



CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY STANDING ADVISORY COMMITTEE MEETING

Committee Members

Brenton Kelly (Chair)	Jake Furstenfeld	Roberta Jaffe
Brad DeBranch (Vice Chair)	Jean Gaillard	<i>Vacant</i>
Louise Draucker	Joe Haslett	<i>Vacant</i>

AGENDA

OCTOBER 28, 2021

Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Standing Advisory Committee meeting to be held on Thursday, October 28, 2021, at 5:00 PM. Participate via computer at: <https://global.gotomeeting.com/join/203153453>, or telephonically at (646) 749-3122, code: 203-153-453#.

1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. Adopt Resolution No. 21-111 Authorizing Use of Teleconferencing for Public Meetings Under AB 361
5. Update on SAC Membership
6. Approval of Minutes
7. Groundwater Sustainability Plan
 - a. Review of Memorandum in Response to DWR's Consultation Letter Dated June 3, 2021
 - b. Adopt Resolution No. 21-113 Enacting Corrective Actions in Response to DWR's Consultation Letter Dated June 3, 2021
 - c. Direction on Aquifer Test Program
 - d. Update on Groundwater Sustainability Plan Activities
 - e. Update on Monitoring Network Implementation
 - f. Update on Monthly Groundwater Conditions Report
8. Groundwater Sustainability Agency
 - a. Report of the Executive Director
 - b. Report of the General Counsel
 - c. Update on Coordination with Counties and Well Permitting Process
 - d. Approval of 2022 Meeting Calendar
 - e. Board of Directors Agenda Review
9. Items for Upcoming Sessions
10. Committee Forum
11. Public Comment for Items Not on the Agenda

At this time, the public may address the Committee on any item not appearing on the agenda that is within the subject matter jurisdiction of the Committee.
12. Correspondence
13. Adjourn

RESOLUTION 21-111**A RESOLUTION OF
THE STANDING ADVISORY COMMITTEE OF THE
CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY
AUTHORIZING USE OF TELECONFERENCING FOR PUBLIC MEETINGS UNDER
AB 361**

WHEREAS, the Governor of the State of California (Governor) proclaimed a State of Emergency to exist as a result of the threat of COVID-19. (Governor's Proclamation of a State of Emergency (Mar. 4, 2020));

WHEREAS, the Governor's Executive Order No. N-25-20 (Mar. 12, 2020); Governor's Executive Order No. N-29-20 (Mar. 17, 2020); and Governor's Executive Order No. N-08-21 (Jun. 11, 2021) provided that local legislative bodies may hold public meetings via teleconferencing and make public meetings accessible telephonically or otherwise electronically to all members of the public seeking to observe and to address the local legislative body and waived the Brown Act provisions found in Government Code section 54953(b)(3) which require the physical presence of the members, the clerk, or other personnel of the body, or the public, as a condition of participation in, or quorum for, a public meeting, including the requirement that:

1. State and local bodies notice each teleconference location from which a member will be participating in a public meeting.
2. Each teleconference location be accessible to the public.
3. Members of the public may address the body at each teleconference location.
4. State and local bodies post agendas at all teleconference locations.
5. During teleconference meetings at least a quorum of the members of the local body participate from locations within the boundaries of the territory over which the local body exercises jurisdiction.

WHEREAS, the provisions of Governor's Executive Order No. N-25-20 (Mar. 12, 2020); Governor's Executive Order No. N-29-20 (Mar. 17, 2020); and Governor's Executive Order No. N-08-21 (Jun. 11, 2021) expired on September 30, 2021 and will no longer remain in effect thereafter;

WHEREAS, the Center for Disease Control is currently contending with the Delta Variant of the COVID-19 virus and anticipates the development of potential other strains which may further impede public agency operations and prolong the need for social distancing requirements; and

WHEREAS, recent legislation (AB 361) authorizes a local legislative body to use teleconferencing for a public meeting without complying with the Brown Act's teleconferencing quorum, meeting notice, and agenda requirements set forth in Government Code section 54953(b)(3), in any of the following circumstances:

Attachment 1

1. The legislative body holds a meeting during a proclaimed state of emergency, and state or local officials have imposed or recommended measures to promote social distancing.
2. The legislative body holds a meeting during a proclaimed state of emergency for purposes of determining, by majority vote, whether as a result of the emergency, meeting in person would present imminent risks to the health and safety of attendees.
3. The legislative body holds a meeting during a proclaimed state of emergency and has determined by majority vote pursuant to 2 above that, as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees.

NOW, THEREFORE, BE IT RESOLVED by the Standing Advisory Committee of the Cuyama Basin Groundwater Sustainability Agency as follows:

1. Determination of Imminent Health or Safety Risks. The Standing Advisory Committee hereby determines by majority vote that, as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees.

2. Continued Implementation of AB 361. If the state of emergency remains in effect and meeting in person would present imminent risks to the health or safety of attendees, the Board of Directors shall, to continue meeting subject to the provisions set forth in AB 361 and the Brown Act, no later than 30 days after it adopts this Resolution and every 30 days thereafter, make the following findings by majority vote:

1. The Standing Advisory Committee has reconsidered the circumstances of the state of emergency; *and*
2. Either (1) the state of emergency continues to directly impact the ability of the members to meet safely in person; or (2) state or local officials impose or recommend measures to promote social distancing.

PASSED, APPROVED AND ADOPTED this 28th day of October 2021.

Brenton Kelly, Chair

ATTEST:

Cuyama Basin Groundwater Sustainability Agency Standing Advisory Committee Meeting

August 11, 2021

Draft Meetings Minutes

PRESENT:

Kelly, Brenton – Chair
DeBranch, Brad – Vice Chair
Draucker, Louise
Furstenfeld, Jake
Gaillard, Jean
Haslett, Joe
Jaffe, Roberta
Beck, Jim – Executive Director
Brian Van Lienden, Woodard & Curran
Blakslee, Taylor – Project Manager
Dominguez, Alex – Legal Counsel

Lorena Stoller, CBGSA Director

ABSENT:

None

1. Call to Order

Cuyama Basin Groundwater Sustainability Agency (CBGSA) Standing Advisory Committee (SAC) Chair Brenton Kelly called the meeting to order at 5:00 p.m. and Hallmark Group Project Manager Taylor Blakslee provided direction on the meeting protocols in facilitating a hybrid in-person/remote meeting.

2. Roll Call

Hallmark Group Project Manager Taylor Blakslee called roll of the Committee (shown above).

3. Pledge of Allegiance

Chair Kelly led the pledge of allegiance.

4. CBGSA Staffing Update

CBGSA Executive Director Jim Beck informed the SAC that Woodard & Curran hydrogeologist John Ayres went to work for the California Department of Water Resources and Richard Sturn, a hydrogeologist, has been hired by W&C to serve the CBGSA. Mr. Sturn introduced himself and said he looked forward to working with the CBGSA.

5. Update on SAC Membership

Chair Kelly reported that there remain vacancies for representatives of the Hispanic community and said if anyone knows someone that is interested in serving to let himself or Mr. Blakslee know.

6. Approval of Minutes

Chair Kelly opened the floor for comments on the April 29, 2021, CBGSA SAC meeting minutes and no changes were suggested.

MOTION

Committee Member DeBranch made a motion to adopt the April 29, 2021, CBGSA SAC meeting minutes. The motion was seconded by Committee Member Furstenfeld, a roll call vote was made, and the motion passed.

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

7. Groundwater Sustainability Plan

a. Direction on DWR's GSP Consultation Letter Dated June 3, 2021

Mr. Beck provided background on a comment letter received by the California Department of Water Resources (DWR) to provide an advanced review of the CBGSA Groundwater Sustainability Plan (GSP) which can be found in the SAC packet. He said that DWR's recommended changes do not seem insurmountable to address ahead of DWR's final determination to be made in January 2022 and staff has developed potential options for the SAC and Board to consider.

Committee Member Jaffe asked what a memo to DWR would entail. Mr. Beck said it depends ultimately on what the Board decides but it would likely include the result of some technical analyses and additional narrative around DWR's proposed corrective actions.

Chair Kelly asked how iterative this process will be with the SAC and DWR. Mr. Beck said he expects a number of touch base meetings with DWR and review with the SAC and Board in October 2021. DWR representative Anita Regmi said DWR staff will be available for meetings, however, many meetings may not be possible due to impending statutory deadlines DWR must meet.

Woodard & Curran project manager Brian Van Lienden provided an update on the DWR GSP review schedule which is included in the packet.

Mr. Van Lienden discussed DWR's four potential corrective actions and potential options to address DWR's concerns.

Corrective Action No. 1 – Provide justification for, and effects associated with, the sustainable management criteria

Committee Member Gaillard asked what a field biologist would do and asked if we should consider a hydrogeologist to determine where the water is coming from. Mr. Van Lienden replied that biologist would be predominantly investigating the Groundwater Dependent Ecosystem (GDE) based on the existing ecosystem, but staff will consider Committee Gaillard's suggestion.

Committee Member Jaffe asked if the technical analysis would address if the undesirable results trigger is an acceptable metric. Mr. Beck said, yes, the analysis will do this. Mr. Van Lienden said we would be building the narrative around the technical work that has already been completed. Committee Member Jaffe asked if there is room to adjust the undesirable results trigger based on

the results of the technical analysis. Mr. Beck said the way he interpreted DWR's request was to explain how the 30 percent trigger was determined. She asked how the northwestern region could be studied more if we do not have enough data. Mr. Beck said we believe we could perform a discrete analysis to study this question based on the model. Mr. Van Lienden informed the SAC that the current version of the model does not show overdraft in the northwestern region even at fully development.

Committee Member DeBranch asked if the staff recommendation and Woodard & Curran's scope of work is included in the current budget. Mr. Van Lienden said the budget for the current year included \$50,000 to respond to DWR's comments and he thinks they will be able to accommodate what needs to be done to address the corrective actions, pending Board direction.

Ms. Regmi reminded the SAC that two upcoming rounds of grant funding will be available to make planning changes to the GSP but would take several months to be awarded.

Local landowner Kathleen Marsh expressed concern with the 20-year sustainability implementation timeline and noted that groundwater levels may continue to fall for some time. Mr. Beck replied that the Sustainable Groundwater Management Act legislation established the implementation timeline.

Cuyama Valley Family Resource Center Lynn Carlisle asked if the 30 percent trigger has been effective specifically when 45 percent of representative wells are below their minimum thresholds as shown in the June 2021 groundwater conditions report. Mr. Beck replied that the undesirable results trigger was determined with the data we had at the time the GSP was created. Mr. Van Lienden added that in addition to the undesirable results threshold, the GSP established a parallel process of adaptive management to review wells that are experiencing levels below their minimum threshold.

MOTION

Chair Kelly made a motion to perform a technical analysis including with staff observations, and revisions to minimum threshold and undesirable results statements in an action plan and schedule. The motion was seconded by Committee Member Draucker, a roll call vote was made, and the motion passed.

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

Corrective Action No. 2 – Use of groundwater levels as a proxy for depletion of interconnected surface water

Mr. Van Lienden provided background on the limited data for measuring interconnected stream flows and presented potential options.

MOTION

Vice Chair Kelly made a motion to accept the potential options including the staff observations and the development of the appropriate undesirable results criteria described in an action plan and schedule. The motion was seconded by Committee Member Furstenfeld, a roll call vote was made, and the motion passed.

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

Corrective Action No. 3 – Further address degraded water quality

Mr. Van Lienden provided background on DWR’s corrective action regarding further degradation of water quality.

Committee Member Haslett suggested connecting with the existing Irrigated Land Regulatory Program which already regulates nitrates and Mr. Beck commented that staff was discussed this with DWR, and they agreed with coordinating with those programs.

Ms. Regmi clarified that DWR provided two options to address further degradation of water quality which were (1) either provide sustainable management criteria for arsenic and nitrate, *or* (2) provide a thorough, evidence-based description for why groundwater management is unlikely to cause significant and unreasonable degradation of groundwater

MOTION

Committee Member Jaffe made a motion to accept the following potential options:

- The GSA should develop nitrate and arsenic sustainability criteria at each water quality monitoring well where historical data exists and will consider background water quality and agricultural and domestic water criteria.
- A single measurement of nitrate and arsenic should be taken in 2022 at all water quality wells to establish a Baseline and then the GSA can consider refinement of the size of the network once we have this baseline data.
- The memorandum should include description of a monitoring network and sustainability criteria (including MT and MO) for arsenic and nitrates in addition to TDS and include an updated undesirable results narrative for water quality.

and develop appropriate undesirable results criteria to be described in an action plan and schedule. The motion was seconded by Committee Member Haslett, a roll call vote was made, and the motion passed.

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

Corrective Action No. 4 – Provide explanation for how overdraft will be mitigated in the Basin

Mr. Van Lienden provided background on DWR’s corrective action to provide an explanation for how the overdraft will be mitigated in the Basin, specifically in the Ventucopa and Northwestern region and presented potential options for those two areas.

Committee Member Jaffe asked if the analysis would consider the area in the far northwestern region and noted some levels are decreasing.

Chair Kelly asked if the SAC had a motion, but none was made. He commented that he does not believe the potential options address how overdraft will be mitigated, and this corrective action will

require more work.

b. Direction on Small Pumpers Policy

Mr. Beck provided an update on the policy for small pumpers as described in the SAC packet.

Committee Member Jaffe asked if the 25 acre-feet or less criteria are based per well or per parcel and Mr. Blakslee replied that the Board determined it was based on a water user.

Committee Member Haslett said based on the evapotranspiration values, his wells cannot pump that much and thus are not accurate for his water use. Chair Kelly commented that this is one of the challenges with evapotranspiration.

Chair Kelly asked for more detail on the small pumper statistics (i.e. how many wells do they make up and how much total water is used).

c. Direction on Adaptive Management

Mr. Beck provided an overview of the adaptive management recommendations developed by the Adaptive Management Ad hoc which are summarized in the SAC packet.

Chair Kelly asked who is on the ad hoc and Mr. Blakslee replied it is comprised of Directors Bantilan, Vickery, Shephard and Yurosek.

Committee Member Jaffe expressed concern with the adaptive management direction and asked how often the wells below their minimum thresholds would be reviewed. Mr. Beck suggested to review every time we receive new groundwater level data.

Chair Kelly requested that the ad hoc consider options on the presentation other than the “do-nothing in the near-term” option. Committee Member Jaffe commented that she can appreciate the ad hoc members task to consider this topic but none of them are local to Cuyama. She asked if the CBGSA is open to residents filing reports of water use issues for the CBGSA to consider. Mr. Beck replied that the CBGSA encourages landowners to contact Mr. Blakslee regarding impacts to their wells and Committee Member Jaffe suggested formalizing this process and review reports at the SAC. Mr. Beck commented that staff could add a survey on the CBGSA’s website for landowners to report issues with their wells.

Ms. Carlisle asked if the Adaptive Management ad hoc made its recommendation with consideration to the DWR consultation letter. Mr. Beck said we had received the DWR letter prior to the ad hoc meeting.

Committee Member Gaillard noted that some wells have maintained static levels which should also be reported to DWR. He said that not everything is negative and there are some improvements in the basin.

d. Approval of Monitoring Network Consultant Contract for FY 21-22

Mr. Blakslee provided an update on the monitoring network consultant contracts for FY 21-22 which are within the budget approved by the Board on May 5, 2021. He noted that staff asked for the cost of an optional task to perform nitrate and arsenic monitoring to provide the Board with information to consider in light of the DWR consultation letter recommending monitoring for nitrates and arsenic.

e. Review of Model Update Process

Mr. Van Lienden provided an overview of the model update and reviewed timelines for different update components of the model.

Chair Kelly asked if Grapevine Capital was still willing to perform aquifer tests and staff said they would look into this.

Committee Member Gaillard said aquifer testing is important to determine adjacent well interference. Chair Kelly asked if additional boreholes will be drilled, and Mr. Van Lienden said no staff will be using existing boreholes for this analysis.

Ms. Carlisle asked how the CBWD decision to defer the delegation would affect the schedule. Mr. Beck said we have not factored how that will be handled at this point since the letter was received on August 5, 2021, and will be discussing this in more detail at the August 18, 2021 Board meeting.

f. Update on Coordination with Counties and Well Permitting Process

Mr. Beck provided an update on discussion with the counties and well permitting department to increase communication of potential water management restrictions in the Cuyama Basin.

Committee Member Jaffe said she was encouraged by these meetings and expressed how important these discussions are. She commented that new well applications are extremely high and asked how the CBGSA could consider options to restrict new pumping of water. Mr. Beck said the CBGSA could elect to implement restrictions that are unique to a subset of well users. He said this debate and the legal issues related to this question are being considered throughout the State. He said we will be looking to our legal team to provide sideboards of what we can do in regard to this.

Chair Kelly asked if the CBGSA could set a well density minimum. Legal counsel Alex Dominquez commented that the GSA has the authority to regulate, limit or suspend the construction of new wells or the enlargement of existing wells, but the way this is coordinated between the counties and GSAs is being wrestled with throughout the State.

Committee Member Jaffe encouraged staff discuss the idea of a moratorium on new wells in discussions with the other counties.

g. Update on Groundwater Sustainability Plan Activities

Mr. Van Lienden provided an update on GSP activities and Mr. Blakslee provided an overview of the project schedule. Committee Member Jaffe asked if the GDE implementation is being pushed back again. Mr. Blakslee let her know that the GDE implementation schedule reflects the Board's decision on May 5, 2021, to defer the GDE network until applying for grant funding in the fall.

h. Update on Monitoring Network Implementation

Mr. Van Lienden provided an update on implementation activities which is summarized in the SAC packet.

i. Update on Monthly Groundwater Conditions Report

Mr. Van Lienden provided an update on the April through June 2021 groundwater conditions report.

Ms. Carlisle asked how the wells in the representative network without levels are going to be

handled going forward. She said this is a limitation of the CBGSA's ability to determine sustainability and asked if there is a plan to address this data gap. Committee Member Jaffe asked if the SAC could make a recommendation to eliminate wells if the landowner is not allowing measurements. Committee Member Gaillard suggested looking for other representative wells in lieu of further reducing the size of the representative network. Mr. Beck said staff will develop potential options to address these two issues (landowner communication issues and procuring static groundwater levels) and report back to the SAC and Board.

Chair Kelly asked if it would be helpful to ask landowners to participate in the monitoring network in areas where the representative wells are old and not suitable for monitoring and Mr. Beck replied, yes, and have those potential landowners to contact Mr. Blakslee.

8. Groundwater Sustainability Agency

a. Report of the Executive Director

Mr. Beck reported that staff is responding to a DWR survey regarding the need for grant funding.

b. Board of Directors Agenda Review

Mr. Beck provided an overview of the August 18, 2021, CBGSA Board of Directors meeting agenda which is provided in the SAC packet.

c. Report of the General Counsel

Nothing to report.

9. Items for Upcoming Sessions

Ms. Carlisle asked when we will be discussing management area issues and the recent Cuyama Basin Water District letter and Mr. Beck said we will discuss that with the Board next week.

10. Committee Forum

Nothing to report.

a. Update on Cannabis Industry Activities

Committee Member Jaffe reported on the Cuyama Valley Cannabis Advisory Committee (CVCAC) guidelines that were approved by the CVCAC and the County of Santa Barbara that established offsets for new irrigation of cannabis. She commented that she hopes that the CBGSA will develop policies to provide coverage for these issues in the future.

11. Public Comment for Items Not on the Agenda

Nothing to report.

12. Correspondence

Mr. Blakslee let the SAC know staff received a letter from the CBWD dated August 5, 2021, regarding comments on DWR's potential corrective actions and deferring management area implementation.

Committee Member Jaffe asked for Mr. Beck's thoughts on the letter, and he commented that it is best to ask those that wrote the letter but said staff has considered how they might move forward with implementing the pumping reductions if the CBWD is unable to by the first pumping reduction deadline in 2023.

13. Adjourn

Chair Kelly adjourned the meeting at 9:04 p.m.

Minutes approved by the Standing Advisory Committee of the Cuyama Basin Groundwater Sustainability Agency the 28th day of October 2021.

STANDING ADVISORY COMMITTEE OF THE
CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Chair: _____

ATTEST:

Vice Chair: _____

DRAFT



TO: Standing Advisory Committee
Agenda Item No. 7a

FROM: Jim Beck / Brian Van Lienden

DATE: October 28, 2021

SUBJECT: Review of Memorandum in Response to DWR's GSP Consultation Letter Dated June 3, 2021

Issue

Review of the memorandum responding to DWR's GSP consultation letter dated June 3, 2021.

Recommended Motion

None—for discussion and review.

Discussion

In response to the California Department of Water Resources' (DWR) consultation letter dated June 3, 2021, the Cuyama Basin Groundwater Sustainability Agency (CBGSA) staff developed a technical memorandum responding to DWR's potential corrective actions.

An overview of the analysis is provided as Attachment 1, the complete technical memorandum is provided as Attachment 2 and includes DWR's June 3rd consultation letter and the CBGSA's response letter. The technical memorandum was reviewed by the CBGSA DWR Coordination Ad hoc.

Agenda item 7b is a resolution enacting the technical memorandum and authorizing submission to DWR. DWR staff informed the CBGSA that they will not have the staff time to adequately review this additional technical analysis ahead of their official determination on the CBGSA's Groundwater Sustainability Plan due January 28, 2022. However, they will consider this information during the 180-day period that will start January 29, 2022.

Cuyama Basin Groundwater Sustainability Agency

Review of Memorandum in Response to DWR's Consultation Letter Jim Beck / Brian Van Lienden

October 28, 2021

Background

- SGMA guidelines require that DWR review submitted GSPs and provide a determination, reflecting one of three options:
 - **Approved**
 - **Incomplete:** DWR would identify deficiencies that required corrective action
 - These would then need to be addressed within 180 days
 - **Inadequate:** DWR would disapprove the plan
- DWR's determination must be made within 2 years of GSP submittal (by Jan 2022 for the Cuyama GSP)

Timeline

- **June 3, 2021:** DWR provided the Cuyama Basin GSA with a letter intended to initiate consultation between DWR and the CBGSA in advance of a GSP determination
- **July 9, 2021:** DWR and CBGSA representatives had a call to discuss the letter and what the CBGSA could do to respond to it
- **July 23, 2021:** CBGSA staff met with technical representatives of public agencies to review and receive feedback on proposed CBGSA response to DWR letter
- **August 27, 2021:** The CBGSA provided a response letter to DWR describing intended responses to each DWR potential corrective action
- **September 10, 2021:** CBGSA ad-hoc committee members and staff met with DWR staff to discuss the DWR letter and CBGSA proposed response

GSP Review and Determination Process



Summary of DWR Consultation Letter and Draft CBGSA Tech Memo

- DWR's letter included four potential corrective actions:
 1. Provide justification for, and effects associated with, the sustainable management criteria
 2. Use of groundwater levels as a proxy for depletion of interconnected surface water
 3. Further address degraded water quality
 4. Provide explanation for how overdraft will be mitigated in the Basin
- The draft CBGSA memo provides the following for each corrective action:
 - Summary of DWR review and opinion
 - Review of information provided in the Cuyama Basin GSP
 - Supplemental GSP information in response to DWR comment letter

Potential Corrective Action 1:

18

Provide justification for, and effects associated with, the sustainable management criteria

- DWR Direction:
 - Provide more detailed information regarding rationale for undesirable results and minimum thresholds
 - Provide an explanation for why the 30% of wells over 2 years criterion for undesirable results is consistent with avoiding significant and unreasonable effects
 - Evaluate and disclose the anticipated effects of the GSP's minimum thresholds and undesirable results on:
 - Domestic wells, public water supply wells, and agricultural wells.
 - Environmental users of groundwater (especially GDEs)

Potential Corrective Action 1:

19

Provide justification for, and effects associated with, the sustainable management criteria

- CBGSA response memo includes the following:
 - Additional details on the rationale for undesirable results statements and on the basis for the criteria of 30% of wells below MTs over 2 years
 - Additional technical analyses:
 - Assessment of production wells against minimum thresholds
 - Cuyama Basin numerical model assessment of Northwestern region

Potential Corrective Action 1:

Provide justification for, and effects associated with, the sustainable management criteria

Assessment of production wells against minimum thresholds (refined approach)

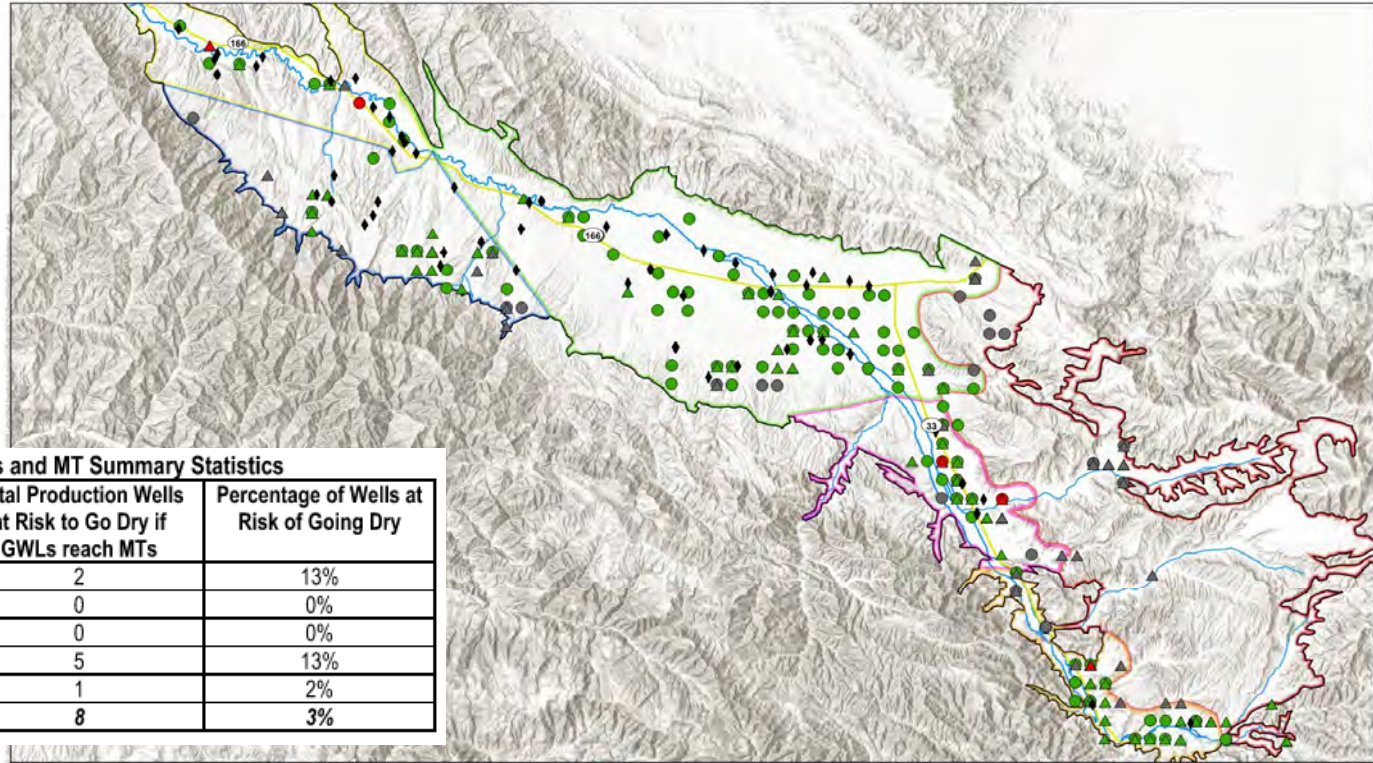


Table 2-2. Domestic and Production Wells and MT Summary Statistics

Threshold Region	Total Number of Production Wells	Domestic Wells at Risk to Go Dry if GWLs reach MTs	Total Production Wells at Risk to Go Dry if GWLs reach MTs	Percentage of Wells at Risk of Going Dry
Northwestern	16	1	2	13%
Western	40	0	0	0%
Central	89	0	0	0%
Eastern	39	1	5	13%
Southeastern	66	2	1	2%
Whole Basin	250	4	8	3%

**Well Inventory Analysis
Production and Domestic Wells**

Cuyama Basin Groundwater Sustainability Agency
Cuyama Valley Groundwater Basin Groundwater Sustainability Plan
October 2021

Legend

- Cuyama Basin
- Cuyama River
- ◆ Representative Monitoring Well
- △ Domestic Well
- Production Well

Threshold Region

- Red: Badlands Region
- Green: Central Region
- Purple: Eastern Region
- Yellow: Northwestern Region
- Orange: Southeastern Region
- Blue: Western Region

Well Status

- Red circle: At Risk of Going Dry
- Green circle: Not At Risk of Going Dry
- Grey circle: Filtered from analysis

Minimum thresholds were extrapolated from representative monitoring wells to extend coverage throughout the Cuyama Basin. The extrapolated MTs were then compared to the screen depths of domestic and production wells (if screen depth data was unavailable total well depth was used). Note: Some wells shown are approximate locations extracted from DWR WCR reports.

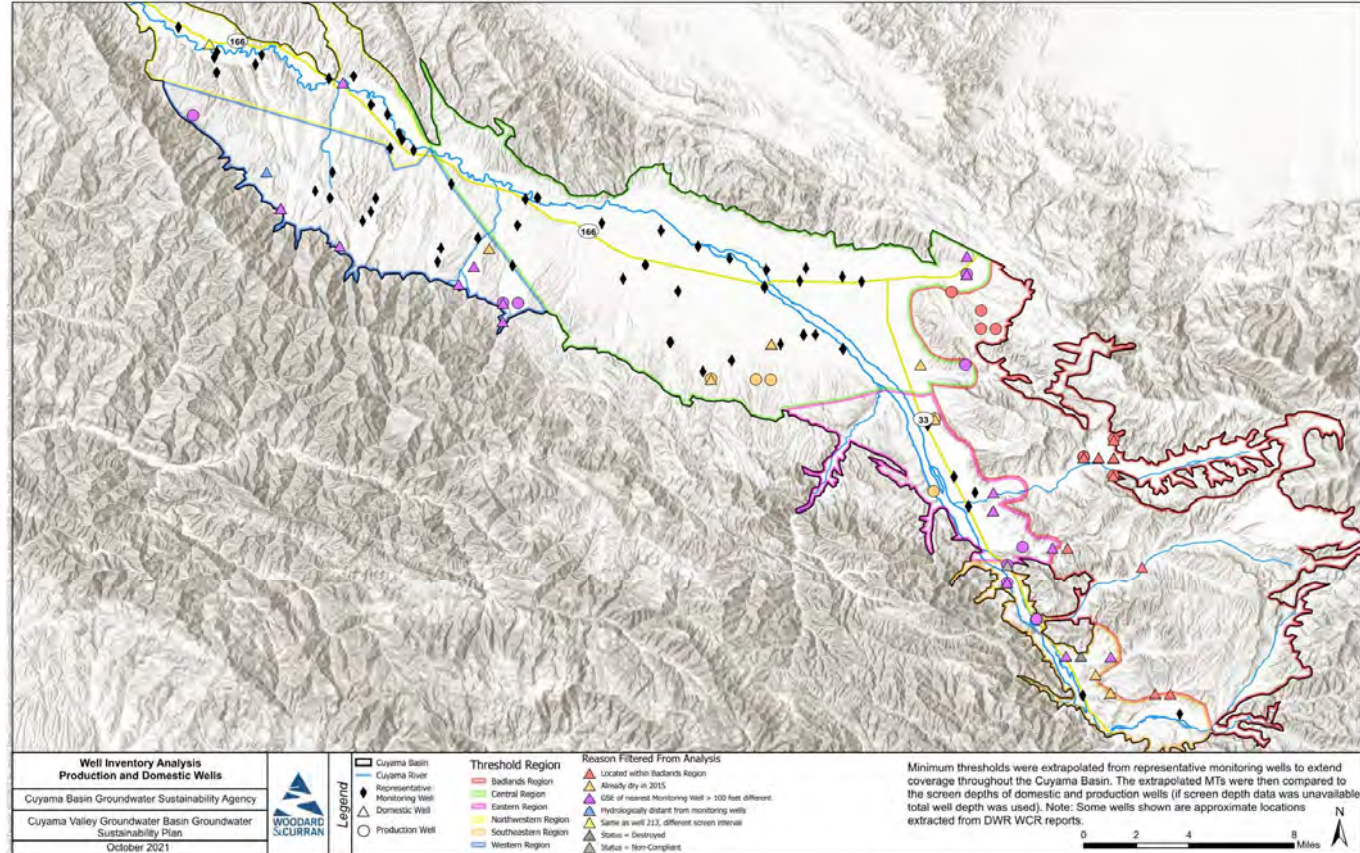
Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the user's sole risk.

Potential Corrective Action 1:

Provide justification for, and effects associated with, the sustainable management criteria

Rationales for wells filtered from analysis:

- Already dry in 2015
- Destroyed or noncompliant
- Topographically or hydrologically removed from monitoring network wells

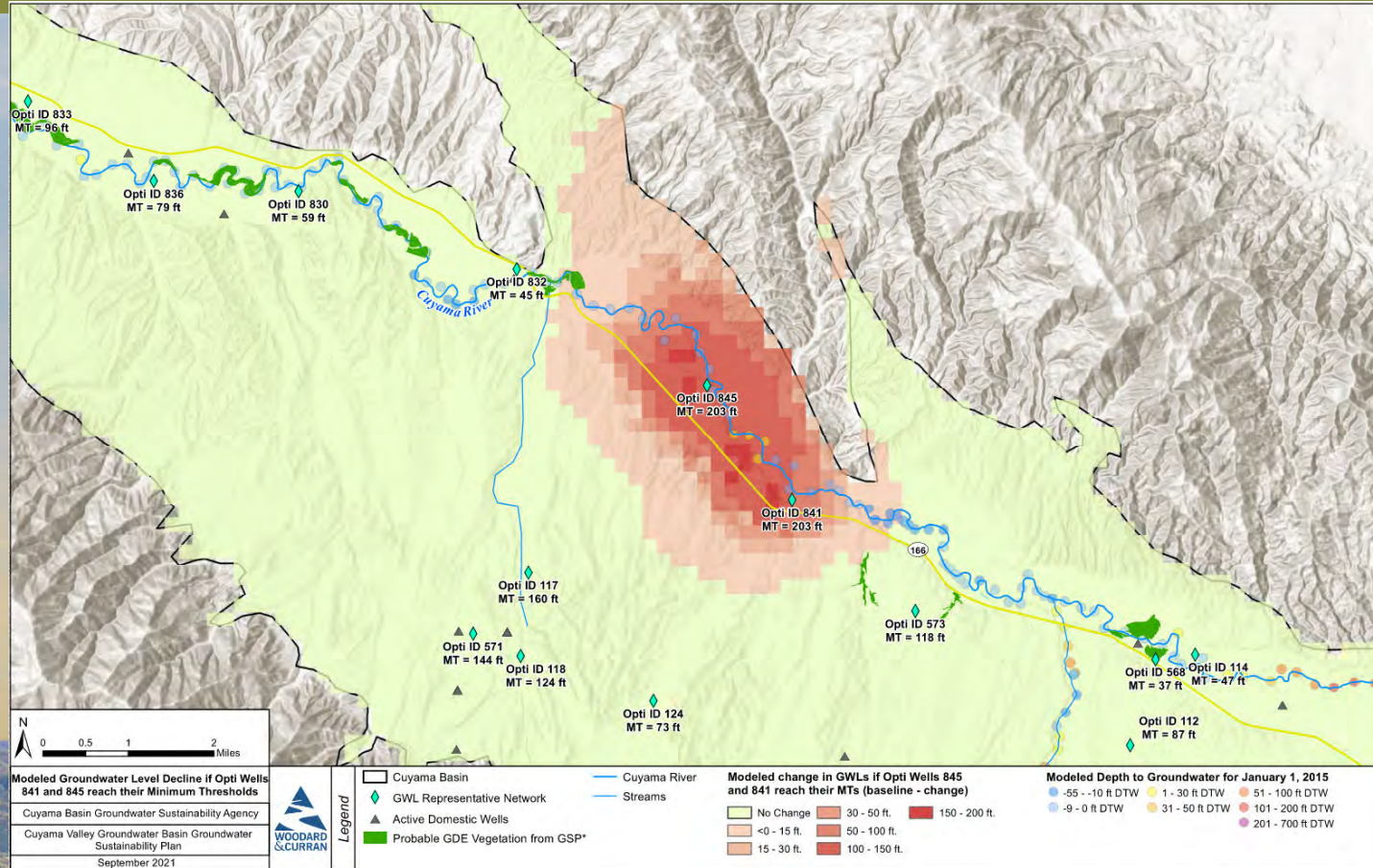


Potential Corrective Action 1:

Provide justification for, and effects associated with, the sustainable management criteria

Cuyama Basin numerical model assessment of Northwestern region

- No active domestic wells affected
- 1 GDE location with minor change in groundwater level (<5 feet)
- Small increase in stream depletion



Potential Corrective Action 1:

Provide justification for, and effects associated with, the sustainable management criteria

- Correction Action 1 conclusions based on the analysis:
 - The sustainability criteria are protective of production wells (including domestic wells) in the Basin
 - Only 8 wells (3% of all wells in the basin) are at risk of going dry
 - The CBGSA will strive to prevent domestic wells in the basin from going dry through the Adaptive Management approach included in the GSP (Section 7.6)
 - A numerical modeling analysis of proposed minimum thresholds at Wells 841 and 845 show that these thresholds would have no negative impact on local domestic wells and only minimal impact at a single GDE location. Stream depletions could potentially increase by a small amount

Potential Corrective Action 2:

Use of groundwater levels as a proxy for depletion of interconnected surface water

- DWR Direction:
 - Provide a demonstration, with supporting evidence, for why using the basin-wide groundwater level minimum thresholds is a reasonable proxy for thresholds for depletions of interconnected surface water
- CBGSA response includes development of a monitoring network specifically for interconnected surface water

Potential Corrective Action 2:

Use of groundwater levels as a proxy for depletion of interconnected surface water

Potential Stream Connectivity based on Modeling Results

- Central basin portion of Cuyama River was already disconnected in 2015

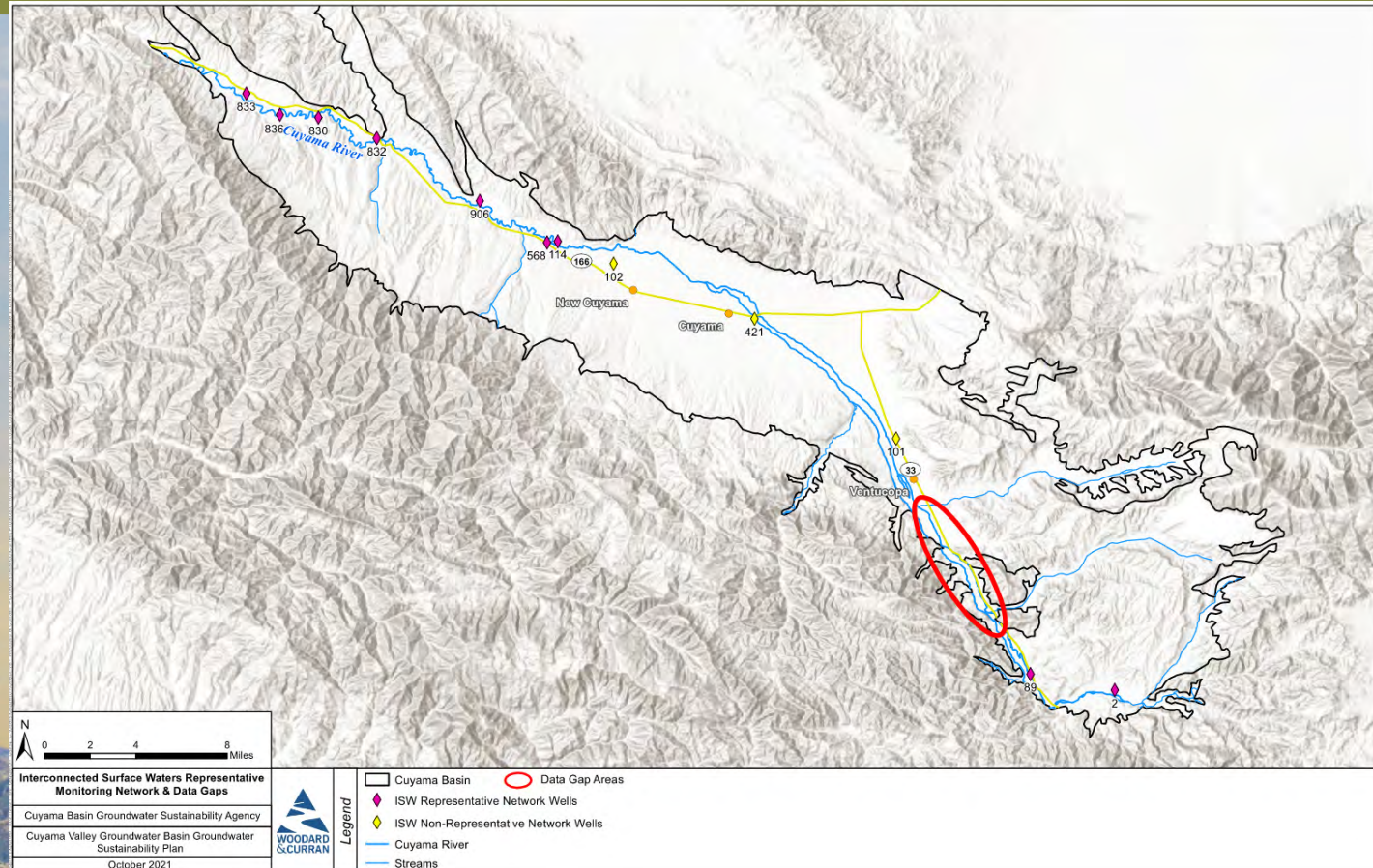


Potential Corrective Action 2:

Use of groundwater levels as a proxy for depletion of interconnected surface water

Proposed Interconnected Surface Water representative monitoring network:

- 12 wells are included –mostly shallower wells that cover the connected portion of the Cuyama River



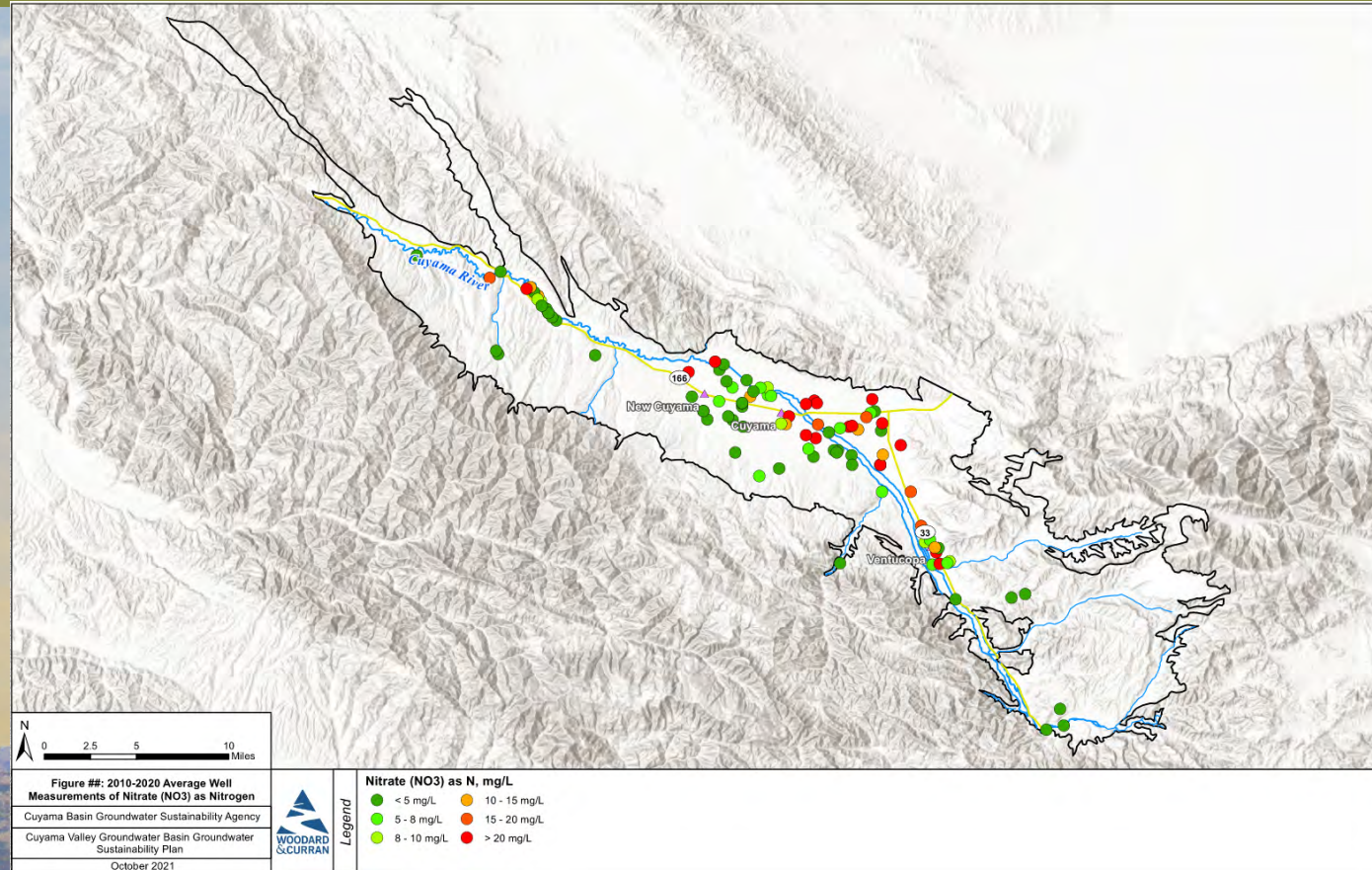
Potential Corrective Action 3: Further address degraded water quality

- **DWR Direction:**
 - The GSA should reasonably and thoroughly address nitrate and arsenic in the GSP, considering:
 - Under the groundwater conditions section, utilize additional data that is available
 - Either provide Sustainable Management Criteria for arsenic and nitrate or provide a thorough, evidence-based description for why groundwater management is unlikely to cause significant and unreasonable degradation of groundwater
 - Revise its groundwater quality network to include nitrates and arsenic
- **CBGSA response includes the following additional information:**
 - Updated groundwater conditions information for nitrates and arsenic
 - Why groundwater management is unlikely to affect nitrate and arsenic concentrations in the Cuyama Basin
 - The CBGSA's approach for monitoring nitrates and arsenic

Potential Corrective Action 3: Further address degraded water quality

Update to Groundwater Sustainability Plan
Groundwater Conditions section on **nitrates**:

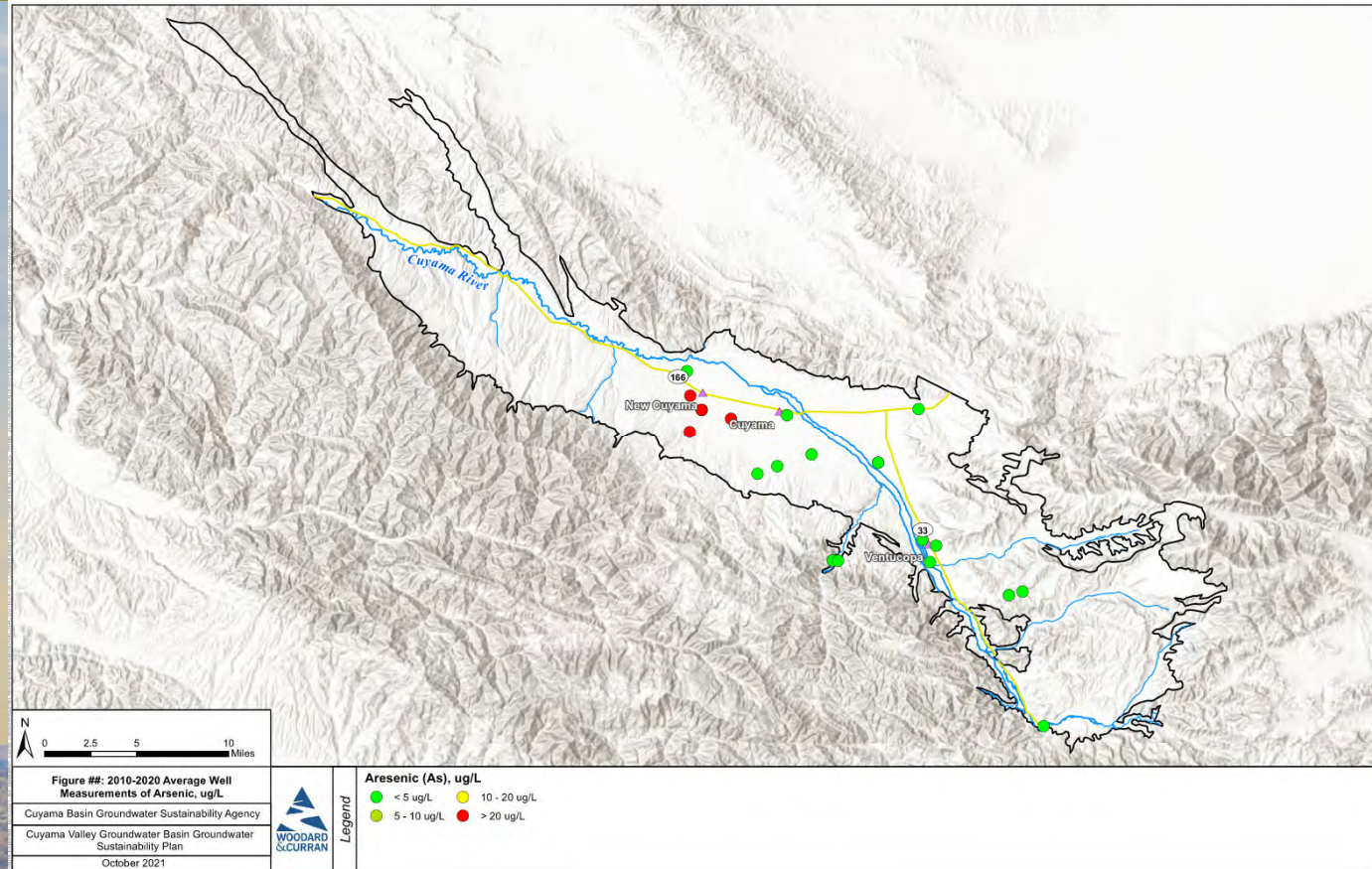
Average nitrate concentrations from 2010-2020



Potential Corrective Action 3: Further address degraded water quality

Update to Groundwater Sustainability Plan
Groundwater Conditions section on arsenic:

Average arsenic concentrations from 2010-2020



Potential Corrective Action 4:

30

Provide explanation for how overdraft will be mitigated in the Basin

- DWR Direction:
 - Explain the rationale for not implementing pumping reductions in the Ventucopa and Northwestern region and explain the timeline and criteria needed to determine whether further pumping allocations are needed

Potential Corrective Action 4:

31

Provide explanation for how overdraft will be mitigated in the Basin

- Additional information is provided for the Ventucopa and Northwestern regions providing more information on the basis for previous management decisions in these regions
 - Development of Ventucopa portion of numerical model posed significant challenges related to data availability and relatively small water budget estimates
 - CBGSA notes in the GSP that this will be re-evaluated in 2-5 years
 - Information developed for the Northwestern region does not predict a future overdraft in that region
 - Note: the Cleath-Harris document referenced in section 5.3.2 is posted on the CBGSA website



TECHNICAL MEMORANDUM

TO: Craig Altare, California Department of Water Resources

PREPARED BY: Woodard & Curran on Behalf of the Cuyama Valley Groundwater Basin Groundwater Sustainability Agency

DATE: October 21, 2021

RE: **Cuyama Basin GSA Response to DWR's June 3, 2021, Consultation Letter**

1. INTRODUCTION

The Cuyama Valley Groundwater Basin Groundwater Sustainability Agency (CBGSA) received a Consultation Initiation Letter (Letter) on June 3, 2021 (Attachment 1), from the California Department of Water Resources (DWR). The Letter was intended to provide the CBGSA with a preview of potential corrective actions that could be included in the official review letter of the Groundwater Sustainability Plan (GSP) from DWR. Receiving this Letter also allows the CBGSA additional time to address potential corrective actions before the official review is released, which triggers a 180-day correction period to update and address any deficiencies in the GSP.

During the August 18, 2021, Board Meeting, the CBGSA laid out a framework for responding to the Letter and provided that framework in a letter addressed to Mr. Craig Altare (Groundwater Sustainability Plan Review Section Chief), dated August 27, 2021 (Attachment 2).

This memorandum includes the analysis and work outlined in the framework provided to Mr. Altare. This memorandum is intended to supplement the Cuyama Basin GSP that was submitted in January 2020 and fill potential gaps identified in the Letter provided by DWR. Future updates to the GSP will include the information and analysis, or an updated version of the information and analysis, provided in this memorandum.

This technical memorandum provides a thorough response to each potential corrective action in the sections below.

2. POTENTIAL CORRECTIVE ACTION 1: PROVIDE JUSTIFICATION FOR, AND EFFECTS ASSOCIATED WITH, THE SUSTAINABLE MANAGEMENT CRITERIA

DWR requests additional information regarding the justification for the sustainable management criteria included in the GSP and the effects of those criteria on beneficial users in the Basin. DWR identified two issues that should be addressed as part of this corrective action:

1. Providing a more detailed description of the criterion used to identify undesirable results (URs)
2. Providing additional information regarding how the groundwater level minimum thresholds (MTs) are consistent with avoiding undesirable results, with a particular emphasis on the MTs in the Northwestern Region.

The following subsections address each of these issues by providing:

- A summary of this Potential Corrective Action in the Letter
- A brief review of information, justification, and data provided in the GSP
- A discussion with supplemental information, justification, and data as needed to support the GSP.

2.1 Defining the Criterion Used to Identify Undesirable Results

2.1.1 Initial Review and Opinion Provided by DWR

In the Letter, DWR states that UR statements do not, **“identifying the specific significant and unreasonable effects that would constitute undesirable results... [and] does not provide an explanation for the specific significant and unreasonable condition(s) that the GSA intends to avoid in the Basin through implementation of the GSP.”** Although the GSP includes subsections in Section 3: Undesirable Results, titled *Identification of Undesirable Results*, the Letter **states there is no, “explanation for why the criterion is consistent with avoiding significant and unreasonable effects that constitute undesirable results.”**

2.1.2 Review of Information and Data Provided in Submitted GSP

The Cuyama GSP provides a description of URs and Identification of URs for each of the applicable sustainability indicators in Section 3. For example, UR subsections for groundwater levels are as follows:

“Description of Undesirable Results

The Undesirable Result for the chronic lowering of groundwater levels is a result that causes significant and unreasonable reduction in the long-term viability of domestic, agricultural, municipal, or environmental uses over the planning and implementation horizon of this GSP.

Identification of Undesirable Results

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.



Quantifiable
Criterion

Potential Causes of Undesirable Results

Cause

Potential causes of Undesirable Results for the chronic lowering of groundwater levels are groundwater pumping that exceeds the average sustainable yield in the Basin, and changes in precipitation in the Cuyama Watershed in the future.

Potential Effects of Undesirable Results

Potential Effects

If groundwater levels were to reach Undesirable Results levels, the Undesirable Results could cause potential de-watering of existing groundwater infrastructure, starting with the shallowest wells, could potentially adversely affect groundwater dependent ecosystems, and could potentially cause changes in irrigation practices, crops grown, and adverse effects to property values. Additionally, reaching Undesirable Results for groundwater levels could adversely affect domestic and municipal uses, including uses in disadvantaged communities, which rely on groundwater in the Basin.”

Each applicable sustainability indicator has been provided the same level of discussion in the GSP. The following are the *Identification of Undesirable Results* statements for each of the applicable sustainability indicators.

- Chronic Lower of Groundwater Levels - 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.
- Reduction of Groundwater Storage - 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.
- Degraded Water Quality - This result is considered to occur during GSP implementation when 30 percent of the representative monitoring points (i.e., 20 of 64 sites) exceed the minimum threshold for a constituent for two consecutive years.
- Land Subsidence - This result is detected to occur during GSP implementation when 30 percent of representative subsidence monitoring sites (i.e., 1 of 2 sites) exceed the minimum threshold for subsidence over two years.
- Depletions of Interconnected Surface Water - 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.

It should be noted that as planned in the GSP Implementation, some monitoring networks have been modified for efficiency, access agreement obstructions, and to minimize burden on the GSA and its operating budget. These adjustments are ongoing and the CBGSA has continued to utilize the same percent criteria as above in its management of the Basin.

2.1.3 Supplemental GSP Information in Response to DWR Letter

A review of SGMA regulations, Section 354.26 (Undesirable Results) provides three descriptive characteristics about URs (subsections (b) (1-3)).

1. The cause of the UR.
2. A quantifiable criterion used to describe when a UR occurs.
3. Potential effects on beneficial uses and users, on land uses and property interests, and other potential effects that may occur from URs.

The information provided in the Section 3 of the GSP satisfies these regulations by providing the text, explanations, and quantitative descriptions and justifications for URs. Each of these three descriptive characteristics are labeled in the excerpt from Section 3 of the GSP provided above in Subsection 2.1.2 using the left-hand bubble callout labels. Furthermore, the GSP provided a quantifiable criterion (ratio of wells) to describe the conditions it would expect to see the potential effects as described.

To address the concerns raised in the DWR Letter, the following additional information is provided regarding the rationale for the criteria used in the GSP (i.e. **“30% of exceedances over 24 consecutive months”**) to define the point at which Basin conditions cause *significant and unreasonable* effects to occur.

The term **“significant and unreasonable”** is not defined by SGMA regulations. Instead, the conditions leading to this classification are determined by the GSA, beneficial users, and other interested parties in each basin. In the Cuyama Basin, the identification of undesirable results were developed through an extensive stakeholder-driven process that included:

- Careful consideration of input from local stakeholders and landowners
- A conceptualization of the hydrogeological conceptual model
- An assessment of current and historical conditions and best available data
- Local knowledge and professional opinion

The CBGSA recognizes the lack of reliable historical data and acknowledges the limitations and uncertainties it causes (see *Data Gaps* and *Plan to Fill Data Gap* subsections of *Section 4 – Monitoring Networks* and *Section 8 – Implementation Plan* for addressing those limitations). However, the re-assessment of thresholds and UR statements will be a likely component of future GSP updates. These future revisions will utilize the detailed and reliable data collected by the GSA during the first five years of GSP implementation.

The 30 percent of wells exceeding their MT for 24 consecutive months criteria included in the GSP allows the CBGSA the flexibility to identify the cause of MT exceedances and to develop a plan for response (per the Adaptive Management approach described in Section 7.6 of the GSP). Potential causes of MT exceedances could include:

- Prolonged drought
- New pumping nearby the representative well
- Unreliable and non-representative data used to calculate the MT

Minimum threshold exceedances in multiple wells is considered more indicative of a basin-scale decline in groundwater levels and potential adverse impacts on groundwater infrastructure, as opposed to a more localized groundwater level declines, which could be associated with nearby pumping. Furthermore, groundwater levels in areas of the basin change in response to climatic conditions and therefore, sustained exceedances of minimum thresholds are considered to be more significant than short-term exceedances. Setting the *Identification of Undesirable Results* criteria at 30 percent or more of wells exceeding their MT is intended to reflect undesirable results at the basin scale, and using 24 consecutive months allows the GSA time to address issues, perform investigations, and implement projects and management actions as needed.

2.2 Additional Information on Groundwater Level Minimum Thresholds

2.2.1 Initial Review and Opinion Provided by DWR

The second part of this potential corrective action seeks additional information to explain how **each threshold region's** groundwater level MTs are consistent with avoiding undesirable results, "**particularly... in the Northwestern threshold region.**" For every threshold region, DWR requests that the GSA evaluate and provide the potential effects that MTs and URs would have on:

- Well infrastructure including domestic, community, public, and agricultural wells
- Environmental uses and users of groundwater

2.2.2 Review of Information and Data Provided in Submitted GSP

The CBGSA developed six specific Threshold Regions for the development of thresholds for chronic lowering of groundwater levels. The six threshold regions were defined to allow areas with similar conditions to be grouped together for calculating MOs, MTs, and IMs. These threshold regions are shown in Figure 2-1, and a detailed description of each threshold region is provided in *GSP Section 5.2 – Chronic Lower of Groundwater Levels*. Table 2-12-1 provides a summary of the approach used to establish the MT for chronic lowering of groundwater levels for each threshold region.

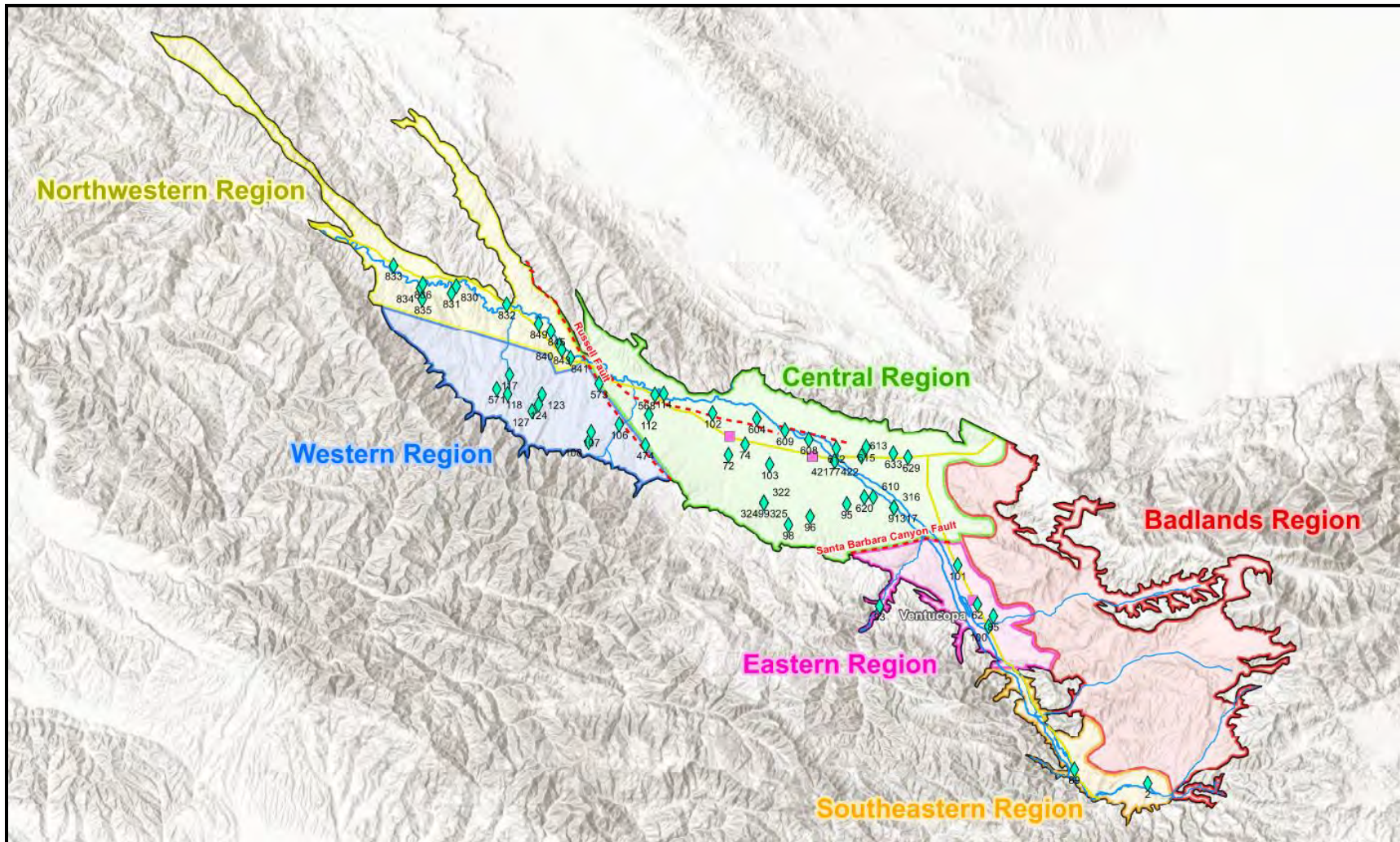


Figure 2-1. Cuyama Basin Threshold Regions

Table 2-1. Summary of MT Calculations for Chronic Lowering of Groundwater Levels for Each Threshold Region

Threshold Region	MT Calculation Approach	Justification
Northwestern	The MT for this region was found by determining the region's total average saturated thickness for the primary storage area and calculating 15 percent of that depth. This value was then set as the MT.	Monitoring in this threshold region indicates levels are stable, with some declines in the area where new agriculture is established. Due to these hydrologic conditions, the MT was set to protect the water levels from declining significantly, while allowing beneficial land surface uses (including domestic and agricultural uses) and using the storage capacity of this region.
Western	The MT was calculated by taking the difference between the total well depth and the value closest to mid-February, 2018, and calculating 15 percent of that depth. That value was then subtracted from the mid-February, 2018 measurement to calculate the MT.	Monitoring in this threshold region indicates groundwater levels are stable, and levels varied significantly depending on where representative wells were in the region. The most common use of groundwater in this region is for domestic use. Due to these hydrologic conditions, the MT was set to protect the water levels from declining significantly, while allowing beneficial land surface uses of the groundwater and protection of current well infrastructure. Values from mid-February, 2018, are used because data collected during this time represent a full basin condition. This calculation allows users in this region to use their groundwater supply without increasing the risk of running a well beyond acceptable limits, and this methodology is responsive to the variety of conditions and well depths in this region.
Central	MT was calculated by finding the maximum and minimum groundwater levels for each representative well and calculating 20 percent of the historical range. This 20 percent was then added to the depth to water measurement closest to, but not before, January 1, 2015, and no later than April 30, 2015.	Monitoring in this threshold region indicates a decline in groundwater levels, indicating an extraction rate that exceeds recharge rates. The MT for this region is set to allow current beneficial uses of groundwater while reducing extraction rates over the planning horizon to meet sustainable yield. The MO is intended to allow sufficient operational flexibility for future drought conditions.
Eastern	The MT was calculated by taking the total historical range of recorded groundwater levels and used 35 percent of the range. This 35 percent was then added below the value closest to January 1, 2015 (as described above).	Monitoring in this threshold region indicates a downward trend in groundwater levels. However, much of this downward trend is due to hydrologic variability and may be recovered in the future. Therefore, MTs have been set to allow for greater flexibility as compared to other regions. The MT for wells in this region intends to protect domestic, private, public and environmental uses of the groundwater by allowing for managed extraction in areas that have beneficial uses and protecting those with at risk infrastructure.

Threshold Region	MT Calculation Approach	Justification
Southeastern	MT was calculated by subtracting five years of groundwater storage from the MO. MO was calculated by finding the measurement taken closest to (but not before) January 1, 2015 and not after April 30, 2015.	Per SGMA Regulations, the CBGSA is not required to improve conditions prior to those seen when SGMA was enacted on January 1, 2015. Historical data also shows that groundwater levels are static except during drought conditions (experienced from 2013 to 2018) indicating this area of the Basin is generally at capacity. Because URs were not experienced during this last drought, setting MTs at five years of drought storage will provide the CBGSA a threshold that is protective of domestic, private, public, and environmental uses while providing operational flexibility during drought conditions.
Badlands	None	This threshold region has no groundwater use or active wells. As a result, no MO, MT, or IM was calculated.

2.2.3 Supplemental GSP Information in Response to DWR Letter

The groundwater levels minimum thresholds included in the GSP were developed with the intention of avoiding the undesirable results of excessive drawdowns in the basin while minimizing the number of domestic wells that go dry and the potential impacts on GDEs in the basin. **Following receipt of DWR's letter**, two technical analyses were performed to provide additional information related to the effects of the GSPs groundwater levels minimum thresholds and undesirable results definitions on well infrastructure (i.e., domestic, public and other production wells) and on environmental uses of groundwater (i.e., GDEs).

The results of these analyses demonstrate that the minimum thresholds included in the GSP achieve the goals of avoiding undesirable results in the basin. In particular, the following conclusions can be made:

- The sustainability criteria are protective of production wells (including domestic wells) in the Basin. Only 5 wells (2% of all wells in the basin) are at risk of going dry if minimum thresholds are reached throughout the basin (i.e., at all representative wells). The CBGSA will strive to prevent domestic wells in the basin from going dry through the Adaptive Management approach included in the GSP (Section 7.6), which call for an investigation of potential issues if groundwater levels approach minimum thresholds. Therefore, the potential for a small number of domestic wells to be at risk is not considered to be a significant and unreasonable result.
- A numerical modeling analysis of proposed minimum thresholds at Wells 841 and 845 show that these thresholds would have no negative impact on local domestic wells and only minimal impact at a single GDE location. Stream depletions could potentially increase by a small amount.

The results of these technical analyses demonstrate that the minimum thresholds included in the GSP are protective against significant and unreasonable results for production wells and GDEs in the basin. The approach and results of each technical analysis are described below.

Assessment of Minimum Thresholds as Compared to Domestic and Production Well Screen Intervals

An assessment was performed of the minimum threshold levels included in the GSP as compared to the well screen intervals of production wells throughout the basin to try to determine how many production wells may be at risk of going dry if the groundwater levels were to fall to minimum threshold levels at monitoring well locations throughout the basin. The assessment was performed using well location and construction information provided by the counties that overlie the basin, including Santa Barbara, San Luis Obispo, Ventura, and Kern. To accomplish this, the CBGSA collected all available well data from public sources and the four Counties in tabular formats. In the northwestern region, well completion reports were also individually collected, processed, and included in the analysis.

Wells were processed in GIS by utilizing their screen interval, and where screen interval information was unavailable, their well depths, to compare those values with minimum thresholds at monitoring wells located throughout for the Basin. Some basic filtering criteria were applied to the analysis to remove wells from consideration, including those that are destroyed or non-compliant in the county datasets, wells that are far away from active groundwater management and monitoring (e.g. the Badlands region), and those that were already dry as of January 1, 2015.

The results of the analysis are shown in Table 2-2 and Figure 2-2. Out of a total of 250 production wells that were evaluated, a total of eight (4% of the total) are at risk of going dry if minimum thresholds are reached. Four of these eight wells are domestic wells. As noted above, the CBGSA will strive to use adaptive management to prevent these domestic wells from going dry.

Table 2-2. Domestic and Production Wells and MT Summary Statistics

Threshold Region	Total Number of Production Wells	Domestic Wells at Risk to Go Dry if GWLs reach MTs	Total Production Wells at Risk to Go Dry if GWLs reach MTs	Percentage of Wells at Risk of Going Dry
Northwestern	16	1	2	13%
Western	40	0	0	0%
Central	89	0	0	0%
Eastern	39	1	5	13%
Southeastern	66	2	1	2%
<i>Whole Basin</i>	<i>250</i>	<i>4</i>	<i>8</i>	<i>3%</i>

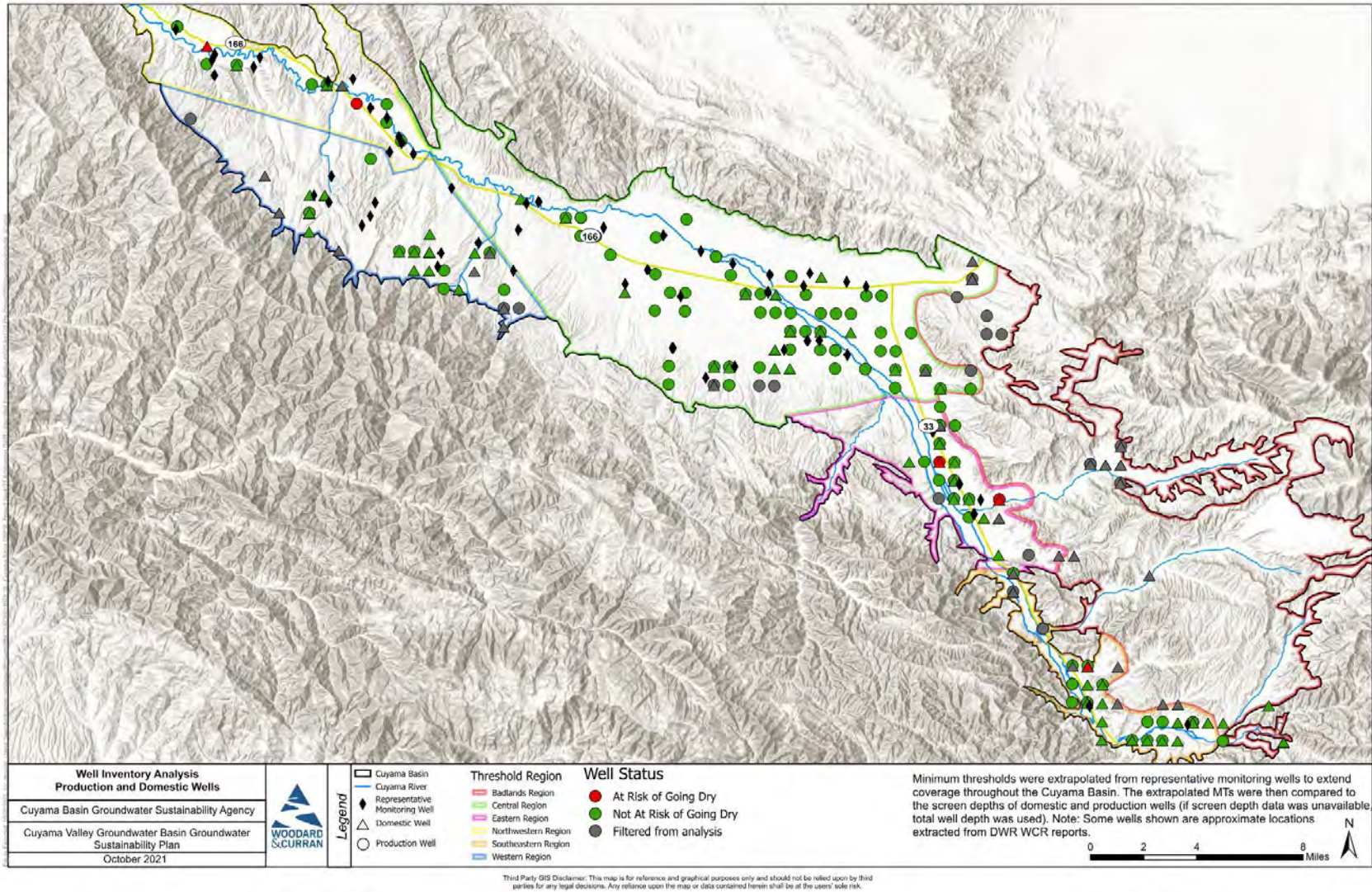


Figure 2-2. Well Status Based on Minimum Threshold Analysis

Modeling Analysis of Northwestern Threshold Groundwater Levels Minimum Thresholds

Concern was presented in DWR's Letter about whether the thresholds established in the northwestern threshold region at Opti wells 841 and 845 are protective of nearby beneficial users of water. Specifically, concern was raised that if groundwater levels were to reach MTs in representative wells what impact may occur to nearby domestic wells and GDEs. To address this, the Cuyama Basin Water Resources Model (CBWRM) was used to simulate groundwater level conditions by artificially dropping groundwater levels near Opti Wells 841 and 845 to the set MTs. This was done by assigning specified head boundary conditions at the MT levels for the model nodes near these well locations. The simulation was run for 10 years over the historical period between water years (WY) 2011 to 2020 during which the specified head boundary conditions at the MT levels were continuously active.

Figure 2-3 shows the modeled change in groundwater elevations resulting from setting groundwater levels at the minimum thresholds at wells 841 and 845. Areas shaded in red or tan color on the figure had reduced groundwater elevations as compared to the baseline condition. Areas shaded in lime green were unaffected by the change in groundwater elevations at the well 841 and 845 locations. As shown in the figure, there are no active domestic wells within the area affected by the lowered groundwater elevations at wells 841 and 845. The only GDE which may be affected is the GDE located at the confluence of Cottonwood Creek and the Cuyama River, which has an expected impact of less than 5 feet. However, even with this difference the estimated depth to water at this GDE location would be shallower than 30 feet. Potential impacts on this GDE location will be monitored at nearby Opti well 832.

As noted above, the other potential beneficial use that may be affected comes from Cuyama River inflows into Lake Twitchell. The model simulation also showed an increase in stream depletion in the affected portion of the aquifer of about 1,200 acre-feet per year. This represents about 12 percent (out of 10,200 afy) of the modeled streamflow in the Cuyama River at this location during the WY 2011-2020 model simulation period. However, the actual change in inflows into Lake Twitchell would be less than 1,200 afy because of stream depletions that would occur between Cottonwood Creek and Lake Twitchell. For comparison, during the same period the USGS gage on the Cuyama River just upstream of Lake Twitchell (11136800) recorded an average annual flow of 7,900 afy, only a portion of which comes from the Cuyama Basin. Given the lack of data regarding the hydrology and stream seepage between Cottonwood Creek and Lake Twitchell, it is uncertain how much of an impact this would have on the flows that ultimately are stored in Lake Twitchell.

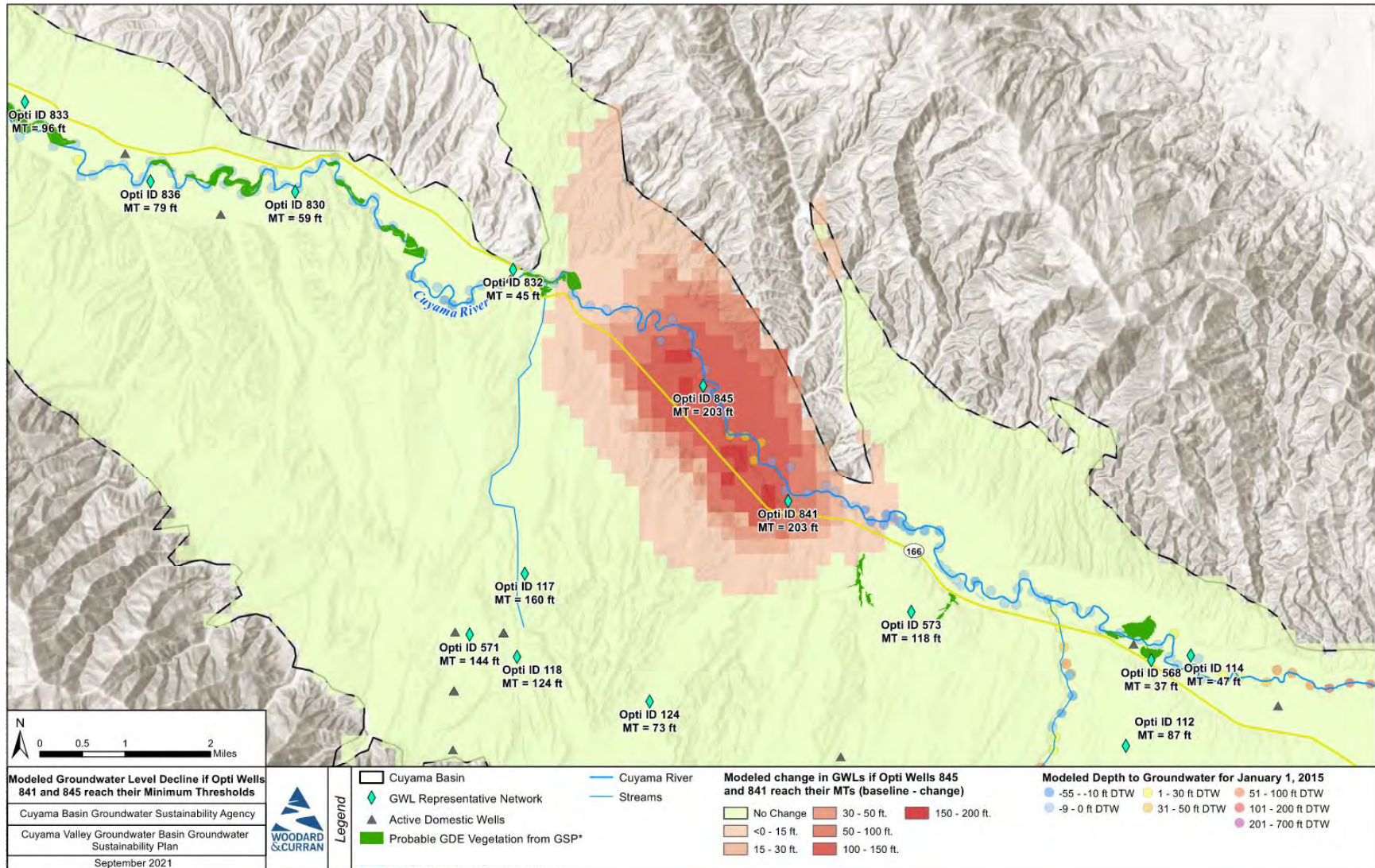


Figure 2-3. Change in Groundwater Levels in Northwestern Region from CBWRM Test Simulation

3. POTENTIAL CORRECTIVE ACTION 2: USE OF GROUNDWATER LEVELS AS A PROXY FOR DEPLETION OF INTERCONNECTED SURFACE WATER

3.1 Initial Review and Opinion Provided by DWR

As described in the Letter, DWR requests supporting evidence to justify the CBGSA's use of the basin-wide groundwater level minimum thresholds as a reasonable proxy for thresholds for depletions of interconnected surface water (ISW). It is the understanding of the CBGSA that the primary **objection to the CBGSA's approach** was the utilization of the entire groundwater level representative network as a one-for-one proxy for interconnected surface waters. This is because not all groundwater representative monitoring sites are necessarily appropriate for monitoring for depletion of interconnected surface waters.

3.2 Review of Information and Data Provided in Submitted GSP

As stated in the SGMA regulations, as well as mentioned in the Letter, utilizing a sustainability indicator as a proxy for another is allowed if supported by adequate evidence. The submitted GSP provides justification for using groundwater levels thresholds as a proxy for interconnected surface waters in Sections 3.2.6 and 5.7 with supporting descriptions of surface water and groundwater interactions in Sections 2.1.9 and 2.2.8.

As described in Sections 2.1.9, the primary surface water body in the Basin is the Cuyama River. Flows in the Cuyama River are perennial, with most dry seasons seeing little to no flow. There are also four main contributing streams and other more minor contributing streams. The Cuyama River and all of the contributing streams are dry during most of the year, with flows occurring only during precipitation events during the winter months. Nearly all precipitation in the Basin and contributing watersheds percolate into the primary aquifer. The Cuyama River and four primary contributing streams were modeled, with the estimates of gaining and losing quantities provided in Table 2-2 of the GSP.

As noted in the plan, there is limited data available pertaining to the shallow aquifer system or to the quantity and timing of streamflows in the Basin. To help address this deficiency, the CBGSA recently installed new streamflow gages on the Cuyama River. In addition, in Section 2.2.9 the GSP recommended the installation of piezometers in the vicinity of the streambed to provide additional shallow aquifer groundwater level measurements.

3.3 Updates to GSP in Response to DWR Letter

The CBGSA agrees that additional evidence and/or description may be warranted for justifying the use of groundwater levels as a proxy for interconnected surface waters. Specifically, the CBGSA feels that identifying a subset of groundwater level representative monitoring wells for use in ISW monitoring, and providing a rationale for their selection, adequately addresses concerns provided in the Letter.

3.3.1 Summary of Potential Undesirable Results for Interconnected Surface Waters

Depletions of ISW are related to chronic lowering of groundwater levels via changes in the hydraulic gradient. Therefore, declines in groundwater elevations in portions of the river system that are hydrologically connected to the river system can lead to increased depletions of surface water. As shown in Figure 3-1, an analysis of the results of the historical simulation of the Cuyama Basin Water Resources Model (CBWRM) reveals that many portions of the stream system in the basin were already disconnected as of 2015 and therefore ISW flows in these stream reaches would not be affected by changes in groundwater levels. The primary areas of concern for ISW are on stretches of the Cuyama River upstream of Ventucopa and downstream of the Russell Fault.

Because the Cuyama River does not flow during most days of the year and the river is not subject to environmental flow regulations, the primary beneficial uses of Cuyama River streamflows are GDEs and water users who utilize water

that may flow into Lake Twitchell downstream of the basin boundary. Lowering groundwater levels could result in reduced streamflows for beneficial use by these users. Therefore, the intent of the ISW monitoring network and sustainability criteria is to ensure that long-term groundwater level declines do not occur in the vicinity of the connected stretches of the Cuyama River.

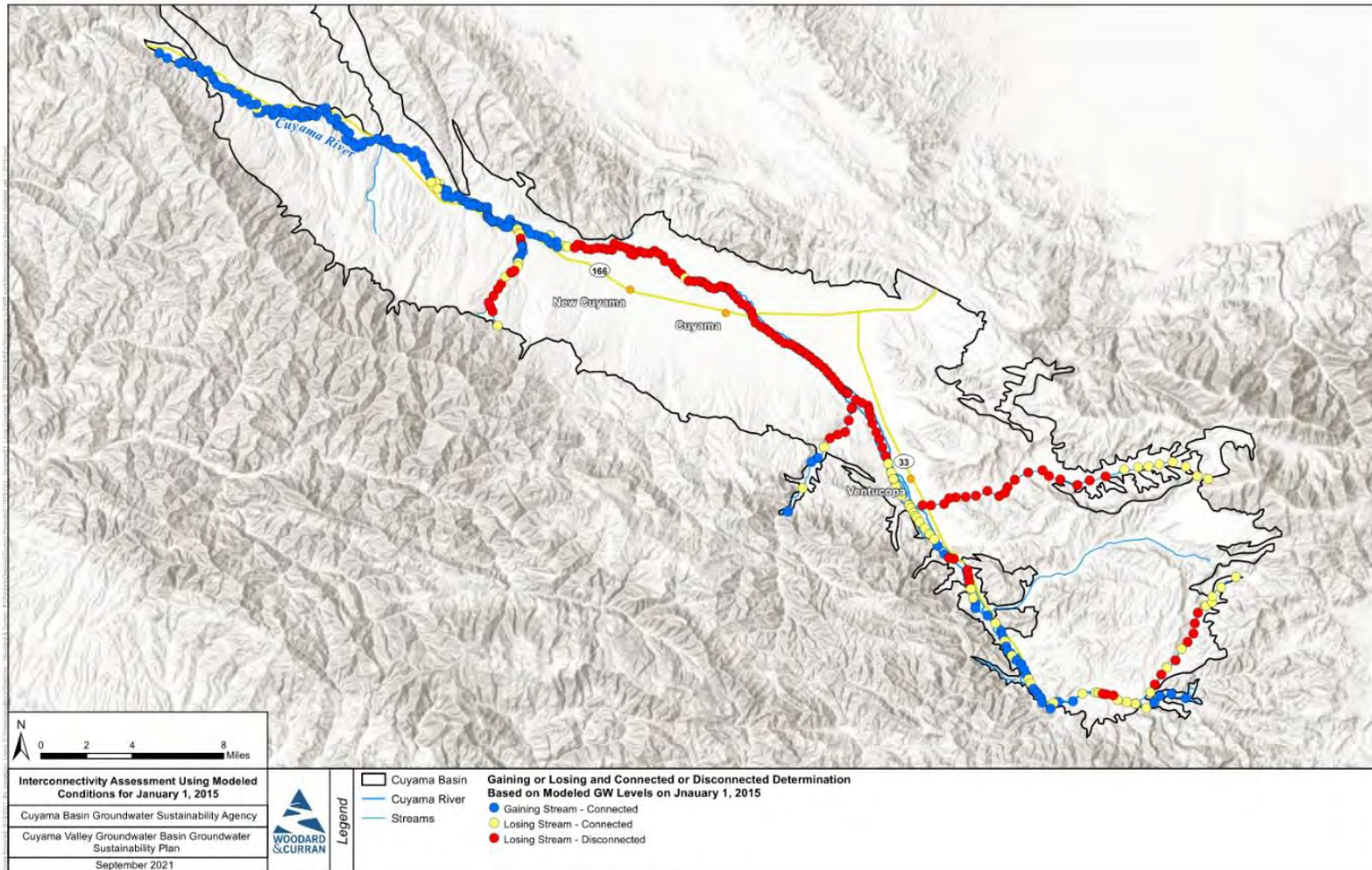


Figure 3-1. Potential Stream Interconnectivity using Historical Modeled Groundwater Levels in January 2015

3.3.2 Approach for ISW Monitoring and Sustainability Criteria

To develop an ISW monitoring network, a subset of wells from the groundwater levels representative monitoring network has been used to create a depletion of interconnected surface water representative monitoring network. Wells not included in the groundwater levels monitoring network were also considered; but no additional wells were identified that would be suitable for ISW monitoring. After consulting DWRs BMPs for Monitoring Networks and Identification of Data Gaps, the following criteria were used to select wells to be included in the interconnected surface water representative network:

1. They are within 1.5-miles of the Cuyama River and/or 1-mile of one of the four major contributing streams to the Cuyama River, including Aliso Creek, Santa Barbara Creek, Quantal Canyon Creek, and Cuyama Creek,
2. They have screen intervals within 100 feet below ground surface (bgs). In some cases, wells without screen interval information but with well depths greater than 100 feet bgs were included, under the assumption that the screen interval was less than 100 feet bgs. In many of these wells, recent groundwater depth to water measurements were 40 feet bgs or less.

DWR BMP *Monitoring Networks and Identification of Data Gaps*, provides the following guidance for well selection: **“Identify and quantify both timing and volume of groundwater pumping within approximately 3 miles of the stream or as appropriate for the flow regime.”** However, the CBGSA has chosen to use a 1.5-mile buffer around the Cuyama River and a 1-mile buffer around the major contributing streams because the Basin’s unique and dynamic geological and topographical conditions require a narrower window so that the ISW monitoring network wells would cover just the portion of Valley in the vicinity of the River system (and not extend into the foothill areas with significant topographical changes).

In addition, depletions of interconnected surface waters occur at the interaction of surface and groundwater, which is in the shallow portion of the aquifer. In general, wells with completions or depths within 100 ft bgs are preferable to provide more useful information about this near surface interaction. Common practice is to also only include wells that are in areas of interconnectivity or areas where interconnectivity conditions are close to those that define interconnectivity (for example, areas with groundwater levels between 30 to 50-feet below ground surface). Due to the limited number of available wells in the Cuyama Basin with screen intervals (or where screen interval data is not available, well depth) of less than 100 ft bgs, the proposed ISW network includes only five wells. Additional monitoring locations will need to be identified to fill data gaps in the ISW network as discussed below.

The resulting ISW monitoring network is shown in Table 3-1 and Figure 3-2 below. The monitoring network includes 12 wells, nine of which are representative wells for which minimum thresholds and measurable objective have been defined. Minimum thresholds at the representative well locations are protective of GDE locations in the upper and lower portions of the river, with minimum thresholds less than 30 feet from the bottom of the river channel in the vicinity of four wells (89, 114, 830 and 832). Note that well 906 is part of a new multi-completion well that was constructed in the **summer of 2021 under DWR’s Technical Support Services; while well 906 is a representative well**, sustainability criteria will not be developed for this well until a history of groundwater level measurements has been established. While the three non-representative wells in the central basin are too deep for direct monitoring of ISW flows, they are included to allow the GSA to monitor potential groundwater level increases that could result in reconnection between the river and aquifer in the central basin going forward.

Table 3-1. Interconnected Surface Water Monitoring Network

Opti ID	Threshold Region	Well Depth (feet bgs)	Screen Interval	Minimum Threshold (feet bgs)	Measurable Objective (feet bgs)
Representative Wells					
2	Southeastern	73	Unknown	72	55
89	Southeastern	125	Unknown	64	44
114	Central	58	Unknown	47	45
568	Central	188	Unknown	37	36
830	Northwestern	77	Unknown	59	56
832	Northwestern	132	Unknown	45	30
833	Northwestern	504	Unknown	96	24
836	Northwestern	325	Unknown	79	36
906	Northwestern	Unknown	50-70	TBD	TBD
Other Monitoring Network Wells					
101	Central	200	Unknown	n/a	n/a
102	Central	Unknown	Unknown	n/a	n/a
421	Central	620	Unknown	n/a	n/a

The proposed network includes data gaps which will need to be filled in the future:

- Due to the shortage of shallow monitoring wells available to include in the network, additional shallow aquifer measurement devices will be needed. As noted above, the CBGSA has called for the installation of piezometers in the vicinity of the streambed.
- A spatial data gap exists along the Cuyama River in between Well 89 and Ventucopa. Note that significant stretches of the Cuyama River (particularly in the Central Basin) were already disconnected from the groundwater aquifer in 2015 (as discussed in Section 2.2.8 of the GSP).



Figure 3-2. Interconnected Surface Water Monitoring Network

4. POTENTIAL CORRECTIVE ACTION 3: FURTHER ADDRESS DEGRADED WATER QUALITY

4.1 Initial Review and Opinion Provided by DWR

DWR's Letter expressed two main concerns about the water quality analysis and constituent thresholds used in the GSP. First, the GSP acknowledges that nitrate and arsenic have been historical constituents of concern, but due to regulatory limitations, did not set thresholds for these two constituents. Second, based on feedback provided in a public comment, there was concern that some public data was not included in the water quality analysis conducted for the Basin. DWR believes that the GSA may have approached the management strategies differently (through setting thresholds for these constituents) if this data had been utilized. DWR recommended the following to address the concerns raised in the letter:

- Groundwater conditions information related to water quality should be updated to include all available data, in particular as recommended by the Regional Water Quality Control Board, so as to reflect the best available information regarding water quality.
- The GSA should either develop sustainable management criteria for arsenic and nitrate or provide a thorough, evidence-based description for why groundwater management is unlikely to cause significant and unreasonable degradation of groundwater.
- The GSA should appropriately revise its monitoring network based on the above updates. At a minimum, the GSA should include monitoring for arsenic and nitrates as they have been identified as constituents of concern in the basin.

4.2 Review of Information and Data Provided in Submitted GSP

As discussed in Section 4.3.3 of the GSP, water quality data for the Basin was collected from the Irrigated Lands Program (ILP), Groundwater Ambient Monitoring and Assessment (GAMA) Program, United States Geological Survey (USGS), Cuyama Community Services District (CCSD), Ventura County Water Protection District, and private landowners. Staff performed detailed analysis to ensure that wells included in multiple datasets were paired correctly at to the best of their ability, remove duplicate measurements and data.

The GSP includes a monitoring network (Section 4.8) and sustainability criteria (Section 5.5) for management of TDS in the basin.

The GSP discussion noted that the CBGSA does not have the ability or authority to perform actions to address nitrate or arsenic levels in the Basin. Nitrate concentrations are directly related to fertilizer application on agricultural crops, and SGMA regulations do not provide GSAs the regulatory authority to manage fertilizer application. This regulatory authority is, however, held by the SWRCB through the ILP. Additionally, arsenic is naturally occurring, and has only been measured in limited regions of the basins.

4.3 Updates to GSP in Response to DWR Letter

The following sections provided updated information in response to the three actions recommended by DWR.

4.3.1 Updates to Groundwater Conditions Descriptions

Additional data collection efforts were performed for nitrate and arsenic measurements, including collecting updated data from publicly available data portals such as GAMA, CEDEN, GeoTracker, and the National Water Quality

Monitoring Council that were previously accessed during GSP development. In addition to accessing the public portals for each program, staff coordinated with RWQCB staff to ensure that all publicly available data was collected. It was confirmed by RWQCB staff that all available data for the ILP program were included in the online GAMA data portal download. Some of these public portals have overlapping data that, where possible, were removed, to develop a comprehensive data set for the Basin.

Summary statistics for nitrate (as N) and arsenic measurements taken from 2010-2020 are shown in Table 4-1. For nitrates, 41 of the 102 wells with measurements during this period recorded a measurement exceeding the MCL of 10 mg/L. For arsenic, 5 of the 23 wells with measurement recorded a measurement exceeding the MCL of 10 µg/L. Figures 4.1 and 4.2 show the locations of wells with monitoring measurements for nitrates and arsenic during the 2010-2020 period and the average concentrations measured in each well. In each case, the wells with average values exceeding the MCLs correspond with the wells tabulated in Table 4-1. A review of the data for wells with measurements both before and after 2015 showed little change with no wells showing degradation of nitrate or arsenic such that a well that was below the MCL before 2015 was above the MCL afterwards.

Table 4-1. Summary Statistics for Nitrate (as N) and Arsenic

	Nitrate (as N)	Arsenic
Number of monitoring wells	102	23
Number of wells with recorded MCL exceedances from 2010-2020	41	5

As shown in Figures 4-1 and 4-2, most wells with nitrate and arsenic concentrations exceeding MCLs are located in the central threshold region. The locations of high arsenic concentrations are focused to the south of the town of New Cuyama near the existing Cuyama Community Services District (CCSD) well. This is a known issue for the CCSD that will be mitigated by the construction of a replacement well for the district, which was included as a project in the GSP (see section 7.4.4).

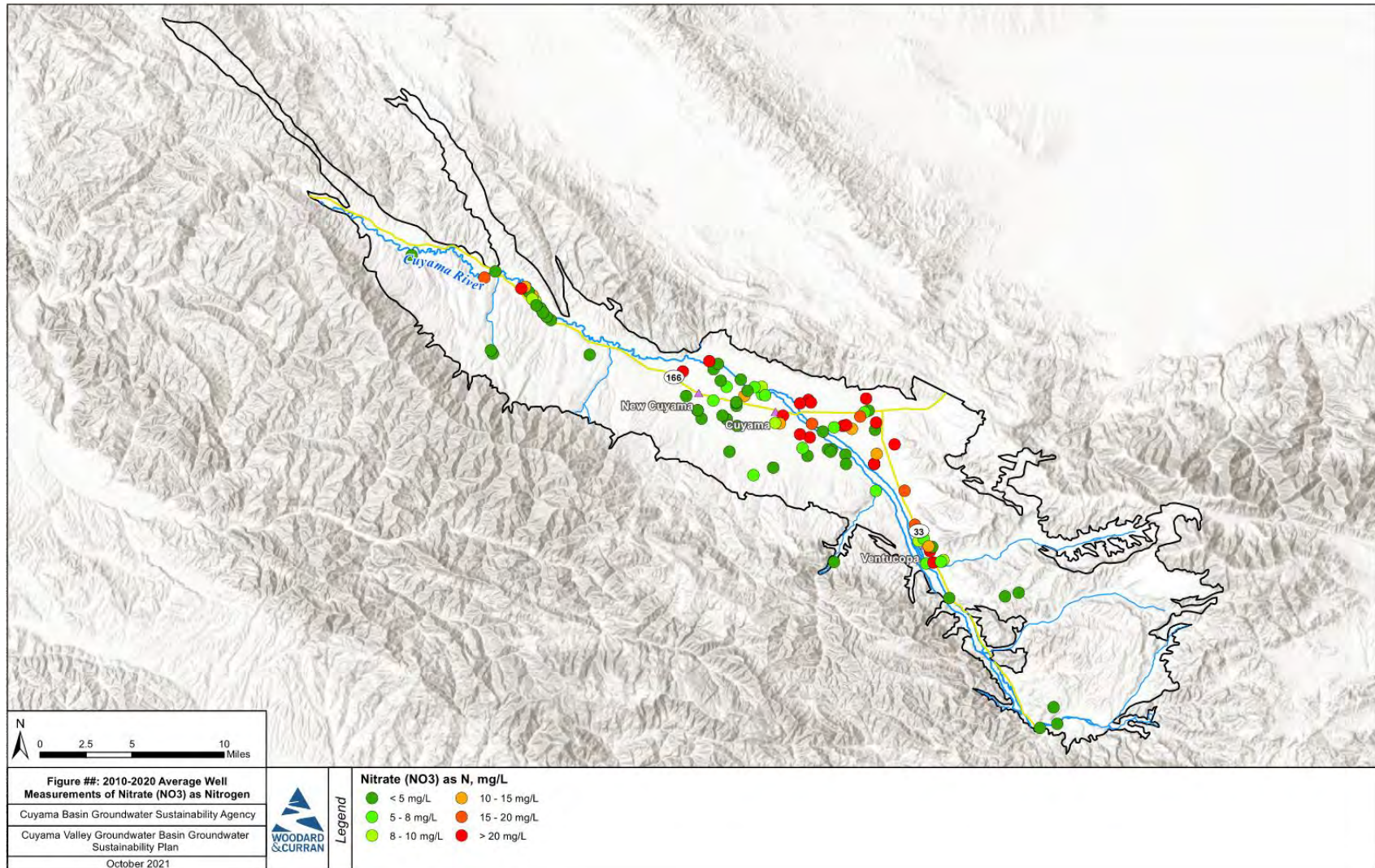


Figure 4-1. Average Well Measurements of Nitrate (as N) from 2010 through 2020

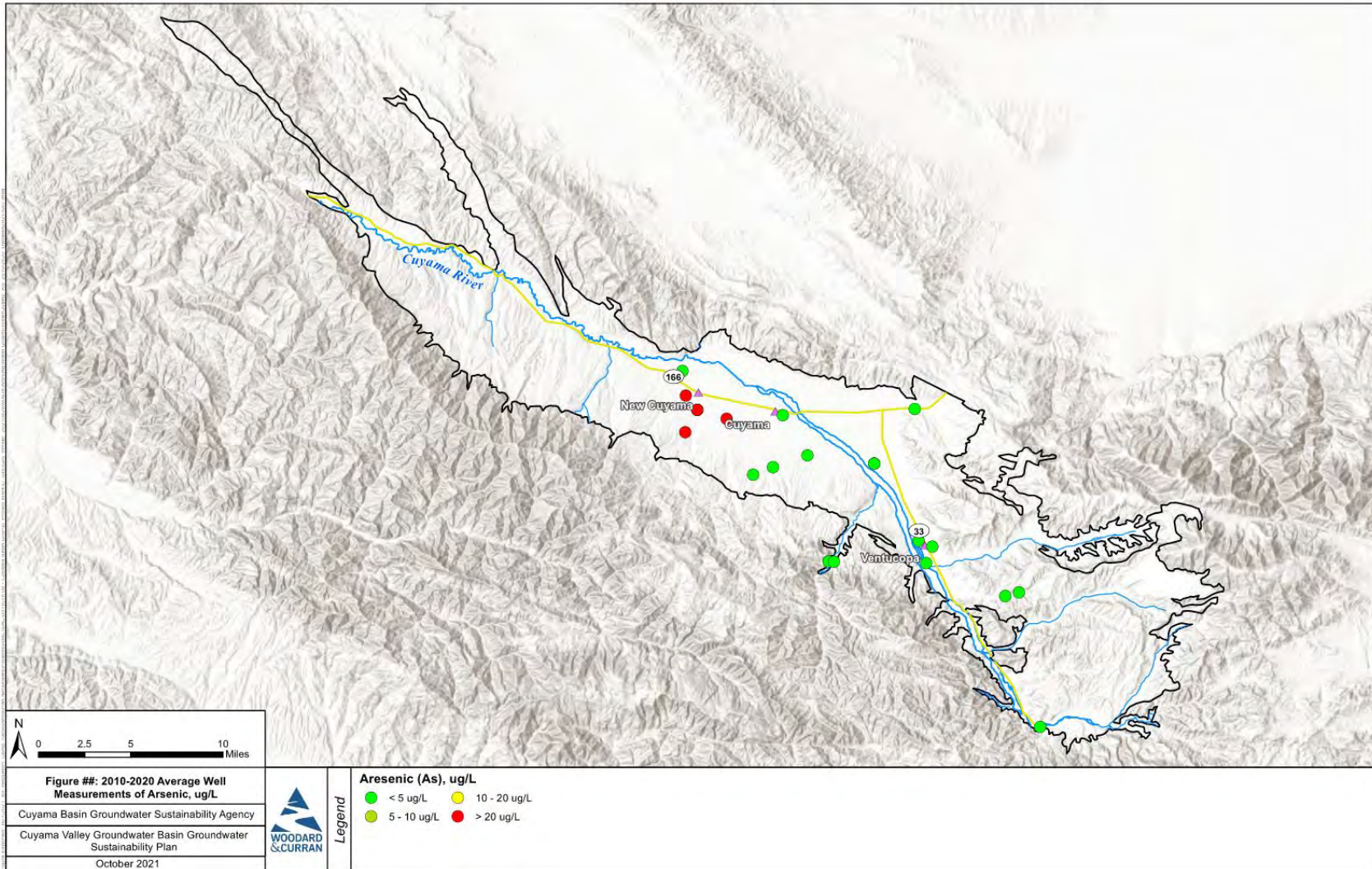


Figure 4-2. Average Well Measurements of Arsenic from 2010 through 2020

4.3.2 Why Groundwater Management is Unlikely to Affect Nitrate and Arsenic Concentrations

As discussed in the submitted GSP, nitrates are the result of fertilizer application on agricultural land. The CBGSA does not have the regulatory authority granted through SGMA to regulate the application of fertilizer. This regulatory authority is held by the SWRCB through the Irrigated Lands Regulatory Program (ILP). The CBGSA can encourage agricultural users in the Basin to use best management practices when using fertilizers but cannot limit their use. Because the CBGSA has no mechanism to directly control nitrate concentrations, it is believed that setting thresholds for nitrates is not appropriate. However, it should be noted that GSP implementation will likely have an indirect effect on nitrates in the central basin due to the pumping allocations that were included in the GSP. This will likely reduce the application of fertilizers in the central part of the basin as agricultural production in the Basin is reduced over time.

Similarly, because arsenic is naturally occurring, the CBGSA does not believe the establishment of thresholds for arsenic is appropriate. As shown in Figure 4-2, wells with high arsenic concentrations are located in a relatively small area of the basin south of New Cuyama. A review of production well data provided by the counties (discussed in Section 2) indicates that there are no active private domestic wells located in this part of the basin. The only operational public well that is located in this part of the basin serves the Cuyama Community Services District (CCSD). As noted above, the CCSD is currently pursuing the drilling of a new production well, which was included as a project in the GSP. Once this well is completed, it is not believed that any domestic water users will be using a well that accesses groundwater with known high arsenic concentrations.

4.3.3 Monitoring Approach for Nitrates and Arsenic

The CBGSA intends to leverage and make use of existing monitoring programs for nitrates and arsenic, in particular ILP for nitrates and USGS for arsenic. The wells in the basin where recent monitoring data is available for these constituents are shown in Figures 4-1 and 4-2. To supplement the understanding of nitrate and arsenic concentrations in the basin, the GSP intends to perform an additional measurement of nitrate and arsenic at each water quality well identified in the GSP (GSP Figure 4-20) during calendar year 2022. This will provide a baseline constituent level in all groundwater quality representative monitoring network locations that can be utilized for future basin planning. Additional measurements may be considered by the GSA in the future in anticipation of future five-year updates.

5. POTENTIAL CORRECTIVE ACTION 4: PROVIDE EXPLANATION FOR HOW OVERDRAFT WILL BE MITIGATED IN THE BASIN

5.1 Initial Review and Opinion Provided by DWR

This potential corrective action is related to the lack discussion of how overdraft will be mitigated in the entire basin. In particular, DWR requests additional information for why the GSP does not include pumping reductions in the Ventucopa management area (where the Cuyama Basin Water Resources Model (CBWRM) predicts long-term groundwater level declines) and why projects and management actions are not included to prevent groundwater level declines in the northwest region.

5.2 Review of Information and Data Provided in Submitted GSP

The Water budget section of the GSP (section 2.3) includes a sustainability analysis that estimates that basin-wide groundwater pumping (currently estimated at about 60-64 taf per year) would need to be reduced by somewhere between 55% and 67% (depending on whether climate change and/or water supply projects are included).

The GSP defined management areas in central basin and in the Ventucopa region because those were the two regions in which the model predicted long-term overdraft (Section 7.1). The modeling results did not predict overdraft or groundwater declines in any other portion of the basin, including the northwest region. The Projects and Management Actions section includes an action to implement pumping allocations in the Central Basin management area to address projected overdraft in that portion of the basin. However, as described in the Executive Summary, pumping reductions were not recommended in the Ventucopa management area because **of the need to “perform additional monitoring, incorporate new monitoring wells, and further evaluate groundwater conditions” before the need for pumping reductions can be determined.**

The CBWRM model documentation (Appendix 2-C) estimated the range of uncertainty of basinwide model results and included recommendations for future model updates, including additional hydrogeological characterization, improved streamflow data collection, an assessment of groundwater pumping levels and incorporating future collected data into model calibration – **each of which is relevant to the model’s** representation of the Ventucopa region.

5.3 Updates to GSP in Response to DWR Letter

The following sections provide additional information regarding the Ventucopa management area and the northwestern region.

5.3.1 Ventucopa Management Area

As noted in the Executive Summary of the GSP, the GSA intends to re-evaluate the need for pumping reductions in the Ventucopa region after further evaluating groundwater conditions over a two-to-five-year period following submission of the GSP. At the time that the GSP was submitted, the CBGSA felt that it was premature to prescribe pumping reductions in the Ventucopa region on the basis of CBWRM model results because the development of the model in that portion of the basin posed significant challenges:

- Limited groundwater level data was available for model calibration. Only three calibration wells were available in that area of the basin (wells 62, 85, and 617). Since submission of the GSP, a new multi-completion monitoring well has been installed in the area, which will provide additional information for model calibration going forward.

- Characterization of streamflows and their effect on the groundwater aquifer was challenging because there were no streamflow gages on the Cuyama River with measurements taken during the calibration period and limited information was available regarding stream geometry in the region. Since submission of the GSP, a new streamflow gage has been installed on the Cuyama River upstream of the Ventucopa region.
- Groundwater pumping levels in the region were based on estimates from available land use information. However, unlike the central basin, cropping patterns in this portion of the basin was not provided by local landowners but was instead estimated using satellite imagery. Furthermore, specific well locations were not available in this portion of the basin. The CBGSA has addressed these shortcomings through the requirement of landowners to install meters on production wells and to report well information starting in calendar year 2022.
- The magnitude of water budget estimates in the region were relatively small as compared to the basin as a whole, which meant that a small change in the estimate for a single water budget component could have a large effect on the estimated change in storage (and corresponding estimates of long-term groundwater elevation change). In particular, some basin stakeholders have raised a concern that the model may be underestimating stream seepage into the aquifer in this stretch of the Cuyama River.
- Due to time and budget constraints during GSP development, model development and calibration prioritized development of an accurate representation of the central basin portion of the aquifer (where long-term overdraft was known to occur) with lesser emphasis on other parts of the model. The primary model calibration objective during CBWRM development of the Ventucopa region was on ensuring that groundwater levels matched historical trends at the boundary of the central basin and Ventucopa region.

Table 5-1 shows the average annual groundwater budget in the Eastern threshold region for the 50-year current and projected simulation (without climate change) included in the GSP. While the historical simulation showed a small surplus in the region, the future projected simulation showed a deficit of about 700 acre-feet per year (AFY), which corresponded to the groundwater level declines shown in Figure 7-1 of the GSP. This quantity is small compared to an overall basin groundwater storage deficit of 25,000 AFY, and it is approximately 10% of the total groundwater inflow in this region. This can be well within the range of uncertainties in any of the water budget components, and the range of overdraft can be +/- 10%. In light of the uncertainties, and lack of sufficient data on the water budget components to verify the model projected water budget, the CBGSA determined that implementing a management action in the region at this early stage may be too premature. Instead, the CBGSA is determined to compile and analyze additional data and information on groundwater levels, surface water flows, groundwater pumping, as well as information on channel geometry and subsurface conditions. This information will be used to further enhance the capabilities of the model for analysis of projected water budgets and groundwater conditions in the region, and determination of possible management actions to address any possible projected overdraft conditions.

Table 5-1. Eastern Region Groundwater Budget Summary (Acre-feet per year)

	Current and Projected Simulation (2018-2067)
Inflows	
Deep percolation	4,100
Stream seepage	1,300
Subsurface inflow	700
Total Inflows	6,100
Outflows	
Groundwater pumping	6,800
Total Outflows	6,800
Change in Storage	-700

5.3.2 Northwestern Region

In regard to the northwestern region, management actions were not included in the GSP for this region because the available information did not indicate a projected overdraft in that region. The following information was considered during development of the GSP:

- The CBWRM model indicated a balance between groundwater inflows and outflows in the region in all of the water budget scenarios that were simulated.
- The Cleath-Harris Geologists (CHG) document *Sustainability Thresholds for Northwestern Region, Cuyama Valley*, dated December 7, 2018¹, previously described in Section 2. This document identified minimum thresholds for this area that would be protective of groundwater pumping capacity for production wells in this area. CHG estimated that the minimum thresholds proposed for the region would result in a fifteen percent reduction in the saturated thickness screened by the production wells, which would correspond in very general terms to a similar reduction in transmissivity and pumping capacity of the production wells.

The technical analyses described in Section 2 regarding potential corrective action 1 indicates that the potential drawdown due to the minimum thresholds set for wells 841 and 845 could have a small effect on GDEs and domestic wells in the area. However, the thresholds set in the monitoring wells located in the vicinity of these basin resources are set at protective levels that would be indicative of any issues that may arise, allowing the CBGSA to make an appropriate adaptive management response (per section 7.6 of the GSP). Therefore, the available evidence indicates that management actions are not required in this region at this time.

¹ Posted at the Cuyama Basin GSA website here: <https://cuyamabasin.org/assets/pdf/Cleath-Harris-Sustainability-Thresholds-for-Northwestern-Region.pdf>

Attachment 1



CALIFORNIA DEPARTMENT OF WATER RESOURCES

SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE

901 P Street, Room 313-B | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

June 3, 2021

Mr. Taylor Blakslee
Cuyama Basin GSA Project Coordinator
4900 California Avenue, Tower B, 2nd Floor
Bakersfield, CA. 93309

RE: Cuyama Valley - 2020 Groundwater Sustainability Plan

Dear Taylor Blakslee,

The Cuyama Basin Groundwater Sustainability Agency (GSA) submitted the Cuyama Valley Groundwater Basin (Basin) Groundwater Sustainability Plan (GSP) to the Department of Water Resources (Department) for evaluation and assessment as required by the Sustainable Groundwater Management Act (SGMA).¹ This letter is intended to initiate consultation between the Department and the GSA in advance of issuance of a determination described under the GSP Regulations.²

Department staff recognize the significant effort that went into development of the first GSP for the Basin and believe the aggressive approach toward demand management is a significant step toward achieving groundwater sustainability for the Basin.

Department staff have completed an initial review of the GSP and have identified deficiencies which may preclude the Department's approval.³ Consistent with the GSP Regulations, Department staff are considering corrective actions⁴ that the GSA should review to determine whether and how the deficiencies can be addressed. The deficiencies and corrective actions are generally related to the need to define sustainable management criteria in the manner required by SGMA and the GSP Regulations, further address water quality, and better explain how overdraft will be mitigated.

The Department has the authority to determine the GSP is incomplete and, if it does so, the deficiencies precluding approval will need to be addressed within a period of time not to exceed 180 days from the determination, which would be issued no later than January 28, 2022. Prior to making that determination, and after you review the contents of this letter, Department staff will contact you to discuss the deficiencies and consult

¹ Water Code § 10720 *et seq.*

² 23 CCR Division 2, Chapter 1.5, Subchapter 2.

³ 23 CCR § 355.2(e)(2).

⁴ 23 CCR § 355.2(e)(2)(B).

with you regarding the amount of time needed by the GSA to address the potential corrective actions detailed in Attachment 1.

If you have any questions, please don't hesitate to contact the Sustainable Groundwater Management Office staff by emailing sgmps@water.ca.gov.

Thank you,

A handwritten signature in black ink, appearing to read "Craig Altare". The signature is fluid and cursive, with the first name "Craig" being more prominent than the last name "Altare".

Craig Altare, P.G.
Supervising Engineering Geologist
Groundwater Sustainability Plan Review Section Chief

Attachment:

1. Potential Corrective Actions

Potential Corrective Actions

Department staff have identified deficiencies in the GSP which may preclude the Department's approval. Consistent with the GSP Regulations, Department staff are considering corrective actions that the GSA should review to determine how the deficiencies can be addressed. The deficiencies and corrective actions are explained below, including an explanation of the general regulatory background, the specific deficiency identified in the GSP, and the specific actions to address the deficiency. The specific actions identified are potential corrective actions until a final determination is made by the Department.

Potential Corrective Action 1. Provide justification for, and effects associated with, the sustainable management criteria

The first potential corrective action relates to the GSP's lack of justification for the established sustainable management criteria and the effects of those criteria on the interests of beneficial uses and users in the Basin.

Background

The Department's GSP Regulations collect several required elements of a GSP under the heading of "Sustainable Management Criteria," including undesirable results along with the sustainability goal, minimum thresholds, and measurable objectives. Except for the sustainability goal, the components of sustainable management criteria must be quantified so that progress towards sustainability can be monitored and evaluated consistently and objectively.

A GSA relies on, among other factors, local experience, public outreach and involvement, and information about the basin it has described in its basin setting—the hydrogeologic conceptual model, the description of current and historical groundwater conditions, and the water budget—to develop criteria for defining undesirable results and setting minimum thresholds and measurable objectives.⁵

SGMA defines sustainable groundwater management as the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.⁶ The avoidance of undesirable results is thus explicitly part of sustainable groundwater management as established by SGMA and critical to the success of a GSP. Accordingly, managing a basin solely to eliminate overdraft within 20 years does not necessarily mean that GSAs in the basin have done

⁵ Best Management Practices for the Sustainable Management of Groundwater: Sustainable Management Criteria (DRAFT). California Department of Water Resources, November 2017, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/BMP-6-Sustainable-Management-Criteria-DRAFT_ay_19.pdf.

⁶ Water Code § 10721(v).

all that is required to achieve sustainable groundwater management. To achieve sustainable groundwater management under SGMA, the basin must experience no undesirable results by the end of the 20-year GSP implementation period and be able to demonstrate an ability to maintain those defined sustainable conditions over the 50-year planning and implementation horizon.

The definition of undesirable results is thus critical to the establishment of an objective method to define and measure sustainability for a basin. As an initial matter, SGMA provides a qualitative definition of undesirable results as “one or more” of six specific “effects caused by groundwater conditions occurring throughout the basin.”⁷

It is up to GSAs to define in their GSPs the specific significant and unreasonable effects that would constitute undesirable results and to define the groundwater conditions that would produce those results in their basins.⁸ The GSA’s definition needs to include a description of the processes and criteria relied upon to define undesirable results and must describe the effect of undesirable results on the beneficial uses and users of groundwater. From this definition, the GSA establishes minimum thresholds, which are quantitative values that represent groundwater conditions at representative monitoring sites that, when exceeded individually or in combination with minimum thresholds at other monitoring sites, may cause the basin to experience undesirable results.⁹

SGMA leaves the task of establishing undesirable results and setting thresholds largely to the discretion of the GSA, subject to review by the Department. In its review, the Department requires a thorough and reasonable analysis of the groundwater conditions the GSA is trying to avoid, and the GSA’s stated rationale for setting objective and quantitative sustainable management criteria to prevent those conditions from occurring. If a Plan does not meet this requirement, the Department is unable to evaluate the likelihood of the Plan in achieving its sustainability goal. This does not necessarily mean that the GSP or its objectives are inherently unreasonable; however, it is unclear which conditions the GSA seeks to avoid, making it difficult for the Department to monitor whether the GSA will be successful in that effort when implementing its GSP.

GSP-Specific Deficiency

Based on its initial review, Department staff are concerned that although the GSP appears to realistically quantify the water budget and identify the extent of overdraft in the Basin, and while the GSP proposes projects and management actions that appear likely to eventually eliminate overdraft in portions of the Basin, the GSP has not defined

⁷ Water Code § 10721(x).

⁸ 23 CCR § 354.26.

⁹ 23 CCR § 354.28, Best Management Practices for the Sustainable Management of Groundwater: Sustainable Management Criteria (DRAFT). California Department of Water Resources, November 2017, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/BMP-6-Sustainable-Management-Criteria-DRAFT_ay_19.pdf.

sustainable management criteria in the manner required by SGMA and the GSP Regulations.

Undesirable Results

The GSP provides quantitative values for the minimum thresholds and includes a combination of those minimum threshold exceedances that the GSA considers causing an undesirable result. However, the GSP does not discuss, or appear to address, the critical first step of identifying the specific significant and unreasonable effects that would constitute undesirable results. The GSP provides general statements about undesirable results (e.g., “The Undesirable Result for the chronic lowering of groundwater levels is a result that causes significant and unreasonable reduction in the long-term viability of domestic, agricultural, municipal, or environmental uses over the planning and implementation horizon of this GSP.”¹⁰) and generic descriptions of the effects of undesirable results (e.g., “...the Undesirable Results could cause potential de-watering of existing groundwater infrastructure, starting with the shallowest wells...”¹¹), but does not provide an explanation for the specific significant and unreasonable condition(s) that the GSA intends to avoid in the Basin through implementation of the GSP (e.g., a level of impact to well infrastructure or to environmental uses).

The GSP states undesirable results for chronic lowering of groundwater levels would occur when groundwater level minimum thresholds are exceeded in 30 percent of monitoring wells for two consecutive years. (The same 30 percent for two consecutive years criterion is used for reduction in storage, degradation of groundwater quality, land subsidence, and depletion of interconnected surface water.) However, the GSP does not provide any explanation for why the criterion is consistent with avoiding significant and unreasonable effects that constitute undesirable results.

Minimum Thresholds.

The GSP lacks explanation of the justification for setting its minimum thresholds and also lacks explanation of the anticipated effects of groundwater conditions at those thresholds on the interests of the beneficial uses and users of groundwater in nearly all threshold regions. The GSP describes that each threshold region has its own formula to determine the quantitative minimum threshold (e.g., in the Central threshold region it is determined by subtracting 20 percent of the historical range in groundwater levels from the groundwater level observed in early 2015). While it is acceptable to set minimum thresholds differently in portions of a basin, all minimum thresholds must, by the definition of that term in the GSP Regulations, relate to the conditions that could cause undesirable results.

This lack of information is particularly notable in the Northwestern threshold region. The GSP states that the intention of the sustainable management criteria for the Northwestern

¹⁰ Cuyama Basin GSP, Section 3.2.1, p. 260.

¹¹ *Ibid.*

region is to “...protect the water levels from declining significantly, while allowing beneficial land surface uses (including domestic and agricultural uses) and using the storage capacity of this region.”¹² However, the Northwestern region is the only region in the Basin where the sustainable management criteria indicate a plan to substantially lower groundwater levels, relative to conditions at the time of GSP preparation (i.e., the minimum thresholds for groundwater levels are up to 140 to 160 feet lower¹³), in an area with the highest concentration of potential GDEs¹⁴ in Cuyama Valley and with interconnected surface water, which is evidenced by a gaining reach of the river.¹⁵ The GSP did not quantify the expected depletions of surface water over time or assess or disclose the anticipated effects of the established minimum thresholds on beneficial uses and users of groundwater, which, based on Department staff’s review, appear to include nearby domestic users, potential GDEs, and users of the interconnected surface water.

The absence of this information and related discussion precludes meaningful disclosure to, and participation by, interested parties and residents in the Basin. In addition, without this discussion it is difficult for Department staff to determine whether it is appropriate or reasonable for the GSA to conclude that undesirable results in the Basin would not occur unless nearly a third of representative monitoring points exceed their minimum thresholds for two consecutive years.

Addressing the Deficiency

The GSA must provide more detailed information, as required in the GSP Regulations, regarding undesirable results and minimum thresholds for all applicable threshold regions.¹⁶ The GSA should describe the anticipated effects of the established minimum thresholds and undesirable results on the interests of beneficial uses and users and how the GSA determined that those thresholds would avoid undesirable results in the Basin. Department staff suggest that the following issues be considered and addressed:

1. The GSA should describe the specific undesirable results they aim to avoid through implementing the GSP. For example, if the long-term viability of domestic, agricultural, municipal, or environmental uses is a concern with respect to lowering of groundwater levels, then the GSA should describe the specific effects on those users that the GSA considers significant and unreasonable and define groundwater conditions that would lead to those effects. Clarify how the criteria defining when undesirable results occur in the Basin (i.e., 30 percent exceedance of minimum thresholds for two consecutive years) was established, the rationale

¹² Cuyama Basin GSP, Section 5.2.2, p. 352.

¹³ Cuyama Basin GSP, Chapter 5 Appendix A, p. 1505-1509.

¹⁴ Cuyama Basin GSP, Section 2.2.9, p. 227, Figures 2-63 and 2-64, p. 230-231, Chapter 2-Appendix D, p. 1258-1279.

¹⁵ Cuyama Basin GSP, Section 2.2.8, p. 222, Figure 2-61, p. 223.

¹⁶ 23 CCR §§ 354.26, 354.28.

behind the approach, and why it is consistent with avoiding the significant and unreasonable effects identified by the GSA.

2. The GSA should either explain how the existing minimum threshold groundwater levels are consistent with avoiding undesirable results or they should establish minimum thresholds at the representative monitoring wells that account for the specific undesirable results the GSA aims to avoid. For each threshold region, the GSA should evaluate and disclose the anticipated effects of the GSP's minimum thresholds and undesirable results on:
 - a. Well infrastructure, including domestic wells, community and public water supply wells, and agricultural wells. The GSA may utilize the Department's well completion report dataset¹⁷ or other similar data to estimate the number and kinds of wells expected to be impacted at the minimum thresholds identified in the GSP. Public water system well locations and water quality data can currently be obtained using the State Water Resource Control Board's (State Water Board) Geotracker website.¹⁸ Administrative contact information for public water systems and well locations and contacts for state small water systems and domestic wells can be obtained by contacting the State Water Board's Needs Analysis staff.¹⁹ The State Water Board is currently developing a database to allow for more streamlined access to this data in the future.

If the GSA identifies potential impacts to drinking water wells, including de minimis users and disadvantaged communities, those impacts should be described in the GSP. By the first five-year update, the GSA should inventory and better define the location of active wells in the Basin. The GSA should document known impacts to drinking water users caused by groundwater management, should they occur, in annual reports and subsequent periodic updates.

- b. Environmental uses and users of groundwater. If data are not available to support evaluation of the effects of established minimum thresholds on environmental uses and users, the GSA should clarify the strategy, mechanism, and timeline for acquiring that data and incorporating that data into management of the Basin.²⁰

¹⁷ Well Completion Report Map Application. California Department of Water Resources, <https://www.arcgis.com/apps/webappviewer/index.html?id=181078580a214c0986e2da28f8623b37>.

¹⁸ GeoTracker Application. California State Water Resources Control Board, <https://geotracker.waterboards.ca.gov/map/#>; select "Public Water Wells" under the "Other Sites" option and navigate to the area of interest.

¹⁹ DDW-SAFER-NAU@Waterboards.ca.gov.

²⁰ 23 CCR §§ 355.4(b)(2), 355.4(b)(3).

Potential Corrective Action 2. Use of groundwater levels as a proxy for depletion of interconnected surface water

The second potential corrective action relates to the GSP's lack of explanation and justification for the use of groundwater levels as a proxy for depletions of interconnected surface water.

Background

The GSP Regulations allow for a GSP to establish representative groundwater level thresholds that serve as minimum thresholds for other sustainability indicators if the GSA can demonstrate the representative groundwater level value is a reasonable proxy, supported by adequate evidence.

GSP-Specific Deficiency

The GSP lacks a demonstration, with supporting evidence, of the reasonableness of using groundwater level thresholds as a proxy for depletion of interconnected surface water. The GSP states that “[b]y setting minimum thresholds on shallow groundwater wells near surface water, the [GSA] can to (*sic*) monitor and manage [the hydraulic gradient between surface water and groundwater], and in turn, manage potential changes in depletions of interconnected surface [water].”²¹ However, in defining the groundwater level proxies for depletion of interconnected surface water, the GSA appears to have used all the groundwater level thresholds it defined for chronic lowering of groundwater levels regardless of depth of the well or proximity to surface water. It is not obvious to Department staff why managing the Basin to the complete set of chronic lowering of groundwater level thresholds is sufficient to avoid undesirable results for depletion of interconnected surface water, especially since many of those groundwater level thresholds represent conditions that are lower than current conditions.

Addressing the Deficiency

The GSA should provide a demonstration, with supporting evidence, for why using the basinwide groundwater level minimum thresholds is a reasonable proxy for thresholds for depletion of interconnected surface water.

Potential Corrective Action 3. Further address degraded water quality

The third potential corrective action relates to the GSP's apparent lack of consideration of the best available information and data regarding water quality, and the resultant effects on the GSP's description of water quality conditions, water quality sustainable management criteria, and monitoring for certain water quality constituents.

²¹ Cuyama Basin GSP, Section 3.2.6, p. 263.

Background

SGMA and the GSP Regulations do not require a GSP to address undesirable results associated with degraded water quality that occurred before, and have not been corrected by, January 1, 2015. However, management of a basin pursuant to an adopted GSP should not result in further water quality degradation that is significant and unreasonable, either due to routine groundwater use or as a result of implementing projects or management actions called for in the GSP.²² SGMA provides GSAs with legal authority to regulate and affect pumping and groundwater levels, which have the potential to affect the concentration or migration of water quality constituents and result in degradation of water quality. Additionally, the GSP Regulations state that GSAs should consider local, state, and federal water quality standards when establishing sustainable management criteria,²³ and SGMA provides GSAs with the authority to manage and control polluted water and use authorities under existing laws to implement its GSP.²⁴ Thus, establishing sustainable management criteria and performing routine monitoring of water quality constituents known to affect beneficial uses and users is within the purview of a GSA.

GSP-Specific Deficiency

Department staff believe the GSA's decision to not set sustainable management criteria for arsenic and nitrates may not be reasonable because the findings were not supported by the best available information.²⁵ The GSP focused on total dissolved solids (TDS), nitrates, and arsenic as a result of public comments received during GSP development.²⁶ The GSP includes sustainable management criteria for TDS but, despite acknowledging that nitrate and arsenic have exceeded maximum contaminant levels (MCL) prescribed by the State Water Board, the GSP did not establish sustainable management criteria for those constituents. Furthermore, the GSA does not intend to perform routine monitoring for nitrates and arsenic on the basis that they determined there is no "causal nexus" between the GSA's authority to implement projects and management actions and concentrations of arsenic or nitrate.²⁷

In its justification for the lack of sustainable management criteria for nitrates and arsenic, the GSP explains that there were relatively few detections of those constituents above drinking water regulatory limits—two nitrate samples and three arsenic samples.²⁸ Regarding arsenic, the GSP states that the three arsenic detections above the MCL came

²² Water Code § 10721(x)(4); 23 CCR § 354.28(c)(4).

²³ 23 CCR § 354.28(c)(4).

²⁴ Water Code §§ 10726.2(e), 10726.8(a).

²⁵ While there is no definition of best available information, the GSP Regulations define best available science as the use of sufficient and credible information and data, specific to the decision being made and the time frame available for making that decision, that is consistent with scientific and engineering professional standards of practice.

²⁶ Cuyama Basin GSP, Section 2.2.7, p. 208.

²⁷ Cuyama Basin GSP, Section 4.8, p. 321.

²⁸ Cuyama Basin GSP, Section 5.5, p. 360-361.

from an inactive well and from groundwater deeper than 700 feet below ground surface, which the GSP states is below the range of pumping depths for drinking water.²⁹ In other words, the GSP states that arsenic was not detected above MCL in active wells shallower than 700 feet.³⁰ However, credible public comments submitted to the Department raised concerns about this claim and the data the GSA may or may not have considered, the GSA's interpretation of that data, and the decision of the GSA to not monitor or develop management criteria for those constituents. For example, a comment submitted to the Department indicates the State Water Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program's Groundwater Information System contains records of arsenic concentrations exceeding the MCL in drinking water wells screened as shallow as 340 feet below ground surface.³¹ Department staff confirmed that this claim appears to be true.

Regarding nitrates, a public comment submitted to the Department indicates that potentially 13 of 109 nitrate samples (12 percent) have exceeded the MCL in the past ten years,³² which conflicts with the GSP's statement that only two samples during 2011 to 2018 exceeded the MCL.

Addressing the Deficiency

Having identified them as constituents of concern, the GSA should reasonably and thoroughly address nitrate and arsenic in the GSP using best available information. Specifically, the GSA should consider the following:

1. Groundwater conditions. The Department received comments that raise credible technical issues regarding groundwater quality data that apparently were not considered when developing the GSP but are available to the public and likely, in the opinion of Department staff, to alter the GSA's assessment of the Basin conditions. The GSA should coordinate with interested parties that submitted comments, in particular with the Regional Water Quality Control Board, to obtain best available information regarding basinwide water quality. The GSA should evaluate this data, along with their existing data, and update the description of basinwide water quality in the GSP as appropriate.
2. Sustainable management criteria. After updating the information regarding existing groundwater quality conditions, the GSA should revise its discussion of groundwater quality sustainable management criteria to either include criteria for arsenic and nitrate or provide thorough, evidence-based descriptions for why

²⁹ Cuyama Basin GSP, Section 2.2.7 and Section 4.8, p. 209 and 321.

³⁰ Cuyama Basin GSP, Section 2.2.7, p. 209.

³¹ Central Coast Water Board Comments on Final Cuyama Valley Groundwater Sustainability Plan. Central Coast Regional Water Quality Control Board Comment Letter Submitted to the Department, 15 May 2020, <https://sgma.water.ca.gov/portal/service/gspdocument/download/4021>.

³² *Ibid.*

groundwater management is not likely to cause significant and unreasonable degradation of groundwater by increasing concentrations of those constituents.

3. Monitoring networks. The GSA should appropriately revise its groundwater quality monitoring network based on updates to the GSP noted above. Department staff believe that, at a minimum, the GSA should include monitoring for arsenic and nitrates as they have been identified as constituents of concern and both appear to be relatively widespread. Monitoring will be important for the GSA to assess whether groundwater quality degradation for those constituents is occurring. The GSA may leverage existing programs that collect and disseminate water quality data and information. The GSA should address any data gaps in the groundwater quality monitoring network and provide specific schedules to address those data gaps.

Potential Corrective Action 4. Provide explanation for how overdraft will be mitigated in the basin

The fourth potential corrective action is related to the lack of a complete discussion of how overdraft will be mitigated in the entire basin through implementation of the GSP.

Background

GSP Regulations require that a GSP include a description of projects and management actions that the GSA has determined will achieve the sustainability goal for the basin, the timeline of implementation, and the sustainability indicators that are expected to benefit, including the circumstances in which they would be implemented.³³ For basins in overdraft, the description shall include a quantification of demand reduction or other methods for mitigating the overdraft.³⁴

GSP-Specific Deficiency

The GSP identifies two management areas, Central Basin and Ventucopa, as the primary pumping areas in the Cuyama Valley that have the highest water demand. Groundwater levels in the Central Basin management area decline by a modeled 2 to 7.7 feet per year, whereas the Ventucopa management area decline by 2 to 3 feet per year.³⁵

To meet the sustainability goal of the Basin, the GSA explains in detail throughout the GSP that a pumping reduction of 50 to 67 percent will be required.³⁶ Pumping reductions would begin in 2023 and become progressively larger each successive year, with full implementation of the total pumping reduction in 2038.³⁷

³³ 23 CCR § 354.44.

³⁴ 23 CCR § 354.44(b)(2).

³⁵ Cuyama Basin GSP, Figure 7-1, p. 387.

³⁶ Cuyama Basin GSP, Executive Summary and Table 2-7, p. 26 and 254.

³⁷ Cuyama Basin GSP, Figures ES-15 and 8-1, p. 32 and 419-420.

However, the GSP only intends to implement those pumping reductions in the Central Basin management area and does not explain why pumping reductions will not be implemented in the Ventucopa management area. The GSP executive summary states that “[p]umping reductions are not currently recommended for the Ventucopa Area” and instead recommends “to perform additional monitoring, incorporate new monitoring wells, and further evaluate groundwater conditions in the area over the next two to five years” and that “[o]nce additional data are obtained and evaluated, the need for any reductions in pumping will be determined.”³⁸ These cited details from the executive summary are the extent of the GSP’s description of the plans for possible demand management in the Ventucopa management area.³⁹ Lack of detail for this area is concerning because it appears to Department staff as though the GSA’s defined minimum thresholds, which should represent a point in the Basin that, if exceeded, may cause undesirable results⁴⁰, in the Ventucopa management area could be exceeded in as soon as two years if two feet per year of groundwater level decline continues.⁴¹ It is also concerning because the GSP explains that “[d]omestic water users in [the Ventucopa and Central Basin management areas] are experiencing water supply challenges, and in the 2012-2016 drought experienced well failures.”⁴²

In addition to the Ventucopa Area, the GSP also does not discuss why projects and management actions were not considered in the Northwestern threshold region, where, as noted above in Potential Corrective Action 1, it appears that overdraft will occur for some time and the allowable groundwater-level decline is over 100 feet.

Addressing the Deficiency

The GSA should explain the rationale for not implementing pumping reductions in the overdrafted Ventucopa management area or any other portion of the Basin where overdraft is expected to continue, and explain the timeline and criteria that may be used to determine whether future pumping reduction allocations are needed.⁴³ If the criteria to implement pumping reductions are related to the effects on beneficial uses and users, as mentioned in Potential Corrective Action 1, the GSP should clarify what those effects are that would necessitate pumping reductions.

³⁸ Cuyama Basin GSP, Executive Summary, p. 32.

³⁹ Cuyama Basin GSP, Executive Summary and Section 7.3.2, p. 32 and 410.

⁴⁰ 23 CCR § 354.28(a).

⁴¹ Maps in the GSP appear to indicate two representative monitoring wells are located in the Ventucopa Management Area, OPTI wells 62 and 101. The minimum threshold at OPTI Well 62 is 182 feet below ground surface and the water level as of December 2020 was 158.4 feet below ground surface; at two feet per year the minimum threshold will be exceeded in approximately 12 years. The minimum threshold at OPTI Well 101 is 111 feet below ground surface and the water level as of December 2020 was 108.6 feet below ground surface; at two feet per year the minimum threshold could be exceeded in approximately 2 years.

⁴² Cuyama Basin GSP, Section 7.2.4, p. 405.

⁴³ 23 CCR §§ 355.4(b)(3), 355.4(b)(4), 355.4(b)(5), 355.4(b)(6).

The GSP states well failures occurred during the 2012-2016 drought. The GSP also projects a lowering of groundwater levels beyond those observed during the drought and below 2015 conditions. If, after considering this deficiency and the deficiency associated with Potential Corrective Action 1, the GSA retains minimum thresholds that allow for continued lowering of groundwater levels, then it is reasonable to assume that additional wells may be impacted during implementation of the Plan. While SGMA does not require all impacts to groundwater uses and users be mitigated, the GSA should consider including mitigation strategies describing how drinking water impacts that may occur due to continued overdraft during the period between the start of GSP implementation and achievement of the sustainability goal will be addressed. If mitigation strategies are not included, the GSP should contain a thorough discussion, with supporting facts and rationale, explaining how and why the GSA determined not to include specific actions to mitigate drinking water impacts from continued groundwater lowering below 2015 levels.

Attachment 2

**Directors:**

Derek Yurosek
Chair

Lynn Compton
Vice Chair

Byron Albano

Cory Bantilan

Paul Chounet

Zack Scrivner

Glenn Shephard

Lorena Stoller

Matt Vickery

Das Williams

Jane Wooster

Staff:

James M. Beck
Executive Director

Joe Hughes
Legal Counsel

August 27, 2021

Craig Altare, P.G.
Supervising Engineering Geologist | Groundwater Sustainability Plan Review Section Chief
California Department of Water Resources
901 P Street, Room 313-B
Sacramento, CA 95814

Re: Cuyama Basin GSA Response to DWR's June 3, 2021, Consultation Letter

Dear Mr. Altare:

The Cuyama Basin Groundwater Sustainability Agency (CBGSA) appreciates the California Department of Water Resources' (DWR) Consultation Letter dated June 3, 2021 (Letter) (Attachment 1), and the advanced time to address deficiencies DWR identified in the CBGSA's Groundwater Sustainability Plan (GSP). The CBGSA Board of Directors' (Board) intends to address the four Potential Corrective Actions identified by DWR in a satisfactory way prior to DWR's final determination of GSP status in January 2022.

At the August 18, 2021, Board meeting, the Board discussed various options to address the four Potential Corrective Actions provided in DWR's Letter. Following extensive public discussion and review, the Board approved specific responses to those Potential Corrective Actions, as detailed below.

In implementing the Board's direction, the CBGSA will:

- Perform additional technical analyses and develop draft technical content responsive to DWR's comments that will be reviewed and considered at a Special Standing Advisory Committee and Board meeting in mid-to-late October 2021.
- Develop a memorandum and Board resolution describing the CBGSA's responsive actions that will be reviewed and considered by the Board at its November 2021 meeting for submittal to DWR.

Potential Corrective Action No. 1

Provide justification for, and effects associated with, the sustainable management criteria.

The CBGSA will perform a technical analysis of minimum thresholds in relation to production well depths and Groundwater Dependent Ecosystems (GDE) locations, including investigation of individual wells. Using available data, the analysis will consider well depths, perforations, and the distribution of well age in the Cuyama

August 27, 2021

Cuyama Basin GSA Response to DWR's June 3, 2021, Consultation Letter

Page 2 of 3

groundwater basin (Basin). In addition, a modeling analysis will be performed in the Northwestern region of the Basin to evaluate the effects of pumping drawdown in that area on nearby domestic wells and GDEs. Finally, a more detailed investigation will be performed on GDEs in the Northwestern threshold region by a biologist and hydrogeologist.

The results of these analyses will be used to develop a more detailed narrative on potential undesirable results, discussion of how beneficial uses and users were considered, potential economic impacts (from the direct and indirect economic analyses performed by ERA), and their relationship to sustainability criteria in the GSP. This will be included in the memorandum to be provided to DWR.

Potential Corrective Action No. 2

Use of groundwater levels as a proxy for depletion of interconnected surface water.

The CBGSA will identify a subset of existing groundwater level monitoring wells to be used for Interconnected Surface Water (ISW) monitoring. Further, the CBGSA will develop appropriate undesirable results criteria for ISW. Wells for the ISW monitoring network will be selected by considering both proximity to the river and perforation depth. While the Basin currently has limited historical data and limited existing monitoring resources to characterize surface water flows and groundwater, the CBGSA is pursuing improvements to monitoring with new USGS flow gauges and new piezometers that can improve understanding of ISW in the Basin going forward.

The memorandum to be provided to DWR will describe the revised ISW monitoring network and how ISW monitoring will be improved once additional monitoring resources are available.

Potential Corrective Action No. 3

Further address degraded water quality.

The CBGSA will review all available existing water quality data to develop an evidence-based description of why groundwater management is unlikely to cause significant and unreasonable degradation of groundwater. It will also identify existing agencies that serve as primary regulators of water quality in the Basin. CBGSA intends for those agencies to continue serving that regulatory role in the Basin, specifically related to arsenic and nitrates. Finally, the CBGSA will take a measurement for nitrates and arsenic in each water quality monitoring well in 2022 to establish a baseline understanding of nitrate and arsenic.

These actions will be described in the memorandum to be provided to DWR.

Potential Corrective Action No. 4

Provide explanation for how overdraft will be mitigated in the basin.

DWR commented that the "lack of detail for [the Ventucopa Area] is concerning because it appears to Department staff as though the GSA's defined minimum thresholds, which should represent a point in the Basin that, if exceeded, may cause undesirable results, in the Ventucopa management area could be exceeded in as soon as two years if two feet per year of groundwater level decline continues." In response, the CBGSA will provide more detail on its management decisions for the Ventucopa Area by

August 27, 2021

Cuyama Basin GSA Response to DWR's June 3, 2021, Consultation Letter

Page 3 of 3

describing model deficiencies in the context of operational knowledge and local expertise for that region. This will be included in the memorandum to be provided to DWR.

For the Northwestern Region threshold region, DWR commented that "the GSP also does not discuss why projects and management actions were not considered in the Northwestern threshold region, where, as noted above in Potential Corrective Action 1, it appears that overdraft will occur for some time and the allowable groundwater-level decline is over 100 feet." In response, the CBGSA will utilize the analyses to be performed under Potential Corrective Action No. 1, as well as other available information, to provide a rationale for the CBGSA's decisions for management actions in that region. This will be included in the memorandum to be provided to DWR.

DWR / CBGSA Coordination

CBGSA staff and an ad hoc committee of the Board would like to meet with DWR staff to discuss the CBGSA's approach to addressing the Potential Corrective Actions. CBGSA staff will contact DWR soon to coordinate this meeting.

The CBGSA appreciates the opportunity to address these issues and believes DWR's concerns can be addressed resulting in a successfully approved GSP in January 2022.

Please feel free to contact Taylor Blakslee at (661) 477-3385, or tblakslee@hgcpm.com if you have any questions.

Sincerely,



Derek Yurosek
Board Chairman
Cuyama Basin Groundwater Sustainability Agency



TO: Standing Advisory Committee
Agenda Item No. 7b

FROM: Jim Beck / Brian Van Lienden

DATE: October 28, 2021

SUBJECT: Adopt Resolution No. 21-113 Enacting Corrective Actions in Response to DWR's Consultation Letter Dated June 3, 2021

Issue

Resolution enacting corrective actions in response to DWR's consultation letter dated June 3, 2021.

Recommended Motion

Adopt Resolution No. 21-113 enacting corrective actions in response to DWR's consultation letter dated June 3, 2021.

Discussion

Resolution No. 21-113 enacts corrective actions in response to the California Department of Water Resources' (DWR) consultation letter dated June 3, 2021, and authorizes submittal to DWR.

The proposed corrective actions are presented under agenda item No. 7a and are included as an exhibit to the draft resolution which is provided as Attachment 1 for consideration of approval.

DWR staff informed the CBGSA that they will not have the staff time to adequately review this additional technical analysis ahead of their official determination on the CBGSA's Groundwater Sustainability Plan due January 28, 2022. However, they will consider this information during the 180-day period that will start January 29, 2022.

Attachment 1

RESOLUTION NO. 2021-113

**A RESOLUTION OF
THE BOARD OF DIRECTORS OF
CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY
ENACTING CORRECTIVE ACTIONS IN RESPONSE TO THE CALIFORNIA
DEPARTMENT OF WATER RESOURCES' CONSULTATION LETTER
DATED JUNE 3, 2021**

WHEREAS, the Sustainable Groundwater Management Act (SGMA) requires that a Groundwater Sustainability Agency overlying a high-priority groundwater basin adopt a Groundwater Sustainability Plan (GSP) by January 31, 2020; and

WHEREAS, on December 9, 2019, the Board of Directors of the Cuyama Basin Groundwater Sustainability Agency (CBGSA) adopted a GSP in accordance with SGMA; and

WHEREAS, on January 28, 2020, CBGSA submitted its adopted GSP to the California Department of Water Resources (DWR) for review; and

WHEREAS, on June 3, 2021, in advance of an official determination regarding CBGSA's GSP, DWR provided CBGSA with a consultation letter containing an informal review of and four potential corrective actions to CBGSA's GSP (Consultation Letter), a copy of which is attached as **Exhibit A** and incorporated herein by reference; and

WHEREAS, in response, CBGSA developed a technical memorandum addressing the four potential corrective actions contained in DWR's Consultation Letter (Technical Memorandum), a copy of which is attached as **Exhibit B** and incorporated herein by reference.

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

1. The foregoing is true and correct.
2. The Technical Memorandum is approved and adopted.
3. The CBGSA Executive Director, or his designee, is authorized to submit the Technical Memorandum to DWR.

PASSED, APPROVED, AND ADOPTED this 3rd day of November 2021.

Derek Yurosek, Board Chair

ATTEST:

James M. Beck
Executive Director

Exhibit A

DWR's consultation letter is provided as an attachment under agenda item 7a and is not included here to avoid duplicative files.

Exhibit B

The CBGSA's technical memorandum is provided as an attachment under agenda item 7a and is not included here to avoid duplicative files.



TO: Standing Advisory Committee
Agenda Item No. 7c

FROM: Brian Van Lienden, Woodard & Curran

DATE: October 28, 2021

SUBJECT: Direction on Aquifer Test Program

Issue

Direction on the aquifer test program.

Recommended Motion

No formation motion; seeking direction on the aquifer test program.

Discussion

On May 5, 2021, the CBGSA Board approved an update to the numerical model and Woodard & Curran has begun to perform that work. A specific component of the model update are aquifer tests. Staff is looking for feedback on the location of these tests and an overview of the program is provided as Attachment 1.

Cuyama Basin Groundwater Sustainability Agency

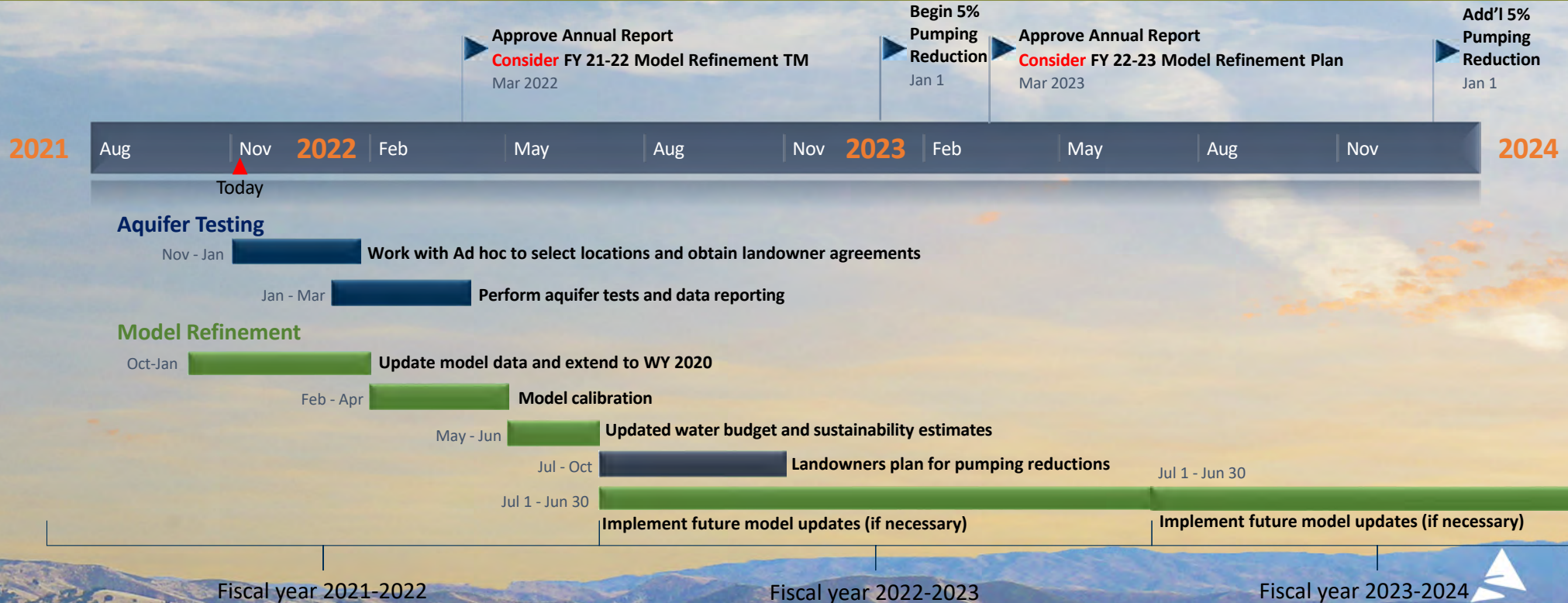
Direction on Aquifer Testing Program

Brian Van Lienden

October 28, 2021



Aquifer Testing and Model Refinement and Schedule

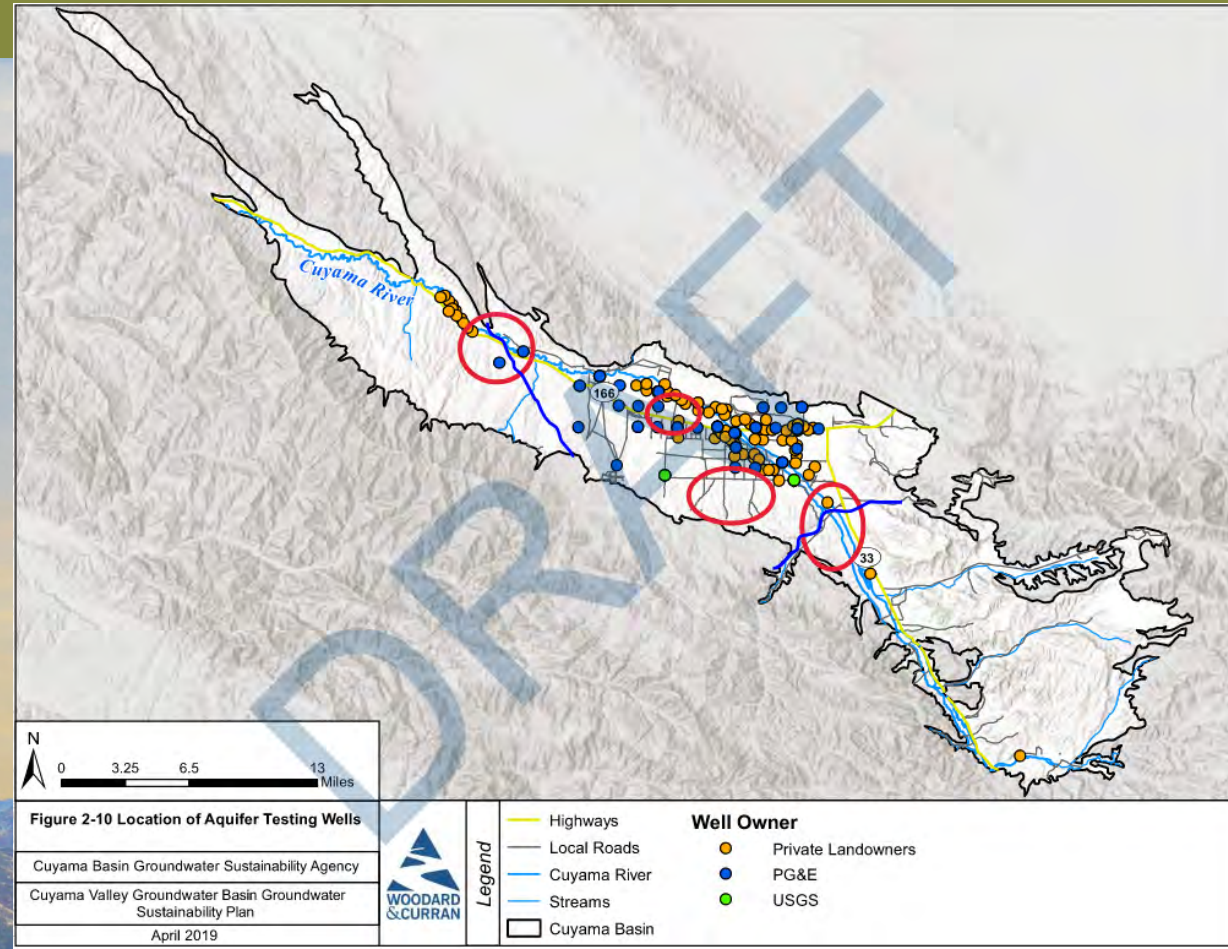


Direction on Aquifer Testing Program

- Staff is requesting Board direction to perform aquifer testing at 4 well sites by completing the following activities.
- Work with an ad-hoc committee to select well locations and obtain landowner agreements (Nov-Jan)
 1. Identify all existing wells in target areas for aquifer testing
 2. Perform a screening of available wells in each target well
 3. Identify potential pumping wells and develop a ranking
 4. Request access for the optimal test pumping well and observation well
- Perform aquifer tests and data reporting (Jan-Mar)
 1. Establish preliminary estimates of pumping rates and duration for testing
 2. Coordinate with the well owner regarding pumping and discharge of pumped water
 3. Equip wells with transducers, place barro meter
 4. Perform step test in wells
 5. Run constant rate test
 6. Perform final reporting of aquifer test results

Direction on Aquifer Testing Program

- Preliminary well test target areas are shown in red circles to the right
- These may be refined per discussion with the ad-hoc committee





TO: Standing Advisory Committee
Agenda Item No. 7d

FROM: Brian Van Lienden, Woodard & Curran

DATE: October 28, 2021

SUBJECT: Update on Groundwater Sustainability Plan Activities

Issue

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

Update on Groundwater Sustainability Plan Activities

Brian Van Lienden

October 28, 2021



August-October Accomplishments

- ✓ Developed memorandum with CBGSA response to DWR comment letter on GSP
- ✓ Performed field validation/data collection for groundwater levels and quality monitoring
- ✓ Worked with DWR to complete installation of monitoring wells under Technical Support Services Program
- ✓ Added a well issues reporting form and a Cuyama Basin management area interactive map to the Cuyama Basin website
- ✓ Finalized and distributed edition 8 of CBGSA newsletter



TO: Standing Advisory Committee
Agenda Item No. 7e

FROM: Brian Van Lienden, Woodard & Curran

DATE: October 28, 2021

SUBJECT: Update on Monitoring Network Implementation

Issue

Update on Monitoring Network Implementation.

Recommended Motion

None – information only.

Discussion

An update regarding the monitoring network implementation is provided as Attachment 1.

Cuyama Basin Groundwater Sustainability Agency

Update on Monitoring Network Implementation

Brian Van Lienden

October 28, 2021



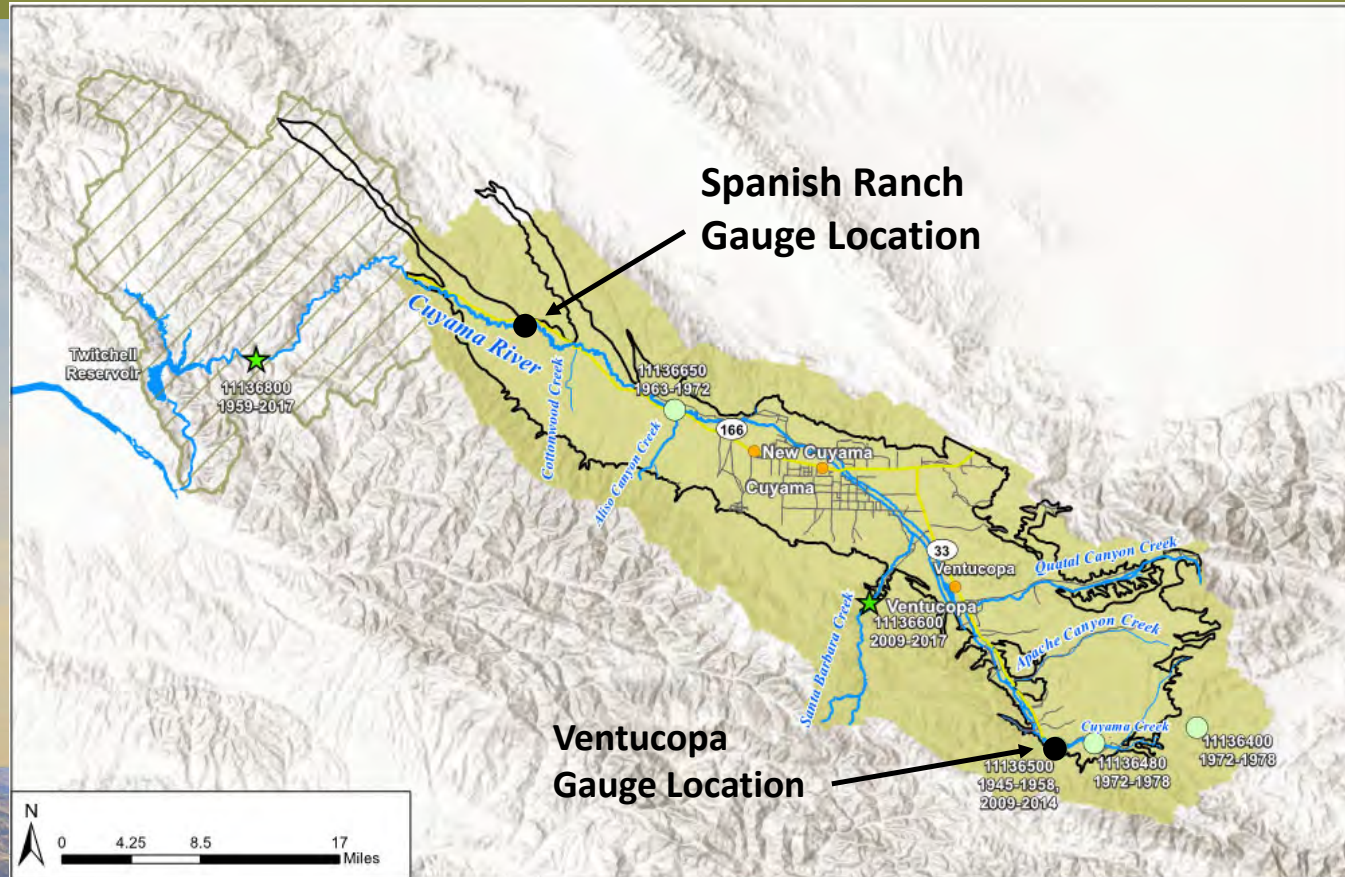
Groundwater Levels and Quality Monitoring Network Status Updates

91

- DWR Technical Support Services wells
 - Installation of the TSS wells at all three locations was completed in August 2021
 - Three screened zones were installed at each well
 - DWR will be acquiring transducers to be installed at each location
- The survey of ground surface elevations for monitoring wells was completed in October 2021; we are now beginning work to update groundwater elevation data in the database to reflect this change
- Provost & Pritchard attempted to obtain agreements for additional water quality wells in October 2021, but only a few new wells were added to the network

Stream Gage Implementation – FY 2020-21

- USGS completed installation of 2 new streamflow gages in September using Category 1 grant funding from DWR:
 - Upstream of Ventucopa
 - Spanish Ranch





TO: Standing Advisory Committee
Agenda Item No. 7f

FROM: Brian Van Lienden, Woodard & Curran

DATE: October 28, 2021

SUBJECT: Update on Monthly Groundwater Conditions Report

Issue

Update on Monthly Groundwater Conditions Report for July 2021.

Recommended Motion

None – information only.

Discussion

An update regarding the groundwater levels monitoring network and select hydrographs is provided as Attachment 1. The detailed July 2021 Groundwater Conditions Report is provided as Attachment 2.

Cuyama Basin Groundwater Sustainability Agency

Update on Monthly Groundwater Conditions Report

Brian Van Lienden

October 28, 2021

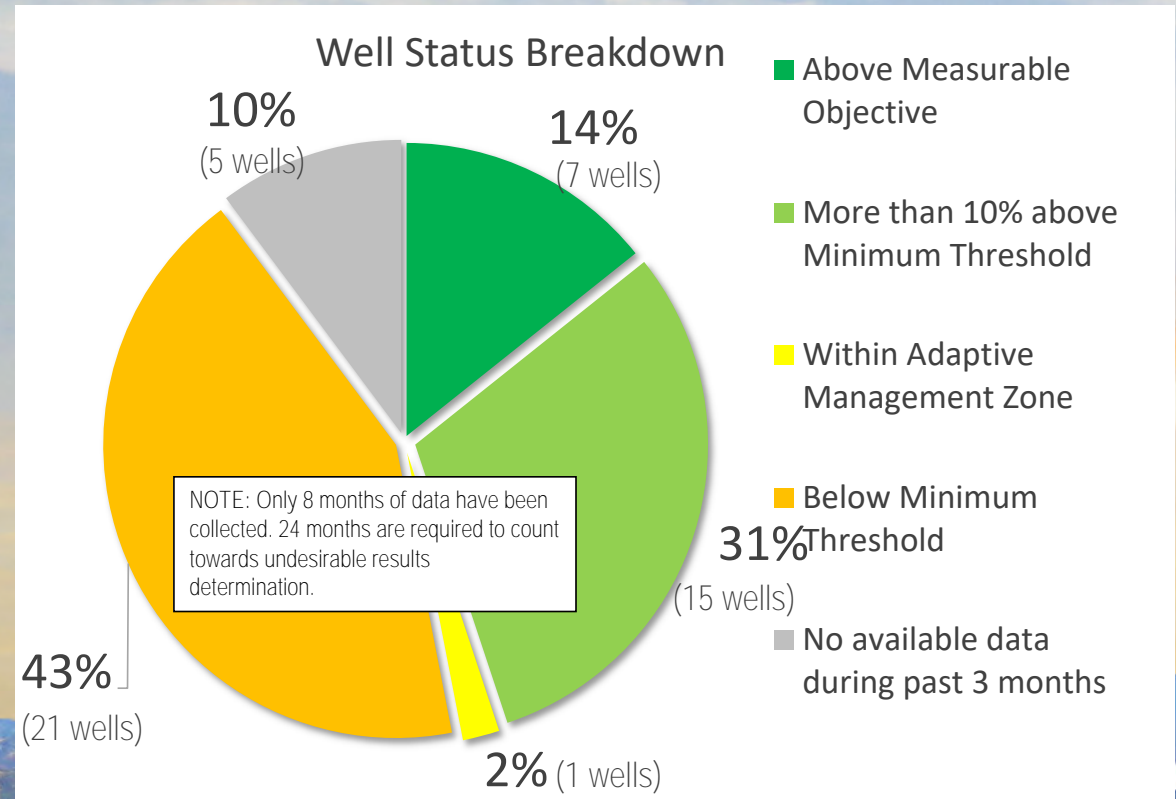
[Link to July Report](#)

Groundwater Levels Monitoring Network – Summary of Current Conditions

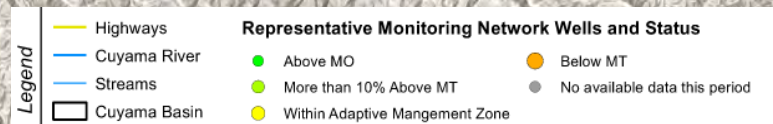
- Monitoring data from May-July for representative wells is included in Board packet monitoring summary report
 - October measurements are currently under QA/QC
- 44 of 49 representative monitoring wells have levels data in at least one month from May-July
- 21 wells were below the minimum threshold based on latest measurement in May-July

Summary of Groundwater Well Levels as Compared To Sustainability Criteria

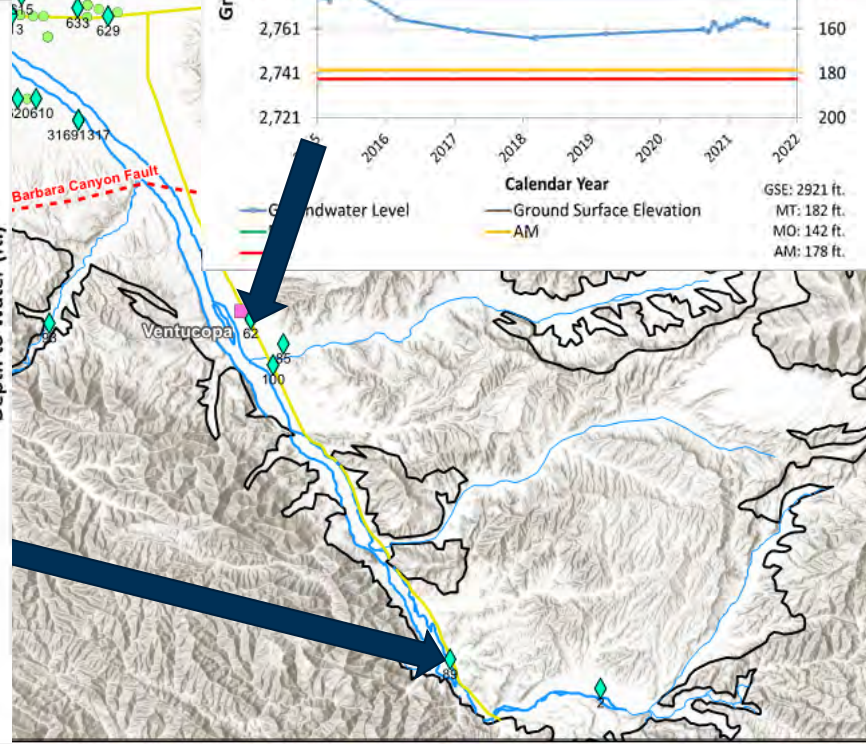
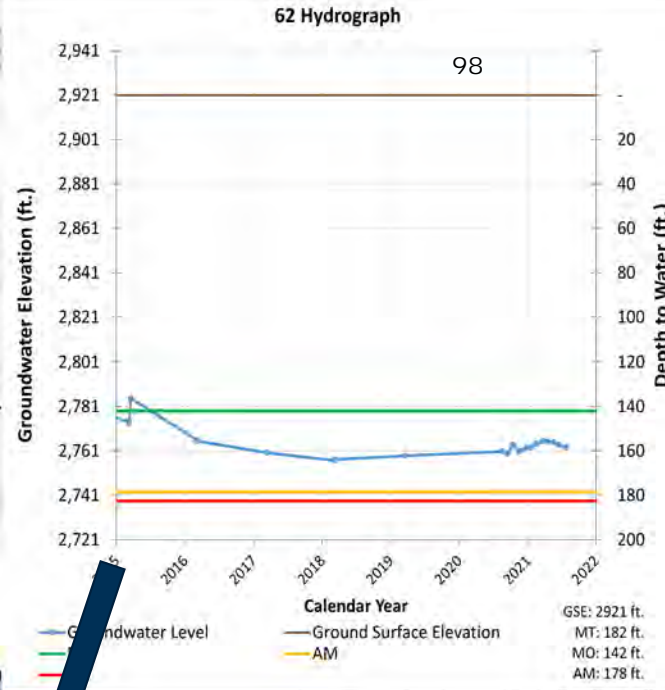
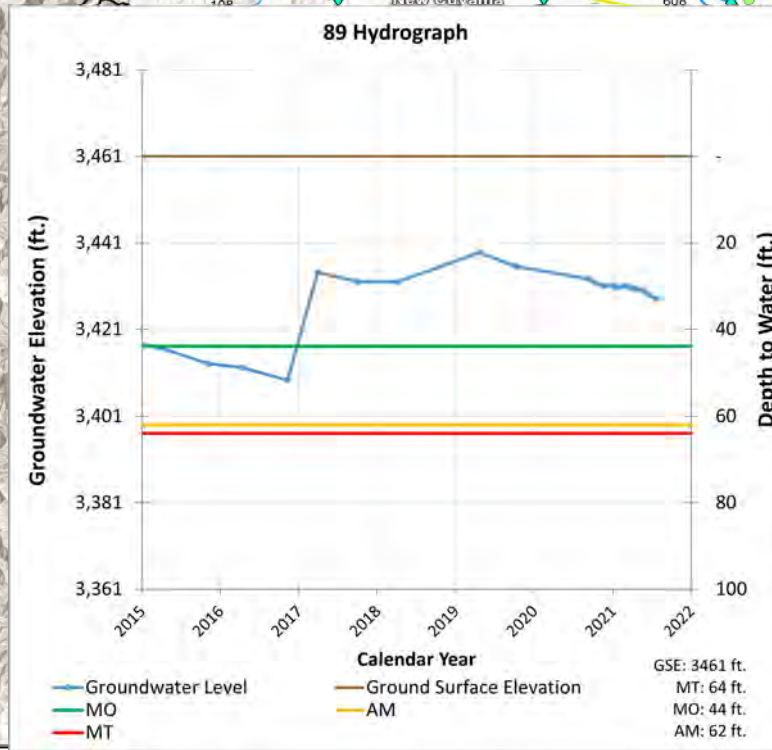
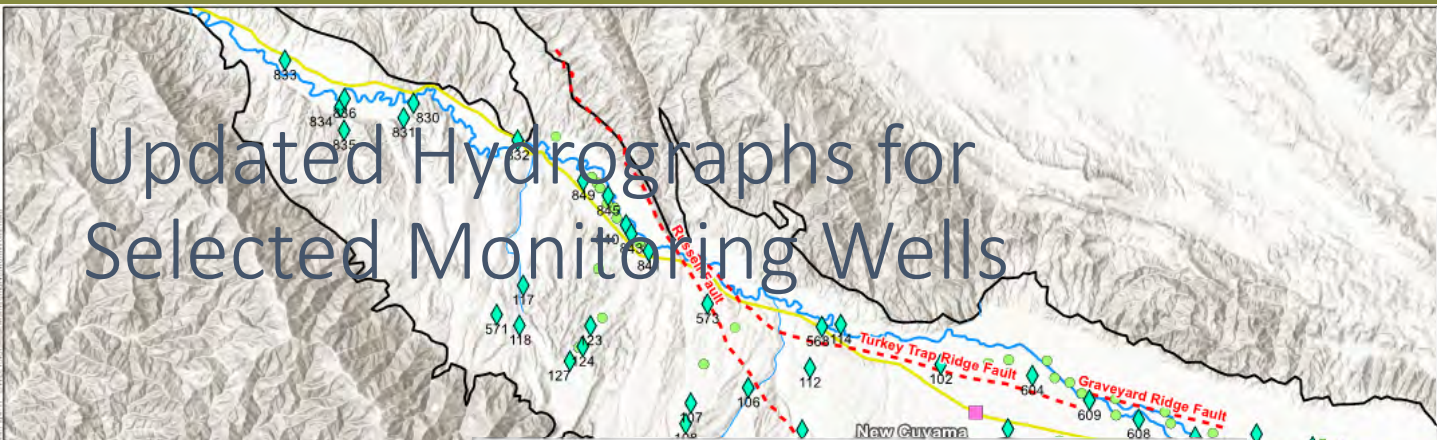
- 21 wells are currently below minimum threshold (MT)
 - 8 of these were already below MT at time of GSP adoption
- Adaptive management ad-hoc committee has been formed to discuss potential options



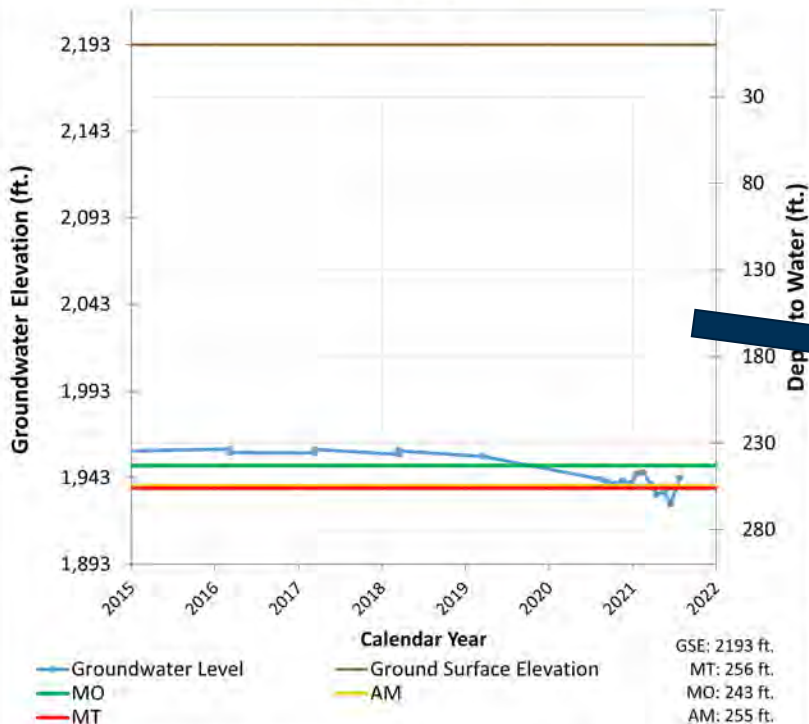
Current Status of Representative Monitoring Wells



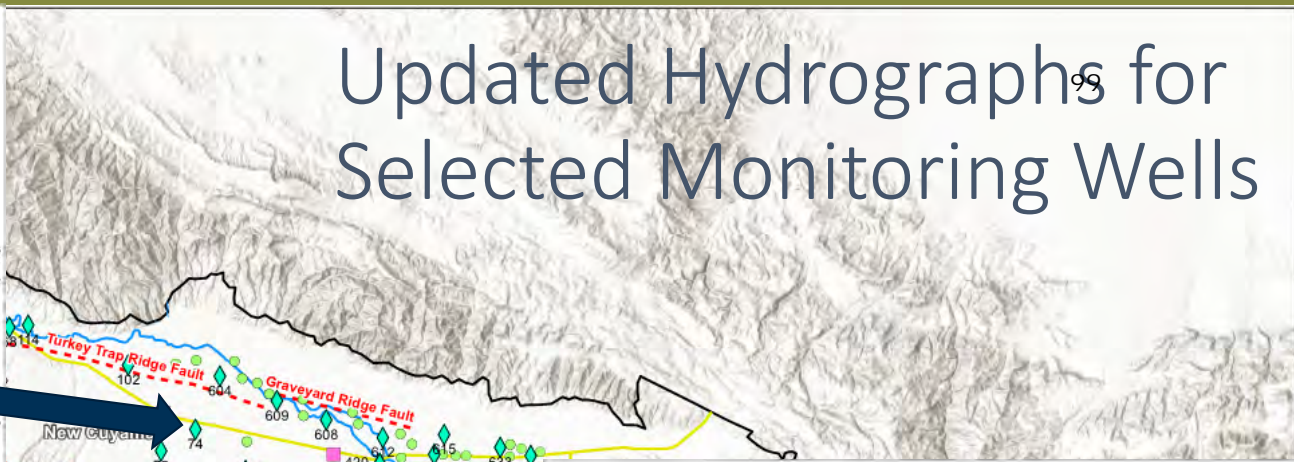
Updated Hydrographs for Selected Monitoring Wells



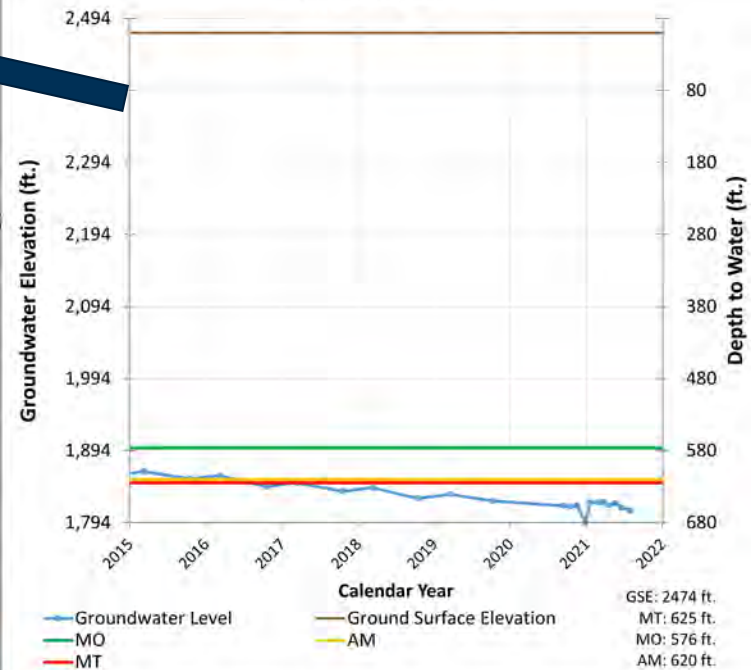
74 Hydrograph



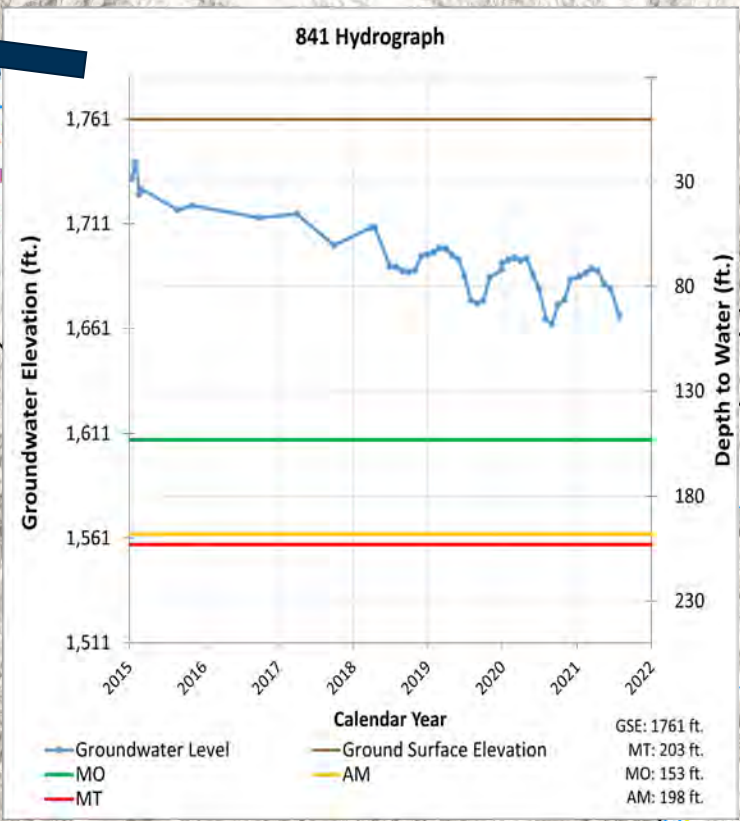
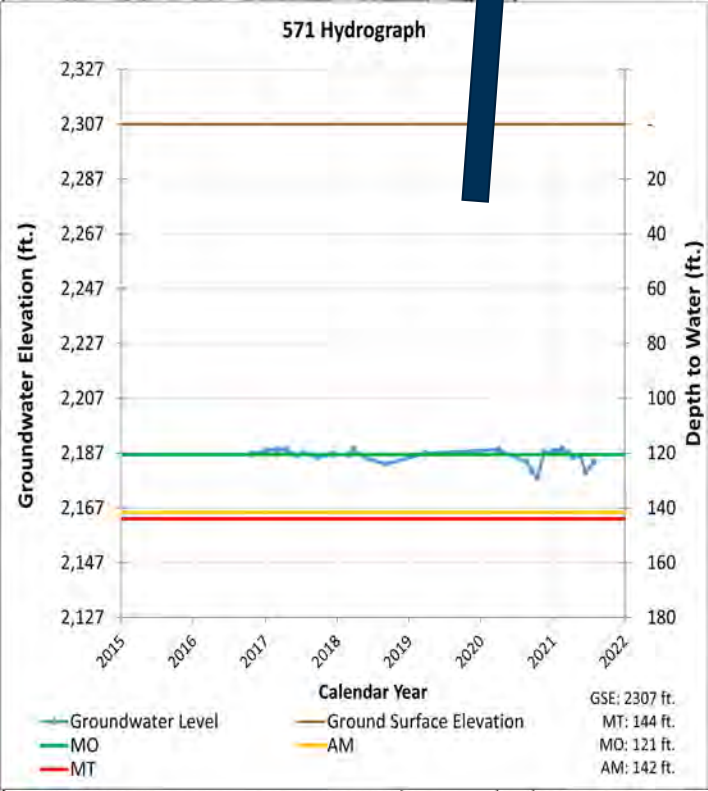
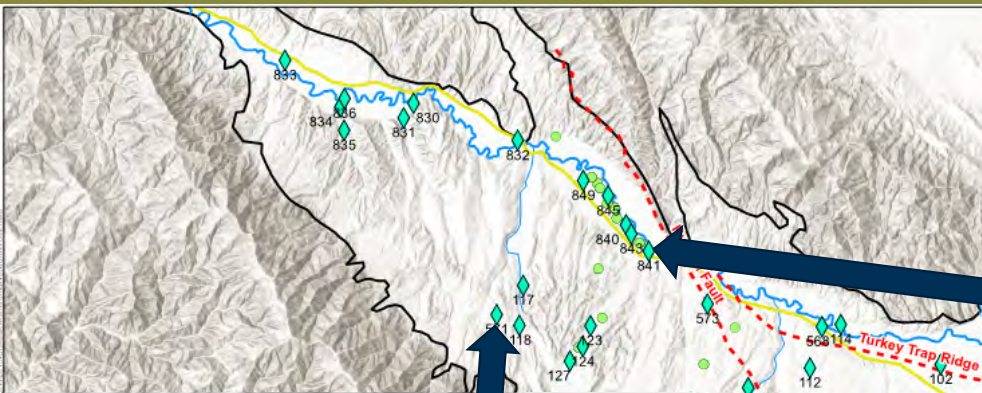
Updated Hydrographs for Selected Monitoring Wells



91 Hydrograph



Updated Hydrographs for Selected Monitoring Wells





GROUNDWATER
CONDITIONS
REPORT –
CUYAMA VALLEY
GROUNDWATER
BASIN

July 2021

801 T Street
Sacramento, CA.
916.999.8700

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

Cuyama Basin
Groundwater
Sustainability Agency

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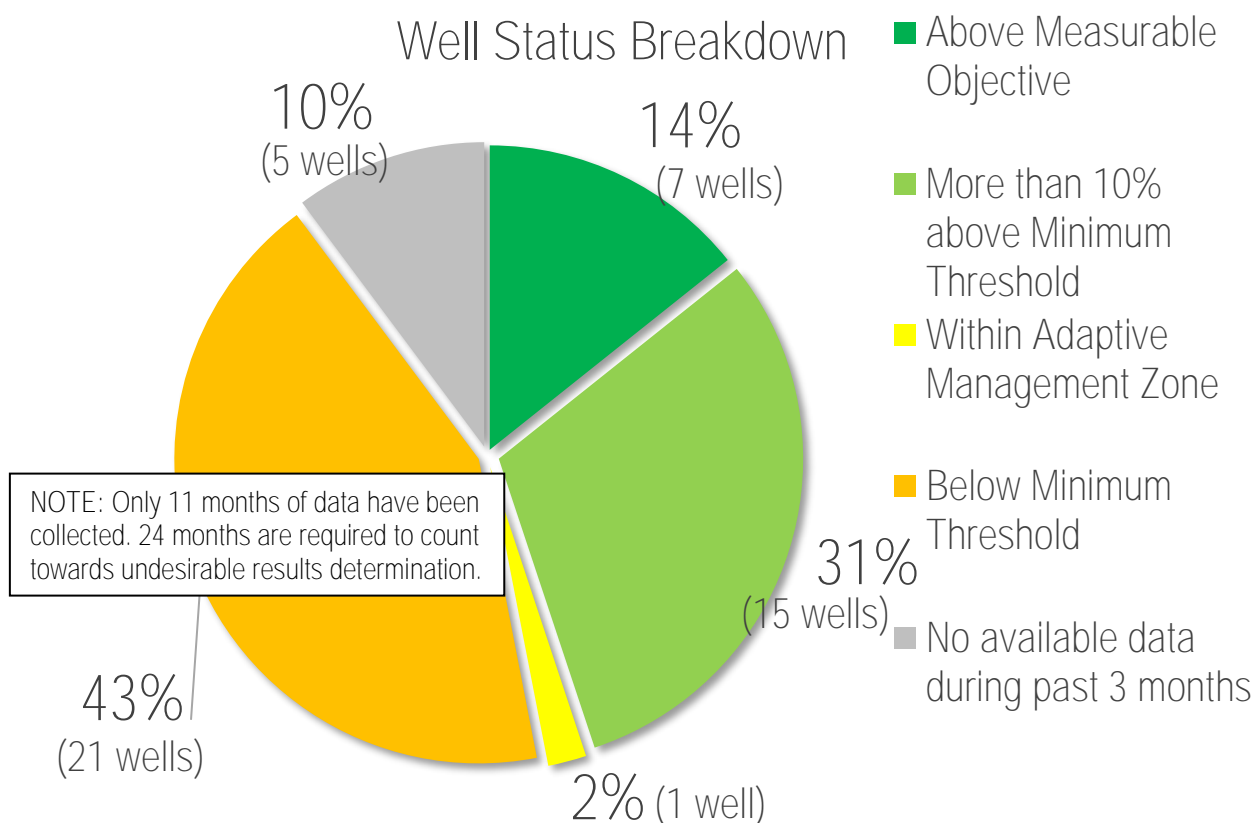
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1. INTRODUCTION

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.

2. SUMMARY STATISTICS



The pie chart shows the well status for the most recent groundwater elevation measurement (during the past 3 months) in each well. Five wells have not had a successful measurement during this period.

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).

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 have also been 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	May-21	Jun-21	Jul-21	Last Year		Annual Elevation Change
		GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	Month/Year	
72	Central	2009	1816	1999			
74	Central	1935	1927	1943			
77	Central	1799	1783	1776			
91	Central	1821	1815	1811			
95	Central	1852	1850	1848			
96	Central	2272	2272	2272			
98	Central	-	-	-			
99	Central	2203	2196	2155			
102	Central	1773	1764	1711			
103	Central	1974	1970	1976			
112	Central	2054	2054	2054			
114	Central	1879	-	1879			
316	Central	1820	1817	1813			
317	Central	1820	1817	1813			
322	Central	2202	2193	2146			
324	Central	2207	2199	2169			
325	Central	2214	2204	2204			
420	Central	1787	1775	1763			
421	Central	1794	1784	1776			
474	Central	2202	2203	2204			

Well	Region	May-21	Jun-21	Jul-21	Last Year		Annual Elevation Change
		GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	Month/Year	
568	Central	1868	1867	1867			
604	Central	1651	1643	-			
608	Central	1772	-	-			
609	Central	-	1738	-			
610	Central	1819	1816	1813			
612	Central	1799	1796	1811			
613	Central	1815	1812	1809			
615	Central	1816	1817	1817			
629	Central	-	-	-			
633	Central	-	-	-			
62	Eastern	2765	2764	2763			
85	Eastern	2847	2848	2847			
100	Eastern	2854	2854	2852			
101	Eastern	2618	2614	2617			
841	Northwestern	1682	1680	1667			
845	Northwestern	1647	1645	1640			
2	Southeastern	-	-	-			
89	Southeastern	3430	3429	3428			
106	Western	2183	2183	2184			
107	Western	2394	2395	2393			
117	Western	-	-	1946			

Well	Region	May-21	Jun-21	Jul-21	Last Year		Annual Elevation Change
		GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	Month/Year	
118	Western	2212	2211	2217			
124	Western	-	-	-			
571	Western	2186	2180	2183			
573	Western	2014	-	2013			
830	Far-West Northwestern	1513	1513	-			
832	Far-West Northwestern	1592	1592	1592			
833	Far-West Northwestern	-	-	1429			
836	Far-West Northwestern	1449	1449	1448			

Note: Previous year values and annual elevation changes will be reported after the CBGSA monitoring program has completed a full year of monitoring.

Table 2: Well Status Related to Thresholds

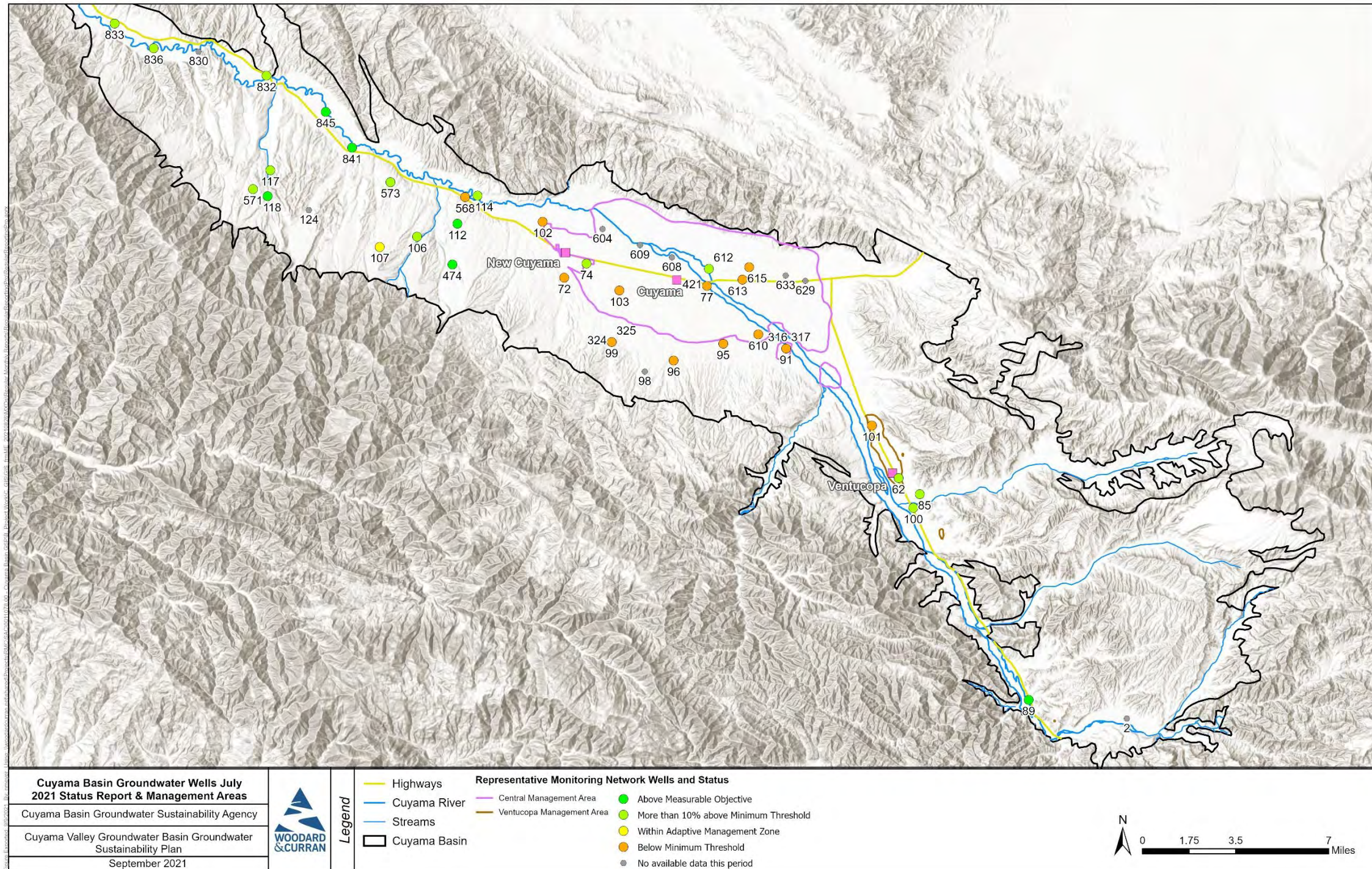
Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Month/Year						
72	Central	172	7/29/2021	169	165	124	790	Below Minimum Threshold (2 months)	No
74	Central	250	7/27/2021	256	255	243		More than 10% above Minimum Threshold	No
77	Central	510	7/29/2021	450	445	400	980	Below Minimum Threshold (11 months)	No
91	Central	663	7/29/2021	625	620	576	980	Below Minimum Threshold (11 months)	No
95	Central	601	7/27/2021	573	570	538	805	Below Minimum Threshold (12 months)	No
96	Central	334	7/27/2021	333	332	325	500	Below Minimum Threshold (8 months)	No
98	Central	-	N/A	450	449	439	750	No available data this period <i>(No available data in past 3 months)</i>	No
99	Central	358	7/29/2021	311	310	300	750	Below Minimum Threshold (2 months)	No
102	Central	335	7/28/2021	235	231	197		Below Minimum Threshold (7 months)	No
103	Central	313	7/29/2021	290	285	235	1030	Below Minimum Threshold (4 months)	No
112	Central	85	7/29/2021	87	87	85	441	Above Measurable Objective	No
114	Central	46	7/29/2021	47	47	45	58	More than 10% above Minimum Threshold	No
316	Central	661	7/29/2021	623	618	574	830	Below Minimum Threshold (11 months)	No
317	Central	661	7/29/2021	623	618	573	700	Below Minimum Threshold (11 months)	No
322	Central	367	7/29/2021	307	306	298	850	Below Minimum Threshold (3 months)	No
324	Central	344	7/29/2021	311	310	299	560	Below Minimum Threshold (2 months)	No
325	Central	309	7/29/2021	300	299	292	380	Below Minimum Threshold (2 months)	No
420	Central	523	7/29/2021	450	445	400	780	Below Minimum Threshold (11 months)	No
421	Central	510	7/29/2021	446	441	398	620	Below Minimum Threshold (11 months)	No

Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Month/Year						
474	Central	165	7/29/2021	188	186	169	213	Above Measurable Objective	No
568	Central	38	7/29/2021	37	37	36	188	Below Minimum Threshold (2 months)	No
604	Central	-	7/27/2021	526	522	487	924	No available data this period (Above MO in Jun 2021)	No
608	Central	-	7/27/2021	436	433	407	745	No available data this period (Below MT in May 2021)	No
609	Central	-	7/27/2021	458	454	421	970	No available data this period (>10% above MT in Jun 2021)	No
610	Central	629	7/27/2021	621	618	591	780	Below Minimum Threshold (3 months)	No
612	Central	455	7/27/2021	463	461	440	1070	More than 10% above Minimum Threshold	No
613	Central	521	7/27/2021	503	500	475	830	Below Minimum Threshold (9 months)	No
615	Central	510	7/29/2021	500	497	468	865	Below Minimum Threshold (8 months)	No
629	Central	-	7/27/2021	559	556	527	1000	No available data this period (No available data in past 3 months)	No
633	Central	-	7/27/2021	547	542	493	1000	No available data this period (No available data in past 3 months)	No
62	Eastern	158	7/27/2021	182	178	142	212	More than 10% above Minimum Threshold	No
85	Eastern	200	7/27/2021	233	225	147	233	More than 10% above Minimum Threshold	No
100	Eastern	152	7/27/2021	181	175	125	284	More than 10% above Minimum Threshold	No
101	Eastern	124	7/27/2021	111	108	81	200	Below Minimum Threshold (3 months)	No
841	Northwestern	94	7/29/2021	203	198	153	600	Above Measurable Objective	No
845	Northwestern	72	7/29/2021	203	198	153	380	Above Measurable Objective	No
2	Southeastern	-	N/A	72	70	55	73	No available data this period (No available data in past 3 months)	No

Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Month/Year						
89	Southeastern	33	7/27/2021	64	62	44	125	Above Measurable Objective	No
106	Western	143	7/29/2021	154	153	141	228	More than 10% above Minimum Threshold	No
107	Western	89	7/29/2021	91	89	72	200	Within Adaptive Management Zone	No
117	Western	152	7/29/2021	160	159	151	212	More than 10% above Minimum Threshold	No
118	Western	53	7/29/2021	124	117	57	500	Above Measurable Objective	No
124	Western	-	N/A	73	71	57	161	No available data this period <i>(No available data in past 3 months)</i>	No
571	Western	124	7/29/2021	144	142	121	280	More than 10% above Minimum Threshold	No
573	Western	71	7/29/2021	118	113	68	404	More than 10% above Minimum Threshold	No
830	Far-West Northwestern	-	7/29/2021	59	59	56	77	No available data this period <i>(>10% above MT in Jun 2021)</i>	No
832	Far-West Northwestern	38	7/29/2021	45	44	30	132	More than 10% above Minimum Threshold	No
833	Far-West Northwestern	28	7/29/2021	96	89	24	504	More than 10% above Minimum Threshold	No
836	Far-West Northwestern	38	7/29/2021	79	75	36	325	More than 10% above Minimum Threshold	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



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

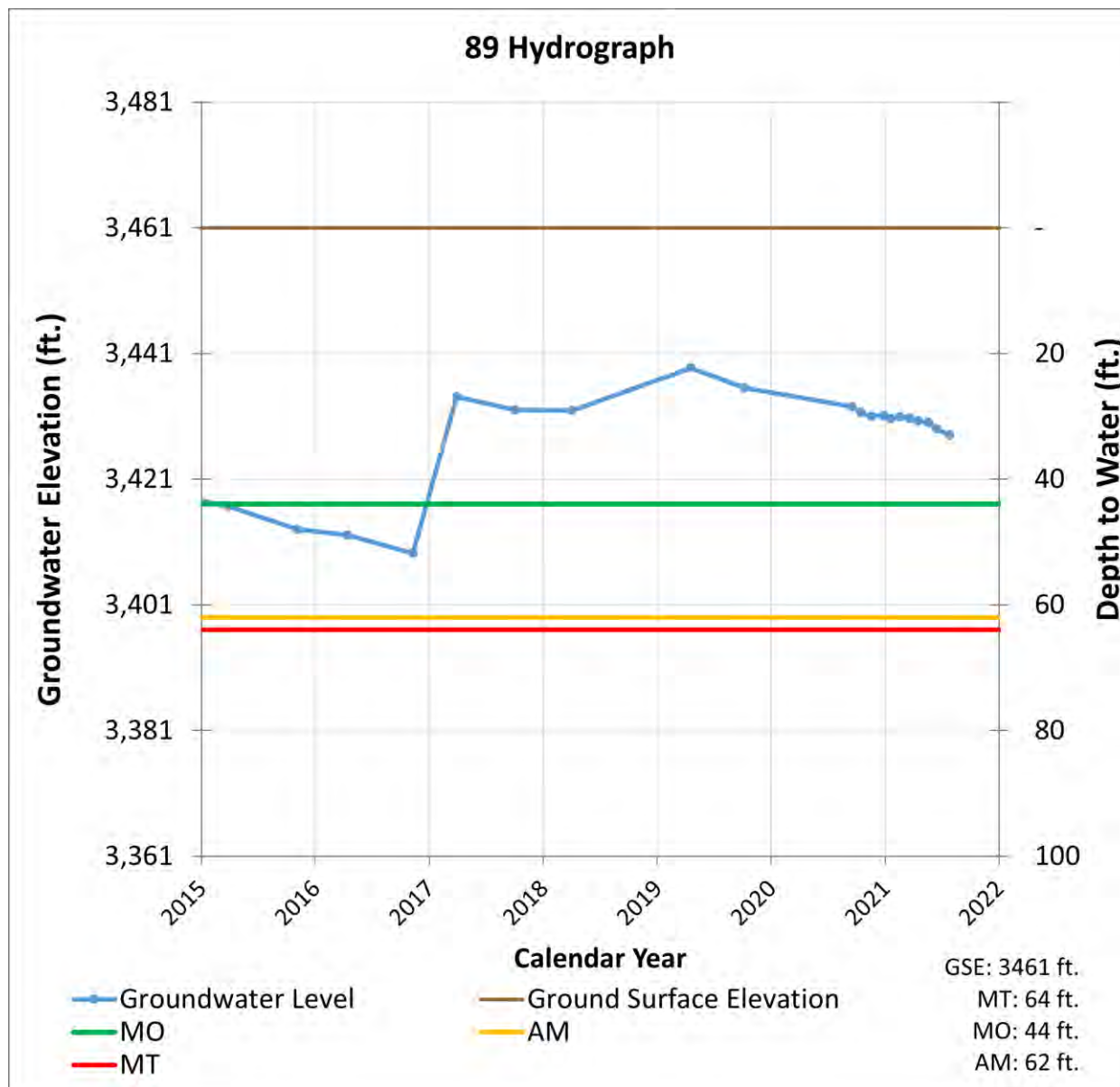


Figure 3: Eastern Region – Well 62

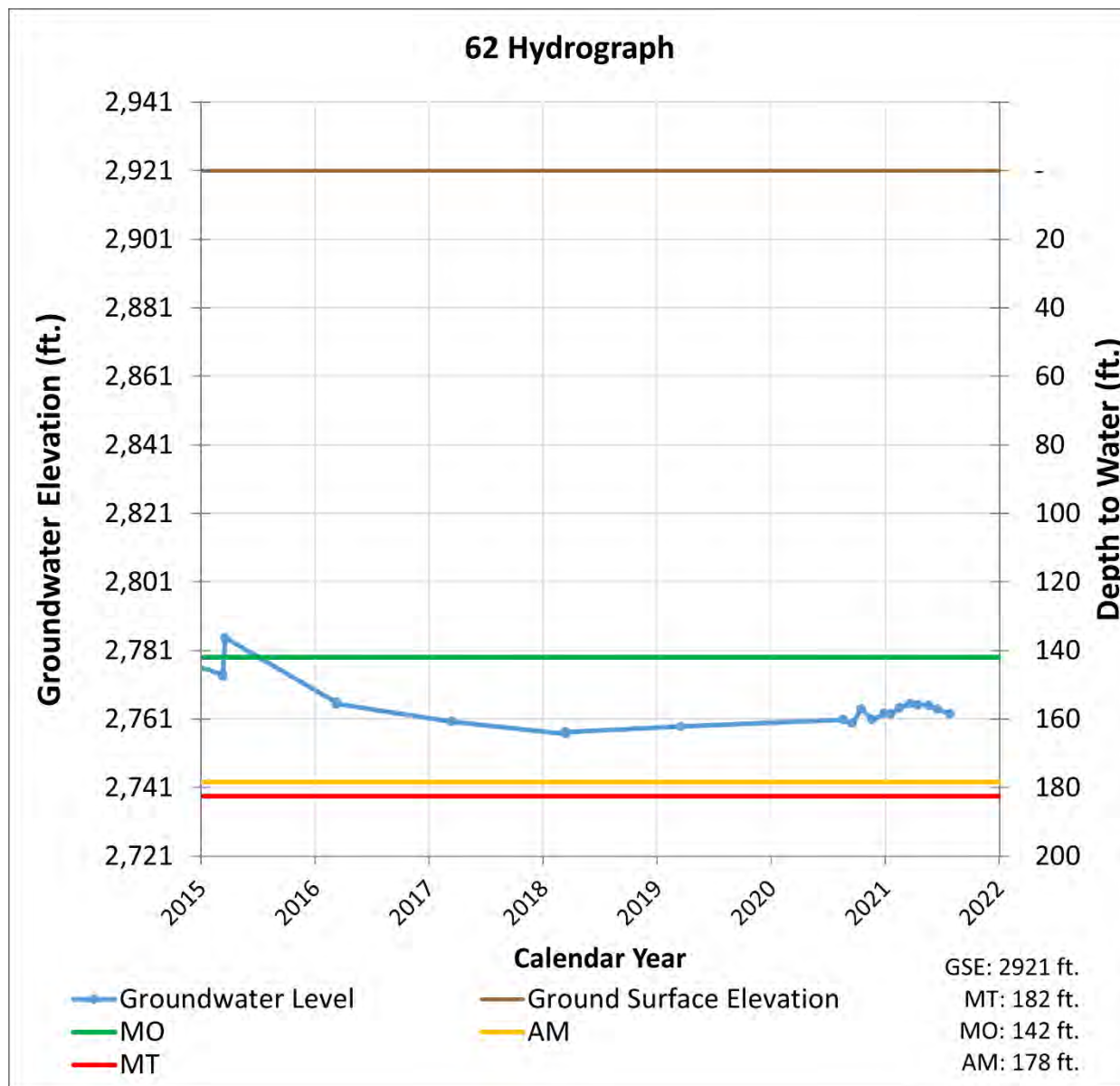


Figure 4: Central Region – Well 91

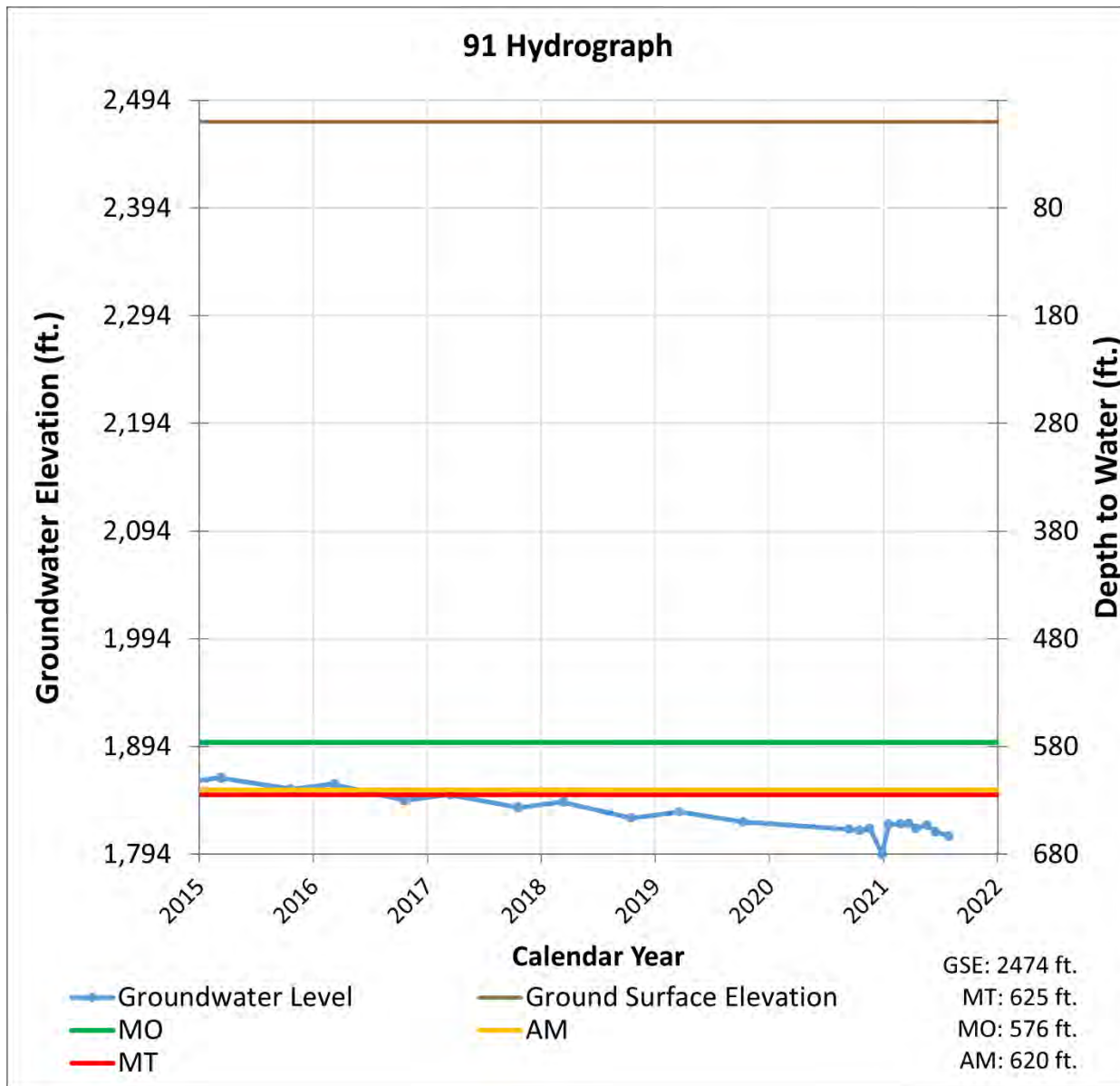


Figure 5: Central Region – Well 74

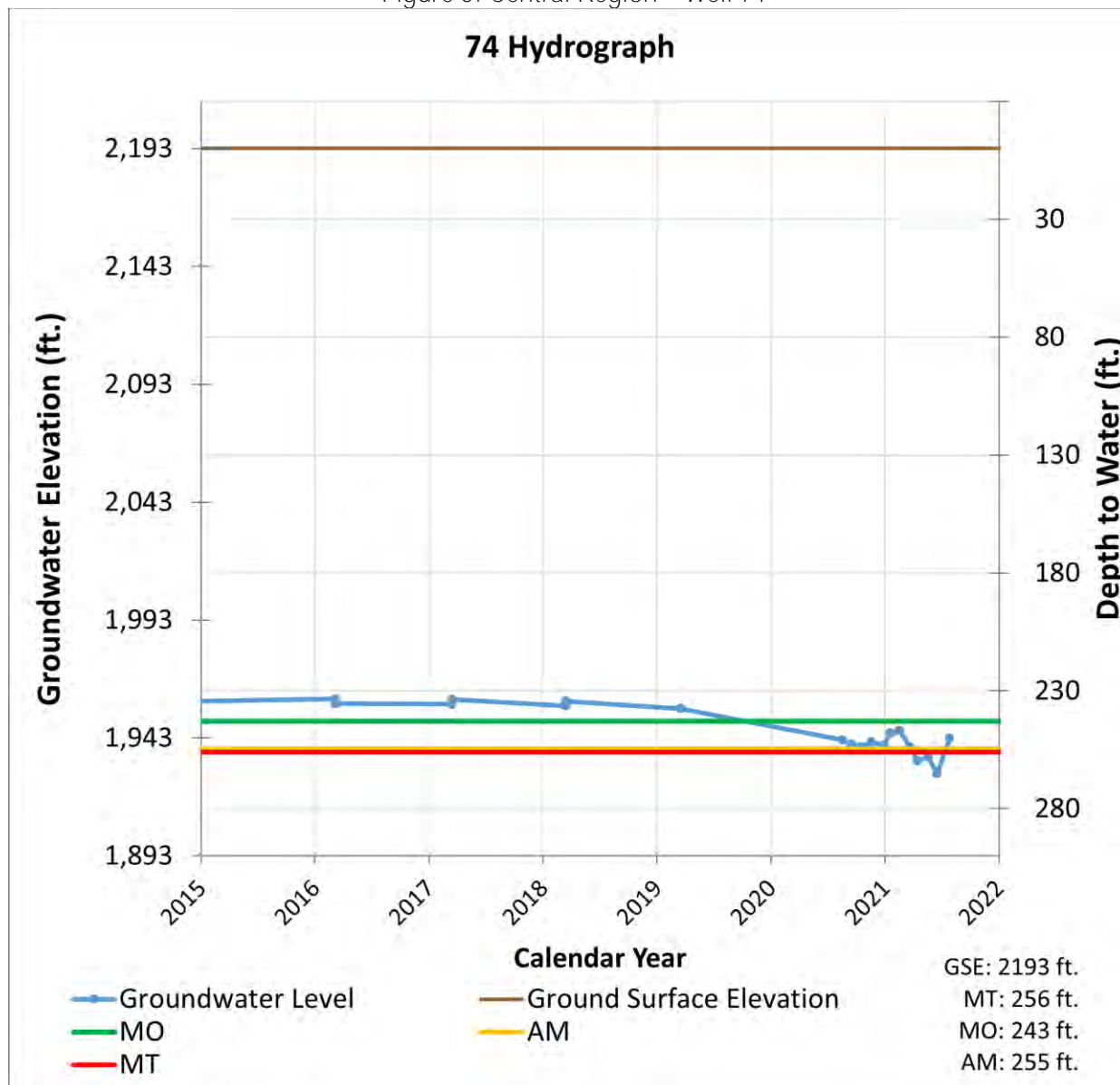


Figure 6: Western Region – Well 571

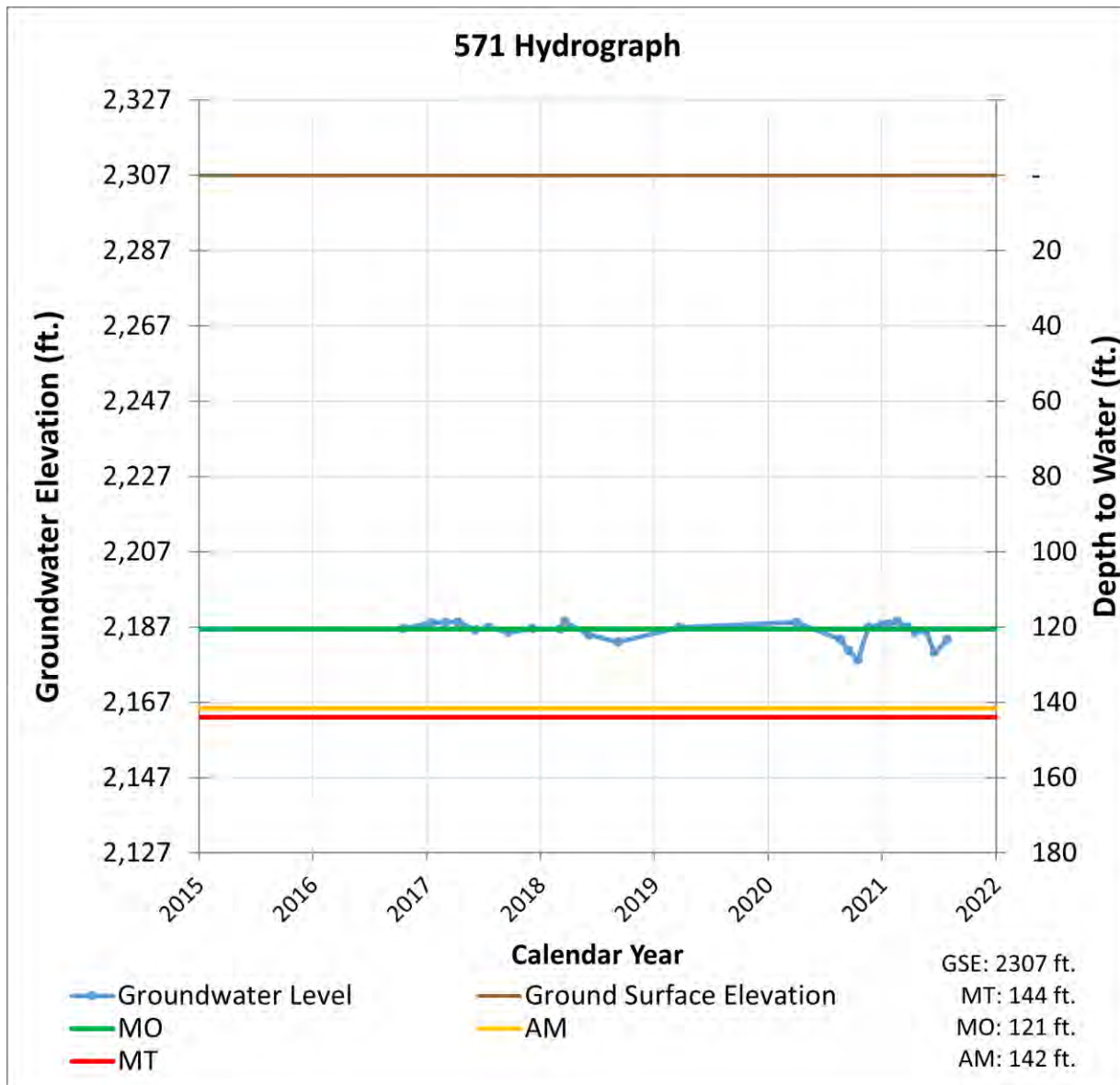
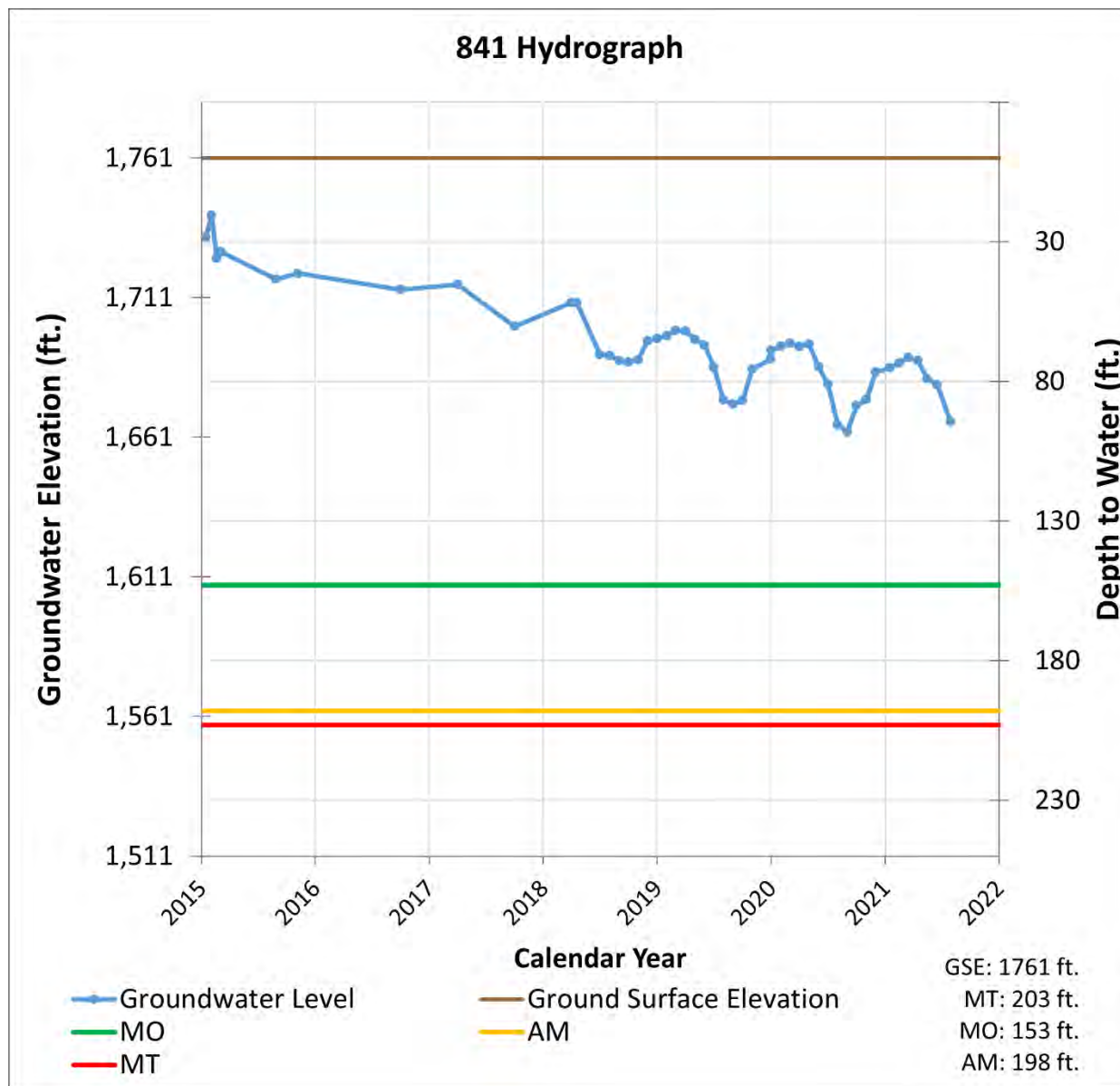


Figure 7: Northwestern Region – Well 841



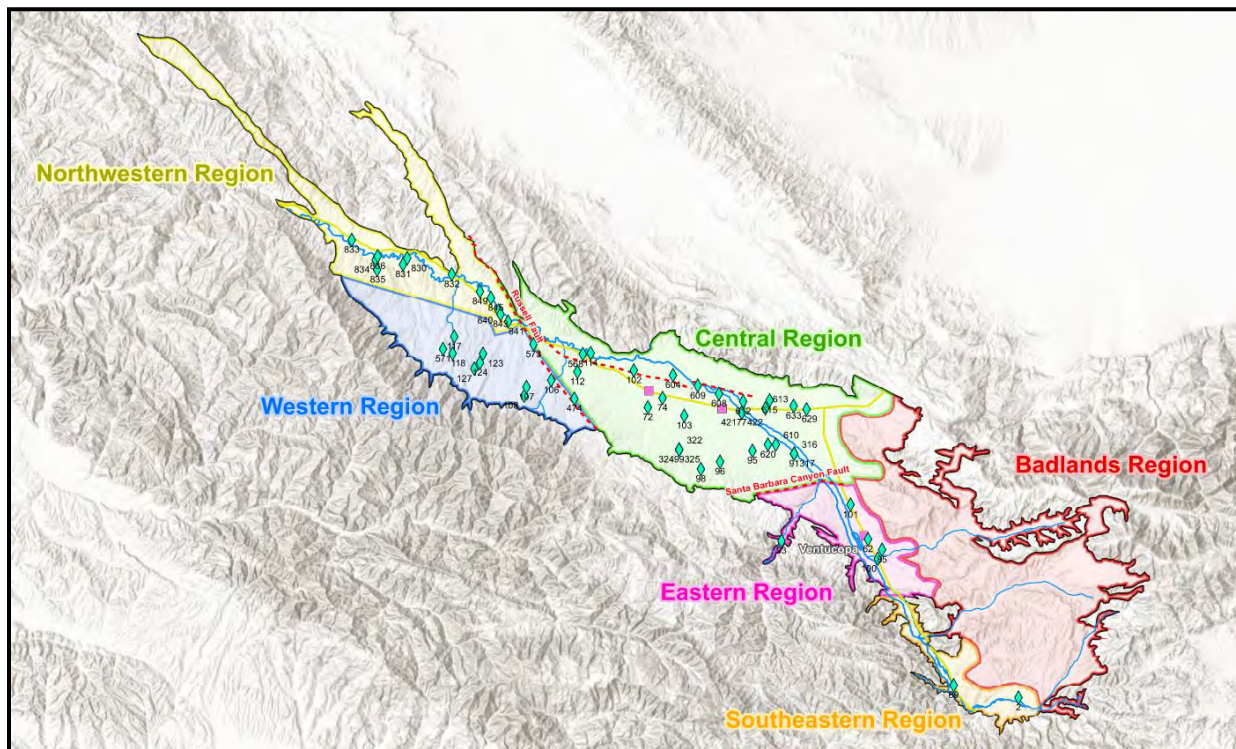


Figure 8: Threshold Regions in the Cuyama Groundwater Basin

5. MONITORING NETWORK UPDATES

As shown in the Summary Statistics Section, there are 9 wells without current measurements. These “no measurement codes” can have different causes as described below.

- Access agreements have not yet been established with the landowner, access has not been granted yet, or no access at time of measurement:
 - Wells 2, 98, 124
- Measurement was not possible at the time when the field technician went to take measurements:
 - Wells 604, 608, 609, 629, 633, 830



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COMMITMENT & INTEGRITY DRIVE RESULTS



TO: Standing Advisory Committee
Agenda Item No. 8d

FROM: Taylor Blakslee, Hallmark Group

DATE: October 28, 2021

SUBJECT: Approval of 2022 Meeting Schedule

Issue

Setting the 2022 Cuyama Basin Groundwater Sustainability Agency Board of Directors and Standing Advisory Committee meetings schedule.

Recommended Motion

Approve the 2022 Groundwater Sustainability Agency Board of Directors and Standing Advisory Committee meetings schedule provided in Agenda Item No. 8d.

Discussion

The proposed Cuyama Basin Groundwater Sustainability Agency (CBGSA) Board of Directors and Standing Advisory Committee (SAC) meeting calendar for 2022 is provided as Attachment 1 for consideration of approval.

Cuyama Basin Groundwater Sustainability Agency Draft 2022 Meeting Calendar

BOD

SAC

Holiday

January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				6		1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

February						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

March						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

June						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

July						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

October						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31



TO: Standing Advisory Committee
Agenda Item No. 8e

FROM: Taylor Blakslee, Hallmark Group

DATE: October 28, 2021

SUBJECT: Board of Directors Agenda Review

Issue

Board of Directors Agenda Review.

Recommended Motion

None – information only.

Discussion

The Cuyama Basin Groundwater Sustainability Agency Board of Directors agenda for the November 3, 2021, Board of Directors meeting is provided as Attachment 1 for review.



CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

BOARD OF DIRECTORS MEETING

Board of Directors

Derek Yurosek Chair, Cuyama Basin Water District
Lynn Compton Vice Chair, County of San Luis Obispo
Das Williams Santa Barbara County Water Agency
Cory Bantilan Santa Barbara County Water Agency
Glenn Shephard County of Ventura
Zack Scrivner County of Kern

Paul Chounet Cuyama Community Services District
Byron Albano Cuyama Basin Water District
Lorena Stoller Cuyama Basin Water District
Matt Vickery Cuyama Basin Water District
Jane Wooster Cuyama Basin Water District

AGENDA

NOVEMBER 3, 2021

Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Board of Directors to be held on Wednesday, November 3, 2021, at 4:00 PM. Participate via computer at: <https://global.gotomeeting.com/join/203153453>, or telephonically at (646) 749-3122, code: 203-153-453#.

1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. Adopt Resolution No. 21-112 Authorizing Use of Teleconferencing for Public Meetings Under AB 361
5. Standing Advisory Committee Meeting Report

CONSENT AGENDA

6. Approval of Minutes – August 18, 2021
7. Approval of Payment of Bills for July, August, September 2021
8. Approval of Financial Report for July, August, September 2021

ACTION ITEMS

9. Review of Memorandum in Response to DWR's Consultation Letter Dated June 3, 2021
10. Adopt Resolution No. 21-113 Enacting Corrective Actions in Response to DWR's Consultation Letter Dated June 3, 2021
11. Direction on Aquifer Test Program
12. Authorize Work to Pursue DWR Grant Opportunity
13. Approval of Comment Letter on DWR Draft Grant Proposal Solicitation Package
14. Authorize a Change Order for the Hallmark Group
15. Adopt the 2022 Meeting Schedule

REPORT ITEMS

16. Administrative Updates
 - a) Report of the Executive Director
 - b) Report of the General Counsel
 - c) Update on Coordination with Counties and Well Permitting Process
 - d) Update on Additional Grant Opportunities
17. Technical Updates
 - a) Update on Groundwater Sustainability Plan Activities
 - b) Update on Monitoring Network Implementation
 - c) Update on Monthly Groundwater Conditions Report

CLOSED SESSION

18. Conference with Legal Counsel – Anticipated Litigation
Significant exposure to litigation pursuant to Government Code section 54956.9, subdivision (d)(2)
 - a) Number of Potential Cases: One
19. Report of the Ad Hoc Committee
20. Directors' Forum
21. Public Comment for Items Not on the Agenda
22. Correspondence
23. Adjourn