9/2009	805	825	-	2458	No	
96*	2/1/1980	500	-	-	2609	No	
99*	9/10/2009	750	906	750-730	2503	No	
100*	11/1/1988	284	302	-	3009	No	
101*	-	200	220	-	2749	No	
102*	-	-	-	-	2044	No	
103*	7/23/2010	1030	1040	-	2288	Yes	



Table 4-4: Groundwater Level and Storage Monitoring Network

OPTI ID	Well Construction Date	Well Depth (Feet)	Hole Depth (Feet)	Screen Interval (Feet)	Well Elevation (Feet above mean sea level)	Transducer
106*	-	228	-	-	2319	No
107*	1/1/1950	200	-	-	2494	No
112*	-	441	-	-	2131	No
114*	1/1/1947	58	-	-	1927	No
117*	-	212	-	-	2,098	No
118*	-	500	-	-	2264	No
316*	9/29/2009	830	1000	-	2478	Yes
317*	9/29/2009	700	1000	-	2478	Yes
322*	4/9/2009	850	906	-	2503	No
324*	9/10/2009	560	906	-	2503	No
325*	9/10/2009	380	906	-	2503	No
420*	12/4/2008	780	1003	-	2283	Yes
421*	12/4/2008	620	1003	-	2283	Yes
474*	-	213	-	-	2367	No
568*	1/1/1948	188	188	-	1914	No
571*	1/1/1951	280	-	-	2317	Yes



Table 4-4: Groundwater Level and Storage Monitoring Network

OPTI ID	Well Construction Date	Well Depth (Feet)	Hole Depth (Feet)	Screen Interval (Feet)	Well Elevation (Feet above mean sea level)	Transducer
573*	-	404	-	404-100	2084	No
604*	-	924	-	924-470	2118	No
608*	6/10/1905	745	-	745-305	2215	No
609*	6/15/1905	970	-	970-494	2168	No
610*	-	780	--	780-352	2442	No
612*	-	1070	-	1070-413	2273	No
613*	-	830	-	830-500	2329	No
615*	-	865	-	865-385	2324	No
629*	-	1000	-	1000-500	2380	No
633*	-	1000	-	1000-500	2365	No
830*	-	77	-	-	1562	No
832*	-	132	-	-	1641	No
833*	-	504	-	-	1457	No
836*	-	325	-	-	1510	No
841*	11/21/2014	600		580-170	1764	Yes
845*	7/17/2015	380		360-100	1713	Yes



Table 4-4: Groundwater Level and Storage Monitoring Network

OPTI ID	Well Construction Date	Well Depth (Feet)	Hole Depth (Feet)	Screen Interval (Feet)	Well Elevation (Feet above mean sea level)	Transducer
110	1/1/1948	603	-	560-224	2052	No
115	-	1200	-	-	2278	No
119	1949	92	-	-	1702	No
123	7/10/1976	138	-	-	2165	No
619	1920	1040	-	1040-471	2306	No
622	1947	1200	-	1200-400	-	No
900	7/15/2021	605	-	60-50	-	Yes
901	7/15/2021	605	-	205-165	-	Yes
902	7/15/2021	605	-	365-325	-	Yes
903	7/23/2021	587	-	305-265	-	Yes
904	7/23/2021	587	-	400-360	-	Yes
905	7/23/2021	587	-	570-540	-	Yes
906	8/27/2021	670	-	150-130	-	Yes
907	8/27/2021	670	-	525-515	-	Yes
908	8/27/2021	670	-	60-650	-	Yes



4.5.6 Monitoring Protocols

For additional monitoring recommended in Section 4.5.8, the monitoring protocols will use DWR's *Monitoring Networks and Identification of Data Gaps BMP*, which cites the DWR's 2010 publication *California Statewide Groundwater Elevation Monitoring (CASGEM) Program Procedures for Monitoring Entity Reporting* (Appendix A) for the groundwater level sampling protocols. This publication includes protocols for equipment selection, setup, use, field evaluation, and sample collection techniques.

4.5.7 Data Gaps

The 2020 GSP identified data gaps are the result of poor spatial distribution among available wells in the Basin, and a lack of well construction information.

The spatial distribution of groundwater level monitoring network. As noted above, the CBGSA has installed new wells to address many of these data gaps using funding from DWR's TSS and SGMA grant programs. These new wells provides coverage have filled all of the majority of spatial data gaps identified in the Basin, 2020 GSP. However, there are several areas, identified by the red ovals in Figure 4-19, that do not have adequate monitoring. If additional monitoring wells were added in these areas, they may provide more information that could be used to detect changes in Basin conditions, continue to be some data gaps that should be addressed by the CBGSA in the future:

- Several wells that are currently included in the monitoring network are active pumping wells, some of which are used for a significant level of pumping each year; these wells should be replace with dedicated monitoring wells
- Well construction information is not available for many wells in the Basin. Monitoring wells with construction information featuring total depth and screened interval are preferred for inclusion in the monitoring network, because that information is useful in understanding what monitoring measurements mean in terms of Basin conditions at different depths.

4.5.8 Plan to Fill Data Gaps

This GSP identifies a number of some ways to refine the the groundwater level monitoring network and improve reporting:

The CBGSA has been awarded a Proposition 1 Category 1 Grant, which includes a task to expand the groundwater level monitoring network. This task includes identification of additional monitoring wells for hand measurements and installation of continuous monitoring equipment into 10 existing wells, which could be used to augment the existing monitoring network. This task would both increase the spatial



~~distribution of the monitoring network and temporal coverage in the wells with additional continuous monitoring.~~

- ~~• The CBGSA has applied for~~Seek additional grant funding to install monitoring wells to replace active pumping wells that are currently included in the monitoring network. Alternatively, transducers could be installed in these wells to better understand the temporal effects of pumping on groundwater levels.
- ~~• Apply for additional~~ assistance from DWR's Technical Support Services (TSS), which provides support to GSAs as they develop GSPs. TSS opportunities include help installing new monitoring wells, and downhole video logging services. ~~New wells drilled by DWR's TSS will improve the density and sampling frequency for level monitoring in the Basin. Downhole video logging will provide more well construction information to better utilize well data in the Basin. As of Draft GSP publication, the DWR TSS program has not provided any TSS services for the Cuyama Basin.~~



- [Improve understanding of well construction information through digital entry of data from well completion reports into the data management system.](#)

4.6 Groundwater Storage Monitoring Network

Groundwater in storage is monitored through the measurement of groundwater levels. Therefore, the groundwater storage monitoring network will use the groundwater level monitoring network. Thresholds for groundwater storage are ~~be~~ discussed in Chapter 5.

4.7 Seawater Intrusion Monitoring Network

The Basin is geographically and geologically isolated from the Pacific Ocean and any other large source of saline water. As a result, the Basin is not at risk for seawater intrusion. Salinity (i.e., total dissolved solids, or TDS) is monitored as part of the groundwater quality network, but seawater intrusion is not a concern for the Basin.

~~Degraded~~

4.8 Groundwater Quality Monitoring Network

Salinity (measured as TDS), arsenic, and nitrates have all been identified by local stakeholders as potentially being of concern for water quality in the Basin. ~~However, as noted in the Groundwater Conditions chapter, there have only been two nitrate measurements and fewer than 10 arsenic measurements in recent years that exceeded maximum contaminant levels. Furthermore, and~~ However, in contrast to salinity, there is no evidence to suggest a causal nexus between potential actions under the CBGSA's authority and arsenic or nitrates. In the case of arsenic, the high concentration measurements have been taken either at CCSD Well 2, which is no longer in operation, or at groundwater depths of greater than 700 feet, which is outside of the range of pumping for drinking water. Because arsenic occurs in the subsurface at different elevations and densities throughout the Basin, arsenic issues are localized and different at each well location. Since the CBGSA is only granted authority to affect the amount of water pumped across portions of the Basin, it is not possible for the CBGSA to successfully manage arsenic levels, and setting thresholds on an unmanageable constituent could cause unnecessary intervention by the [California State Water Resources Control Board \(SWRCB\)](#). Therefore, the groundwater quality network ~~has been included in the 2020 GSP was~~ established to monitor for salinity but ~~does did~~ not consider arsenic or nitrates at ~~this that~~ time.

[The CBGSA began collecting groundwater quality data in early 2021 and collects TDS measurements once a year. In addition, nitrate and arsenic measurements were also collected in 2022 to establish a](#)



baseline understanding of nitrate and arsenic concentrations in the Basin. It is the intent of the CBGSA to continue to collect TDS measurements in monitoring network wells on an annual basis. For nitrate and arsenic, the CBGSA intends to download and utilize data that is collected by other monitoring entities on an ongoing basis. The CBGSA will cooperate with other agencies that may perform monitoring of other constituents to the extent possible. In addition, the CBGSA will collect nitrate and arsenic data in conjunction with the collection of TDS measurements once every five years.

4.8.1 Management Areas

Management Areas ~~havewere~~ not ~~been selected at used for~~ the ~~time of publishing the Draft 2025~~ GSP-update. Management Areas ~~may could~~ allow flexibility in establishing monitoring networks both spatially and temporally to match conditions and use in the Management Area. ~~Given the scarcity of monitored sites, the~~The CBGSA ~~should use will utilize~~ the same monitoring network selection criteria across ~~all management areas in the~~the entire groundwater Basin. This allows the Basin to be managed together to meet Basin-wide sustainability thresholds.



4.8.2 Monitoring Sites Selected for Monitoring Network

Table 4-6 lists Salinity (Measured as TDS)

As part of the monitoring sites selected for 2020 GSP, the groundwater quality CBGSA created a TDS monitoring network by monitoring group. Monitoring sites selected for inclusion in the network were using wells that other entities had monitored from 2008 to 2018. 2018. These entities included NWQC, USGS, IRLP, GAMA, DWR, BCWPD, and private landowners. It was assumed that wells that had previously been monitored for salinity prior to 2008 were unlikely to be monitored again by that monitoring agency. Due to the overlap of wells in both the USGS and DWR networks, the There were 64 selected groundwater-quality networks/network wells is less than the sum. The utilization of wells shown in Table 4-6. Utilization these each wells for monitoring purposes will require/requires consent agreements with each landowner. Since the 2020 GSP, the CBGSA has dedicated significant time reaching out to landowners via emails, phone conversations, and site visits to reach agreements to conduct sampling. The 2020 water quality monitoring network is shown on Figure 4-19.

The CBGSA has collected three years of annual sampling data and conducted an evaluation of the existing network to see if any refinement or improvements could be made as part of this GSP 2025 update. A comprehensive review was conducted on the monitoring network with respect to the following issues: lack of landowner agreements for monitoring, access issues at the well owners/sites, access issues due to weather. Furthermore, analysis was conducted to determine if the wells were projected to go dry between now and 2030 and if any wells are spatially redundant with other wells in the network. The result of this analysis is shown on Figure 4-20, which shows the sampling flags for each well. Based on this analysis, 32 wells were removed from the network; in most cases because the CBGSA had been unable to secure an agreement with the landowner. In November of 2023, the CBGSA board approved a revised monitoring network, which will include 58 wells, 27 of which are representative wells. This includes nine new TSS wells that were installed under the DWR's Technical Support Services (TSS) program and will be sought during GSP implementation equipped by DWR with permeant transducers to provide electroconductivity measurements for TDS. In addition, new monitoring wells are currently being installed at 10 locations using grant funding from DWR with 1-3 completions per well. These wells will also be equipped with transducers and be included in the TDS water quality network as non-representative wells.

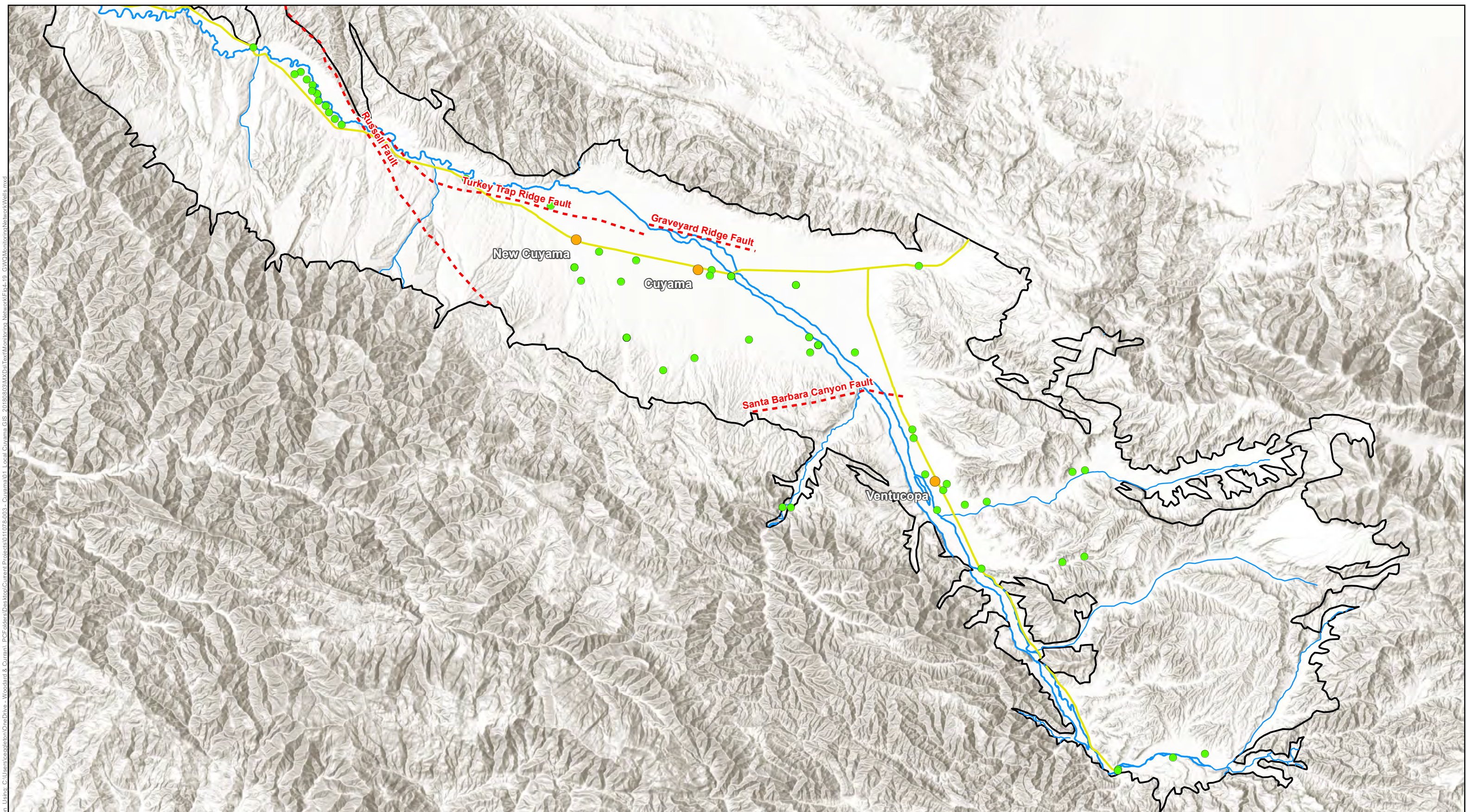


Figure 4-19: Cuyama GW Basin Groundwater Quality Monitoring Network Wells (2020)
 Cuyama Basin Groundwater Sustainability Agency
 Cuyama Valley Groundwater Basin Groundwater Sustainability Plan
 April 2019



Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams
- - - Faults
- Representative Wells and Groundwater Quality Monitoring Network Wells

All wells included in the Groundwater Quality Monitoring Network have been measured since 1/1/2008. Wells measured prior to 2008 are not included.

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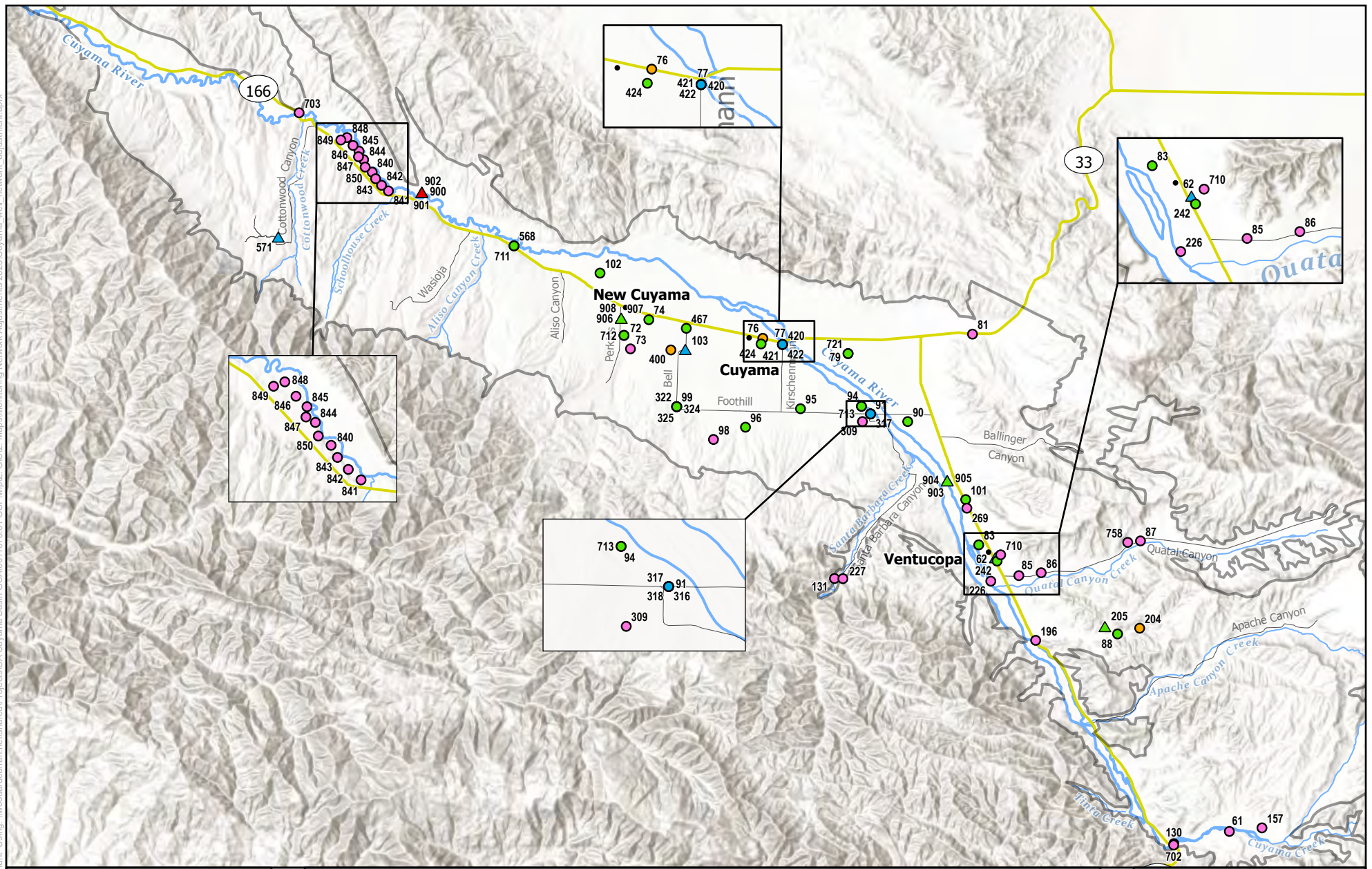


Figure 4-20: Groundwater Quality Monitoring Network Review

Cuyama Valley Groundwater Basin

Legend	Representative	Monitoring	Highway	Cuyama River
	● No Access Agreement	▲ Access Issue (weather)	— Local Road	— Creek
	● No Issues	▲ No Issues	● Town	□ Cuyama Basin
	● Onsite Access Issue	▲ Transducer		
	● Transducer			

N

WOODWARD & CURRAN
GROUNDWATER SUSTAINABILITY AGENCY

0 1.25 2.5 5 Miles

Map Created: December 2023

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Nitrate

Nitrate measurements will be taken by the CBGSA at water quality monitoring network wells once every five years.

In addition, to gain a better understanding of nitrate in the Basin, the CBGSA will download arsenic monitoring measurements collected by third party sources, especially SWRCB GAMA Database, on an annual basis. The GAMA database includes data collected by USGS, California Natural Resources Agency, National Quality Monitoring Council Water Quality Portal, as well as other sources as shown in Table 4-5.

Table 4-5: GAMA Databases and Frequency of Updates

Data Set Name	Dataset Abbreviation	Update Frequency (Approximate)
Department of Pesticide Regulation	DPR	Yearly
Department of Water Resources	DWR	Yearly
Division of Drinking Water	DDW	Quarterly
GAMA Domestic Well	GAMA_DOM	No longer updated
GAMA Local Groundwater Projects	GAMA_LOCALGW	Various
GAMA Special Studies	GAMA_SP-STUDY	No longer updated
GAMA US Geological Survey	GAMA_USGS	Quarterly
Local Groundwater Projects	LOCALGW	Monthly
US Geological Survey - National Water Information System	USGS_NWIS	Quarterly
Water Board Cleanup and Permitted Sites	WB_CLEANUP	Monthly
Water Board Irrigated Lands Regulatory Programs	WB_ILRP	Monthly
Water Replenishment District	WRD	Yearly

~~4.8.34.1.1~~ **Figure 4-21 shows Monitoring Frequency**

The Basin, in coordination with partnering agencies, will compile salinity samples once a year. Monitoring agencies such as USGS and DWR were contacted to inquire about when they would monitor



~~their sites for groundwater quality, including salinity. These agencies stated they usually monitor annually, but the timing of that monitoring was not set, and changes from year to year. Additionally, depending on funding and staff availability, there may be years where no groundwater quality monitoring is conducted by an agency.~~

the locations where nitrate monitoring has occurred over the past 10- and 5-year Periods. A total of 104 wells were sampled over the 10-year period from 2013-2023. The majority of Nitrate data is collected through the California Central Coast Water Board Irrigated Lands Regulatory Program (ILRP). The Central Coast Water Board regulates discharges from irrigated agricultural lands to protect surface water and groundwater through Order 4.0 (RE-2021-0040). In 2023, in the Cuyama Basin, the ILRP program had 16 operations and 88 ranches enrolled in the program reporting Nitrate data. Parties enrolled in the program are required to monitor and report results for the primary irrigation wells to GeoTracker annually, which is updated to GAMA.

Arsenic

Arsenic measurements will be taken by the CBGSA at water quality monitoring network wells once every five years.

In addition, to gain a better understanding of arsenic in the Basin, the CBGSA will download arsenic monitoring measurements collected by third party sources, especially SWRCB GAMA Database, on an annual basis. The GAMA database includes data collected by USGS, California Natural Resources Agency, National Quality Monitoring Council Water Quality Portal, as well as other sources as shown in Table 4-5 above. Most arsenic monitoring is conducted by public water systems on municipal supply wells. Arsenic is a regulated chemical for drinking water sources with monitoring and compliance requirements under Title 22 Section 64431.

The CBGSA will utilize the GAMA database to monitor arsenic water quality in the Basin. Arsenic samples are taken at 7 wells, all municipal and domestic. These samples are from DDW, GAMA USGS, and USGS NWIS. The Cuyama Groundwater Basin has two public water systems according to the System Area Boundary Layer (SABL) tool developed by the SWRCB. The first public water system is called the Cuyama Community Services District water system number CA4210009, which serves a population of 700. This public water system is classified as a community water system. The second is Cuyama Mutual Water Company water system number CA4200514, which serves a population of 48 and is classified as a transient noncommunity water system. All wells were sampled in the past five years. These two water systems provide 87% of the sampling results for arsenic in the Basin taken over the 10-year period from 2013-2023. There have been 87 samples from these 7 wells taken over the past 10 years. These locations are shown in Figure 4-22.

4.8.3 Monitoring Frequency



[The CBGSA will collect salinity samples once a year and nitrate and arsenic samples once every five years. In addition, nitrate and arsenic data will be downloaded from GAMA on an annual basis.](#)

Although DWR does not provide specific recommendations on the frequency of monitoring in relationship to the described groundwater characteristics, concentrations of groundwater quality, especially salinity, do not fluctuate significantly over a year to require multiple samples per year. [CBGSA will therefore continue to monitor its water quality network at the same frequency.](#)

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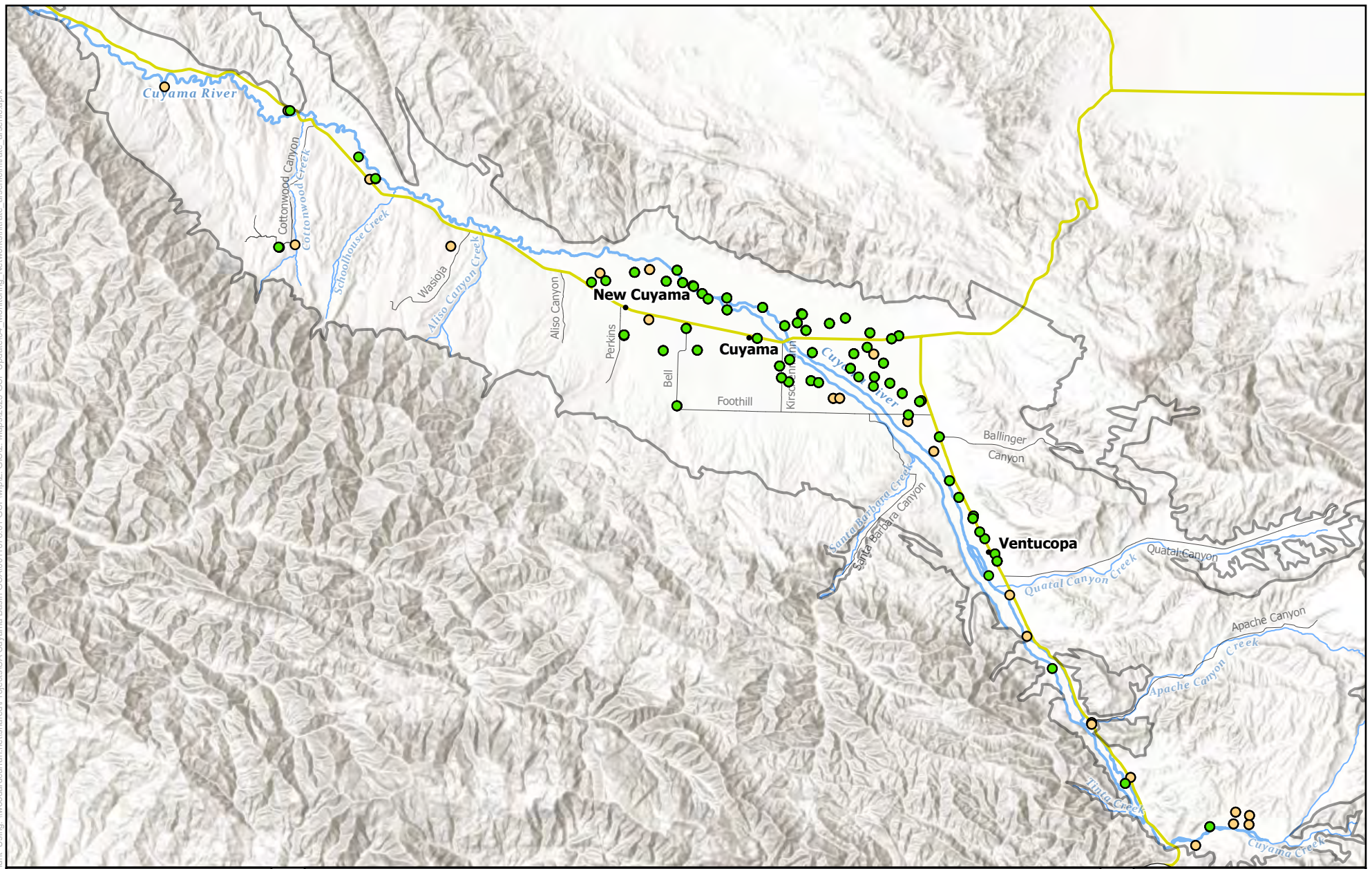


Figure 4-21: Nitrate Monitoring Locations
 Years 2013 - 2023
 Cuyama Valley Groundwater Basin

Legend	Well Record	Highway	Cuyama River
	Sampled since 2022	Local Road	Creek
	Sampled in the last 10 years	Town	Cuyama Basin

Map Created: December 2023

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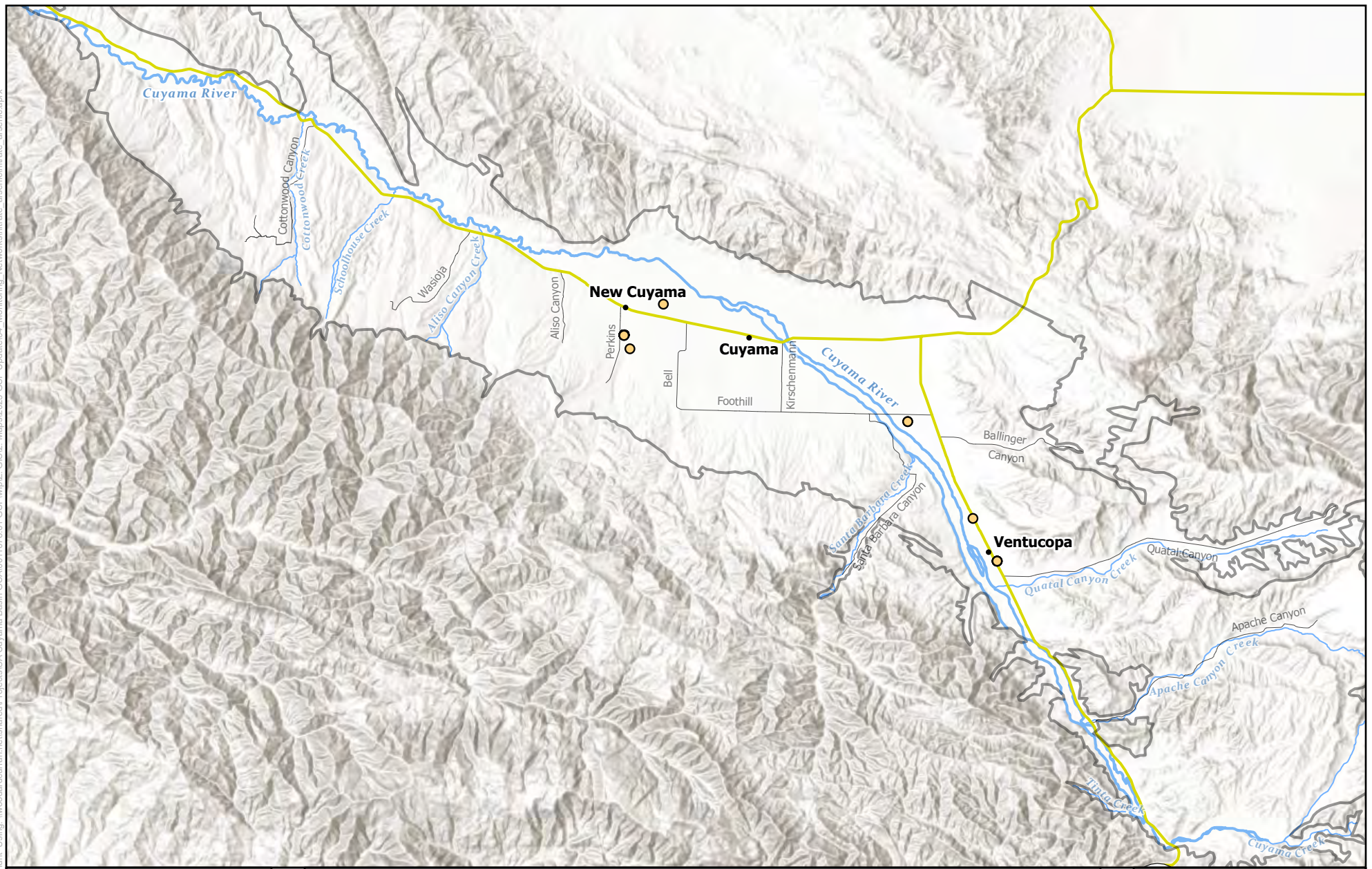


Figure 4-22: Arsenic Monitoring Locations
 Years 2013 - 2023
Cuyama Valley Groundwater Basin

Legend	Well Record	Highway	Cuyama River
	Sampled since 2013	Local Road	Creek
	Town	Cuyama Basin	

0 1.25 2.5 5 Miles

Map Created: December 2023

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data sources: CA DWR, Esri, USGS**



4.8.4 Spatial Density

DWR's *Monitoring Networks and Identification of Data Gaps BMP* states "The spatial distribution must be adequate to map or supplement mapping of known contaminants." Using this guidance, professional judgment was used to identify representative wells in each management area. Heavily pumped areas, such as the central portion of the Basin, require additional monitoring sites, while areas of lower pumping or less agricultural or municipal groundwater use need less monitoring.

~~Any well measured from 2008 to June 2018 was included in the monitoring network. The overall monitoring network was selected as representative monitoring.~~ The selected groundwater quality representative and monitoring wells provide adequate coverage of the Basin's aquifer. The TDS groundwater quality monitoring network is composed of ~~64 of~~58 wells in the Basin, which ~~providing~~provides a monitoring site density of 17 sites per 100 square miles. This exceeds the density recommended by reference materials for groundwater level density shown in Table 4-~~2~~.

4.8.5 Representative Monitoring

Representative monitoring sites were selected in the 2020 GSP for groundwater quality using the criteria used to select representative groundwater level monitoring wells (Section ~~4.5.5~~-4.5.4). Due to the uncertainty of monitoring frequency, all monitoring network wells were selected as representative wells in the monitoring network. For the 2025 GSP Update, existing representative monitoring sites continue to be representative; newly installed sites are considered non-representative because they do not include enough historical data to reliably develop sustainability criteria.

4.8.6 Groundwater Quality Monitoring Network

~~Figure 4-20~~Figure 4-23 shows the monitoring network, and representative and monitoring sites. ~~The monitoring network is comprised of 64 wells, all of which are representative wells.~~

Table 4-~~76~~ shows the wells in the groundwater quality monitoring network. Representative wells, which include those with sufficient data and representative trends within the Basin to develop sustainability criteria, are identified with the asterisk (*) next to the OPTI ID and are sorted first. Metadata for the wells is~~are~~ also included.



The revised network includes 58 wells, 27 of which are representative wells. However, the table does not currently include the wells that are currently being installed with the DWR grant funding as Opti ID numbers have not been assigned for these well

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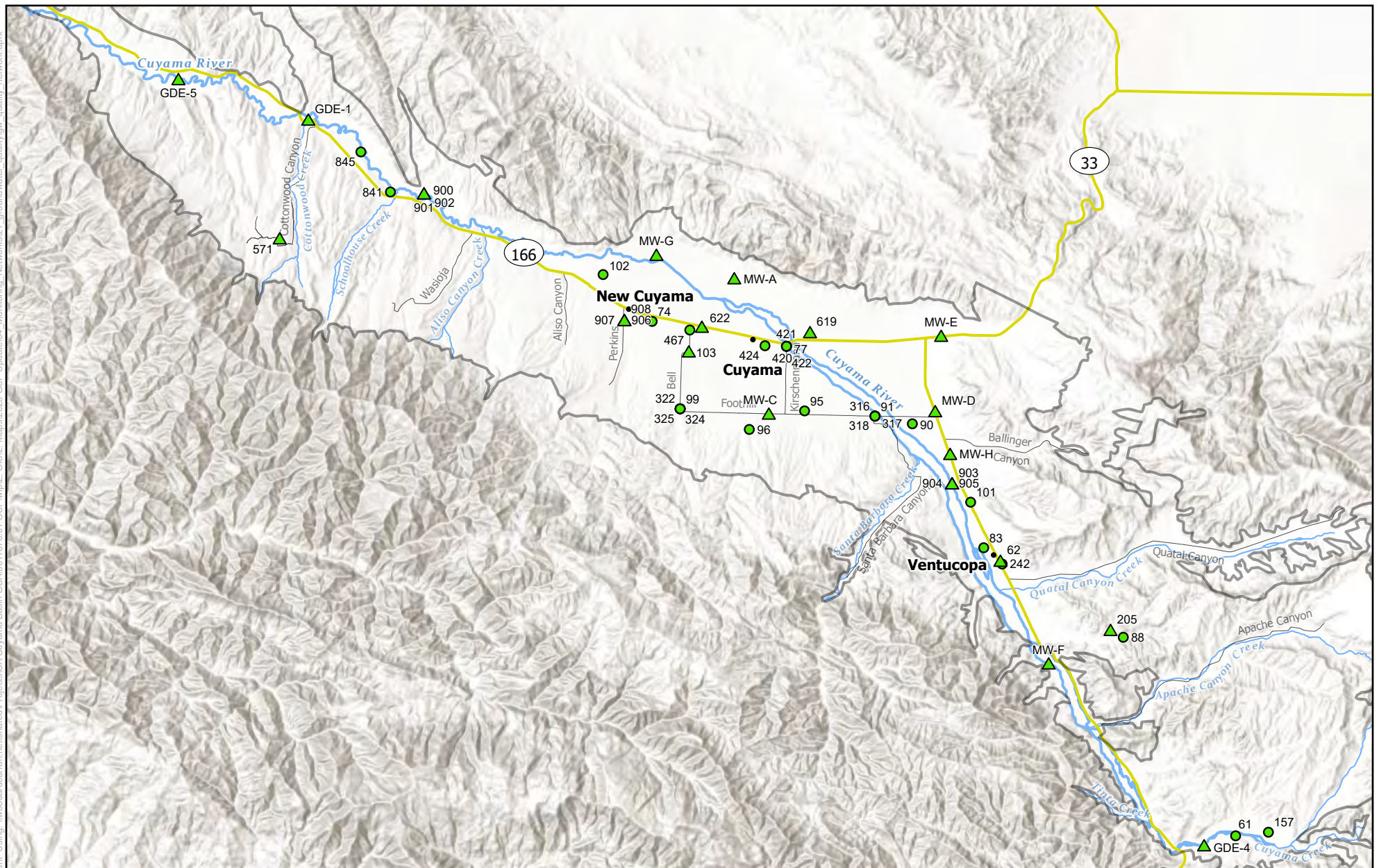


Figure 4-23: Updated Groundwater Quality Monitoring Network

Cuyama Valley Groundwater Basin

Legend

- Network Well
- Representative Monitoring
- ▲ Non-representative Monitoring
- Highway
- Local Road
- Town
- Cuyama River
- Creek
- Cuyama Basin



0 1.25 2.5 5 Miles

Map Created: December 2023

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. Data sources: CA DWR, Esri, USGS. Monitoring well data available in the Opti data catalog: <https://opti.woodardcurran.com/cuyama/login.php>



Table 4-6: Groundwater Water Quality Monitoring Network

OPTI ID	Well Construction Date	Well Depth (Feet)	Hole Depth (Feet)	Screen Interval (Feet)	Well Elevation (Feet above mean sea level)	Transducer
61*	-	357	-	-	3681	No
62*	-	212	-	-	2920	Yes
74*	-	-	-	-	2193	No
77*	12/4/2008	980	1003	980-960	2283	Yes
83*	1/1/1972	198	-	-	2,858	No
88*	9/4/2007	400	400	-	3549	No
90*	8/8/2006	800	800	-	2552	No
91*	9/29/2009	980	1000	980-960	2478	Yes
96*	2/1/1980	500	500	-	2609	No
99*	9/10/2009	750	906	750-73	2503	No
101*	-	200	220	-	2749	No
102*	-	-	-	-	2044	No
157*	-	71	-	-	3755	Yes
242*	-	155	187	-	2933	No
316*	9/29/2009	830	1000	-	2478	Yes



Table 4-6: Groundwater Water Quality Monitoring Network

OPTI ID	Well Construction Date		Well Depth (Feet)	Hole Depth (Feet)	Screen Interval (Feet)	Well Elevation (Feet above mean sea level)	Transducer
317*	9/29/2009		700	1000	-	2478	Yes
318*	9/29/2009		610	1000	-	2474	No
322*	4/9/2009		850	906	-	2503	No
324*	9/10/2009		560	906	-	2503	No
325*	1947		380	906	-	2503	No
420*	12/4/2008	780	1003	-	2283	Yes	
421*	12/4/2008	620	1003	-	2283	Yes	
422*	12/4/2008	460	1003	-	2286	No	
467*	1/1/1948	1140	1215	-	2229	No	
619*	-	1040	-	1040-471	2306	No	
622*	-	1200	-	1200-400	-	No	
841*	12/12/2014	600	-	580-170	1764	Yes	
845*	7/12/2015	380	-	360-100	1713	Yes	
103	-	1030	1040	-	2288	Yes	
205	-	435	440	-	-	No	
571	-	280	-	-	2317	Yes	



Table 4-6: Groundwater Water Quality Monitoring Network

OPTI ID	Well Construction Date		Well Depth (Feet)	Hole Depth (Feet)	Screen Interval (Feet)	Well Elevation (Feet above mean sea level)	Transducer
900	7/15/2021	605	-	50-60	-		Yes
901	7/15/2021	605	-	165-205	-		Yes
902	7/15/2021	605	-	325-365	-		Yes
903	7/23/2021	587	-	265-305	-		Yes
904	7/23/2021	587	-	360-400	-		Yes
905	7/23/2021	587	-	540-570	-		Yes
906	8/27/2021	670	-	130-150	-		Yes
907	8/27/2021	670	-	515-525	-		Yes
908	8/27/2021	670	-	650-660	-		Yes



4.8.7 ~~Figure~~ Monitoring Protocols

~~For additional monitoring recommended in Section 4.8.9, the~~ The monitoring protocols will use DWR's *Monitoring Networks and Identification of Data Gaps BMP*, which cites the USGS's 1995 publication *Ground-Water Data-Collection Protocols and Procedures for the National Water-Quality Assessment Program: Collection and Documentation of Water-Quality Samples and Related Data* (Appendix B) for the groundwater quality sampling protocols. This publication includes protocols for equipment selection, setup, use, field evaluation, sample collection techniques, sample handling, and sample testing.

4.8.8 Data Gaps

Groundwater quality monitoring data gaps have three components as follows:

- Spatial distribution of the wells
- Well/measurement depths for three-dimensional constituent mapping
- Temporal sampling

~~The~~ With the addition of new wells installed through DWR's TSS program and with grant funding, the spatial distribution of the groundwater quality monitoring network now provides coverage of several portions of the Basin. ~~There are several areas, spatial data gaps that were~~ identified ~~by the red ovals in~~ Figure 4-21, that do not have adequate monitoring. ~~Additional samples taken in these identified areas will provide more information about salinity in the indicated~~ the 2020 GSP.

With the newly constructed wells, there will now be multiple locations.

~~Well construction for existing salinity sampling efforts is mostly unknown, and the depth of~~ within the Basin that can provide water ~~used for sampling is not known~~ quality information at ~~most monitoring sites.~~ The multiple depths. This will allow the monitoring network will to collect additional information about how salinity may change at different depths in the aquifer, ~~which will require taking samples from wells that have more detailed construction.~~ This information ~~needs to be evaluated to determine if additional multi-completion wells will be required to adequately understand three-dimensional constituent mapping within the Basin.~~

Water quality sampling ~~is~~ historically has been inconsistently performed throughout the Basin; as a result, the Basin itself ~~is~~ was identified in the 2020 GSP as a groundwater quality monitoring temporal data gap. ~~In September 2018, a CBGSA representative contacted management entities in the Basin responsible for groundwater quality sampling, to help understand the timing~~ Since adoption of current monitoring schedules, ~~and to determine whether those management entities intended to continue quality monitoring~~



~~in the future. This GSP assumes all management entities anticipate continuing groundwater quality sampling in the Basin; however, the GSP, the CBGSP has undertaken its own annual sampling effort, which addressed this will need to be confirmed, and the anticipated schedule of sampling by each entity will also need to be confirmed. previously identified data gap.~~



4.8.9 Plan to Fill Data Gaps

The CBGSA ~~will fill~~has filled the temporal and spatial data gaps identified in the 2020 GSP by implementing its own salinity sampling program; and ~~will fill the well construction~~has filled the three-dimensional constituent mapping knowledge gap at least partially ~~by using DWR's TSS program to perform downhole logging through installation~~ of ~~a subset of wells~~.

~~The CBGSA will develop and perform a project to perform annual~~new multi-completion monitoring of salinity in the Basin. ~~This new monitoring program will focus on using wells that have both construction information and pumps installed. Details of the new monitoring program, such as the targeted number and distribution of sampling sites will be detailed as a project in the projects and management actions section of this GSP (Chapter 6).~~wells.

~~DWR's TSS supports GSAs as they develop GSPs. Downhole video logging performed by TSS in existing salinity monitoring wells could provide more well construction information, which may help to better use well data in the Basin.~~

The CBGSA will evaluate the data collected by the monitoring program going forward to assess whether additional three-dimensional monitoring is needed. This includes an assessment of nitrate and arsenic data collected from GAMA and other data sources.

4.9 Land Subsidence Monitoring Network

4.9.1 Management Areas

Subsidence is managed ~~basin~~Basin-wide; as a result, no management areas are used.

4.9.2 Monitoring Sites Selected for Monitoring Network

There are two subsidence monitoring stations in the Basin, and three outside of the Basin. ~~Figure 4-22 shows~~24 shows the locations of existing subsidence monitoring stations, which make up the current subsidence monitoring network. The two stations in the Basin, sites CUHS and VCST, are both included in the monitoring network because they are active and provide Basin-specific data. The three stations located outside of the Basin, sites P521, BCWR, and OZST, are also included in the monitoring network. These stations are important for understanding general dynamic movement trends in the Basin because they detect tectonic movement in the Basin.

4.9.3 Monitoring Frequency



Subsidence monitoring frequencies should capture long-term and seasonal fluctuations in ground level changes. DWR's *Monitoring Networks and Identification of Data Gaps BMP* does not provide specific monitoring frequency or interval guidance. However, CGPS stations allow for data sampling several times a minute, which is sufficient for seasonal fluctuations to be captured in the data. Long-term trends are compiled from continuous data. Therefore, the CBGSA will use the same monitoring frequency currently used by the CGPS stations.

4.9.4 Spatial Density

Because there are only two monitoring stations, the current spatial density of subsidence monitoring in the Basin is 0.5 stations per 100 square miles. ~~These stations are included in Figure 4-22.~~ DWR's *Monitoring Networks and Identification of Data Gaps BMP* does not provide specific spatial density guidelines for subsidence monitoring networks, and thus relies on professional judgment for site identification. Current stations, both in and outside of the Basin, do not adequately cover the Basin for capturing subsidence variations. Potential areas for new stations are discussed below.

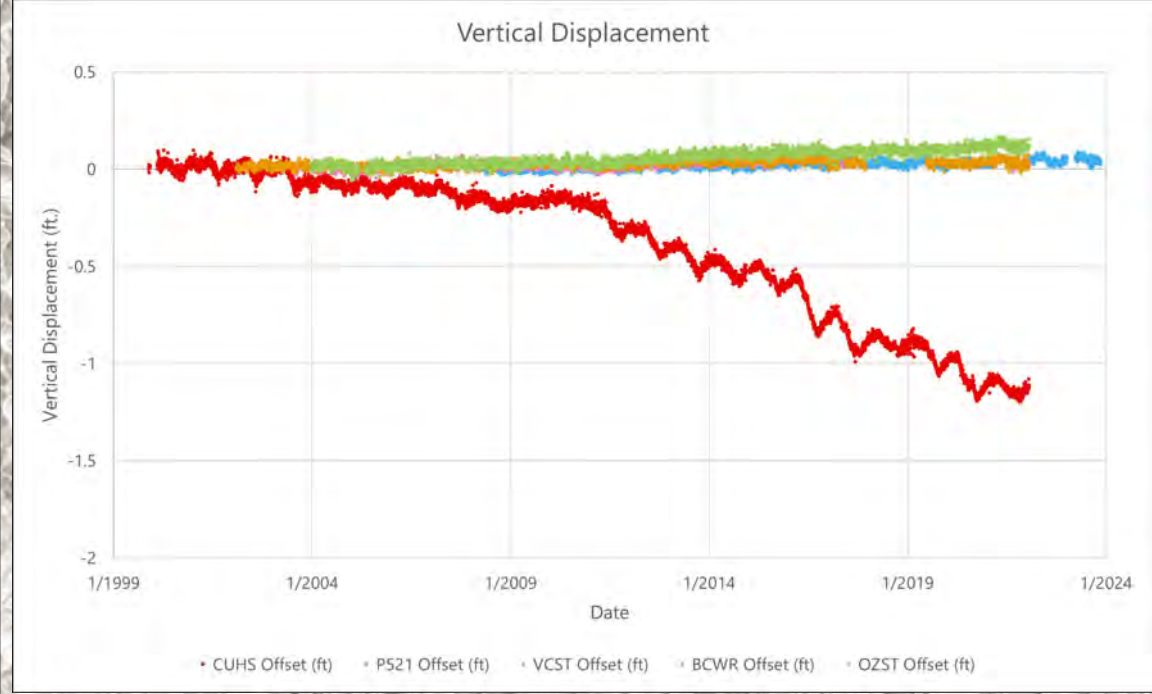
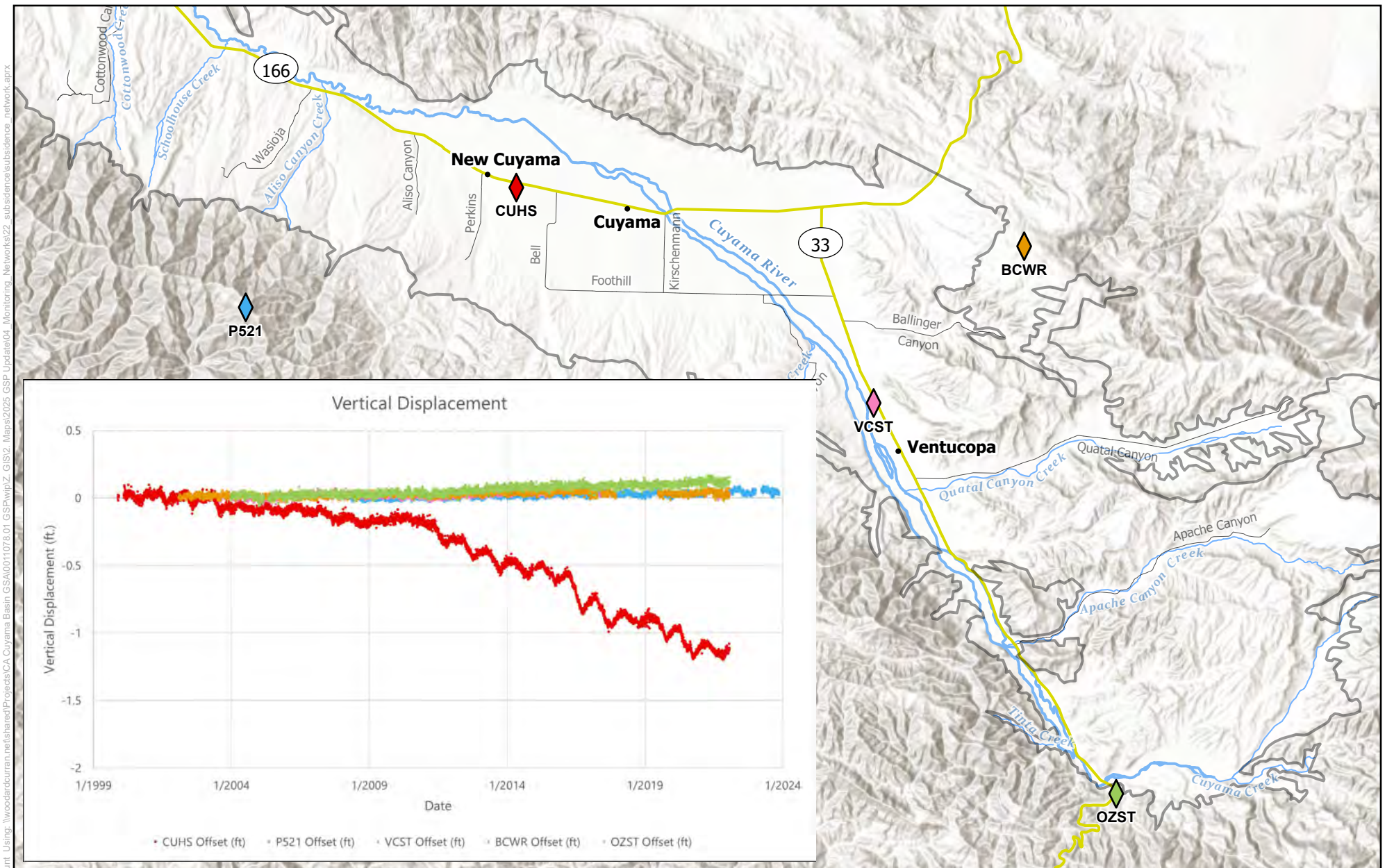


Figure 4-24: Subsidence Monitoring Network

Cuyama Valley Groundwater Basin

Legend

- ◆ Plate Boundary Observatory GPS Station
- Highway
- Local Road
- Town
- Cuyama River
- Creek
- Cuyama Basin



0 1 2 4 Miles

Map Created: December 2023

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Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. Data sources: CA DWR, Esri, USGS. UNAVCO gps data access from: https://www.unavco.org/data/gps-gnss/data-access-methods/dai1/perm_sta.php



4.9.5 Monitoring Protocols

DWR's provided *Monitoring Networks and Identification of Data Gaps BMP* does not provide specific monitoring protocols for subsidence monitoring networks. CGPS station measurements are logged digitally, and depending on the station and network setup, either require downloading at the physical station site or are uploaded automatically to a server. Data management will also depend on the monitoring agency. Current operating stations will continue to be managed by their current entity, and the CBGSA will be responsible for downloading data on a fixed schedule. The addition of new stations will require developing procedures for downloading and storing data, and for a quality assurance review of the data.

Data should be saved in the Cuyama Basin data management system on a regular annual schedule. All data should be reviewed for quality and logged appropriately.

4.9.6 Data Gaps

New subsidence monitoring sites should be chosen to provide data on areas most at risk for land subsidence. Six potential new locations were identified in the Basin, as shown in [Figure 4-23](#)-[Figure 4-25](#). These locations were identified by focusing on areas with significant or new groundwater pumping that did not have subsidence monitoring nearby. Criteria for selection are as follows:

- Identified as an area with relatively new and increased agricultural activity and pumping with no nearby stations.
- Identified because there are currently no nearby stations and the Russell Fault bisects this area
- Identified because of the CCSD and proximity to the heavily pumped central portion of the Basin
- Identified because this is the most heavily pumped portion of the Basin and there are currently no nearby stations
- Identified because of its proximity to the heavily pumped portion of the Basin, on the north facing slope of the valley; additionally, there are currently no stations nearby
- Identified because this is the transition into the heavily pumped central portion of the Basin near current agricultural pumping; this is also an area with faults

4.9.7 Plan to Fill Data Gaps

New monitoring sites should be located near areas with the greatest groundwater pumping, or where pumping is new. This is because pumping is the driving force for subsidence in the Basin. Although there are multiple ways to measure subsidence, CGPS stations are likely the best option for the Basin. CGPS stations are relatively low cost when compared to gathering data via labor-intensive land surveys, construction of borehole extensometers, and frequent satellite data processing. CGPS stations require



comparatively little maintenance and provide continuous information allowing detailed land subsidence analysis.

Increasing data collection about subsidence for the Basin requires addition of several new CGPS stations. These stations could be managed solely by the CBGSA, or could be incorporated into the Continuously Operating Reference Station (CORS) via coordination with USGS. Site selection, equipment, and management will require coordination with USGS.

Figure Exported: 9/18/2018 8: By: cengle@tenet Using: C:\Users\cengle\OneDrive - Woodard & Curran\ PC\Folders\Desktop\011078-003 - Cuyama01 Local Cuyama GIS 20180803\MXD\Text\Monitoring_Network\Fig4-25_SubsidenceDataGapLocations.mxd

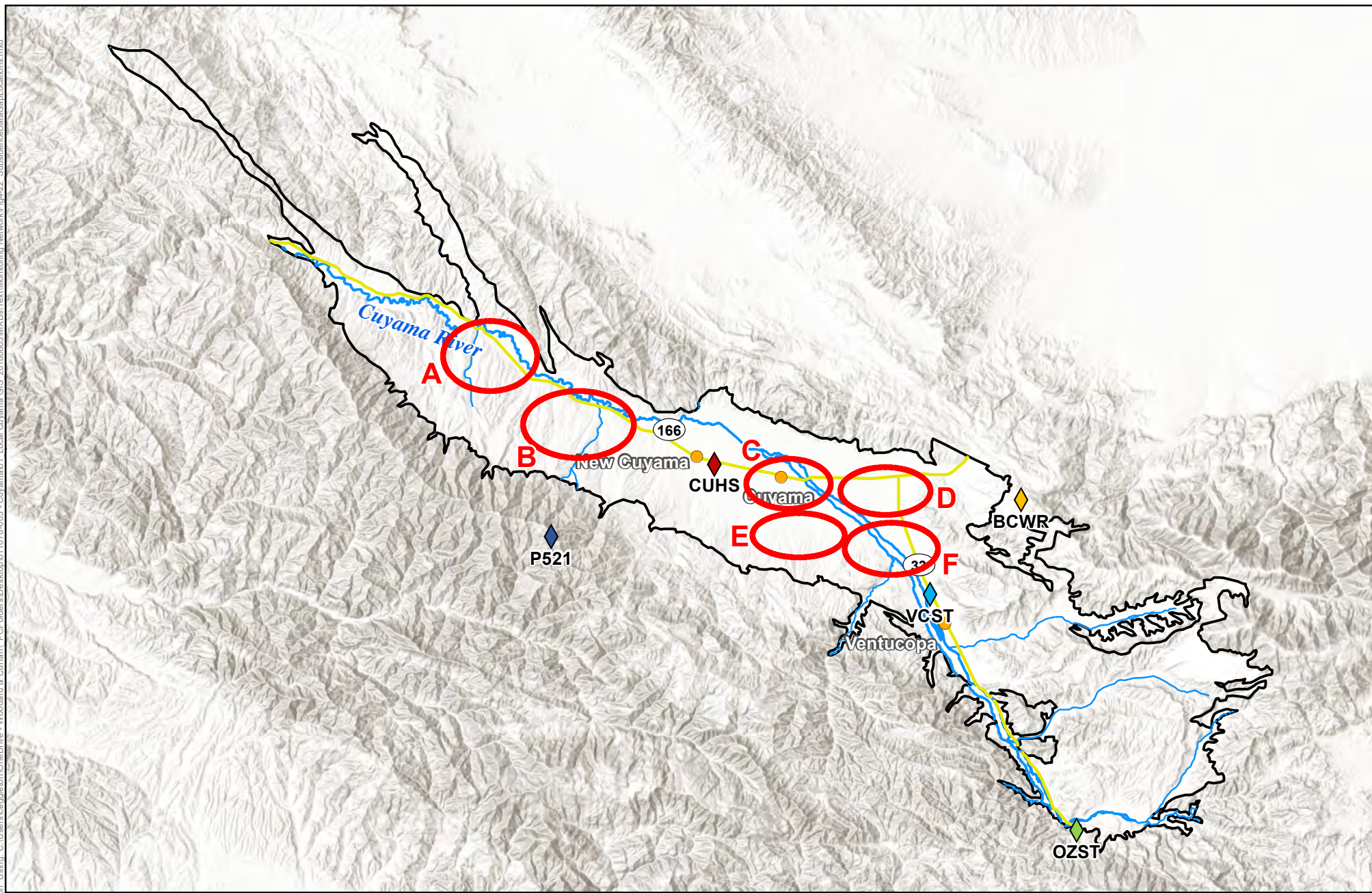


Figure 4-25: Subsidence Monitoring Location Data Gap Areas

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2019



Legend

- Cuyama Basin
- Cuyama River
- Towns
- Streams
- Highways





4.10 Depletions of Interconnected Surface Water Monitoring Network

DWR's emergency regulations Section 354.28 (c)(6) states that "The minimum threshold for depletions of interconnected surface water shall be the rate or volume of surface water depletions caused by groundwater use that has adverse impacts on beneficial uses of the surface water and may lead to undesirable results. The minimum threshold established for depletions of interconnected surface water shall be supported by the following: (A) The location, quantity, and timing of depletions of interconnected surface water, and (B) A description of the groundwater and surface water model used to quantify surface water depletion."

Since the emergency regulations require a numerical model to estimate the depletions of interconnected surface water, there is no functional monitoring network that can be used to measure depletions of interconnected surface water. Therefore, the monitoring networks for depletions of interconnected surface water will include two components as follows:

- Groundwater level monitoring to serve as monitoring by proxy of depletions of interconnected surface water
- Pursuit of additional surface water gage stations to improve numerical model accuracy

Because there are currently no operating stream gage stations on the Cuyama River in the Basin, the CBGSA is pursuing installation of three stream gages to assist in filling the data gap.

The ISW monitoring network will be developed once guidance documents are available from DWR.



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TO: Board of Directors
Agenda Item No. 12d

FROM: Jim Beck / Brian Van Lienden

DATE: January 10, 2024

SUBJECT: Discussion and Take Appropriate Action on Allocation Program Components

Recommended Motion

Board feedback/direction requested on allocation program components.

Discussion

Options for an allocation program continuing beyond 2024 are provided as Attachment 1. Final discussion on this topic is expected to occur in May 2024.

Cuyama Basin Groundwater Sustainability Agency

12d. Discuss and Take Appropriate Action on Allocation Program Components

January 10, 2024



The CBGSA Board Approved the Existing Allocation Methodology for 2023 and 2024

- Allocation Implementation: Calendar years 2023 and 2024
- Applies to: Central Management Area (CMA) + Farming Units
- Baseline Allocation Amount: 2021 modeled water use plus Farming Units in the CMA excluding CCSD metered use and residential pumping (estimated by model)
- Sustainable Yield: Calculated by the model for the CMA (including Farm Units)
- Allocation Methodology: estimated historic water use averaged from the 1998-2017 Water Year period for each parcel in the CMA

Discussion of Pumping Allocation Components

Components to be discussed/decided at January 2024 Board meeting:

- Methodology for Baseline allocation amount
- Allocation methodology
- Water market
- Carryover
- Water accounting approach

Components to be discussed/decided at a future Board meeting:

- Central Management Area boundary
- Managing pumping outside of the Central Management Area
- Approach for calculating Sustainable Yield
- Changes to Glide Path

Options for Baseline Allocation Amount

Current Approach: 2021 modeled water use in the CMA plus Farming Units excluding CCSD metered use and residential pumping (estimated by model)

Options:

1. Continue to use current approach
2. Same as current approach but use 2023 modeled water use
3. Use 2023 metered pumping as reported by water users

Allocation Methodologies to Consider



HISTORICAL USE



GROSS ACREAGE



IRRIGATED ACREAGE

Historical Use (Current Methodology)

- **HOW DOES IT WORK:** The GSA establishes allocations based on historical groundwater use over a base period (e.g., 1998 – 2017).

PROS	CONS
Acknowledges historical uses	Excludes landowners who have not developed groundwater resources
May reduce conflict among users	GSA may not have sufficient data

Gross Acreage

- **HOW DOES IT WORK:** The GSA establishes allocations among overlying landowners proportionate to acreage.

PROS	CONS
Treats all landowners equally	Ignores current and historical uses
Simple calculation	

Irrigated Acreage

- **HOW DOES IT WORK:** The GSA certifies all existing irrigated acreage and establishes allocations proportionate to that acreage.

PROS	CONS
Reduction in use would be felt proportionately across all current users	Does not give differential allocations based on historical use
	Potentially favors certain land uses
	Potentially discourages water conservation

Options for Allocation Methodology

Current Approach: estimated historic water use averaged from the 1998-2017 Water Year period for each parcel in the CMA plus Farming Units

Options:

1. Continue to use current approach (historical use)
2. Use gross acreage
3. Use irrigated acreage
4. Hybrid between historical and current use

Options for Water Market

A “water market” allows landowners to (1) transfer their unused allocations; and/or (2) purchase unused water allocations.

The GSA may authorize temporary or permanent transfers of allocations within GSA boundaries “if the total quantity of groundwater extracted in any water year is consistent with the provisions of the [GSP].” (Wat. Code, §10726.4, subd. (a)(3).)

Options:

1. Should a water market be included as part of pumping allocations?
 - a) When would transfers be permitted? (2025? 2030?)
 - b) Would both one-year and permanent transfers be allowed?
 - c) Would there be any limitations on transfers between different sub-regions (if defined)?

Options for Carryover

The GSA may establish accounting rules to allow unused allocations to be carried over from one year to another and voluntarily transferred “if the total quantity of groundwater extracted in any five-year period is consistent with the provisions of the [GSP].” (Wat. Code, §10726.4, subd. (a)(4).)

Options:

1. Should carryover as part of pumping allocations?
 - a) Should any limit be placed on how much can be carried over?
 - b) Would multi-year carryover be allowed?

Options for Water Accounting Approach

Current Approach: Operators are required to report pumping by January 31 for the previous year; staff uses a spreadsheet to track pumping and confirm compliance

Options:

1. Should the GSA implement a more sophisticated accounting system?
 - a) Use a database-based tracking and reporting system?
 - b) Allow for landowners to view and enter pumping data directly?
 - c) Have an online portal that is viewable by the public?



TO: Board of Directors
Agenda Item No. 13a

FROM: Jim Beck, Executive Director

DATE: January 10, 2024

SUBJECT: Report of the Executive Director

Recommended Motion

None – information only.

Discussion

Progress and next steps for the Hallmark Group are provided as Attachment 1 for October and November 2023. An overview of consultant budget-to-actuals is provided as Attachment 2.

October and November 2023 Accomplishments & Next Steps

Accomplishments

- ✓ Facilitated SAC meeting on October 26, 2023
- ✓ Processed new SAC member applications
- ✓ Developed and distributed Cuyama Basin Water Year 2023 irrigated land use survey to landowners
- ✓ Coordination of fiscal year 2022-2023 audit
- ✓ Facilitated public workshop on October 11, 2023
- ✓ Facilitated Cuyama Basin Groundwater Sustainability Agency (CBGSA) Board meeting on November 1, 2023
- ✓ Coordinated Technical Forum and GSP Policy Component Ad hoc

Next Steps

- Finalize Fiscal Year audit
- Prepare for Cuyama Basin GSA SAC meeting on January 4, 2024
- Prepare for Cuyama Basin GSA Board meeting on January 10, 2024



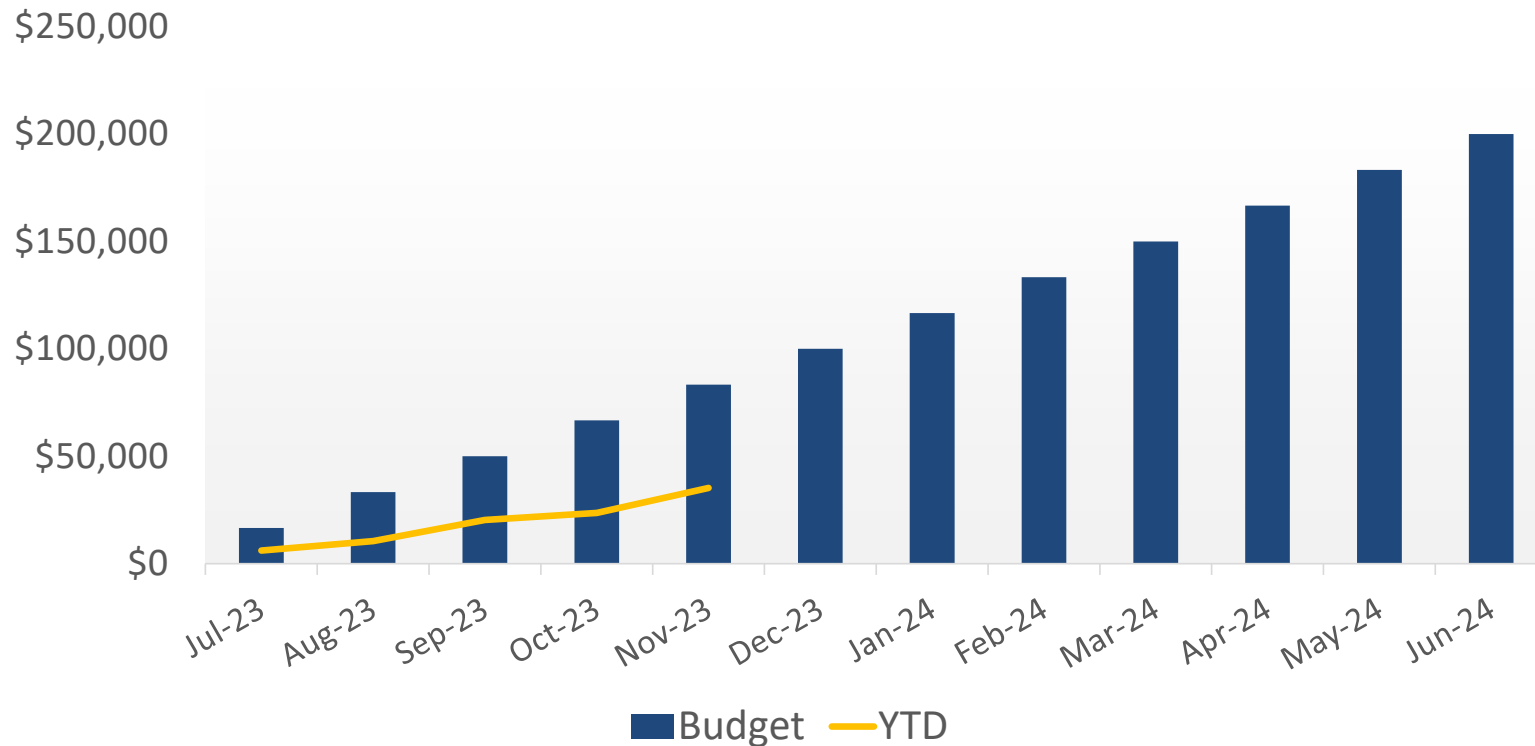
Cuyama Basin Groundwater Sustainability Agency

Financial Report

November 2023

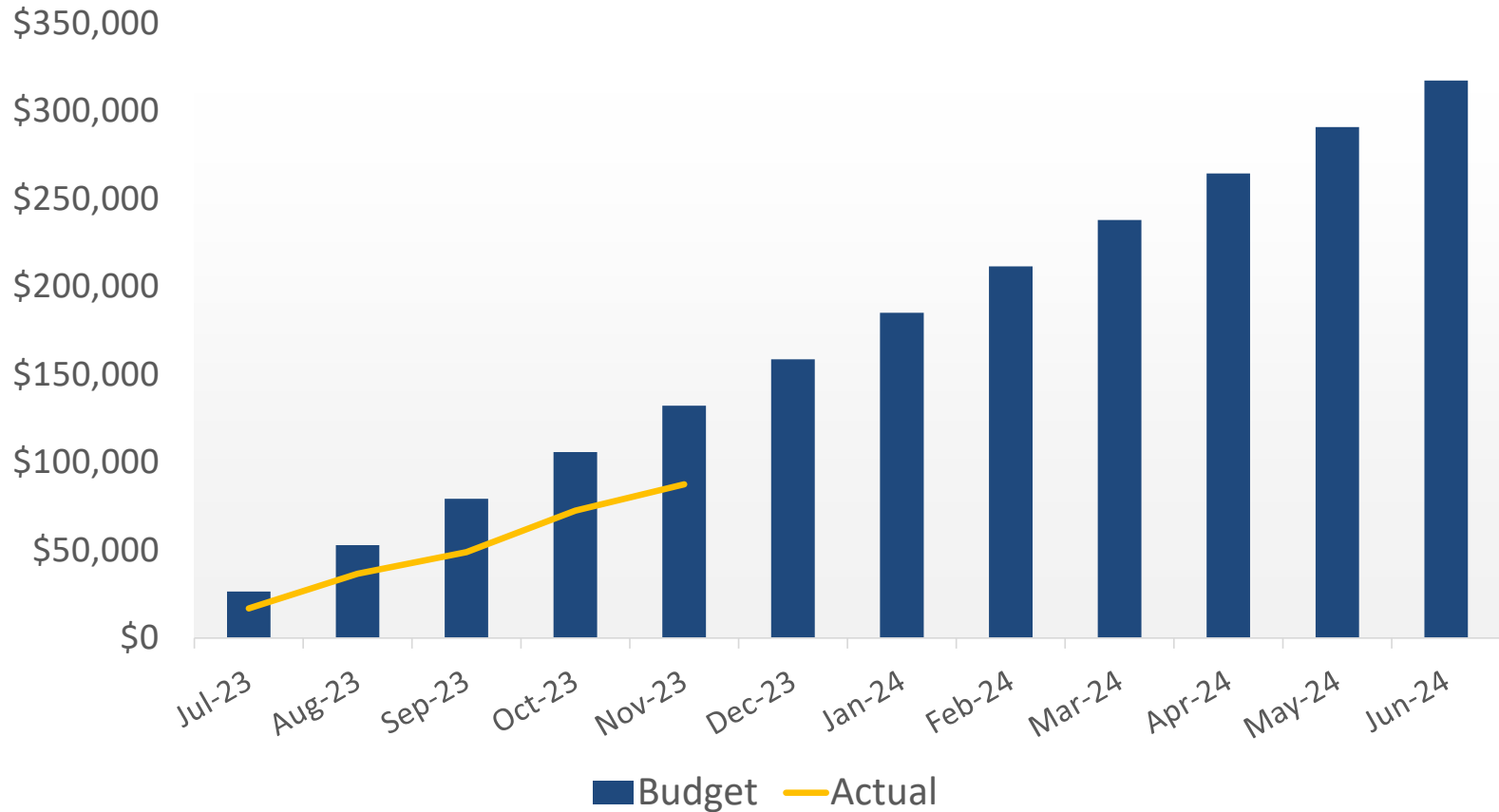
Legal Counsel – Budget-to-Actuals

FY 23/24



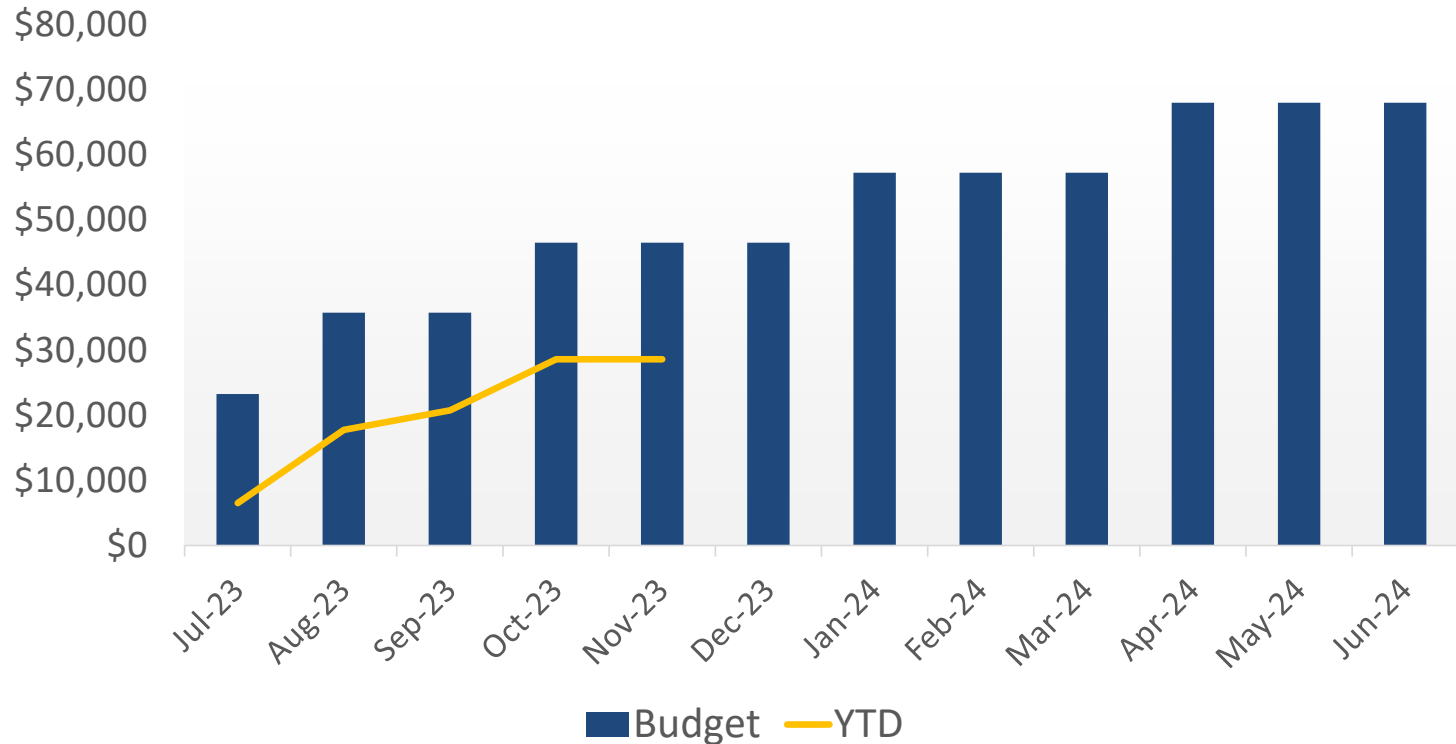
Hallmark Group – Budget-to-Actuals

FY 23/24



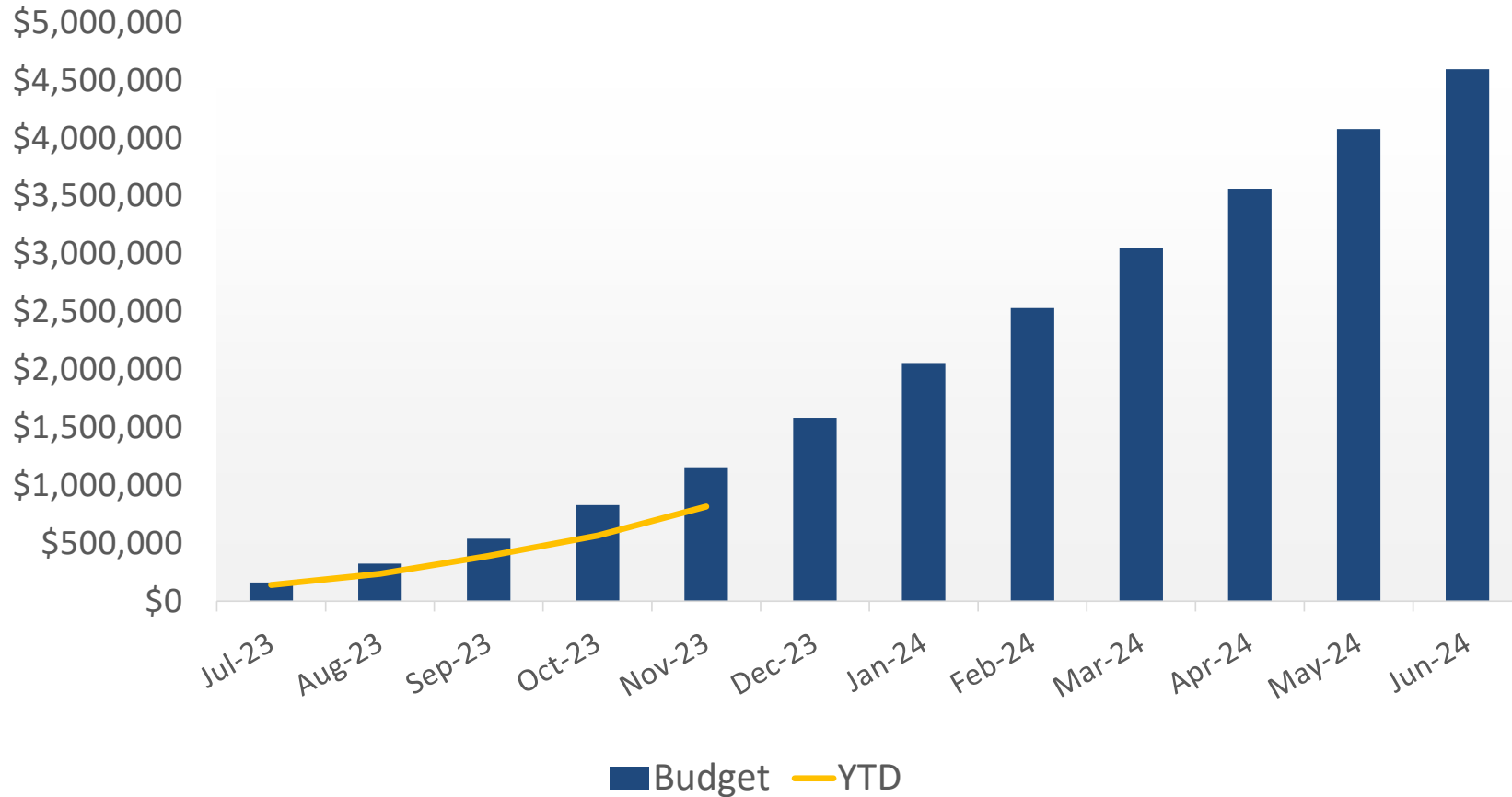
Provost & Pritchard – Budget-to-Actuals

FY 23/24

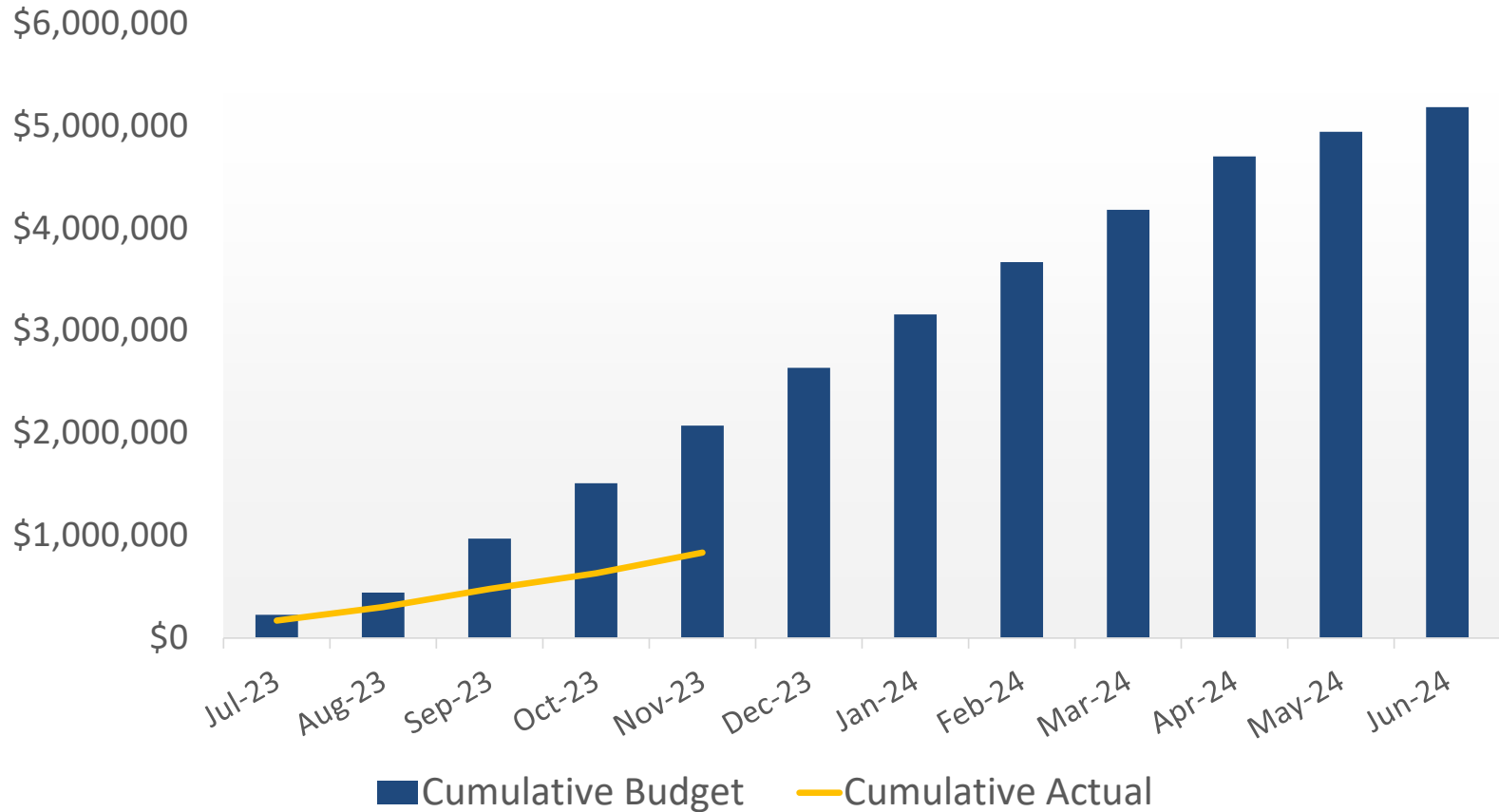


Woodard & Curran – Budget-to-Actuals

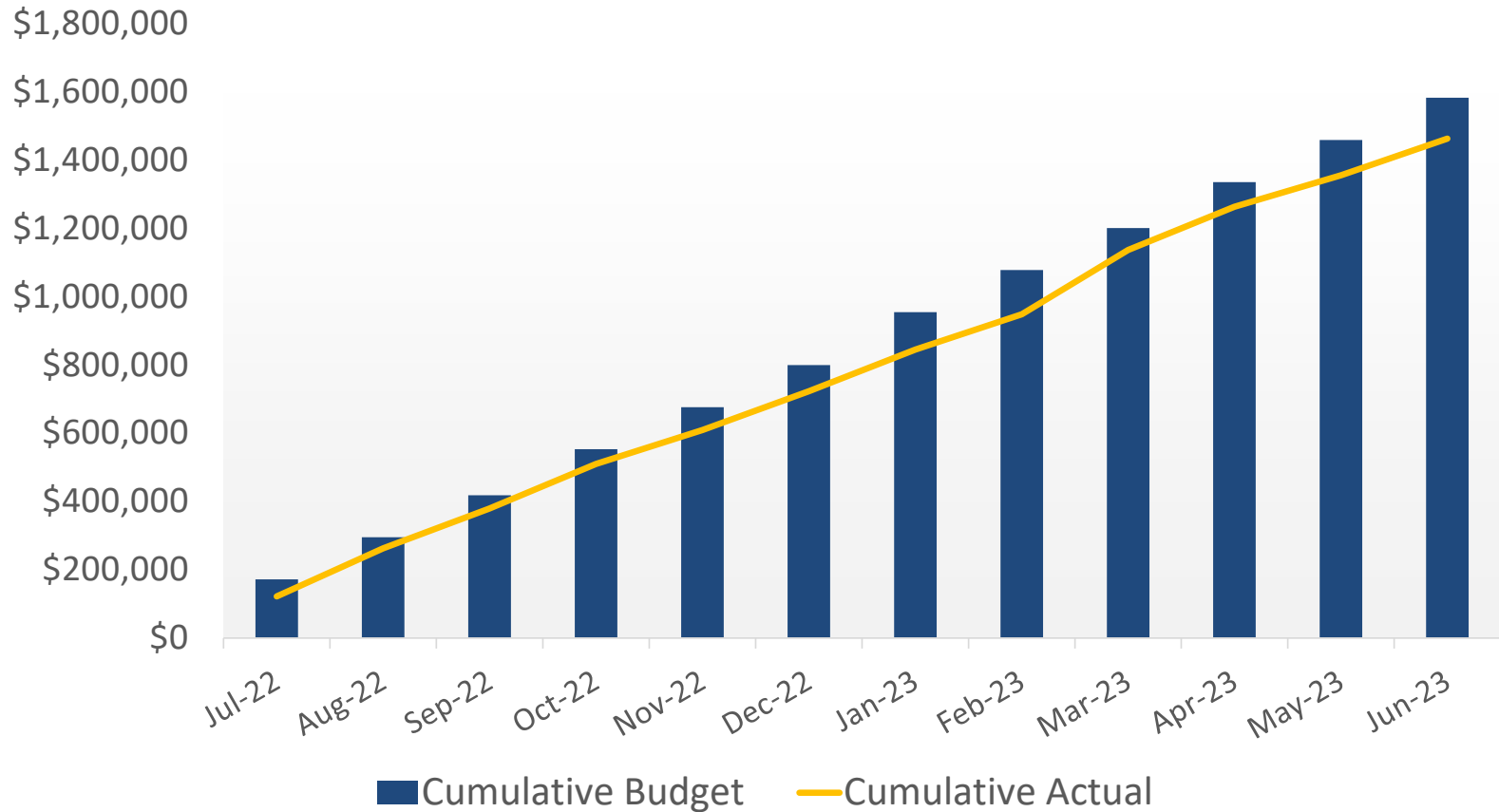
FY 23/24



CBGSA FY 23/24 – Budget-to-Actuals



CBGSA FY 22/23 – Budget-to-Actuals





TO: Board of Directors
Agenda Item No. 14a

FROM: Brian Van Lienden, Woodard & Curran

DATE: January 10, 2024

SUBJECT: Update on Groundwater Sustainability Plan Activities

Recommended Motion

None – information only.

Discussion

Cuyama Basin Groundwater Sustainability Agency (CBGSA) Groundwater Sustainability Plan (GSP) activities and consultant Woodard & Curran's (W&C) accomplishments are provided as Attachment 1.

Cuyama Basin Groundwater Sustainability Agency

14a. Update on Groundwater Sustainability Plan Activities

January 10, 2024



November-December Accomplishments

- ✓ Completed installation of first multi-completion monitoring well
- ✓ Developed updated GSP chapters for Board consideration
- ✓ Developed approaches for sustainability criteria for Board consideration
- ✓ Completed river channel survey data processing
- ✓ Completed land use data for water year 2023
- ✓ Performed ongoing updates to Cuyama Basin groundwater model
- ✓ Developed quarterly groundwater conditions report



TO: Board of Directors
Agenda Item No. 14b

FROM: Brian Van Lienden, Woodard & Curran

DATE: January 10, 2024

SUBJECT: Update on Grant-Funded Projects

Recommended Motion

None – information only.

Discussion

An update on Cuyama Basin Groundwater Sustainability Agency (CBGSA) Grant-Funded Projects is provided as Attachment 1.

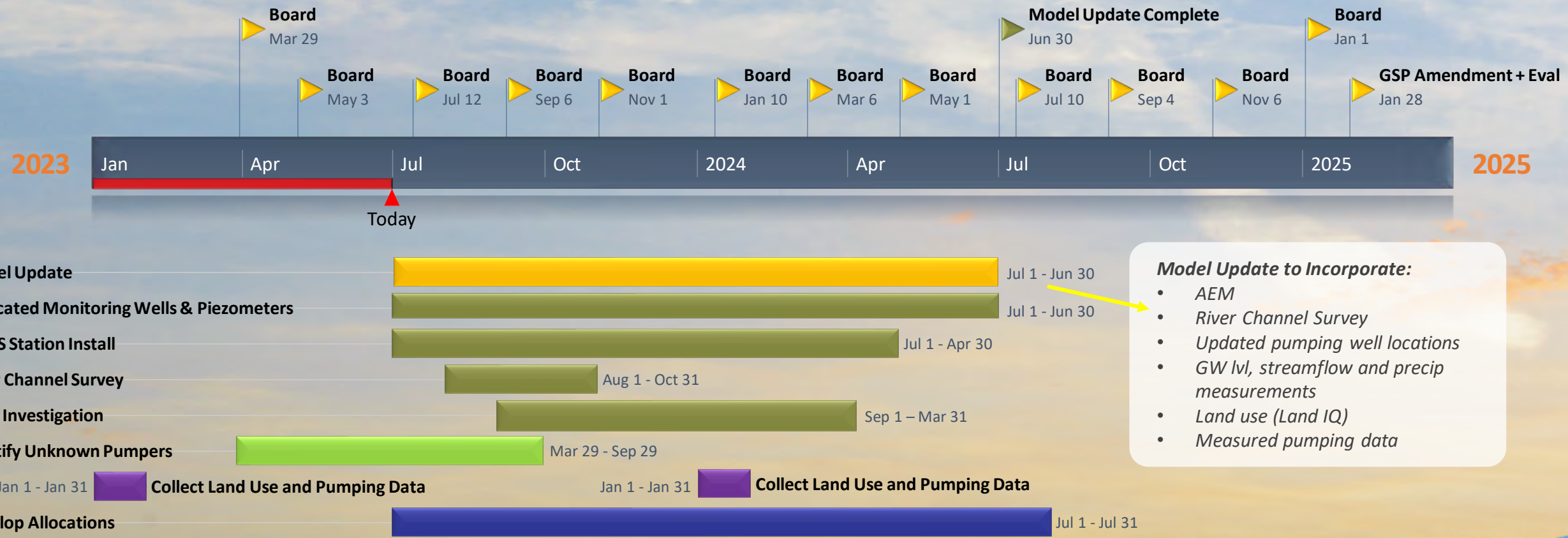
Cuyama Basin Groundwater Sustainability Agency

14b. Update on Grant Funded Projects

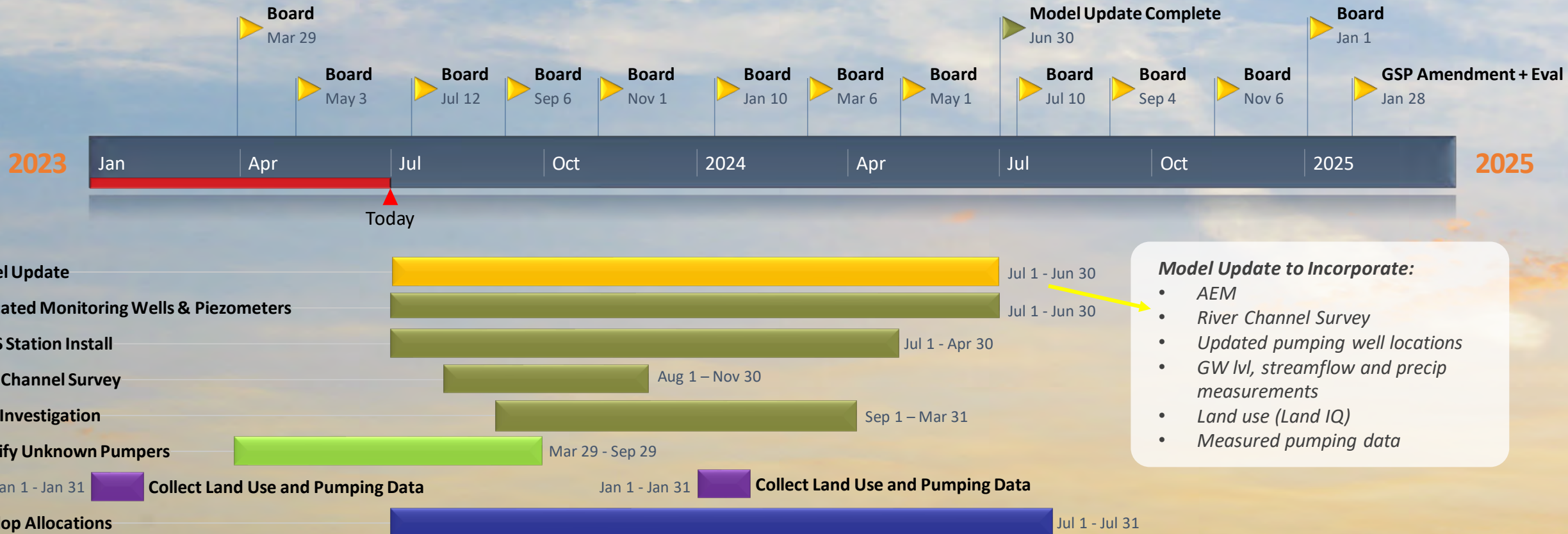
January 10, 2024



Schedule for Technical Work Required for GSP Amendment and Periodic Evaluation



Schedule for Technical Work Required for GSP Amendment and Periodic Evaluation



Update on River Channel Survey

- River channel survey has been completed using DWR grant funding
- Project timeline:
 - Sep 2023: flight was performed using LIDAR aerial scanner along the full length of the Cuyama River within the Cuyama Basin
 - Nov 2023: Access Geographic provided 1-foot contours of the river channel extending 0.25 miles outward in each direction



Status of Monitoring Well and Piezometer Installation

- Piezometer (GDE) Wells:
 - Wells have been constructed at all 3 locations (GDE-1, GDE-4 and GDE-5)
- Multi-Completion Nested Monitoring Wells:
 - Drilling and well construction at MW-F conducted from October 23 to November 30. Well screen intervals are 180-200 feet and 350-370 feet
 - Well permit obtained for 1 additional well - MW-C
 - Permits/agreements are in process for 5 wells
 - Well permits obtained for MW-D and MW-H. Encroachment permit expected from Caltrans by end of December
 - Access agreements in place for MW-A, MW-E and MW-G. Well permits in progress

Plan and Prioritization for Multi-Completion Monitoring Wells

- The objective is to install at least 1 well at each of the 7 locations
 - Installation at 7 locations may be achievable within the budget by constructing 1 or 2 nested wells instead of 3 wells at most locations; this should be acceptable because of the deep depth to water at some locations
- Recommendation:

Location	Approximate Depth to Water (Spring 2022)	Recommended # of Completions
MW-A	400-600	2
MW-C	500-600	1
MW-D	600-650	2
MW-E	400-600	2
MW-F	30-80	2
MW-G	400-600	2
MW-H	400-450	3

Approach for Groundwater-Fault Interaction Investigation

- Investigation will include the Russell and Santa Barbara Canyon Faults
- Investigation Components Include:
 - Evaluate available groundwater data in investigation areas
 - Interpret AEM data and oil & gas geophysical logs, if available
 - Conduct surface geophysical surveys
 - Construct a new monitoring well near SBC Fault (i.e., MW-H with funding covered by current grant agreement)
 - Sample groundwater and conduct geochemical analyses
 - Groundwater flow calculations and modelling

Status of Planning for Groundwater-Fault Investigation

- Both transects for the Russell Fault approved by landowners. No permits required
- Encroachment permit received from Caltrans for one transect for the SBC Fault
- Permit in process from BLM for second transect. Required field wildlife survey conducted on November 28. Report to be submitted by end of December. Permit expected in January 2024

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- Permit in process from BLM for second transect. Required field wildlife survey conducted on November 28. Report to be submitted by end of December. Permit expected in January 2024



TO: Board of Directors
Agenda Item No. 14c

FROM: Brian Van Lienden, Woodard & Curran

DATE: January 10, 2024

SUBJECT: Update on October 2023 Groundwater Conditions Report

Recommended Motion

None – information only.

Discussion

The quarterly Groundwater Conditions Report for October 2023 is summarized as Attachment 1. The detailed report is provided as Attachment 2.

Cuyama Basin Groundwater Sustainability Agency

14c. Update on Quarterly Groundwater Conditions Report

January 10, 2024

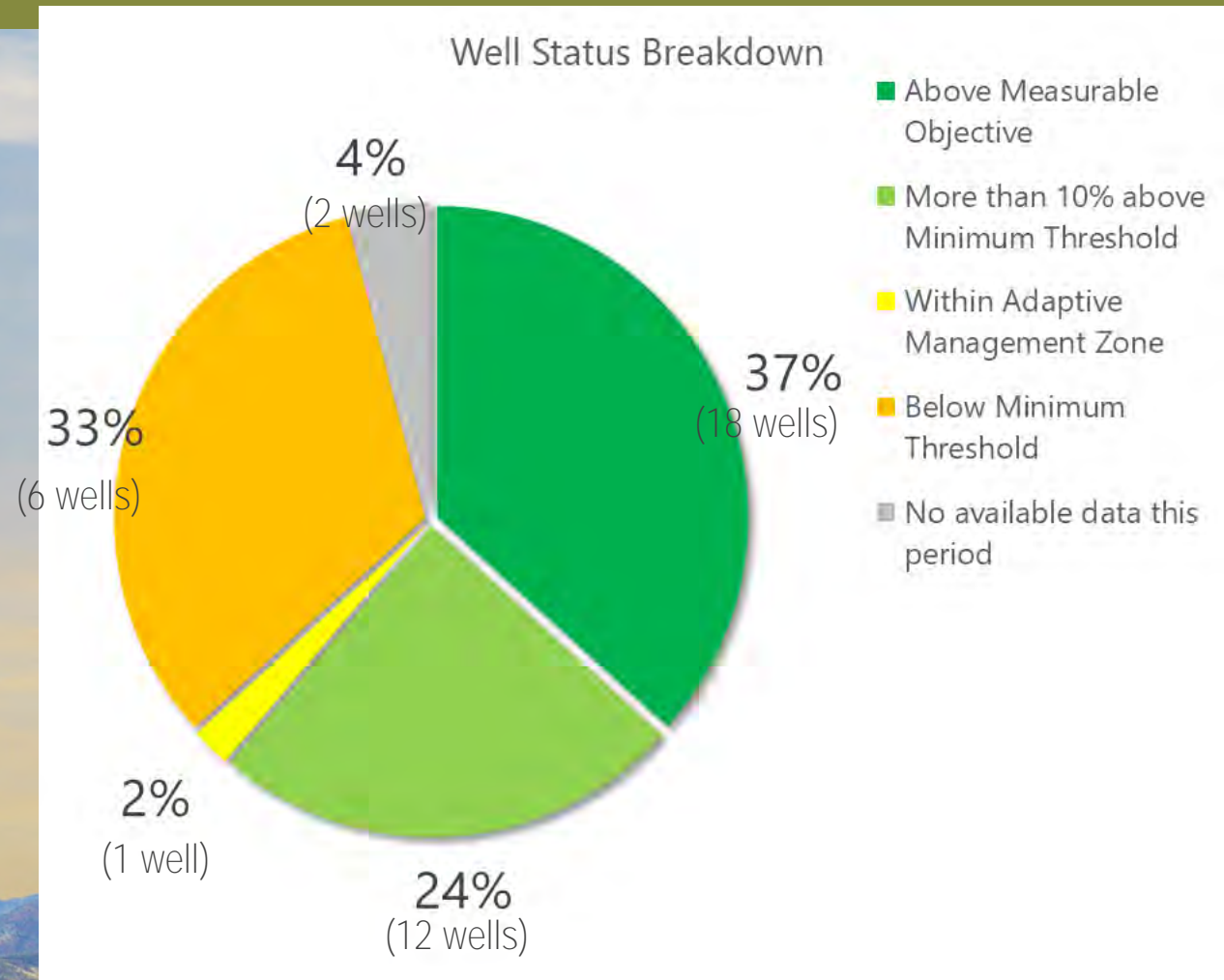
*October 2023
Report*

Groundwater Levels Monitoring Network – Summary of Current Conditions

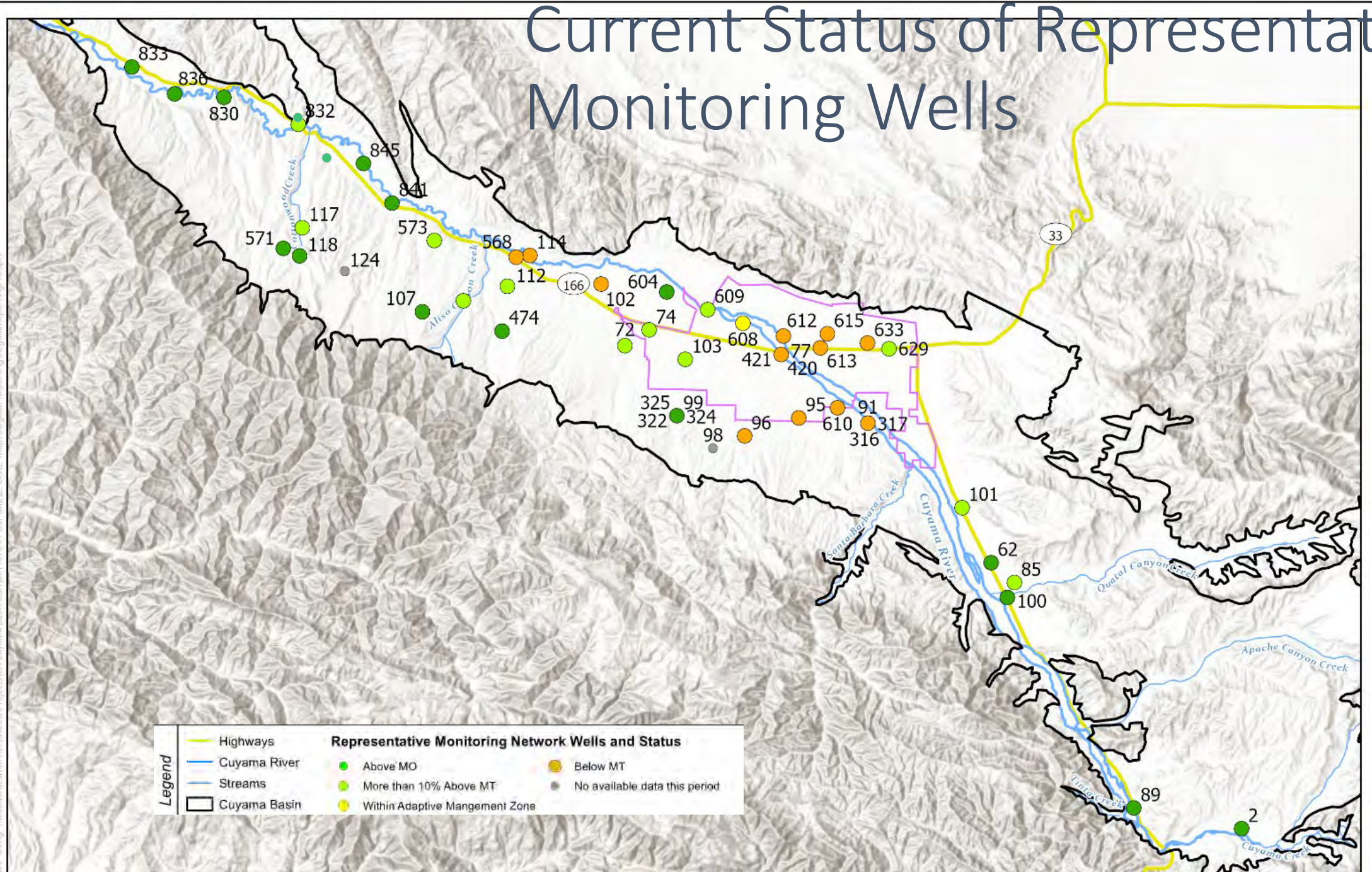
- Monitoring data from April 2023, July 2023, and October 2023 for representative wells is included in the Groundwater Conditions report
- 47 of 49 representative monitoring wells have levels data in at least one out of the previous 12 months
- 16 wells were below the minimum threshold based on latest measurement since October 2022

Summary of Groundwater Well Levels as Compared To Sustainability Criteria

- 16 wells are currently below minimum threshold (MT)
 - 11 wells (22%) have been below the MT for at least 24 months
 - 2 wells dropped below the MT this month

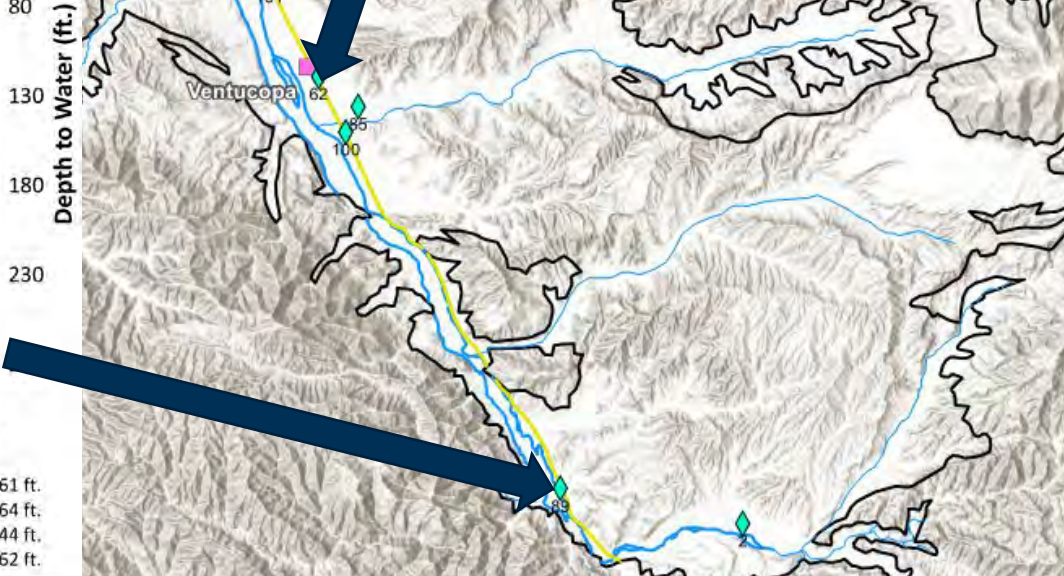
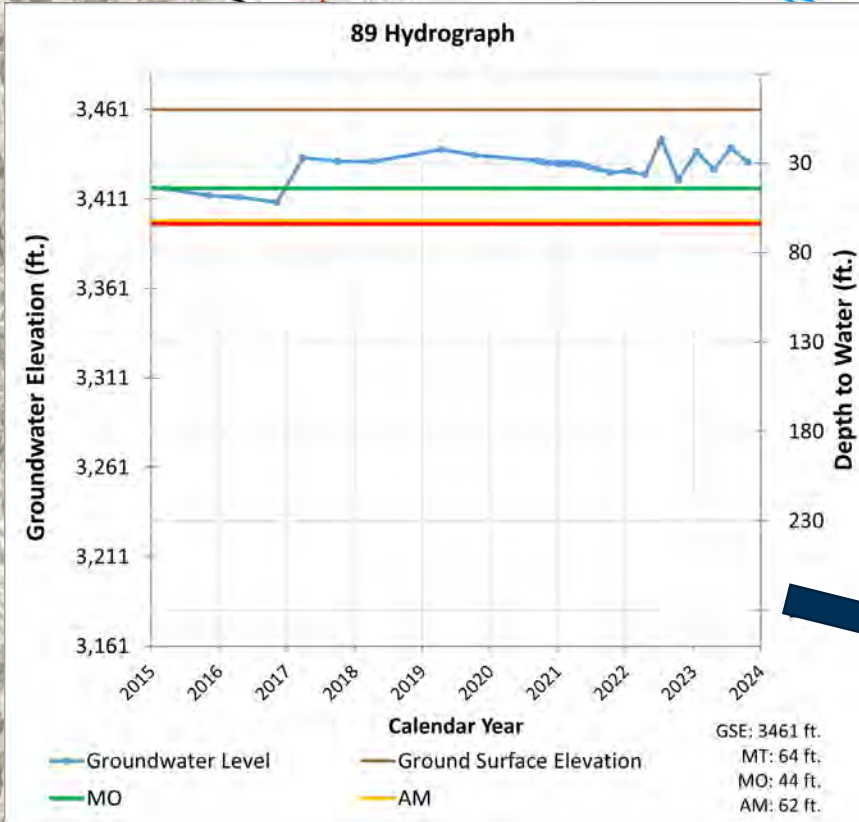
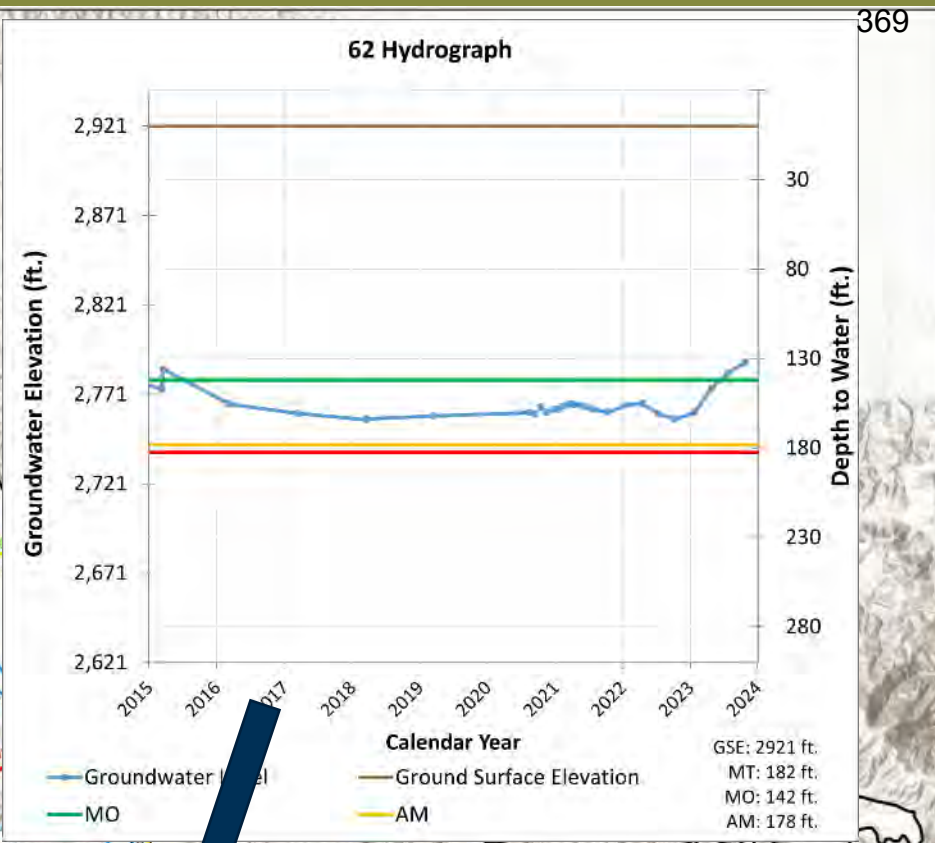
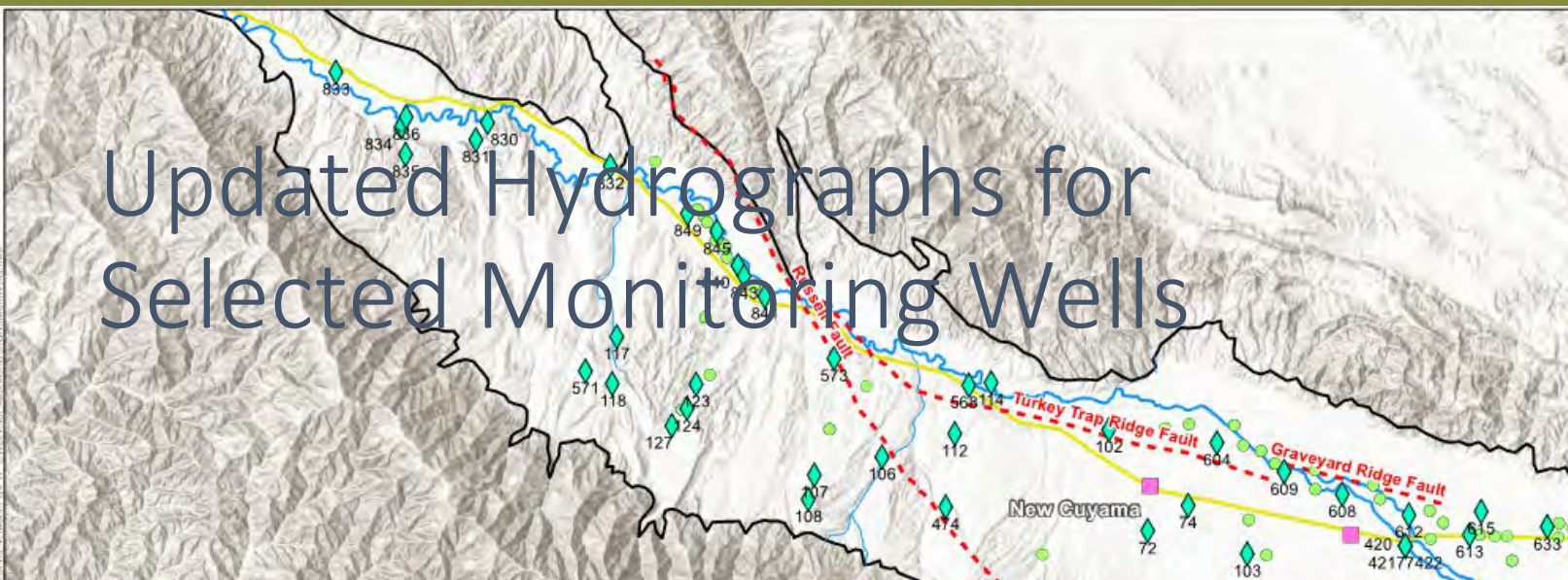


Current Status of Representative Monitoring Wells

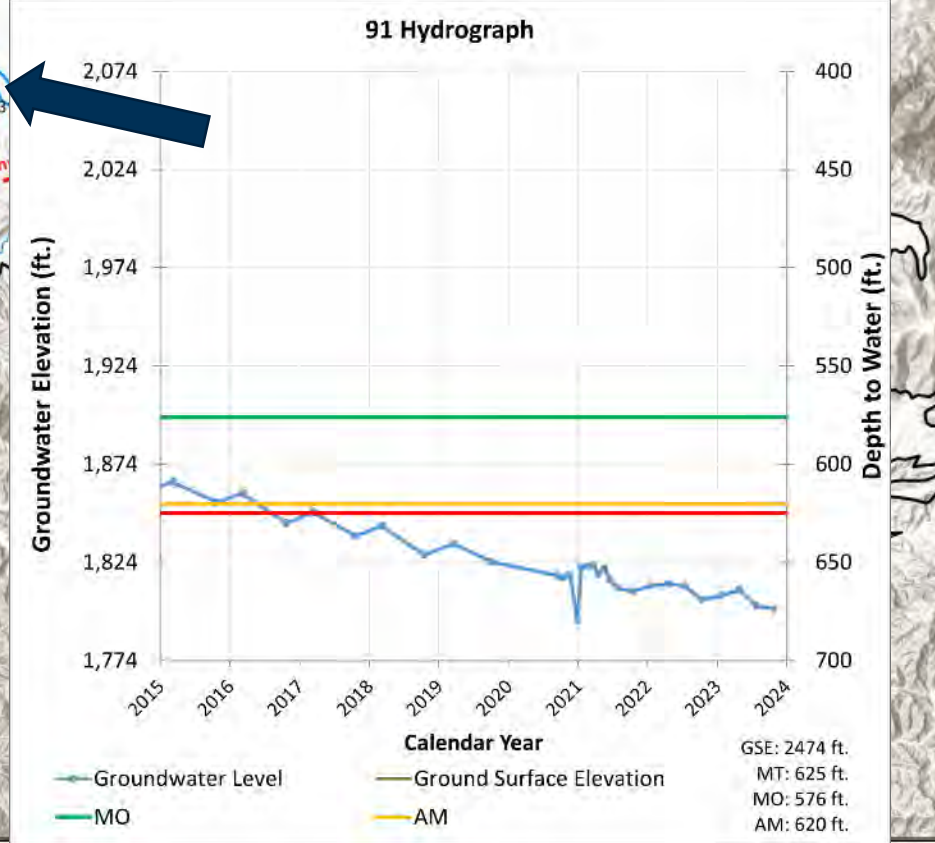
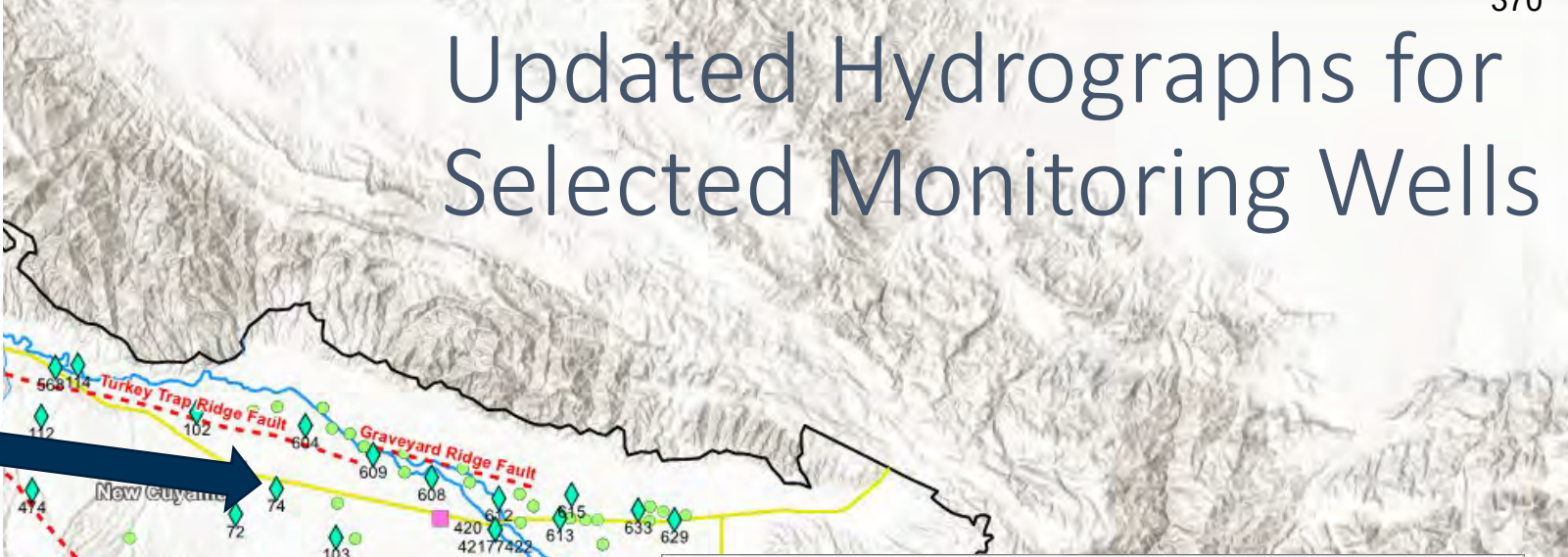
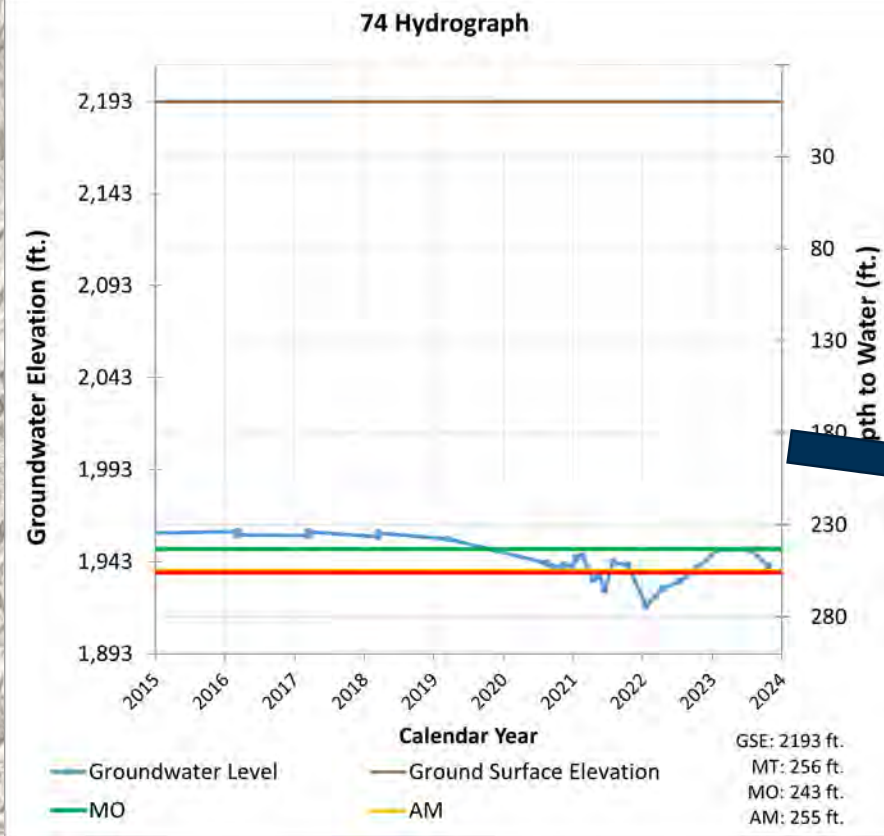


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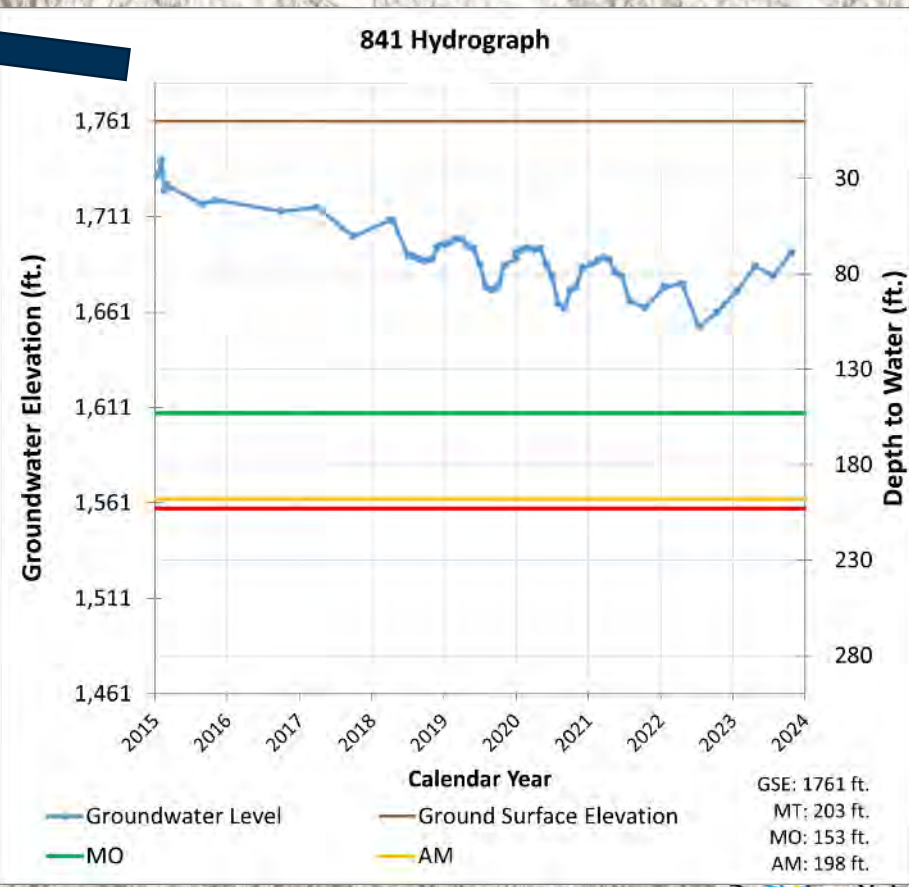
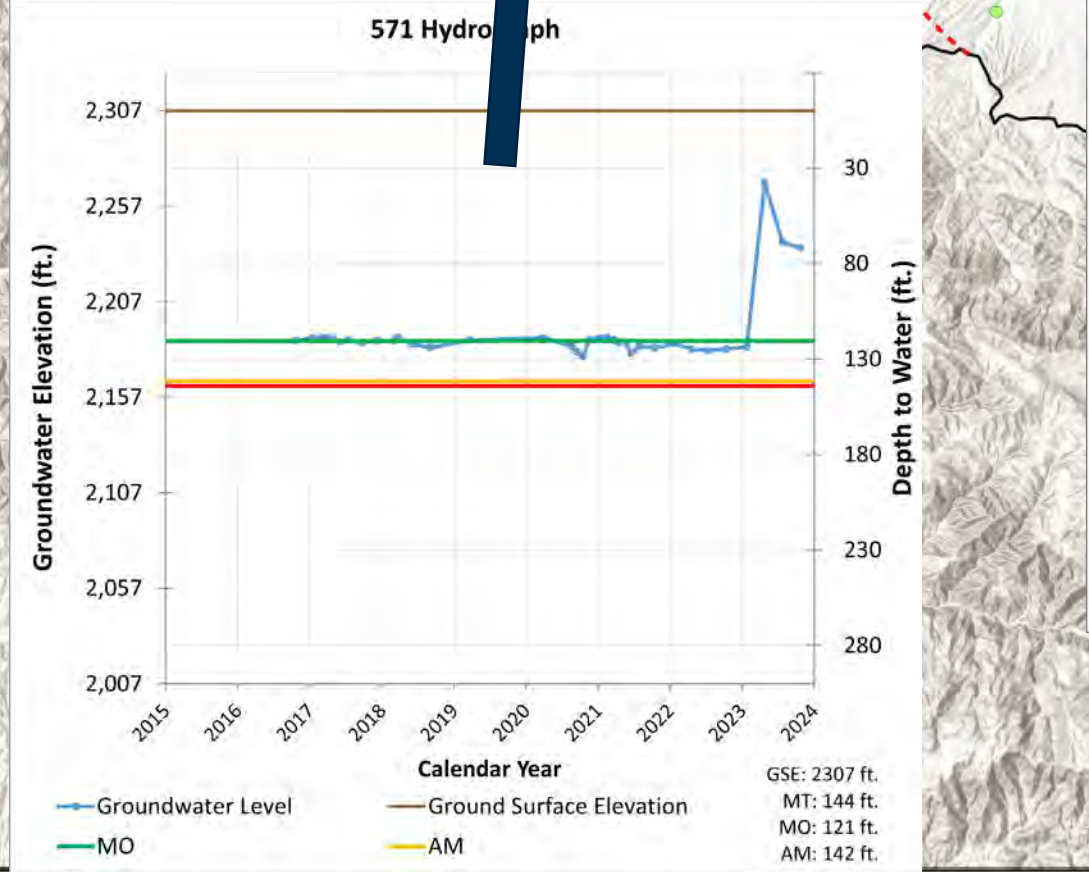
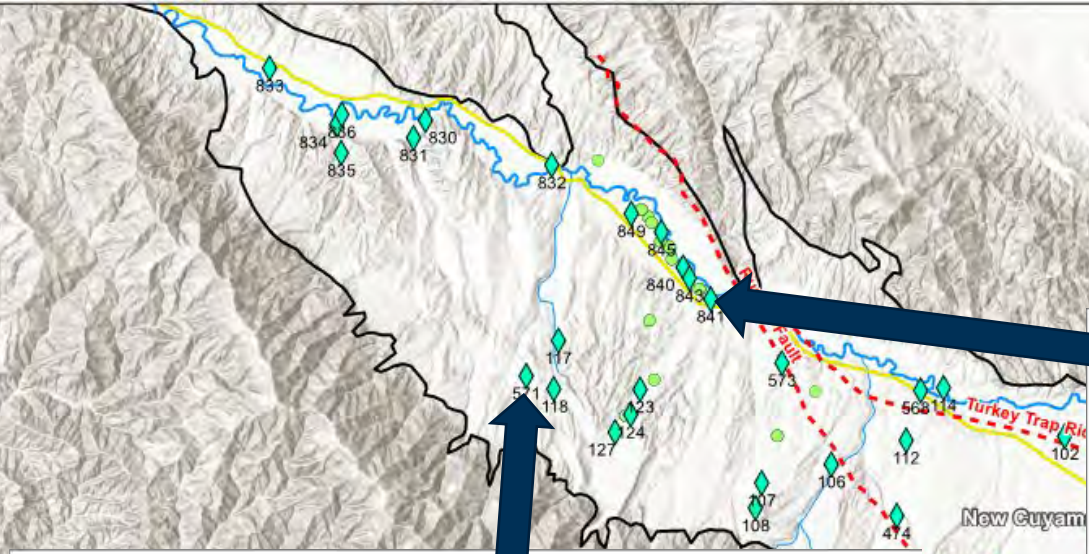
Updated Hydrographs for Selected Monitoring Wells



Updated Hydrographs for Selected Monitoring Wells



Updated Hydrographs for Selected Monitoring Wells



GSE: 1761 ft.
MT: 203 ft.
MO: 153 ft.
AM: 198 ft.



**GROUNDWATER
CONDITIONS
REPORT –
CUYAMA VALLEY
GROUNDWATER
BASIN**

October 2023

801 T Street
Sacramento, CA
916.999.8700

woodardcurran.com

**Cuyama Basin
Groundwater
Sustainability Agency**

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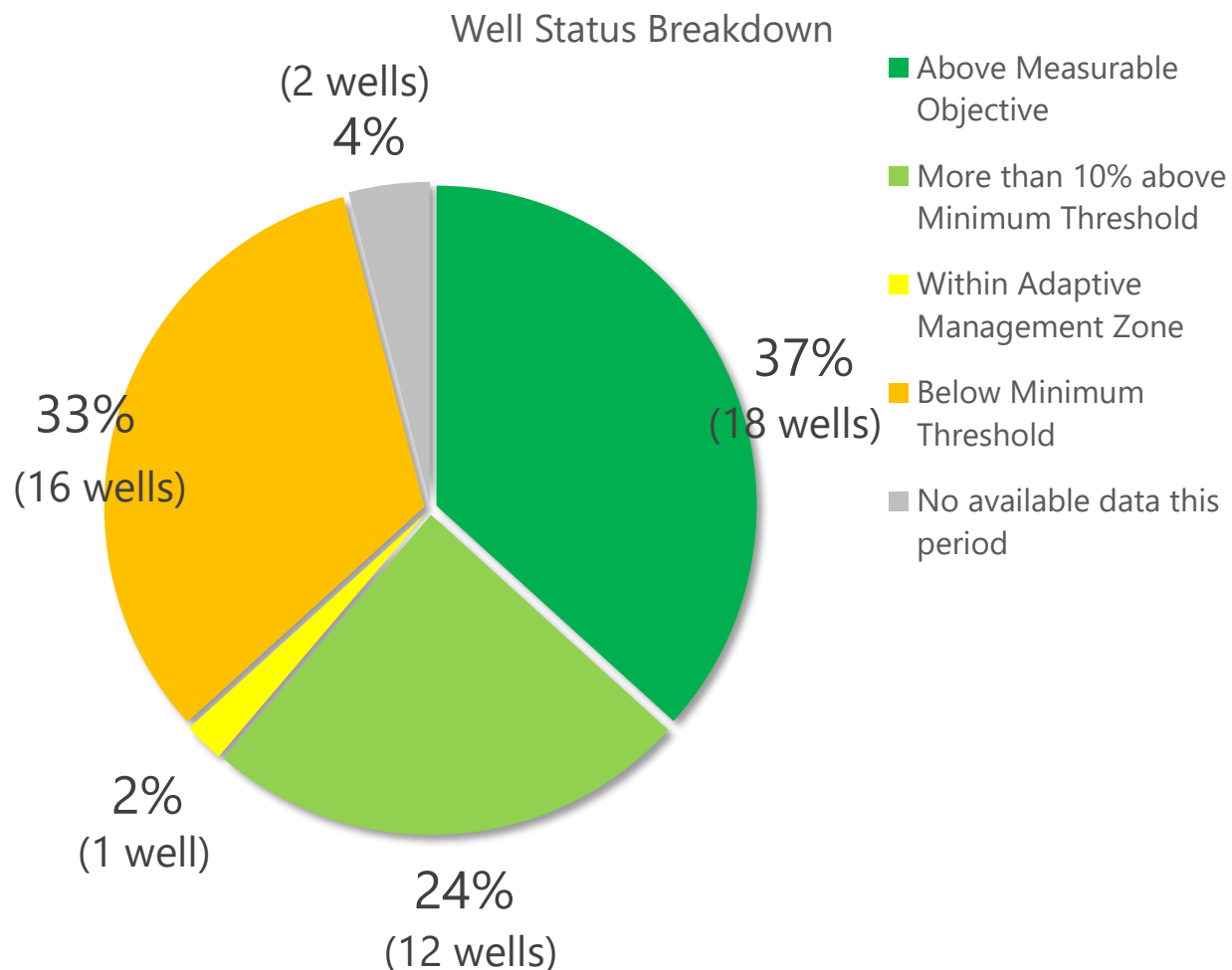
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1. INTRODUCTION

This report is intended to provide an update on the current groundwater level conditions in the Cuyama Valley Groundwater Basin. This work is completed by the Cuyama Basin Groundwater Sustainability Agency (CBGSA), in compliance with the Sustainable Groundwater Management Act (SGMA).

2. SUMMARY STATISTICS



There are currently 16 wells with groundwater levels exceeding minimum thresholds. As outlined in the GSP, undesirable results for the chronic lowering of groundwater levels occurs, "when 30 percent of representative monitoring wells... fall below their minimum groundwater elevation threshold for two consecutive years." (Cuyama GSP, pg. 3-2). Currently, 30% of representative monitoring wells (i.e. 15 wells) have been below the minimum threshold for 1 or more consecutive months.

3. CURRENT CONDITIONS

Table 1 includes the most recent groundwater level measurements taken in the Cuyama Basin from representative wells included in the Cuyama GSP Groundwater Level Monitoring Network, as well as the previous two measurements. Table 2 includes all of the wells and their current status in relation to the thresholds applied to each well. This information is also shown on Figure 1.

All measurements are also incorporated into the Cuyama DMS, which may be accessed at <https://opti.woodardcurran.com/cuyama/login.php>.

Table 1: Recent Groundwater Levels for Representative Monitoring Network

Well	Region	Apr-23	Jul-23	Oct-23	Last Year		Annual Elevation Change (ft)
		GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	Month/ Year	
72	Central	2019	2016	2017	2014	Oct-22	3
74	Central	-	1949	1940	1939	Oct-22	2
77	Central	1798	1781	1793	1779	Oct-22	14
91	Central	1810	1802	1800	1805	Oct-22	-5
95	Central	-	1837	1841	1851	Oct-22	-11
96	Central	2275	2269	2270	2269	Oct-22	1
98	Central	-	-	-	-	-	-
99	Central	2223	2181	2223	2158	Oct-22	65
102	Central	-	1598	1758	1622	Oct-22	136
103	Central	2045	2035	2044	2032	Oct-22	13
112	Central	2053	2053	2053	2053	Oct-22	0
114	Central	-	-	-	1877	Oct-22	-
316	Central	1808	1803	1799	1803	Oct-22	-4
317	Central	-	1805	1801	-	-	-
322	Central	2222	2174	2222	2156	Oct-22	66
324	Central	2220	2189	2221	2178	Oct-22	43
325	Central	2222	2202	2222	2200	Oct-22	22
420	Central	1795	1780	1792	1725	Oct-22	67
421	Central	1802	1787	1793	1787	Oct-22	6
474	Central	2202	2206	-	2203	Oct-22	-

Well	Region	Apr-23	Jul-23	Oct-23	Last Year		Annual Elevation Change (ft)
		GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	Month/ Year	
568	Central	1870	1869	1867	1851	Oct-22	16
604	Central	1656	1669	1684	-	-	-
608	Central	-	1799	1790	1782	Oct-22	8
609	Central	1705	1727	1725	1707	Oct-22	18
610	Central	1813	1806	1805	1808	Oct-22	-3
612	Central	1801	1779	1788	1786	Oct-22	1
613	Central	1788	1780	1801	1794	Oct-22	7
615	Central	1810	1812	1809	1814	Oct-22	-5
629	Central	1803	1845	1848	1812	Oct-22	37
633	Central	1851	1851	1798	1792	Oct-22	5
62	Eastern	2774	2783	2789	2757	Oct-22	32
85	Eastern	2844	2848	2870	2841	Oct-22	30
100	Eastern	2901	2911	2909	2846	Oct-22	63
101	Eastern	-	2634	2635	-	-	-
841	Northwestern	1685	1680	1692	1661	Oct-22	31
845	Northwestern	1647	1638	1637	1638	Oct-22	-1
2	Southeastern	3704	3702	3698	-	-	-
89	Southeastern	3428	3440	3432	3422	Oct-22	10
106	Western	2184	2184	2185	2182	Oct-22	3
107	Western	2390	2414	-	2390	Oct-22	-
117	Western	1950	1947	1946	1945	Oct-22	1

Well	Region	Apr-23	Jul-23	Oct-23	Last Year		Annual Elevation Change (ft)
		GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	Month/ Year	
118	Western	2214	2216	2217	2212	Oct-22	6
124	Western	-	-	-	-	-	-
571	Western	2269	2238	2235	2182	Oct-22	53
573	Western	2015	2015	2015	2012	Oct-22	3
830	Far-West Northwestern	1516	1523	1522	1508	Oct-22	15
832	Far-West Northwestern	1596	1596	1595	1588	Oct-22	7
833	Far-West Northwestern	1426	1427	1434	-	-	-
836	Far-West Northwestern	1450	1459	1456	1447	Oct-22	9



Table 2: Well Status Related to Thresholds

Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Date						
72	Central	154	10/24/2023	169	165	124	790	More than 10% above Minimum Threshold	No
74	Central	253	10/24/2023	256	255	243		More than 10% above Minimum Threshold	No
77	Central	493	10/24/2023	450	445	400	980	Below Minimum Threshold (38 months)	No
91	Central	674	10/25/2023	625	620	576	980	Below Minimum Threshold (38 months)	No
95	Central	608	10/25/2023	573	570	538	805	Below Minimum Threshold (38 months)	No
96	Central	336	10/25/2023	333	332	325	500	Below Minimum Threshold (4 months)	No
98	Central	-		450	449	439	750	No available data since GSA monitoring began	No
99	Central	290	10/24/2023	311	310	300	750	Above Measurable Objective	No
102	Central	288	10/25/2023	235	231	197		Below Minimum Threshold (31 months)	No
103	Central	244	10/25/2023	290	285	235	1030	More than 10% above Minimum Threshold	No
112	Central	86	10/25/2023	87	87	85	441	More than 10% above Minimum Threshold	No
114	Central	-	10/25/2023	47	47	45	58	No available data this period (below MT in Oct 2022, 19 months)	No



Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Date						
316	Central	675	10/25/2023	623	618	574	830	Below Minimum Threshold (38 months)	No
317	Central	673	10/25/2023	623	618	573	700	Below Minimum Threshold (38 months)	No
322	Central	291	10/24/2023	307	306	298	850	Above Measurable Objective	No
324	Central	292	10/24/2023	311	310	299	560	Above Measurable Objective	No
325	Central	291	10/24/2023	300	299	292	380	Above Measurable Objective	No
420	Central	494	10/24/2023	450	445	400	780	Below Minimum Threshold (38 months)	No
421	Central	493	10/24/2023	446	441	398	620	Below Minimum Threshold (38 months)	No
474	Central	-	10/25/2023	188	186	169	213	No data available this period (Above Measurable Objective in July 2023)	No
568	Central	37	10/25/2023	37	37	36	188	Below Minimum Threshold (1 month)	No
604	Central	440	10/24/2023	526	522	487	924	Above Measurable Objective	No
608	Central	433	10/24/2023	436	433	407	745	Within Adaptive Management Zone	No
609	Central	442	10/24/2023	458	454	421	970	More than 10% above Minimum Threshold	No
610	Central	637	10/25/2023	621	618	591	780	Below Minimum Threshold (30 months)	No
612	Central	479	10/24/2023	463	461	440	1070	Below Minimum Threshold (22 months)	No



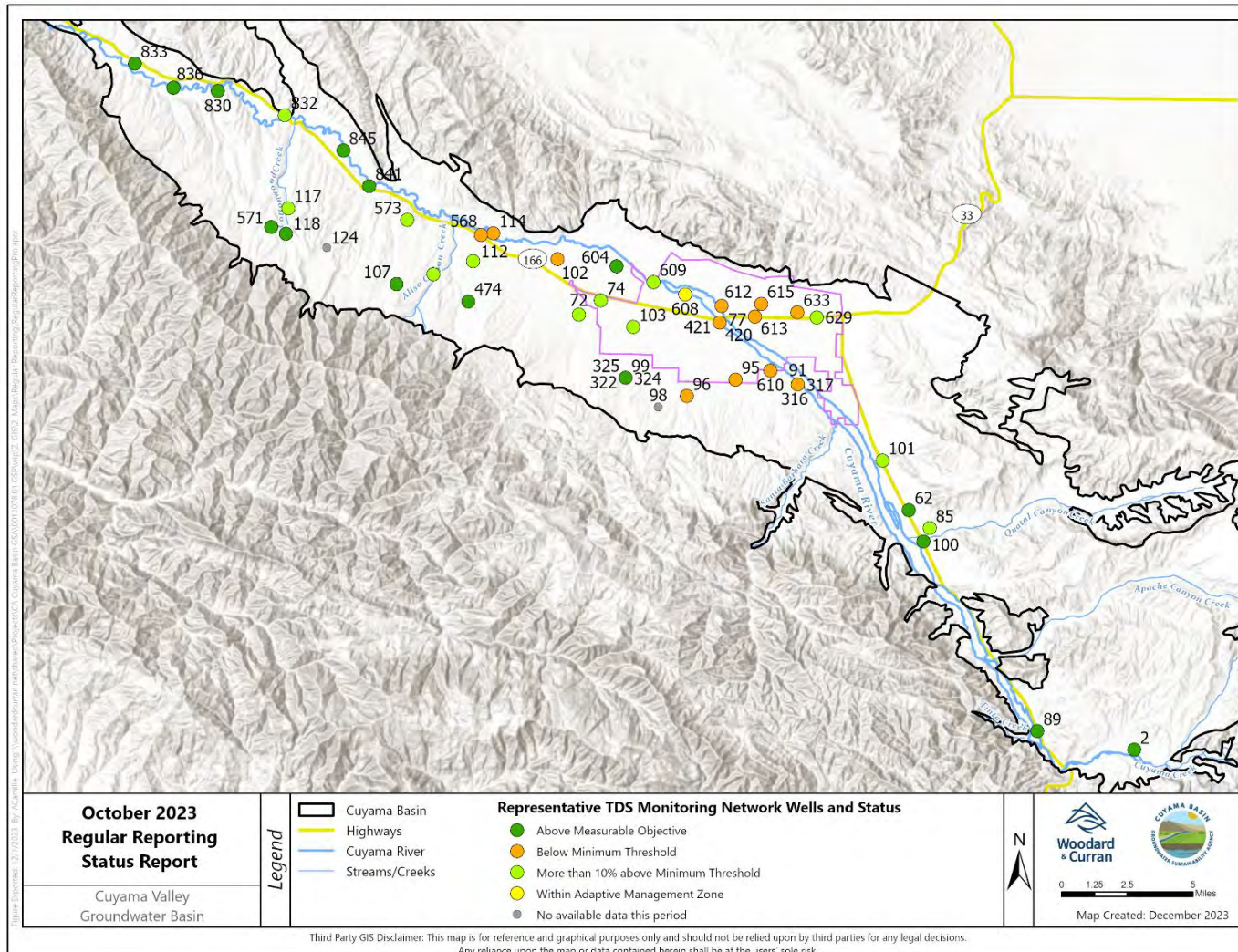
Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Date						
613	Central	530	10/24/2023	503	500	475	830	Below Minimum Threshold (36 months)	No
615	Central	518	10/24/2023	500	497	468	865	Below Minimum Threshold (35 months)	No
629	Central	530	10/24/2023	559	556	527	1000	More than 10% above Minimum Threshold	No
633	Central	566	10/24/2023	547	542	493	1000	Below Minimum Threshold 1 month)	No
62	Eastern	132	10/24/2023	182	178	142	212	Above Measurable Objective	No
85	Eastern	177	10/24/2023	233	225	147	233	More than 10% above Minimum Threshold	No
100	Eastern	95	10/24/2023	181	175	125	284	Above Measurable Objective	No
101	Eastern	106	10/24/2023	111	108	81	200	More than 10% above Minimum Threshold	No
841	Northwestern	69	10/24/2023	203	198	153	600	Above Measurable Objective	No
845	Northwestern	74	10/24/2023	203	198	153	380	Above Measurable Objective	No
2	Southeastern	22	10/24/2023	72	70	55	73	Above Measurable Objective	No
89	Southeastern	29	10/24/2023	64	62	44	125	Above Measurable Objective	No
106	Western	142	10/25/2023	154	153	141	228	More than 10% above Minimum Threshold	No
107	Western	-	10/25/2023	91	89	72	200	No data available this period (Above Measurable Objective in July 2023)	No



Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Date						
117	Western	152	10/25/2023	160	159	151	212	More than 10% above Minimum Threshold	No
118	Western	53	10/25/2023	124	117	57	500	Above Measurable Objective	No
124	Western	-		73	71	57	161	No available data since GSA monitoring began	No
571	Western	72	10/25/2023	144	142	121	280	Above Measurable Objective	No
573	Western	69	10/25/2023	118	113	68	404	More than 10% above Minimum Threshold	No
830	Far-West Northwestern	49	10/25/2023	59	59	56	77	Above Measurable Objective	No
832	Far-West Northwestern	35	10/24/2023	45	44	30	132	More than 10% above Minimum Threshold	No
833	Far-West Northwestern	23	10/24/2023	96	89	24	504	Above Measurable Objective	No
836	Far-West Northwestern	30	10/24/2023	79	75	36	325	Above Measurable Objective	No

Note: Wells only count towards the identification of undesirable results if the level measurement is below the minimum threshold for 24 consecutive months.

Figure 1: Groundwater Level Representative Wells and Status in October 2023



4. HYDROGRAPHS

The following hydrographs provide an overview of conditions in each of the six areas threshold regions identified in the GSP.

Figure 2: Southeast Region – Well 89

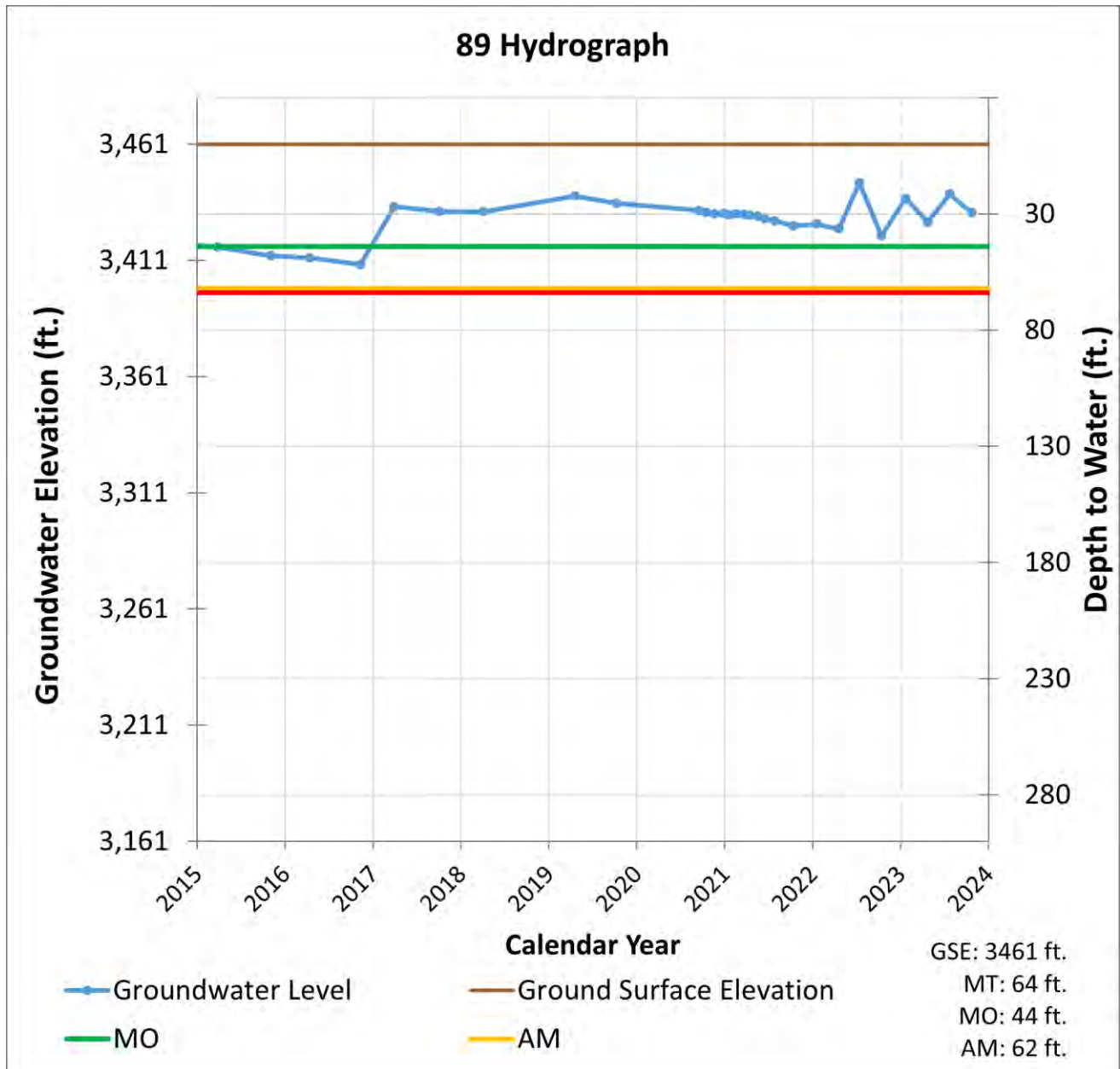


Figure 3: Eastern Region – Well 62

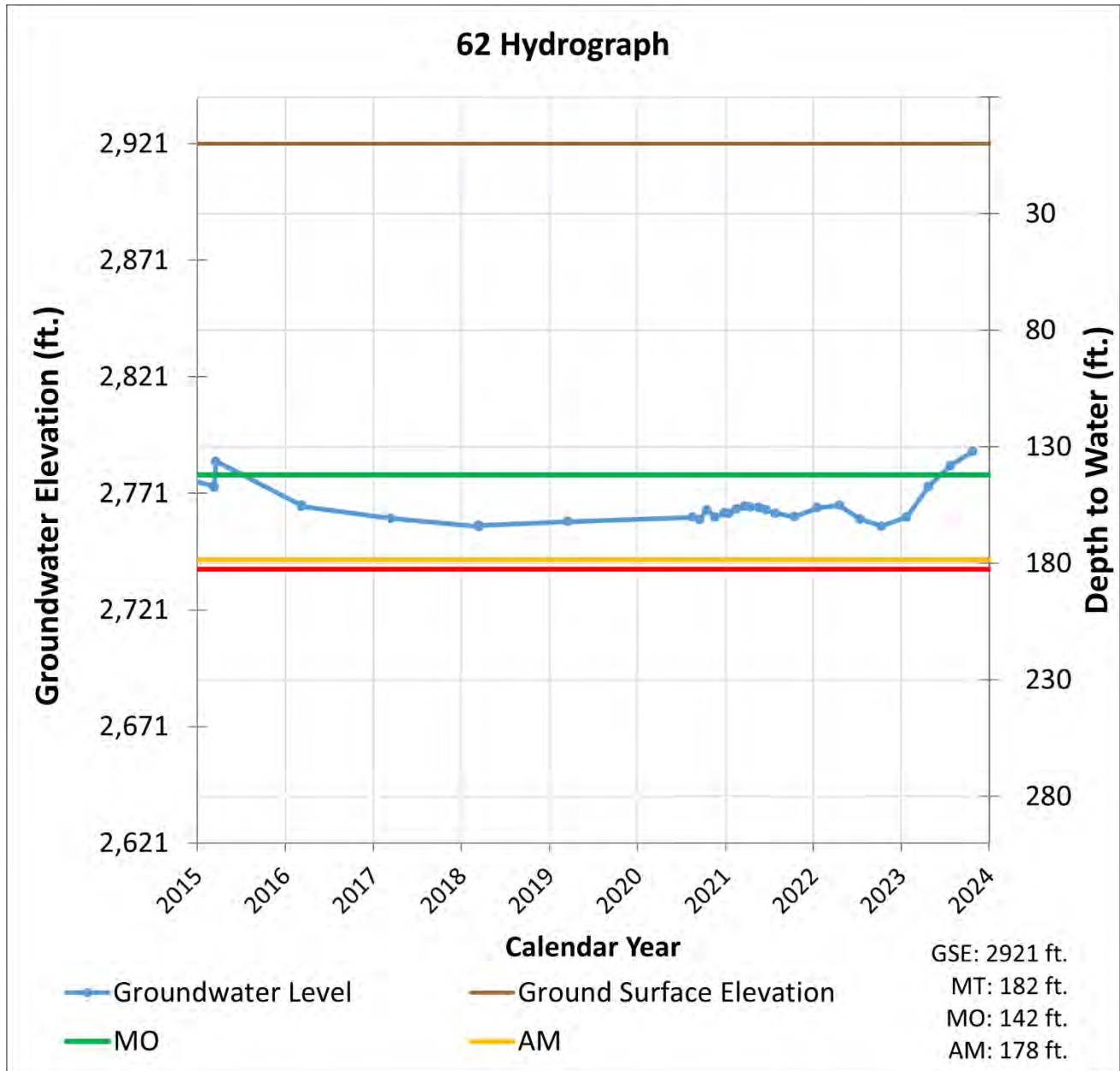


Figure 4: Central Region – Well 91

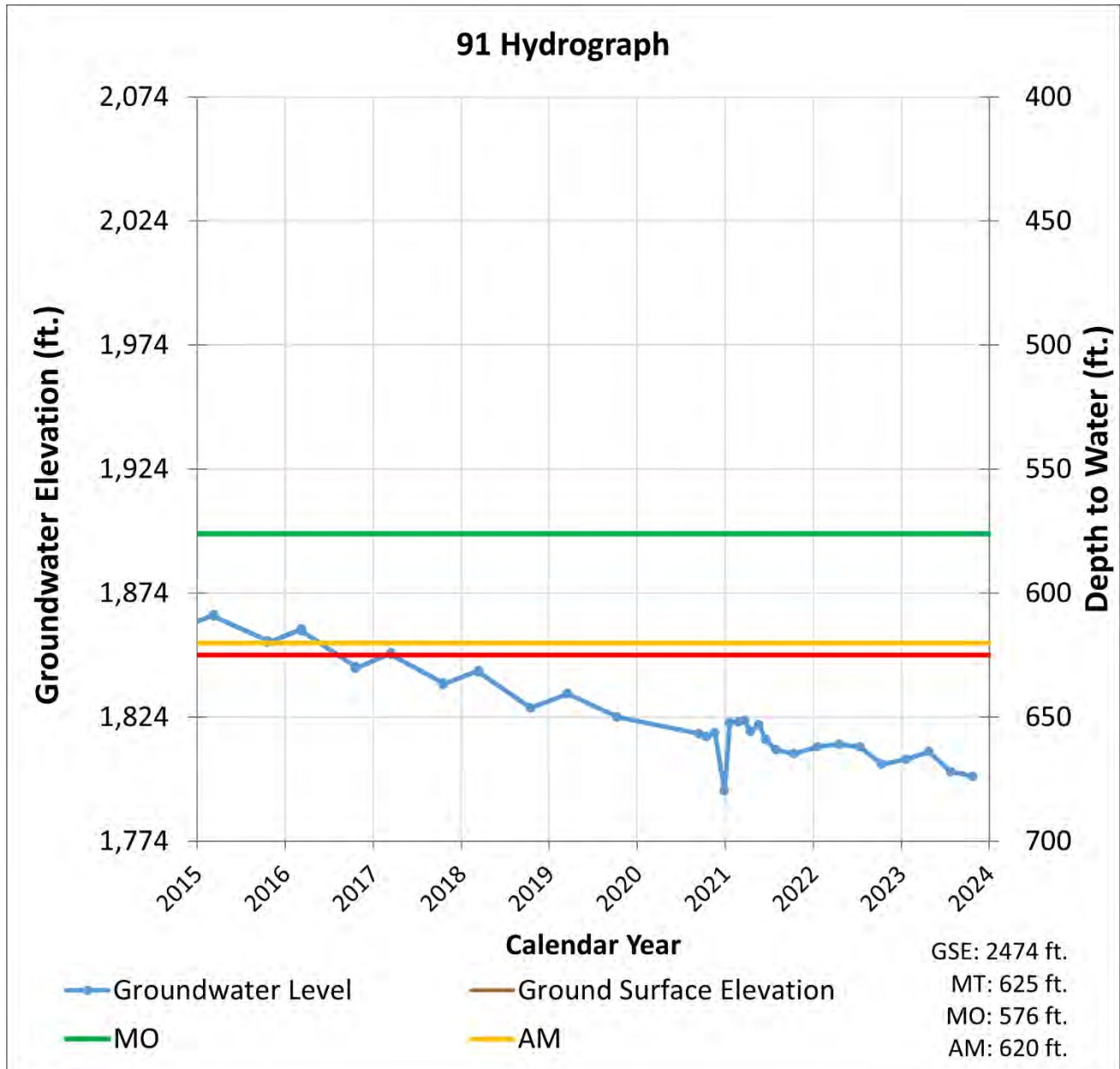


Figure 5: Central Region – Well 74

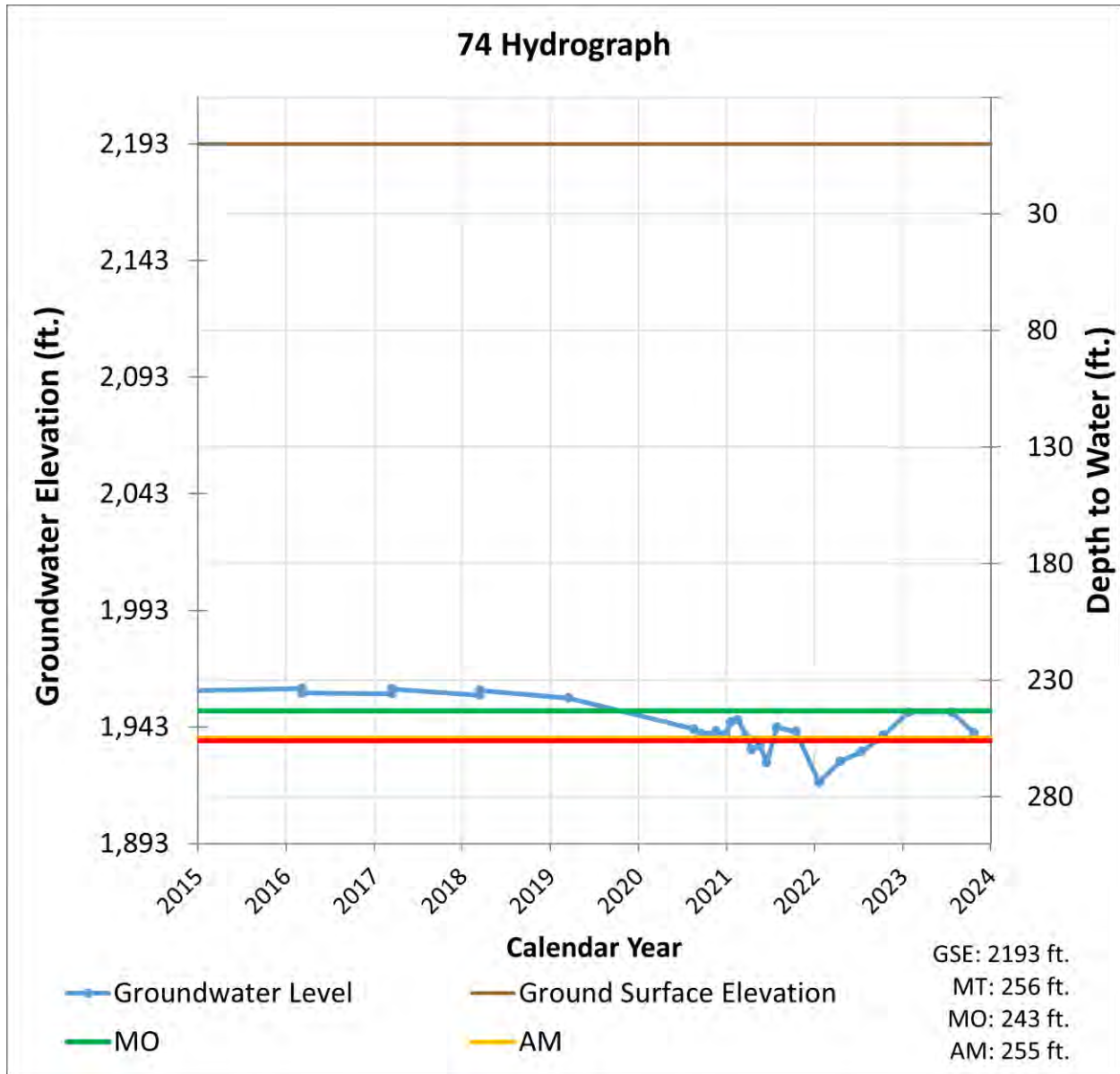


Figure 6: Western Region – Well 571

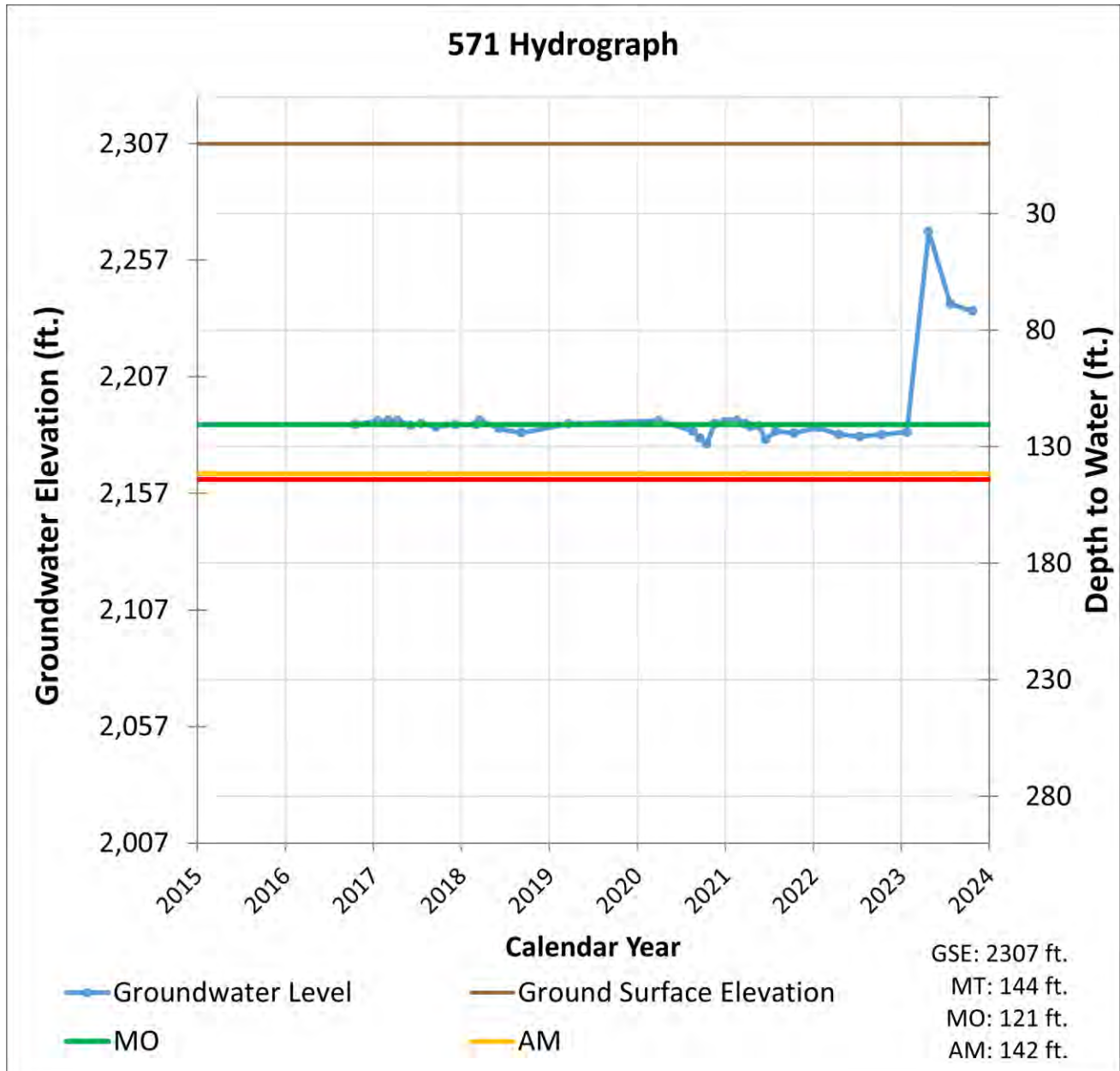
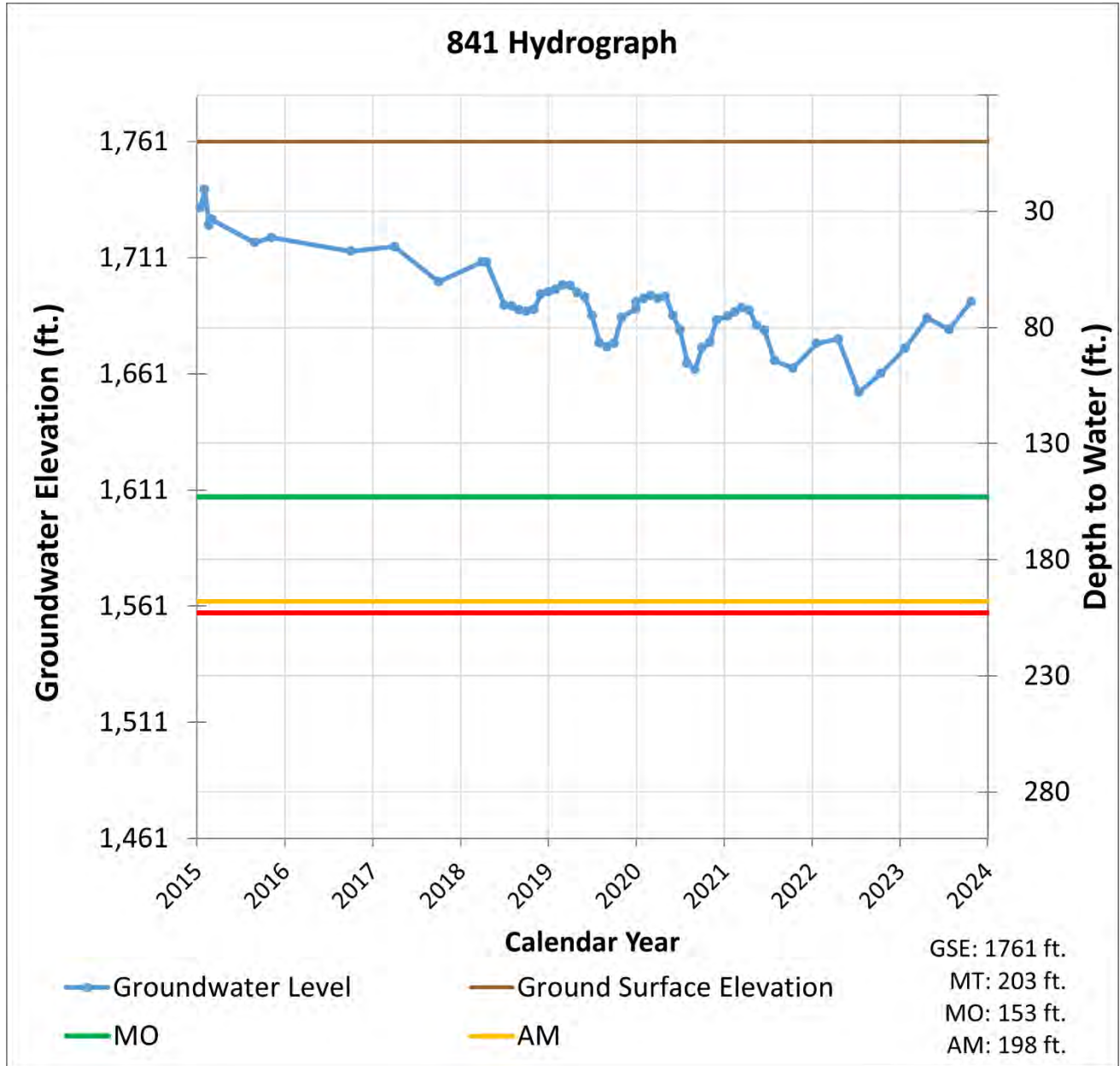


Figure 7: Northwestern Region – Well 841



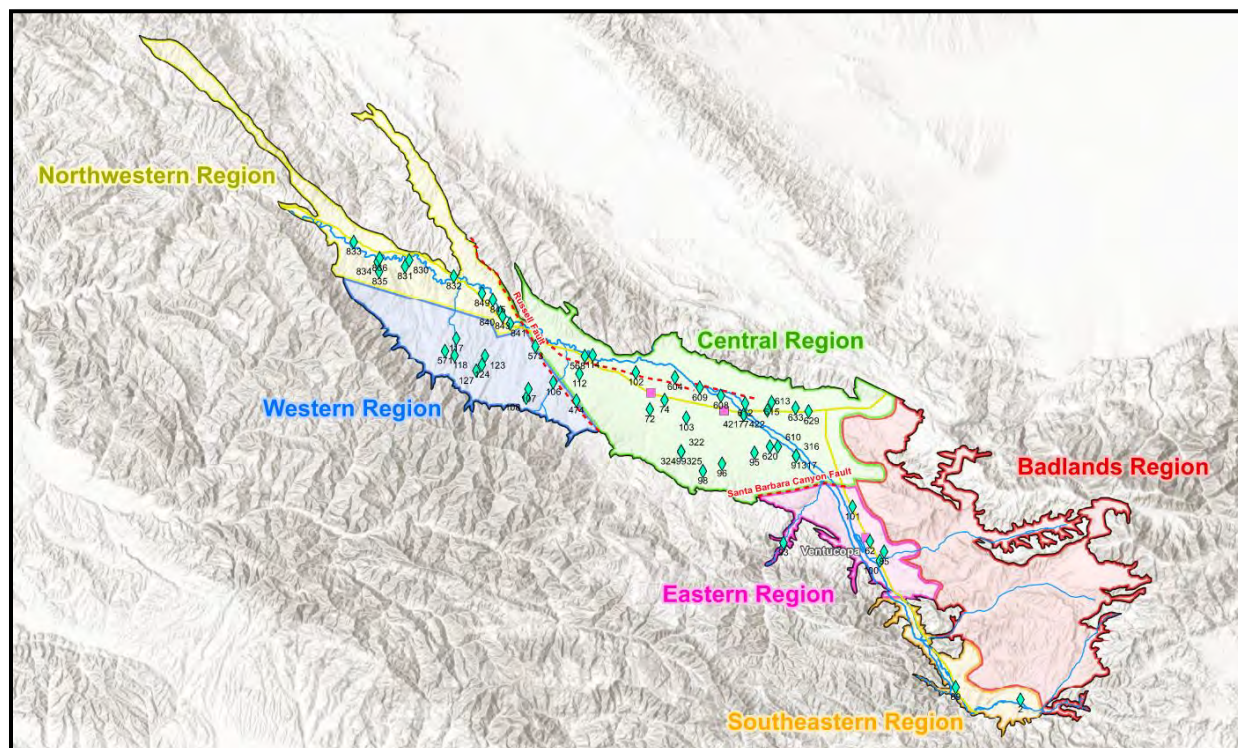


Figure 8: Threshold Regions in the Cuyama Groundwater Basin

5. MONITORING NETWORK UPDATES

As shown in Table 2, there are 5 wells with no measurement during the current monitoring period. These “no measurement codes” can have different causes as described below.

- Access agreements have not been established with the landowner:
 - Wells 98, 124
- Measurement was not possible at the time when the field technician went to take measurements:
 - Wells 107, 114, 474



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