



CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY SPECIAL STANDING ADVISORY COMMITTEE MEETING

Committee Members

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

AGENDA

March 23, 2023

Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Standing Advisory Committee meeting to be held on Thursday, March 23, 2023, at 5:00 PM at the **Cuyama Valley Family Resource Center 4689 CA-166, New Cuyama, CA 93254**. Participate via computer at: <https://rb.gv/7bks8m> or by going to Microsoft Teams, downloading the free application, then entering Meeting ID: 216 555 272 468 Passcode: JXjgKG, or telephonically at (469) 480-3918, Phone Conference ID: 913 370 432#.

Teleconference Locations:

4689 CA-166, New Cuyama, CA 93254

1850 Miranda Canyon, New Cuyama 93254

The order in which agenda items are discussed may be changed to accommodate scheduling or other needs of the Committee, the public or meeting participants. Members of the public are encouraged to arrive at the commencement of the meeting to ensure that they are present for Committee discussion of all items in which they are interested.

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

1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. Update on SAC Membership
5. Update on DWR's GSP Determination

ACTION ITEMS

6. Approval of January 5, 2023, Minutes
7. Discuss and Take Appropriate Action on Variance Findings
8. Approve Annual Report
9. Discussion and Appropriate Action on Adaptive Management Analysis
10. Approve Landowner Agreement for Dedicated Monitoring Wells and Piezometers
11. Discuss and Take Appropriate Action on Strategy for Managing Pumping throughout the Basin
12. Discussion and Appropriate Action on Strategy for Continuing Evaluation of Basin Faults

REPORT ITEMS

13. Technical Updates

- a. Update on Groundwater Sustainability Plan Activities
- b. Update on Monitoring Network Implementation
- c. Update on Effort to Address Well Data Gaps
- d. Update on January 2023 Groundwater Conditions Report

14. Administrative Updates

- a. Report of the Executive Director
- b. Report of the General Counsel
 - i. Update on Adjudication in Relation to the GSA
- c. Board of Directors Agenda Review

15. Items for Upcoming Sessions

16. Committee Forum

17. 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.

18. Correspondence

19. Adjourn

2023

Board Ad hoc List

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Adaptive Management	Bantilan Anselm Vickery Yurosek
Aquifer Test	Bantilan Anselm Vickery Wooster
DWR / CBGSA Coordination	Bantilan Chounet Anselm Wooster Yurosek
Fiscal Year 2022-2023 Budget	Bantilan Chounet Vickery Williams Wooster
Grant Review Committee	Bantilan Compton Williams Wooster Yurosek
Management Area Policy	Bantilan Chounet Anselm Vickery Wooster
Meter Implementation	Anselm Vickery Wooster Yurosek
Model Refinement	Bantilan Anselm Vickery Yurosek
New Well Permits Policy	Compton Anselm Stoller Williams Yurosek
Unknown Extractors	Anselm Vickery
Grant-Funded Items	Albano Vickery Chounet Williams

Basin-Wide Water Management	Bantilan Chounet Anselm Yurosek
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TO: Standing Advisory Committee
Agenda Item No. 5

FROM: Jim Beck, Hallmark Group

DATE: March 23, 2023

SUBJECT: Update on DWR's GSP Determination

Recommended Motion

None – information only.

Discussion

On March 2, 2023, the California Department of Water Resources' (DWR) issued its final "approved" determination recommendation for the amended Cuyama Basin Groundwater Sustainability Agency Groundwater Sustainability Plan (GSP) and their recommendation letter is provided as Attachment 1.



CALIFORNIA DEPARTMENT OF WATER RESOURCES

**SUSTAINABLE GROUNDWATER
MANAGEMENT OFFICE**

715 P Street | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

March 2, 2023

James Beck
Cuyama Basin GSA
1901 Royal Oaks Drive
Sacramento, CA
(661) 333-7091
jbeck@hgcpm.com

RE: Cuyama Basin – Response to 2022 Incomplete Determinations

Dear James Beck,

The Department of Water Resources (Department) appreciates the resubmission of your groundwater sustainability plan (GSP or Plan) for evaluation and assessment, after and in response to the Department's January 2022 Incomplete Determination, consistent with the GSP Regulations under the Sustainable Groundwater Management Act (SGMA). This letter provides an update on the Department's evaluation and assessment of the revised and resubmitted Plan.

Department staff have substantially completed a review of the Plan covering the Basin. Department staff have indicated that they believe the GSAs have taken sufficient actions to address the previously identified deficiencies that precluded initial approval of the Plan, and that staff anticipate recommending approval of the Plan. However, Department staff are developing recommended corrective actions to further assist the GSA with implementation of the Plan and achieving basin sustainability goals. The final assessment will be provided to you and posted to the SGMA Portal as soon as practicable. In addition to fully documenting how the deficiencies that initially precluded approval were sufficiently addressed, the assessment will provide the GSAs with Recommended Corrective Actions the Department would like to see the Subbasin address in the upcoming Periodic Update by January 2025.

Additionally, the Basin should continue making progress towards its sustainability goal, including ongoing outreach to the beneficial uses and users in the Basin, carrying out projects and management actions, filling data gaps, and providing timely information to the Department through your annual report submittals by April 1.

If you have any questions, please do not hesitate to contact the Sustainable Groundwater Management Office by emailing sgmps@water.ca.gov.

Thank you,

Paul Gosselin
Paul Gosselin

Deputy Director of Sustainable Groundwater Management

Cuyama Basin Groundwater Sustainability Agency Standing Advisory Committee Meeting

January 5, 2023

Draft Meetings Minutes

PRESENT:

Kelly, Brenton – Chair
DeBranch, Brad – Vice Chair
Furstenfeld, Jake
Gaillard, Jean
Haslett, Joe
Roberta Jaffe

Beck, Jim – Executive Committee Member
Blakslee, Taylor – Project Manager
Dominguez, Alex – Legal Counsel
Van Lienden, Brian – Woodard & Curran

ABSENT:

Draucker, Louise

1. Call to Order

Cuyama Basin Groundwater Sustainability Agency (CBGSA) Standing Advisory Committee (SAC) Chair Kelly called the meeting to order at 5:02 p.m. and Hallmark Group Project Manager Taylor Blakslee provided direction on the meeting protocols in facilitating a 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. Update on SAC Membership

Chair Kelly reported that there remain two 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.

ACTION ITEMS

5. Election of Officers

CBGSA Executive Director Jim Beck presented options to continue current slate of officers or consider other nominees. Current Chair Kelly and Vice Chair DeBranch said they were willing to continue to serve.

MOTION

Committee Member Jaffe made a motion to appoint the current officers to continue serving as Chair and Vice Chair. The motion was seconded by Committee Member Furstenfeld, a roll call vote was made, and the motion passed.

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

6. Approval of Minutes

Chair Kelly opened the floor for comments on the October 27, 2022, CBGSA SAC meeting minutes.

MOTION

Committee Member Furstenfeld made a motion approve October 27, 2022, CBGSA SAC meeting minutes. The motion was seconded by Committee Member Furstenfeld, a roll call vote was made, and the motion passed.

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

Committee Member Haslett joined the meeting at 5:10 p.m.

7. Discussion and Appropriate Action on Central Management Area Policy Considering Wells In/Out of the CMA

Mr. Beck provided background on the development of the policy for considering wells in/out of the Central Management Area (CMA) and elaborated on purpose of the policy. Mr. Beck reviewed the overarching policy which is included in the SAC packet.

Committee Member Jaffe asked if the allocations are currently being revised and Legal Counsel Alex Dominguez replied Woodward and Curran is performing some work on updating the allocations, but will incorporate Farming Unit applications received after the January 6, 2023 deadline.

Committee Chair Kelly asked how much the variance request will change the allocations. Staff replied it is dependent upon the amount of variance request that is submitted and how many are approved by the Board.

Committee Member DeBranch commented that not knowing the final allocations until May 2023 is concerning for growers.

8. Discussion and Appropriate Action on Administration of Pumping Reductions in the Central Management Area

Mr. Beck provided an overview on the administration of pumping reductions in the Central Management Area which is provided in the packet.

Committee Member Jaffe asked if it would be beneficial to have more frequent meter reporting. Mr. Blakslee replied the Board considered this, but ultimately decided to require reporting annually in line with

the meter reporting requirement.

Committee Member Jaffe asked for the Board to consider a biannual meter reporting and Committee Member Haslett supported Committee Member Jaffe's request to have a biannual meter reporting for the first year.

9. Discussion and Appropriate Action on Adaptive Management Analysis

Mr. Blakslee reviewed the summary of previous SAC comments on the process to look at options that include adjusting the Central Management Area minimum thresholds and undesirable results criteria to address expected undesirable results to occur in early summer of 2023.

Committee Member Furstenfeld asked if this change in the GSP will increase the amount of time California Department Water Resources (DWR) takes to review the GSP. Mr. Dominguez replied DWR is only reviewing the previously submitted GSP and this effort will not extend the amount of time it will take for DWR's review of the amended GSP.

10. Discussion and Appropriate Action on Strategy for Managing Pumping throughout the Basin

Mr. Beck provided background on the direction staff received to develop a strategy for managing pumping throughout the Basin, and draft options are provided in the packet.

11. Discussion and Appropriate Action on Strategy for Continuing Evaluation of Basin Faults

Mr. Blakslee reviewed the strategy for continuing evaluation of the basin faults which is provided in the packet.

Committee Member DeBranch asked if this was funded by a grant. Mr. Blakslee replied that the Board considered including fault investigation as an item in the Round 2 grant submittal, but ultimately decided not to include this and therefore, this item would not be covered by the grant.

Committee Member Jaffe commented that the people in the Cuyama Basin are being impacted by the GSP and the adjudication. She continued to say the study is a big budget item compared to what it will accomplish.

REPORT ITEMS

12. Technical Updates

a. Update on Groundwater Sustainability Plan Activities

Mr. Van Lienden reviewed the groundwater sustainability plan activities.

b. Update on Annual Report Development

Mr. Van Lienden provided an update on annual report development and explained a draft annual report will be provided for consideration of Standing Advisory Committee and Board approval in early February/March 2023.

Chair Kelly asked if the groundwater elevations are included in the annual report. Mr. Van Lienden replied they are two separate reports, but the annual report includes information from the groundwater conditions report.

Committee Chair Kelly asked if groundwater quality is included in the annual report. Mr. Van Lienden replied it is not required to be include, but Mr. Beck added there will be a short paragraph that states there was water quality work performed during the water year.

c. Update on Monitoring Network Implementation

Mr. Van Lienden provided an update on the monitoring network.

d. Update on October 2022 Groundwater Conditions Report

Mr. Van Lienden provided an update on the annual water quality report.

Committee Chair Kelly asked if well # 830 is the first time the well went below the minimum threshold (MT). Mr. Van Lienden replied the well has been below the MT for several months.

Committee Chair Kelly asked if staff needs assistance from the SAC to secure access to any wells. Mr. Van Lienden replied staff welcomes assistance from the SAC to on-board any wells that have been challenging to secure regular measurements from.

13. Groundwater Sustainability Agency

a. Report of the Executive Committee Member

Nothing to report.

b. Report of the General Counsel

Nothing to report.

c. Board of Directors Agenda Review

Mr. Blakslee provided an overview of the January 11, 2023, CBGSA Board meeting agenda which is provided in the SAC packet.

14. Items for Upcoming Sessions

The SAC requested an update on the adjudication as it relates to the GSA and legal counsel Alex Dominguez reported that he would provide an update at the March 23, 2023 special SAC meeting.

Committee Member Haslett recommended staff continue to make progress on groundwater supply projects. Mr. Van Lienden replied there is budget in the grant to include work on precipitation enhancement and water rights analysis for a groundwater storage project.

15. Committee Forum

Nothing to report.

16. Public Comment for Items Not on the Agenda

Nothing to report.

17. Correspondence

Nothing to report.

18. Adjourn

Chair Kelly adjourned the meeting at 7:11 PM.

STANDING ADVISORY COMMITTEE OF THE
CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Chair Kelly: _____

ATTEST:

Vice Chair DeBranch: _____

DRAFT



TO: Standing Advisory Committee
Agenda Item No. 7

FROM: Jim Beck / Alex Dominguez

DATE: March 23, 2023

SUBJECT: Discuss and Take Appropriate Action on Variance Findings

Recommended Motion

Standing Advisory Committee feedback requested.

Discussion

On January 18, 2023, the Board of Directors approved a second variance process for the draft Central Management Area groundwater allocations. Variance requests were due on March 3, 2023. Six formal variance requests and one informal request were submitted. Those requests are attached hereto as **Attachment 1**. Also attached as **Attachment 2** is an explanation of the process associated with reviewing the submitted requests. Finally, attached as **Attachment 3** is the Ad Hoc Committee's recommendations for consideration of the Board that were provided to each requester by March 20, 2023.

Ad Hoc Committee Composition

Director Anselm; Director Bantilan; Director Vickery; Director Wooster



March 3, 2023

Via U.S. Mail and Email

TAYLOR BLAKSLEE
Hallmark Group
4900 California Ave., Tower B, Second Floor
Bakersfield, CA 93309

Re: Central Management Area Policies and Landowner Requirements

Dear Mr. Blakslee:

Bolthouse Land Company, LLC ("BLC") submits this correspondence in response to the Central Management Area Policies and Landowner Requirements issued by the Cuyama Basin Groundwater Sustainability Agency ("GSA") on February 3, 2023. The GSA's correspondence provides landowners within the Central Management Area ("CMA") and those areas outside the CMA but within a Designated Farming Unit with notice of the updated proposed interim groundwater allocations for 2023 and 2024. It is worth noting that the allocations calculated by the GSA are not precedent setting. While we appreciate the incorporation of the Farming Unit Policy into the allocation methodology utilized for the 2023 and 2024 allocations by the GSA, we believe that further refinement is necessary to comply with California law governing the use of groundwater by overlying landowners. Accordingly, please consider this correspondence as BLC's request to the GSA that it clarify the interim allocation set forth in the February 3, 2023 notice so that the allocation for each landowner within the farming unit is based upon the location of where the water is produced by the landowner and not where the groundwater is ultimately applied.

The Rights of Overlying Groundwater Users

An overlying groundwater right is associated with ownership of property. (*City of Barstow v. Mojave Water Agency* (2000) 23 Cal. 4th 1224, 1240; *Santa Maria City of Santa Maria v. Adam* (2012) 211 Cal. App. 4th 266, 278; *California Water Service Co. v. Edward Sidebotham & Son* (1964) 224 Cal. App. 2nd 715, 725; *City of Pasadena v. City of Alhambra* (1949) 33 Cal. 2d 908, 925) The right provides the owner of the property the right to pump groundwater from a well on that property for use on his or her land within the basin or watershed. (*Barstow*, at 1240 and citations above) The right is based upon ownership of the land. (*Barstow*, at 1240, *Santa Maria* at 278 and citations above) The right applies to percolating groundwater in the basin. (*Barstow*, at 1240, *Santa Maria* at 276 and citations above) The right allows the overlying owner to use the water extracted

TAYLOR BLAKSLEE

March 3, 2023

Page Two

from the well on any parcel within the basin or watershed. (*Barstow*, at 1240 and citations above).

The farming unit concept exists because of the flexible nature of groundwater rights based upon farming needs which vary from year to year based upon cropping patterns, weather, economics, and other factors along with the availability of farm ground. If the landowner's property is located within the basin, there is no legal requirement that a well must be located on the property where the farming is being conducted. (See citations above, *Hildreth v. Montecito Creek Water Co.* (1903) 139 Cal. 22, 29; *In re Thomas Estate* (1905) 147 Cal. 236, 242, and California Water Law and Policy, vol. 1, 2018, section 3.13, 1(b)) It is common practice to enter leases to use the water pumped from a well located on one of the landowner's properties, on other properties as part of a farming operation or farming unit. (Id.)

A simple example is that of a farming operation which owns or leases 100 parcels. The farming operation owns a well on one of the properties it owns. The farming operation has the right to pump groundwater from its well on its property and use that water as the need arises on any of the 100 parcels. It would be impracticable to drill a well on each of the 100 parcels when water can be supplied by the already existing well and where crops and available land use will change from year to year. The Farming Unit Policy is consistent with necessary farming practices and California groundwater law.

The Location of Groundwater Application Cannot Determine Allocation

The GSA initially evaluated groundwater supply and groundwater pumping to evaluate overdraft. The amount of groundwater pumping was evaluated utilizing evapotranspiration analysis ("ET") based upon cropping patterns in the basin over many years but did not consider ownership of property or wells on that property used to irrigate those crops. This methodology is sufficient to estimate overall pumping in the basin. However, without consideration of where the groundwater extraction occurred, this methodology is not sufficient, legally, or practically, to set interim water pumping allocations. As noted above, overlying groundwater rights are based upon ownership of property and pumping and using groundwater from a well on that property. As a practical matter, the interim allocation amount must be sufficient to conduct the farming operations being serviced by the landowner's well. Otherwise, the farming operations being served by the landowner's well located on the landowner's real property could not continue if the water was allocated to someone other than the owner of the real property, which is also inconsistent with California groundwater law.

TAYLOR BLAKSLEE
March 3, 2023
Page Three

The Farming Unit Policy

The Farming Unit Policy correctly protects the needs of farming operations by recognizing that some of the water from a landowner's well may be used on ground not owned by the farming operation. However, using the ET methodology to estimate groundwater pumping to set an interim allocation is inconsistent with California law. To be legally consistent, the interim allocation must be based upon ownership of the property where the groundwater was produced. Failing to provide the allocation to the property from which the water was produced, deprives the owner of the property from which the water was produced, of the water necessary to conduct farming operations.

The current allocation methodology will lead to a legally incorrect, inequitable and impractical result. To properly set the BLC interim water allocation and to protect the ability of BLC to provide water for farming operations, BLC requests that the updated proposed interim groundwater allocation set forth in the February 3, 2023 notice, be amended to clarify and set interim allocations based upon the amount of water actually pumped from BLC property. This methodology will make the allocation consistent with property ownership, groundwater use and the Farming Unit policy already adopted, as required by California law.

BLC hereby requests that the GSA revise the allocation for the BLC Farming Unit so that it takes into account the ownership of the property where the groundwater was extracted based upon the 95%/5% split outlined above. This results in an interim allocation of 20,389 afy to the BLC Farming Unit and an interim allocation of 1,075 afy to the Perkins Farming Unit. The combined total for the BLC Farming Unit and the Perkins Farming unit remains the same, e.g. 21,464 afy. Therefore, water use for 2023 to 2024 has not been increased, but the interim allocation is consistent with the Farming Unit Policy. BLC requests that this methodology be utilized for the 2024 interim allocation as well.

The Allocation for Cuyama Solar Should be Re-Allocated to BLC

The Notice identifies an interim allocation of 546 afy to Cuyama Solar, LLC. The property now owned by Cuyama Solar, LLC was previously owned by BLC. The transaction specifically excluded the transfer of groundwater rights attributable to the parcel being conveyed. The deed transferring the BLC parcel to Cuyama Solar, LLC is attached hereto as Exhibit "A". The relevant language severing the water right from the real property is highlighted in yellow. Given BLC's reservation of the groundwater rights associated with the Cuyama Solar, LLC parcel, BLC hereby requests that the interim allocation by the GSA for 2023 and 2024 be re-assigned to BLC.

TAYLOR BLAKSLEE
March 3, 2023
Page Four

We look forward to answering any questions during the one hour consultation meeting set for the week of March 13-17. In the interim, we are also available prior to that time to respond to requests for further information or clarification.

Sincerely,

A handwritten signature in blue ink, appearing to read 'D.T. Clifford', is written over the typed name.

DANIEL T. CLIFFORD
Vice-President, General Counsel

DTC:nv

cc: Richard Zimmer

EXHIBIT "A"

RECORDING REQUESTED BY
First American Title Company National Commercial
Services

**AND WHEN RECORDED MAIL DOCUMENT
AND TAX STATEMENTS TO:**
Cuyama Solar, LLC
135 Main Street, 6th Floor
San Francisco, CA 94105
Attn: Manager, Real Estate

Space Above This Line for Recorder's Use Only

A.P.N.: 149-150-42, 149-150-31, 149-150-
32 & 149-140-91

File No.: NCS-634519-ONT1 (MLB)

GRANT DEED

The Undersigned Grantor(s) Declare(s): DOCUMENTARY TRANSFER TAX ; CITY TRANSFER TAX \$;
SURVEY MONUMENT FEE \$
[X] computed on the consideration or full value of property conveyed, OR
[] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,
[] unincorporated area; [] City of Cuyama, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **Bolthouse Properties, LLC**, a California limited liability company

hereby **GRANTS** to **Cuyama Solar, LLC**, a Delaware limited liability company

the following described property in the unincorporated area of the County of **Santa Barbara**, State of **California** (collectively the "Property"):

PARCEL ONE:

LOT THREE AS SHOWN ON LOT LINE ADJUSTMENT NO. 10LLA-00000-00004 EVIDENCED BY DOCUMENT RECORDED DECEMBER 18, 2014 AS INSTRUMENT NO. 2014-58348 OF OFFICIAL RECORDS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEING THE WEST ONE-HALF OF THE SOUTHEAST ONE-QUARTER OF SECTION 31, TOWNSHIP 10 NORTH, RANGE 25 WEST, SAN BERNARDINO MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF, IN THE COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA, PORTIONS OF SAID LAND BEING SHOWN ON THE MAP FILED IN BOOK 179 OF RECORDS OF SURVEY, PAGE 65, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY AND STATE.

SUBJECT TO THAT PRIOR RESERVATION AS FOLLOWS: 25% OF ALL OIL AND MINERAL RIGHTS IN AND TO SAID PROPERTY, LYING BELOW A DEPTH OF 500 FEET FROM THE SURFACE THEREOF WITHOUT THE

Grant Deed – continued

RIGHT OF SURFACE ENTRY AS RESERVED BY MARIE K. SUMMERVILLE, A WIDOW IN GRANT DEED RECORDED JULY 11, 1966 IN BOOK 2157, O.R. PAGE 1234 AND GRANT DEED RECORDED JULY 11, 1966 IN BOOK 2157, O.R. PAGE 1235.

PARCEL TWO:

THE WEST HALF OF THE EAST HALF OF THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 10 NORTH, RANGE 25 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA, ACCORDING TO THE OFFICE PLAT OF THE SURVEY OF SAID LANDS, RETURNED TO THE GENERAL LAND OFFICE, BY THE SURVEYOR GENERAL.

SUBJECT TO THAT PRIOR RESERVATION AS FOLLOWS: 25% OF ALL OIL AND MINERAL RIGHTS IN AND TO SAID PROPERTY, LYING BELOW A DEPTH OF 500 FEET FROM THE SURFACE THEREOF WITHOUT THE RIGHT OF SURFACE ENTRY AS RESERVED BY MARIE K. SUMMERVILLE, A WIDOW IN GRANT DEED RECORDED JULY 11, 1966 IN BOOK 2157, O.R., PAGE 1236.

PARCEL THREE:

THE EAST HALF OF THE EAST HALF OF THE SOUTHEAST QUARTER OF SECTION 31, IN TOWNSHIP 10 NORTH, RANGE 25 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA, ACCORDING TO THE OFFICE PLAT OF THE SURVEY OF SAID LANDS, RETURNED TO THE GENERAL LAND OFFICE, BY THE SURVEYOR GENERAL.

SUBJECT TO THAT PRIOR RESERVATION AS FOLLOWS: 25% OF ALL OIL AND MINERAL RIGHTS IN AND TO SAID PROPERTY, LYING BELOW A DEPTH OF 500 FEET FROM THE SURFACE THEREOF WITHOUT THE RIGHT OF SURFACE ENTRY AS RESERVED BY MARIE K. SUMMERVILLE, A WIDOW IN GRANT DEED RECORDED JULY 11, 1966 IN BOOK 2157, O.R., PAGE 1237.

PARCEL FOUR:

LOT TWO AS SHOWN ON LOT LINE ADJUSTMENT NO. 10LLA-00000-00004 EVIDENCED BY DOCUMENT RECORDED DECEMBER 18, 2014 AS INSTRUMENT NO. 2014-58348 OF OFFICIAL RECORDS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEING THE SOUTHWEST ONE-QUARTER OF SECTION 31, TOWNSHIP 10 NORTH, RANGE 25 WEST, SAN BERNARDINO MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF, IN THE COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA, PORTIONS OF SAID LAND BEING

Grant Deed – continued

SHOWN ON THE MAP FILED IN BOOK 179 OF RECORDS OF SURVEY, PAGE 65, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY AND STATE.

SUBJECT TO THAT PRIOR RESERVATION AS FOLLOWS: EXCEPTING:

FROM SAID PARCEL ALL OIL, GAS AND OTHER HYDROCARBON SUBSTANCES AND OTHER MINERALS IN AND UNDER, THAT MAY BE PRODUCED, SAVED, SOLD OR REMOVED FROM SAID LAND AS RESERVED IN THE DEED FROM BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION, A NATIONAL BANKING ASSOCIATION RECORDED AUGUST 21, 1984 AS INSTRUMENT NO. 1984-045400 OF OFFICIAL RECORDS.

AS TO ALL PARCELS:

RESERVING IN FAVOR OF THE GRANTOR, BOLTHOUSE PROPERTIES, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY, AND ITS SUCCESSORS AND ASSIGNS, ANY AND ALL INTEREST IN AND TITLE TO ANY AND ALL WATER, WATER AGREEMENTS OR CONTRACTS, WATER RIGHTS (WHETHER APPROPRIATIVE, GROUNDWATER, OVERLYING, PRESCRIPTIVE, SURFACE WATER OR OTHERWISE, AND WHETHER OR NOT APPURTENANT), AND WATER STOCK IN, RELATING TO OR USED IN CONNECTION WITH THE PROPERTY, AND OWNED BY GRANTOR AND NOT RESERVED OR EXCEPTED IN PRIOR THIRD PARTY DEEDS OF RECORD, IF ANY, BUT WITHOUT RESERVATION TO GRANTOR OF ANY RIGHT OF ENTRY ONTO THE SURFACE OR TO THE SUBSURFACE TO A DEPTH OF FIVE HUNDRED FEET (500') BENEATH THE SURFACE, AND ALSO SUBJECT TO THAT CERTAIN WATER SYSTEM FACILITY EASEMENTS AND WATER RIGHTS AGREEMENT BY AND BETWEEN GRANTOR AND GRANTEE OF EVEN DATE HERewith AND RECORDED AGAINST THE PROPERTY IN THE SANTA BARBARA COUNTY OFFICIAL RECORDS.

A.P.N.: 149-150-42, 149-150-31, 149-150-32 & 149-140-91

Dated: September 14, 2015

Bolthouse Properties, LLC, a California limited liability company

By: [Signature]

Name: Anthony L. Leggio

Title : President

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA) SS

COUNTY OF KERN) SS

On September 14, 2015, before me, Nancy E. Vogel, Notary Public, personally appeared Anthony L. Leggio, who proved to me on the basis of satisfactory evidence to be the person ~~(s)~~ whose name ~~(s)~~ is ~~are~~ subscribed to the within instrument and acknowledged to me that he ~~she~~ ~~they~~ executed the same in his ~~her~~ ~~their~~ authorized capacity(ies), and that by his ~~her~~ ~~their~~ signature ~~(s)~~ on the instrument the person ~~(s)~~, or the entity upon behalf of which the person ~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature
Nancy E Vogel



This area for official notarial seal



2nd VARIANCE REQUEST FORM

For 2023 and 2024 Groundwater Allocations in the Central Management Area

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Please submit this Variance Request Form, including a check in the amount of \$250, to Taylor Blakslee at 4900 California Ave, Tower B, Suite 210, Bakersfield, CA 93309. Please note the following: (1) CBGSA may reimburse the \$250 if corrections are due to inaccuracies with CBGSA's records; and (2) if you submitted a variance request and a \$250 check during the first round of variance requests, you are not required to submit a second check for \$250.

Name: CCSH Farms LLC
 Date: 3-1-2023
 Phone: 213 369-0203 951-3041986
 Email: slumskiediana@yahoo.com
 Assessor Parcel Number(s) (APN): mnt Partner Doug Slumskie
149-170-050

Please increase Alloc to 135 Acre Feet
For 40 Acres Aug 3.38 per Acre

Please describe the basis for your variance request and attach any supporting documentation.

we feel we will need
Additional water for future
crops and want to be on the
safe side. Alloc 135
Acre Feet.

CUYAMA BASIN GSA

500 Capitol Mall, Ste 2350
Sacramento, CA 95814

Invoice

Date
5/16/2022

Invoice #
GWEFY23-12

Bill To

Roy Harrington
27900 Cummings Valley Rd
Tehachapi, CA 93561

*year
2022*

Due Date
6/30/2022

Description	2021 Consumption	Cost Per AF	Amount Due
Cuyama Basin GSA Fiscal Year 2022/2023 Groundwater Extraction Fee: 2021 Water Use Based On Crop Factors	358.8	38.00	13,634.40

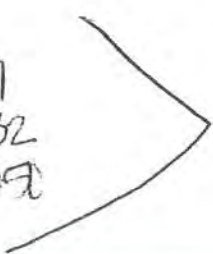
1/3 Paid

For additional information regarding this invoice or the associated fees, please refer to the Cuyama Basin GSA website for the Fiscal Year 2022/2023 Fee Report.

LATE FEE: Fees are due by June 30, 2022. A 10% late penalty will be assessed for payments received after this date with a 1% escalation rate for each additional month late.

\$4,544.80 each

- #1234 (THF) April 149-170-047*
- #7963 (Hnn) Apr 016-211-032*
- #2001 (COST) Apr 144-170-050*



*TOTAL
4,544.80
Each*

For questions regarding this invoice please contact Taylor Blakslee with The Hallmark Group (661) 477-3385. Please send payments to the Sacramento, CA address above - Thank You

Total \$13,634.40



A family of *Growing* companies.™

VIA EMAIL ONLY

March 3, 2023

Jim Beck
Executive Director
Cuyama Basin Groundwater Sustainability Agency
4800 California Ave.
Tower B, 2nd Floor
Bakersfield, CA 93309

RE: Request to Add User Notes to the GSA Allocation Spreadsheet

Dear Mr. Beck,

Grimmway Enterprises, Inc. (“Grimmway”) has reviewed the Cuyama Basin GSA’s (“GSA”) revised proposed groundwater pumping allocations for 2023 and 2024 and feels that the concerns it had with the original allocation have, for the most part, been addressed. There are still some discrepancies where parcels with no historic use have been assigned an allocation (although a much smaller amount in this version) and it still seems that some parcels with similar historic crop rotations are not receiving a consistent allocation. That said, Grimmway recognizes that such discrepancies are part of the reality of using a model to calculate historic use, and at this time is satisfied with the calculation of the overall allocation assigned to its farming unit. It would be helpful, however, to add several notations to the allocation spreadsheet to clarify and ensure that the GSA’s allocations are taken in context and are not inadvertently used as precedence for the determination of any water rights.

While Grimmway at this time agrees with the *overall* allocation to its farming unit, the amount of water allocated to *certain* landowners within its farming unit is not accurate when compared to that landowner’s historic production of water from its wells. This is because the GSA’s allocations are calculated based on the estimated historic water use on each parcel, rather than on the historic amount of water pumped from a particular landowner’s well. The amount of water allocated to each landowner does not take into consideration the historic source of water production. This discrepancy could become an issue in the future if a landowner within the farming unit decides to not renew its lease and has an expectation that the allocation shown on the GSA’s spreadsheet will follow the land when in fact the water was actually pumped from another landowner’s wells.

P.O. 81498 Bakersfield, CA 93380-1498
tel: (661) 845-5761
www.grimmway.com

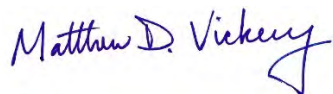
With these concerns in mind, Grimmway respectfully requests that the GSA add the following notes at the top of the allocation spreadsheet going forward:

1. Nothing in this spreadsheet is intended as a precedential allocation or a determination of water rights.
2. The allocations to property owners shown with an asterisk (*) are part of a larger farming unit allocation and do not represent a specific allocation to that particular owner/parcel within the farming unit.

To help readers follow the second note, the GSA could use a different style of asterisk for the parcels included in each the approved farming units.

Grimmway appreciates the time and effort the GSA has spent on these allocations and the great lengths it has gone to make it the best product it can with the data it has available. As always, please contact me if any questions arise.

Best Regards,



Matthew Vickery
Director of Land & Water Resources



2nd VARIANCE REQUEST FORM

For 2023 and 2024 Groundwater Allocations in the Central Management Area

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Please submit this Variance Request Form, **including a check in the amount of \$250**, to Taylor Blakslee at 4900 California Ave, Tower B, Suite 210, Bakersfield, CA 93309. Please note the following: (1) CBGSA may reimburse the \$250 if corrections are due to inaccuracies with CBGSA's records; and (2) if you submitted a variance request and a \$250 check during the first round of variance requests, you are not required to submit a second check for \$250.

Name:	David Lewis
Date:	3/3/2023
Phone:	805-896-6490
Email:	cuyama2018@gmail.com
Assessor Parcel Number(s) (APN):	149-170-006

Please describe the basis for your variance request and attach any supporting documentation.

I am a resident, new farmer that owns approximately 85 acres within the CMA. My parcel contains a residence, agricultural building, sustains four sheep, 12 chickens and is planted with approximately 38 acres of pistachio trees and two acres of lavender. The basis for this second variance request remains unchanged from the initial variance request on file with the CBGSA with the exception that it is now more imperative that the board approve this variance request as submitted since the board's 2-3-23 revised pumping allocation for 2023 has been reduced from the 7-29-22 allocation value of 78.54 AF to 14.49 AF (a reduction of 64.05 AF) to irrigate +/- 40 acres of permanent crops. Our initial variance request was to provide a 2023 allocation of 120 AF, which is consistent with the allocations for adjacent parcels with similar acreage of permanent crops. The 120 AF allocation reflects 0.25% of the total 2023 Pumping Allocation; a nominal portion of the overall 2023 Pumping Allocation but a vital amount of water to sustain my agricultural operations.

Furthermore, the requested 120 AF is consistent with the Cuyama Basin GSA's water demand estimate for the crops on my parcel (See the attached Board's Exhibit I-1, Crop Factors). The Board should consider this information and issue my variance request.

The Board must consider the present, beneficial uses of water on agricultural parcels, like mine, when it acts on variance requests. Under the current CMA Allocation Policy, the 1998-2017 period to establish landowner's shares of pumping has the effect of allocating water to historical pumpers that may not have current beneficial uses. The CMA Allocation Policy should weight more recent water use (i.e., within the last 5 years) more heavily than historical operations.

Also, I want to reiterate that the Board should request the reevaluation of the boundary of the CMA taking into account recent rainfall and present basin water levels prior to imposing this punitive allocation policy on landowners within the CMA.

Therefore, this variance request for an allocation of 120 AF in 2023 has near immeasurable impact on the CMA but can have devastating impact on the family owned farm on this parcel.

B. Tilden Kim

T 213.626.8484
F 213.626.0078
E tkim@rwglaw.com

350 South Grand Avenue
37th Floor
Los Angeles, CA 90071
rwglaw.com

NIC MAIL

Project Coordinator
Room 210

Second Variance Application

es, LLC (Sunrise Ranch). Enclosed please find Sunrise
(and attachments), submitted in accordance with the
Ayama Basin Groundwater Sustainability Agency (CBGSA)
being delivered by overnight mail in addition to this copy
submitted a \$250.00 check with the first Variance Request,
therefore, no check is being submitted with this second request.





2nd VARIANCE REQUEST FORM

For 2023 and 2024 Groundwater Allocations in the Central Management Area

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Please submit this Variance Request Form, including a check in the amount of \$250, to Taylor Blakslee at 4900 California Ave, Tower B, Suite 210, Bakersfield, CA 93309. Please note the following: (1) CBGSA may reimburse the \$250 if corrections are due to inaccuracies with CBGSA's records; and (2) if you submitted a variance request and a \$250 check during the first round of variance requests, you are not required to submit a second check for \$250.

Name: Dan Devico, Michael Devico (Sunrise Ranch Properties, LLC)

Date: March 2, 2023

Phone: (323) 859-7402

Email: TO: dan@pompeian.com, michael.devico@sunriseoliveranch.com;
 CC: stevej2@stetsonengineers.com; jeffh@stetsonengineers.com;
biancac@stetsonengineers.com; JMarkman@rwglaw.com;
TKim@rwglaw.com; KBrochard@rwglaw.com;
JMctz@rwglaw.com

Assessor Parcel Number(s) (APN):

-	149-170-09	-	096-201-021
-	149-170-10	-	096-211-027
-	096-201-015	-	096-211-033
-	096-201-016	-	096-211-034
-	096-201-017	-	096-211-042
-	096-201-018	-	096-211-043
-	096-201-019	-	096-211-044
-	096-201-020	-	096-211-045

Please describe the basis for your variance request and attach any supporting documentation.

Please see attached March 2, 2023 letter from James L. Markman; Exhibit 1 (declaration of Jeffrey D. Helsley and Attachment A); and Exhibits 2 and 3.



James L. Markman

T 714.990.0901
 F 714.990.6230
 E jmarkman@rwglaw.com

1 Civic Center Circle, PO Box 1059
 Brea, California 92822-1059
rwglaw.com

March 2, 2023

VIA ELECTRONIC MAIL & OVERNIGHT MAIL

Taylor Blakslee
 Groundwater Sustainability Agency Project Coordinator
 4900 California Avenue, Tower B, Suite 210
 Bakersfield, California 93309
tblakslee@hgcpm.com

Re: ***Second Variance Request of Sunrise Ranch Properties, LLC***

Dear Mr. Blakslee:

This letter and enclosures constitute our client, Sunrise Ranch Properties, LLC's ("Sunrise") Second Variance Request. As detailed below, based on the best available science and evidence, Sunrise seeks 2,834.44 acre-feet-per-year (AFY) as the average annual groundwater produced from 1998 through 2017 for its Farming Unit with resulting adjustments to the allocation for the Central Management Area for 2023 and 2024. It also must be noted that the number requested should be higher because the test period included four years, 2014-2017, which were start up years for Sunrise's present olive operation. Comparing the original alfalfa operation to the projected olive operation at maturity shows a reduction of between 1,300 to 1,500 AFY of water use.

Sunrise's First Variance Request and Farming Unit Request

As background, on August 30, 2022, Sunrise submitted voluminous documentation supporting its first variance request. In sum, in recognition of Sunrise as an integrated farming unit, property information, and pumping documentation, Sunrise now requests that the Cuyama Basin Groundwater Sustainability Agency (the "Agency") correct its average historical pumping value for Sunrise of 2,388.77 AFY to be 2,834.44 AFY.

Cuyama Basin Groundwater Sustainability Agency's Farm Unit Approval and Allocation

On January 16, 2023, the Agency reviewed Sunrise's Farming Unit application received on January 5, 2023, and determined that it met the requirements set forth in the "Overarching Policy for Wells Inside and Outside the Central Management Area" policy adopted by the Agency on December 12, 2022, and thus, approved Sunrise's Farming Unit request.

On February 4, 2023, the Agency then calculated a new allocation to Sunrise based upon a new historical average use of 2,388 AFY, and a starting point allocation of 2,568 AFY for calendar year 2023.

The Agency's Allocation Lacks Rational Bases

Sunrise's principals, its consultant (Stetson Engineers) and its legal team have reviewed and analyzed the Agency's February 4, 2023 allocation determination and methodology. The historical average use of 2,388 AFY is unsupported. The Agency has not provided the specific analysis of Sunrise's parcels past water requirement to support the Agency's determination—which is 450 AFY less than that provided by Sunrise in this second variance request and, practically is about 1,000 AFY less since water production was understated from 2014 to 2017, the first years of establishing the olive operation. Specifically, if the startup years are eliminated from the test period, Sunrise's calculation of average AFY jumps from 2,834.44 AFY to 3,447.99 AFY.

This second variance request is narrowly focused on the difference between the Agency's basis of its calculation of the average amount of water used on the total properties included in the subject unit during the 1998-2017 test period and the amount calculated by Sunrise. Below, we will first identify methods which could have been used by the Agency in reaching its conclusions which have not been substantiated by specific numerical examples. Frankly, Sunrise and its advisors have been confused by the general description of the method used to generate the average numbers for all of its producers, making it difficult to judge the accuracy of the Agency's average production.

We then will explain the basis for Sunrise's calculations which are supported by available electrical data by which the water production from three of the four wells in question have been accurately computed. Historical investigations reveal the use of a fourth well not run by electricity and an estimate of the amount of water used from that well from 1998-2013. These methodologies are substantiated by a declaration under penalty of perjury submitted herewith by Jeff Helsley, a professional engineer employed by Stetson Engineers on behalf of Sunrise (attached as Exhibit 1 hereto) which summarizes and analyzes data obtained by Mr. Helsley from the owner and manager of the properties included in the Farming Unit from 1998-2013. Mr. Helsley's declaration also supports Sunrise's calculations and the resulting data submitted in Exhibits 2 and 3 attached hereto.

Maximizing the accuracy of data underlying the calculation of allocations made through the Sustainable Groundwater Management Act process is a legal requirement which protects both the property rights of water producers and the Agency's ability to achieve and maintain Basin sustainability. And, the best available science is required to be employed by the Agency in determining water allocations, which leads to the questions Sunrise now raises stated immediately below which pertain to how the Agency's calculations were made.

The core questions on water allocations made through this process to this date are as follows:

1. Was the historical amount of water used from 1998-2017 in the Basin determined by the Agency based solely upon aerial photograph or measured well production and a determination of crops grown during any given year as to each property analyzed?
2. If there was some combination of methods, which methods were applied to determine well production at Sunrise such as available meter readings or electrical consumption and which were derived from aerial photography and/or investigation of crops grown each year of the test period?
3. Did the Agency staff or engineers determine the specific crops grown on all of the specific parcels for each year during the test period?
4. Was there an effort in ground proofing assumptions used to verify abstract observations. In other words, were statements by persons who were conducting agricultural activities in the Basin during the test period accumulated to verify the accuracy of any conclusions reached in other ways?

An equally important question is whether the Agency and its engineers will meet and confer on differences in conclusions in the Agency's numbers and those of Sunrise. These are crucial factual issues. We appreciate the Agency facilitating our contacting Agency staff, Agency Special Committee, and the Agency Board so that we are able to present relevant data in that forum on behalf of Sunrise. This at least affords us an opportunity to present our views and answer questions from Agency officials. It would be more productive if the staff and engineers of the Agency and Sunrise met under circumstances in which each would be willing to candidly exchange data to at least identify the differences in approaches, data found or conclusions reached. This could result in resolution of many differences. This would present an opportunity for the Agency to explore these issues with stakeholders instead of or in addition to conducting what amounts to a quasi-judicial determination on behalf of the Agency, making the producer an applicant rather than a participating stakeholder.

At this point, we will summarize Sunrise's conclusions on the amount of water used and proper allocations thereof and will identify support for the conclusions stated. We first ask you to review Exhibit 1 which is Jeff Helsley's declaration which describes the process used to determine water production, much of which was presented in the first variance process. Mr. Helsley determined that appropriate information on water use during the test period years could be determined in two ways.

The first method of determination covers the period of time commencing in 2014 to the end of the test period. That was the period of time in which all of the wells involved in providing water to the parcels were operated by Sunrise. In that regard, Sunrise provided to Stetson electrical use data separately assigned to the active wells, including intermittent pump test data showing the reliability of the electrical records. For each year from 2014 forward, Stetson was able to accurately calculate the exact amount of water produced by each well used in its Farming Unit. And, Stetson did so utilizing the best available science. Also, it should be noted that discrepancies between the Agency's estimated water use and Sunrise's estimated groundwater production still exist for those four years. Accordingly, these discrepancies must be explained to the satisfaction of both parties.

For years 2012 and 2013, three wells were run through electricity and reliable electrical records for those wells providing water to all of the parcels were provided by the previous owner of the parcels to Sunrise and were analyzed by Stetson. Importantly, the production of alfalfa and grain hay essentially had not been modified over the 1998-2013 period. The best estimate of the amount of water use in the farm unit from 1998-2013 are the electrical records showing production of those three wells.

As an alternate basis for calculating water use, the previous owner provided the acreage use for two crops grown on the site from 1998 through 2013, for each year in that period other than 2001 and 2002. The crops were 650 acres of alfalfa at 5 acre feet per acre and 100 acres of grain hay at an additional 1.5 acre feet per acre. The total usage each of those years was determined to be 3,400 AFY. In 2001 and 2002, the alfalfa acreage was 720 which, together with 100 acres of grain hay resulted in the total water use of 3,750 AFY.

Sunrise would appreciate your consideration of projections of Sunrise's available water based on the assumption of a 5% rampdown imposed every year from 2023 through 2030, attached as Exhibit 2 hereto. The projections in Exhibit 2 assume the Agency agrees with Sunrise's data and conclusions presented here. Accordingly, should such a sustained rampdown ensue, Sunrise would have to fallow trees sometime in the 2029-2030 period. Sunrise does realize that it will bear some financial burden to be part of the solution to sustaining the Basin. But Sunrise continues to remind the Agency that its acquisition of the farm unit and its conservative use of water has generated the exact result which this Agency seeks: significant water reduction.

Sunrise already has been certified as having a Sustainable Grown Version 2.2 certificate from SCS Global Services, the first business venture to be certified in the world for growing olives. As emphasized in the first paragraph of this Second Variance Request, if Sunrise's start up years were eliminated, average water use on its property with all of its trees matured will have been reduced from 3,400-3,750 AFY to 2,050-2,400 AFY.

Exhibit 3 compares the estimated annual groundwater production presented by the Agency and Sunrise. This creates a stark contrast for Sunrise in which its mature olive trees would have to be fallowed significantly within a five year period if the Agency model is put into play on its path into the late 2020s. This is due to the rampdown starting at 2,568 AFY and dwindling by approximately 500 AF by 2027. In fact, either scenario only provides five to eight years of production to Sunrise. This is not a fair result supported by the best available science and would not provide Sunrise any choice but to legally resist implementation of that scenario. Sunrise intends to permanently operate the exceptional olive oil business in which they are engaged in Cuyama and by which, as stated above, they will have eliminated a substantial percentage of the water previously used on the same parcels.

At some time we would like to speak with the Agency on the following subjects which could mitigate financial hardship to the growers as demonstrated in Exhibits 2 and 3 while still reaching the Agency's sustainability goals:

1. The concept of a producer carrying over unused water allocations from year to year which would cushion the rampdown by allowing water that could have been pumped in one year to be pumped at a later time. The end result would be the same amount of pumping which would have been expected by the allocations made by the Agency during rampdown.
2. The concept of creating transferability between parties holding allocations, to cushion the impact on both parties.
3. The concept of settling with a producer on a total amount of water which may be produced throughout the rampdown period with only the annual amount left at the end of rampdown to be produced thereafter.

Taylor Blakslee
March 2, 2023

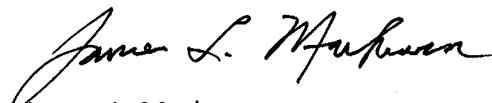
Page | 6

These devices have been successful elsewhere in providing businesses management alternatives during rampdown, avoiding litigation and supporting the sustainability agencies in reaching basin balance.

We thank you in advance for your anticipated thoughtful attention to this variance request.

Very truly yours,

RICHARDS, WATSON & GERSHON
A Professional Corporation



James L. Markman

Attachments (Exhibit 1 (Helsley Declaration and Attachment A thereto);
and Exhibits 2 and 3)

13092-0002\2783160v2.doc

EXHIBIT 1

**DECLARATION OF JEFFREY D. HELSLEY IN SUPPORT OF SUNRISE RANCH
PROPERTIES' LLC'S SECOND VARIANCE REQUEST**

I, Jeffrey D. Helsley, declare as follows:

1. I am a civil engineer licensed in the State of California. I have a Bachelor of Science degree in Civil Engineering from California State University, Los Angeles, and a Master of Science Degree in Environmental Engineering from the University of Southern California. I have been working as an engineer in the fields of water resources and environmental engineering for 40 years. Some of my relevant experience includes managing the preparation of a conceptual level Practicably Irrigated Acreage analysis to support the quantification of the water rights of a Native American Tribe's reservation, managing the development and preparation of a California Department of Water Resources approved Groundwater Sustainability Plan, managing groundwater modeling investigations, and preparation of planning documents that included review of historical water use and projections of future water use.

2. In addition, I have managed the design of several groundwater water production, treatment, and distribution facilities. I am the Engineering Manager for the Covina, California office of Stetson Engineers Inc. ("Stetson"). My duties as Engineering Manager include hiring and training qualified engineering staff, planning project staffing, providing quality control of engineering deliverables, high level project guidance and problem solving, and providing senior level support for clients.

3. The law firm of Richards, Watson & Gershon has retained Stetson on behalf of the mutual client, Sunrise Ranch Properties, LLC ("Sunrise"). I have personal knowledge of the facts set forth in this Declaration and, if called as a witness, could and would testify competently to such facts under oath.

Overview of Sunrise Ranch Properties, LLC

4. Since May 2014, Sunrise Ranch has been growing olives in the Cuyama Basin, located south of the Highway 33 and Highway 166 intersection and east of the

RICHARDS WATSON GERSHON
ATTORNEYS AT LAW - A PROFESSIONAL CORPORATION

1 Cuyama River along the boundary between San Luis Obispo and Santa Barbara Counties.
2 Sunrise Ranch owns 1,085 acres of land which includes 880 acres of gross farmed land and
3 810 acres of net farmed land. Land not used for farming is purposed for residential homes
4 and milling or are mountainous areas.

5 5. Sunrise Ranch farms high density olive orchards with an ultimate water
6 demand of between 2,050 acre-feet per year and 2,430 acre-feet per year for the farmed
7 land. Sunrise Ranch’s farming practices include state-of-the-art irrigation efficient
8 technology, maintenance of their assets including an olive oil processing plant, 3 currently
9 active wells, 2 inactive wells, 2 reservoirs, and drip irrigation lines.

10 6. Prior to the start of planting the orchards in 2014, the previous owner of the
11 land reported that he farmed alfalfa (650 acres at 5 acre-feet per acre) and grain hay (100
12 acres at 1.5 acre-feet per acre) on the Sunrise Ranch land from at least 1998 through 2011,
13 with exception of 2001 and 2002. The previous owner reported that during 2001 and 2002
14 he farmed a larger acreage of alfalfa (720 acres at 5 acre-feet per acre) along with the same
15 acreage of grain hay. The previous owner of the land has reported that the cropping pattern
16 and annual water usage remained the same from 1998 through 2011, with exception of
17 2001 and 2002.

18 **Determination of Water Usage**

19 7. Sunrise Ranch provided Stetson with monthly well pump electrical bills for
20 its three (3) active wells from Pacific Gas and Electric Company (PG&E) for 2012 and
21 2013. In addition, Sunrise Ranch provided a spreadsheet that includes information from
22 monthly electrical bills for its three (3) active wells from 2014 to 2021. Furthermore, the
23 Farm Pump & Irrigation Company, Inc. provided well pump tests for each of Sunrise
24 Ranch’s three (3) active wells.

25 8. Sunrise Ranch Well 1 was pump tested during the years 2020 and 2022. In
26 2020, Sunrise Ranch Well 1 used approximately 1,132.74 kilowatt hours per acre-feet
27 (kWh per AF) of groundwater produced. In 2022, Sunrise Ranch Well 1 used
28 approximately 815.80 kWh per AF of groundwater produced.

1 9. Sunrise Ranch Well 2 was pump tested during the years 2009, 2011, 2013,
2 2016, and 2020. In 2009, Sunrise Ranch Well 2 used approximately 906.61 kWh per AF of
3 groundwater produced. In 2011, Sunrise Ranch Well 2 used approximately 1,011.54 kWh
4 per AF of groundwater produced. In 2013, Sunrise Ranch Well 2 used approximately
5 968.70 kWh per AF of groundwater produced. In 2016, Sunrise Ranch Well 2 used
6 approximately 979.28 kWh per AF of groundwater produced. In 2020, Sunrise Ranch Well
7 2 used approximately 1,136.52 kWh per AF of groundwater produced.

8 10. Sunrise Ranch Well 3 was pump tested during the years 2006, 2011, 2013,
9 2020 and 2022. In 2006, Sunrise Ranch Well 3 used approximately 995.93 kWh per AF of
10 groundwater produced. In 2011, Sunrise Ranch Well 3 used approximately 992.40 kWh per
11 AF of groundwater produced. In 2013, Sunrise Ranch Well 3 used approximately 1,021.74
12 kWh per AF of groundwater produced. In 2020, Sunrise Ranch Well 3 used approximately
13 1,522.27 kWh per AF of groundwater produced. In 2022, Sunrise Ranch Well 3 used
14 approximately 1,350.81 kWh per AF of groundwater produced.

15 11. Water production from Sunrise Ranch's Wells 1 through 3 were calculated
16 using crop types, acreages planted, and water use rates reported by the previous owner of
17 the land for years 1998 through 2011, and the kWh use from monthly energy bills provided
18 by PG&E for 2012 and 2013, the spreadsheet provided by Sunrise Ranch that includes
19 information from monthly electrical bills for 2014 through 2021, and the energy usage per
20 AF from each well's pump test records.

21 12. **Attachment A** shows groundwater pumped from 1998 through 2017 for
22 Sunrise Ranch's Wells 1 through 3. Attachment A was prepared under my direction and
23 supervision. As mentioned above, the previous owner of the land has reported to Sunrise
24 Ranch that the cropping pattern and annual water usage has remained the same from 1998
25 through 2011, with exception of 2001 and 2002. Therefore, the estimated pumping from
26 1998 through 2011 was calculated based on the previous owner of the land's reported
27 farming of alfalfa (650 acres at 5 acre-feet per acre, or 3,250 acre-feet) and grain hay (100
28 acres at 1.5 acre-feet per acre, or 150 acre-feet) for a total of 3,400 acre-feet per year from

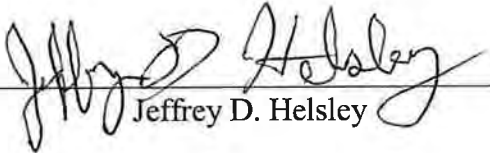
1 at least 1998 through 2011, with exception of 2001 and 2002. The estimated pumping for
2 2001 and 2002 was calculated based on the previous owner of the land's reported farming
3 of alfalfa (720 acres at 5 acre-feet per acre, or 3,600 acre-feet) and grain hay (100 acres at
4 1.5 acre-feet per acre, or 150 acre-feet) for a total of 3,750 acre-feet for both 2001 and
5 2002.

6 13. The pumping for 2012 and 2013 was calculated using the monthly electrical
7 bills provided by PG&E for 2012 and 2013 and the pump test records for the three (3)
8 wells. In addition, the estimated pumping from 2014 through 2017 was calculated using the
9 spreadsheet provided by Sunrise Ranch that includes information from monthly electrical
10 bills from 2014 to 2021, and the energy usage per AF from each well's pump test records.

11 14. Sunrise Ranch also owns a fourth well that is not electrically powered and is
12 not included as part of the Table in Attachment A.

13
14 I declare under penalty of perjury under the laws of the State of California that the
15 foregoing is true and correct.

16 Executed on this 2nd day of March, 2023, at Covina, California.

17
18 
19 Jeffrey D. Helsley
20
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27
28

RICHARDS WATSON GERSHON
ATTORNEYS AT LAW - A PROFESSIONAL CORPORATION

ATTACHMENT A

SUNRISE RANCH, LLC
 CUYAMA BASIN GSA VARIANCE APPLICATION

WATER USE RATES MODELED BY THE CBGSA VS. CURRENT VERIFICATION

YEAR	ANNUAL WATER		SUNRISE RANCH RECORD NOTES	
	MODELED BY GSA (APPLIED WATER)	PUMPING PER VERIFICATION OF PUMPING RECORDS	HISTORY OF LAND USE	WATER USE DATA SOURCE
1998	2,161.28	3,400.00	Previous owner growing alfalfa and grain hay. Previous owner also using own wells to water 200 acres of rented land outside of Sunrise Ranch.	Previous owner stated consistent relative acreages of alfalfa and grain hay grown from at least 1998 through 2011 (650 acres of alfalfa and 100 acres of grain hay), with exception of 2001 and 2002 where a larger acreage of alfalfa (720 acres) was planted. Total water use from 1998 through 2011 based on statements by the previous owner and assuming the same annual water use for 1998 through 2011, with exception of 2001 and 2002, and water use rates.
1999	2,409.00	3,400.00		
2000	3,214.25	3,400.00		
2001	2,807.78	3,750.00		
2002	3,066.50	3,750.00		
2003	2,814.79	3,400.00		
2004	3,114.28	3,400.00		
2005	2,591.72	3,400.00		
2006	2,319.92	3,400.00		
2007	2,636.21	3,400.00		
2008	2,992.38	3,400.00		
2009	2,952.02	3,400.00		
2010	2,564.33	3,400.00		
2011	2,500.50	3,400.00	Previous Owner's 2012 Electrical Bills	
2012	2,992.45	3,419.83		
2013	3,059.49	3,270.72	Sunrise Ranch starts planting in May 2014 with 180 acres. During a portion of the year, previous owner continued to grow alfalfa.	Sunrise Ranch Eletrical Bills
2014	1,085.06	157.23		
2015	860.71	411.09	Sunrise Ranch plants 320 acres	
2016	759.17	420.28	No new planting	
2017	873.47	709.70	Sunrise Ranch plants 160 acres	
AVERAGE	2,388.77	2,834.44		
TOTAL	47,775.31	56,688.84		

EXHIBIT 2

**SUNRISE RANCH, LLC
CUYAMA BASIN GSA VARIANCE APPLICATION**

**ALLOCATION PROJECTIONS BASED ON VERIFIED
PUMPING DATA FOR WELLS 1 THROUGH 3**

Parameters for Estimated Allocation	
2021 Total Pumping	49,968
Sustainable Yield	11,500
Overdraft	38,468
Sunrise Ranch % Share of Total Average Pumping	5.63%

Sunrise Ranch Allocations with Annual Reductions			
Year	% Reduction (from 2021)	Total Pumping in CMA	Sunrise Ranch Allocations
2023	5%	48,044.30	2,705.03
2024	10%	46,120.91	2,596.74
2025	15%	44,197.53	2,488.44
2026	20%	42,274.14	2,380.15
2027	25%	40,350.76	2,271.86
2028	30%	38,427.38	2,163.57
2029	35%	36,503.99	2,055.28
2030*	40%	34,580.61	1,946.98

NOTES: Assumes all annual reductions are by 5%. ; Sunrise Ranch has projected that they will require at least 2,050 AF of allocations when their trees reach full maturity in 2027. If reductions continue, Sunrise Ranch will not have enough water by 2030.

EXHIBIT 3

SUNRISE RANCH, LLC
 CUYAMA BASIN GSA VARIANCE APPLICATION

WATER USE RATES MODELED BY THE CBGSA VS. CURRENT VERIFICATION

YEAR	ANNUAL WATER		SUNRISE RANCH RECORD NOTES	
	MODELED BY GSA (APPLIED WATER)	PUMPING PER VERIFICATION OF PUMPING RECORDS	HISTORY OF LAND USE	WATER USE DATA SOURCE
1998	2,161.28	3,400.00	Previous owner growing alfalfa and grain hay. Previous owner also using own wells to water 200 acres of rented land outside of Sunrise Ranch.	Previous owner stated consistent relative acreages of alfalfa and grain hay grown from at least 1998 through 2011 (650 acres of alfalfa and 100 acres of grain hay), with exception of 2001 and 2002 where a larger acreage of alfalfa (720 acres) was planted. Total water use from 1998 through 2011 based on statements by the previous owner and assuming the same annual water use for 1998 through 2011, with exception of 2001 and 2002, and water use rates.
1999	2,409.00	3,400.00		
2000	3,214.25	3,400.00		
2001	2,807.78	3,750.00		
2002	3,066.50	3,750.00		
2003	2,814.79	3,400.00		
2004	3,114.28	3,400.00		
2005	2,591.72	3,400.00		
2006	2,319.92	3,400.00		
2007	2,636.21	3,400.00		
2008	2,992.38	3,400.00		
2009	2,952.02	3,400.00		
2010	2,564.33	3,400.00		
2011	2,500.50	3,400.00	Previous Owner's 2012 Electrical Bills	
2012	2,992.45	3,419.83	Previous Owner's 2013 Electrical Bills	
2013	3,059.49	3,270.72	Sunrise Ranch starts planting in May 2014 with 180 acres. During a portion of the year, previous owner continued to grow alfalfa.	Sunrise Ranch Eletrical Bills
2014	1,085.06	157.23	Sunrise Ranch plants 320 acres	
2015	860.71	411.09	No new planting	
2016	759.17	420.28	Sunrise Ranch plants 160 acres	
2017	873.47	709.70		
AVERAGE	2,388.77	2,834.44		
TOTAL	47,775.31	56,688.84		

2nd VARIANCE REQUEST FORM

For 2023 and 2024 Groundwater Allocations in the Central Management Area

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Please submit this Variance Request Form, **including a check in the amount of \$250**, to Taylor Blakslee at 4900 California Ave, Tower B, Suite 210, Bakersfield, CA 93309. Please note the following: (1) CBGSA may reimburse the \$250 if corrections are due to inaccuracies with CBGSA's records; and (2) if you submitted a variance request and a \$250 check during the first round of variance requests, you are not required to submit a second check for \$250.

Name:	Duncan Family Farms, LLC / Aguila G-Boys, LLC
Date:	March 3, 2023
Phone:	(928) 920-9125
Email:	mark.ellsworth@duncanfamilyfarms.net; dhoffman@fennemorelaw.com
Assessor Parcel Number(s) (APN):	See enclosed letter.

Please describe the basis for your variance request and attach any supporting documentation.

See enclosed letter.

Fennemore LLP.

Derek Hoffman
 Director
 dhoffman@fennemorelaw.com

550 E. Hospitality Lane, Suite 350
 San Bernardino, California 92408
 PH (559) 446-3224
 fennemorelaw.com

March 3, 2023

VIA EMAIL AND OVERNIGHT MAIL

Taylor Blakslee (tblakslee@hgcpm.com)
 Assistant Executive Director
 Cuyama Basin Groundwater Sustainability Agency
 4900 California Avenue
 Tower B, Suite 210
 Bakersfield, CA 93309

Re: 2nd Variance Request - Duncan Family Farms, LLC / Aguila G-Boys, LLC

Dear Mr. Blakslee:

On behalf of our clients, Duncan Family Farms, LLC and Aguila G-Boys LLC (collectively, “Duncan Family Farms”) we submit this second variance request (“Second Variance Request”) for consideration by the Board of Directors of the Cuyama Basin Groundwater Sustainability Agency (“CBGSA”) in response to the CBGSA “Notice of Central Management Area Policies and Landowner Requirements” dated February 3, 2023 (“Revised Allocation Notice”).¹

Duncan Family Farms, LLC and Aguila G-Boys LLC (“Aguila”) are related entities operated under the same management. Duncan Family Farms, LLC operates the farming business on lands owned by Aguila. Aguila purchased its properties in 2010. Duncan Family Farms and its predecessors have operated and produced groundwater from within the Cuyama Groundwater Basin for many years.

As detailed in this letter and supporting materials, the CBGSA proposed 2023 allocation for Duncan Family Farms would impose an ***immediate pumping reduction requirement of more than 65% of its annual average pumping***. This reduction would far exceed the 5% Central Management Area (“CMA”) reduction target for 2023 contemplated by the CBGSA. Notably, pumpers outside the CMA are not currently subject to any pumping reductions, despite DWR corrective actions directing the CBGSA to manage the entire Basin.

As reflected in the technical reports supporting this Second Variance Request, significant flaws and data gaps exist in the CBGSA modeling assumptions. Those flaws result in an

¹ DFF previously submitted a variance request and payment of \$250. Pursuant to the February 3, 2023 Revised Allocation Notice, no further payment is required for this Second Variance Request.

Fennemore LLP.

Taylor Blakslee (tblakslee@hgcpm.com)

March 3, 2023

Page 2

unreasonably low initial allocation for Duncan Family Farms. The CBGSA should immediately correct its assumptions and revise any proposed allocation for Duncan Family Farms to incorporate the information presented in this Second Variance Request.

General Comments and Objections to Allocation Policy

Duncan Family Farms incorporates by reference its objections raised previously to the CBGSA allocation program, as well as objections raised by other pumpers in their variance requests.

Any Allocation Program Should be Formally Adopted by Resolution or Ordinance

SGMA provides that GSAs may adopt formal groundwater management policies, rules and regulations by ordinance or resolution. When properly adopted, such a formal action would necessarily include the information, findings and background supporting the action. The Revised Allocation Notice does not meet that standard and is, as a result, vague and unclear. An attempt to understand the details and rationale of the Revised Allocation Notice requires sifting through hundreds of pages and months of Board meeting minutes and leaves many questions unanswered. Any allocation policy must be adopted through a formal, publicly noticed ordinance or resolution that specifically defines the regulations or allocations and all penalties for failure to comply with those regulations. Due process and SGMA require a process through which stakeholders can meaningfully participate in the development of any allocation policy.

The Variance Request Evaluation Criteria and Process is Unclear

The Revised Allocation Notice provides only general information regarding how the proposed allocations were derived. It does not supply the underlying data or the assumptions used, nor does it state the criteria by which variance requests will be evaluated. The modeling tool and its assumptions are incorrect or incomplete in several material respects and all the supporting data should be made available to landowners for review. The CBGSA should also provide the underlying data upon which the proposed allocations were based for each pumper and clearly establish the evaluation criteria that will apply in evaluating variance requests.

The Proposed Allocations Conflict with California Water Law Principles

As expressly stated in SGMA, neither the GSA nor the GSP have the power to determine or alter groundwater rights. The allocations proposed in the Revised Allocation Notice target only a subset of the Basin's water users, which fails to consider or conform to common law water rights. The allocations in the Revised Allocation Notice should be deferred pending the outcome or at least substantial development of the pending comprehensive groundwater basin adjudication in which only the court may determine and quantify water rights. Notably, as of the date of the Revised Allocation Notice, multiple large groundwater producers—including some represented by

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Taylor Blakslee (tblakslee@hgcpm.com)

March 3, 2023

Page 3

Directors on the CBGSA Board of Directors—have not yet filed and served statutorily required Initial Disclosures which include a requirement to state annual groundwater pumping for the ten-year period preceding the filing of the complaint. Many of those reporting years coincide with the CBGSA base period being used for the allocation program. The CBGSA should review and account for the data contained in the Initial Disclosures and address the significant discrepancies with its modeling assumptions before imposing any pumping allocations.

Duncan Family Farms further objects to the Revised Allocation Notice using an average water use from 1998-2017 as a baseline or basis for establishing allocations. Since its acquisition of the property in 2010, Duncan Family Farms expanded its irrigation system and has more actively farmed its property than prior owners. Duncan Family Farms' water demand is more accurately reflected by its own water use history than that of its predecessors.² Any allocation for Duncan Family Farms should reflect its actual water demand.

CBGSA Incomplete Pumping Assumptions

The CBGSA's proposed pumping allocation fails to account for all categories of Duncan Family Farms' water usage. As set forth in the technical report prepared by Plateau Resources, LLC entitled, "*Estimated Well Pumpage in Cuyama Basin by Duncan Family Farms, 2010-2021*" attached as **Exhibit 1** ("Plateau Report"), Duncan Family Farms' wells supply water for crop irrigation on both owned and leased³ property, cover crop irrigation, compost facility operation, irrigation of the wind break trees surrounding the property, and domestic and operational water use requirements for multiple on-site facilities.⁴

As reflected in the Plateau Report, Duncan Family Farms' average pumping from 2010 through 2017 is **more than 3.5 times greater** than CBGSA estimates. The table below, excerpted from the Plateau Report, summarizes this disparity.

² Duncan Family Farms reserves the right to supplement this request as additional information and data is developed regarding its predecessors' water use.

³ Since late 2018, Duncan Family Farms has leased a 20-acre portion of the 63.24-acre APN 149-290-004, on which it farms and applies water produced from its irrigation system. The Revised Allocation Notice does not contain policy statements regarding water use on leased properties and currently assigns an allocation of water for this APN to the property owner, which allocation should instead be assigned to Duncan Family Farms. The 20-acre leased area results in a total net irrigated area of approximately 828 acres.

⁴ In its initial variance request dated October 13, 2022, Duncan Family Farms provided initial pumping estimates and expressly stated that it was in the process of gathering additional information. Duncan Family Farms reserved the right to supplement, amend and otherwise update that initial request. Duncan Family Farms presents this Second Variance Request based upon updated information and analysis.

Fennemore LLP.

Taylor Blakslee (tblakslee@hgcpm.com)

March 3, 2023

Page 4

Source	Estimated Annual Well Pumpage by Duncan Family Farms (acre-feet) ^a								
	2010	2011	2012	2013	2014	2015	2016	2017	2010-2017 average
GSA ^b	486.50	600.85	591.08	653.00	826.16	814.24	871.73	959.24	725.35
Plateau ^c	2,691	2,587	2,660	2,701	2,610	2,644	2,662	2,686	2,655

In 2021, Duncan Family Farms pumped an estimated 2,602 AF (Exhibit 1, Table 2). By contrast, the Revised Allocation Notice assigns a proposed corresponding allocation of 923.13 AF for 2023 (857.66 AF + 65.47 AF listed under Aguila G-Boys, LLC) based upon an estimate of 2021 pumping that is not stated but is apparently less than 1,000 AF.

As a result of inaccuracies in the modeling assumptions, the CBGSA's proposed 2023 allocation for Duncan Family Farms would *immediately* impose a *more than 65% reduction* from its average water usage. Based upon the formulas described in the Revised Allocation Notice, if left uncorrected, the allocation program would eventually curtail Duncan Family Farms' water use *by more than 80%* from its average use—a reduction far greater than contemplated by the GSP or imposed on other landowners. Such a result would be inconsistent with California common law principles applicable to holders of overlying rights like Duncan Family Farms.

Applying Duncan Family Farms' pumping figures both during the CBGSA base period and for the year 2021 requires CBGSA to assign a significantly higher allocation. A failure by the CBGSA to account for and incorporate this information would ignore its obligation to utilize the best available information and science in implementing its GSP and would result in inequitable results for Duncan Family Farms.

CBGSA Modeling Issues

The disparity between the CBGSA proposed allocations and Duncan Family Farms' pumping arises largely from flawed assumptions and incomplete data. Those issues are described in the technical memorandum prepared by Tetra Tech, entitled "Evaluation of Cuyama Basin Water Resources Model (CBWRM) and Associated Water Allocation" attached as **Exhibit 2** ("Tetra Tech Report"). The Tetra Tech Report describes CBWRM flaws in sustainable yield and individual property assumptions, which comprise critical components of the proposed allocation equation used in the Revised Allocation Notice.

Fennemore LLP.

Taylor Blakslee (tblakslee@hgcpm.com)

March 3, 2023

Page 5

Variance Request

Duncan Family Farms reserves all rights and objections to the CBGSA allocation program for the CMA, including the right to supplement this request with new or additional information. Duncan Family Farms requests the CBGSA correct its data and assumptions to reflect Duncan Family Farms' water usage consistent with the information presented in this letter.

Duncan Family Farms asserts that the CBGSA has not substantiated the critical components used in the allocation equation, including sustainable yield and individual property owner water usage. To the extent the CBGSA intends to utilize the existing formula, Duncan Family Farms' allocation should reflect its more accurate 2021 water usage of 2,602 AF.

Thank you for your consideration of this Second Variance Request. Duncan Family Farms and its technical team welcome the opportunity to discuss this request with CBGSA staff at your convenience.

Sincerely,

FENNEMORE LLP

/s/ Derek Hoffman

DEREK HOFFMAN

DHOF/dhof

Attachments: Exhibit 1 – Plateau Resources, LLC technical report
Exhibit 2 – Tetra Tech technical report

EXHIBIT 1

Estimated Well Pumpage in Cuyama Basin by Duncan Family Farms, 2010-2021

March 2023

Prepared for:

Fennemore LLP

550 East Hospitality Lane, Suite 350
San Bernardino, California 85016

Prepared by:

Rich Burtell

Plateau Resources LLC

4016 East Jojoba Road
Phoenix, Arizona 85044

CONTENTS

1.	<u>Introduction</u>	1
	1.1 Background	1
	1.2 Scope of Work	2
	1.3 Report Organization	2
2.	<u>Data Sources</u>	3
	2.1 Duncan Family Farms	3
	2.2 Published Documents	3
	2.3 Additional Records	3
3.	<u>Methodologies for Estimating Well Pumpage</u>	5
	3.1 Crops	5
	3.1.1 <i>Small Vegetables</i>	5
	3.1.2 <i>Cover</i>	6
	3.2 Windbreak	6
	3.3 Compost Facility	6
	3.4 Domestic	7
4.	<u>Results from Plateau Analysis</u>	8
5.	<u>Comparison to GSA Estimates</u>	9
6.	<u>Summary and Conclusions</u>	10
7.	<u>References</u>	12

Tables (follow text)

Table 1	Duncan Family Farms Data from GSA’s February 2023 Notice to Cuyama Basin Landowners
Table 2	Plateau Estimates of Duncan Family Farms Well Pumpage
Table 3	Comparison of GSA and Plateau Well Pumpage Estimates

Figure (follows tables)

Figure 1	Location of Duncan Family Farms
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Estimated Well Pumpage in Cuyama Basin by Duncan Family Farms, 2010-2021

1. Introduction

1.1 Background

Duncan Family Farms, LLC and Aguila G-Boys, LLC (collectively, Duncan Family Farms or “DFF”) own six contiguous parcels within the Cuyama Basin (“Basin”), which is located about 45 miles southwest of Bakersfield, California (**Figure 1**). Combined, their parcels cover approximately 931 acres.^a All water used by DFF comes from wells completed on their property.

On February 3, 2023, the Cuyama Basin Groundwater Sustainability Agency (“GSA”) notified landowners of updates to its estimated groundwater allocations for 2023 and 2024 (“February 2023 Notice”). For DFF’s six parcels, those proposed allocations total 923.13 acre-feet (“AF”) in 2023 and decrease to 886.4 AF in 2024. Based on GSA’s assumed sustainable yield (11,500 AF per annum or “AFA”) and its assumed average percentage of groundwater use by DFF (1.96%), DFF’s allowable well pumpage, as described in the February 2023 Notice, could eventually decline to about 225 AFA.

The February 2023 Notice lists, by APN, GSA’s estimate of the groundwater applied for each Water Year (“WY”) from 1998 through 2017. Over that period, the GSA estimates that about 859 AFA have been pumped, on average, to supply DFF’s parcels. How those estimates were made is summarized in GSA’s latest Annual Report for its Groundwater Sustainability Plan (“GSP”):

Water budgets in the Cuyama Basin GSP were developed using the Cuyama Basin Water Resources Model (CBWRM), which is a fully integrated surface and groundwater flow model covering the Basin. The CBWRM was used to develop a historical water budget that evaluated the availability and reliability of past surface water supply deliveries, aquifer response to water supply, and demand trends relative to water year type. For the GSP, the CBWRM was used to develop water budget estimates for the hydrologic period of 1998 through 2017. As discussed in the GSP, the model was developed based on the best available data and information as of June 2018. An assessment of model uncertainty included in the GSP estimated an error range in overall model results of about +/- 10%. It is expected that the model will be refined in the future as improved and updated monitoring information becomes available for the Basin. For the past three

^a The APNs include 149-010-023 (355.73 acres), 149-010-024 (191.28 acres), 149-010-025 (130.9 acres), 149-010-026 (1 acre), 149-290-007 (81 acres) and 149-290-025 (170.96 acres).

Annual Reports, the CBWRM model was extended to include the 2018 through 2021 water years, utilizing updated land use, temperature and precipitation data for those years. (Woodard & Curran, 2022, p.3-1)^b

For reference, **Table 1** summarizes data from the February 2013 Notice that are addressed in this report.

1.2 Scope of Work

Fennemore LLP (“Fennemore”) represents DFF and contracted with Plateau Resources LLC (“Plateau”) to independently estimate DFF’s annual well pumpage since it began farming operations in the Basin during 2010. Plateau based its estimates on site-specific information from DFF, as well as published documents and additional records.^c Results from Plateau’s work are presented here along with a comparison between its well pumpage estimates and those from the GSA for similar years.

1.3 Report Organization

The remainder of this report is organized into six sections. **Section 2** further describes the various data sources that Plateau relied on for its analysis. The methodologies it used to estimate DFF well pumpages are then provided in **Section 3**, including steps to approximate the water demand to grow crops, maintain a windbreak, operate an on-site composite facility and supply domestic needs. Results from Plateau’s analysis are presented next in **Section 4**, followed by a comparison with GSA’s estimates in **Section 5**. The report concludes with a summary and conclusions in **Section 6** and a list of references in **Section 7**.

^b While the last three GSP annual reports provide more recent estimates of the total water applied across the Basin, parcel-specific data are not included.

^c Groundwater pumping was not metered during the years considered in this study and, therefore, it was estimated based on DFF’s actual cropping and other water uses.

2. Data Sources

2.1 Duncan Family Farms

DFF provided the following, site-specific information to assist Plateau in estimating well pumpages for its parcels:

- Irrigated area (“IA”), in acres, for the organic small vegetables and cover crops it has grown each year from 2010 through 2021;
- Water duty (“WD”), in inches, necessary for weed germination and cover crop establishment based on spray nozzle discharge rates and DFF watering schedules;
- IA for maintenance of a windbreak of pine trees that border DFF’s fields; and
- IA and WD for DFF to operate an on-site compost facility.

2.2 Published Documents

Plateau also relied on regional and more generalized information from published sources to estimate DFF well pumpage, including:

- Annual crop consumptive use (“ ET_c ”) and effective precipitation (“ P_e ”), in inches, for small vegetables grown within California Irrigation Management Information System (“CIMIS”) reference evapotranspiration (ET_o) Zones 10 and 15, as presented by Cal Poly (2003, Tables 7, 11, 20, 24, 33, 37, 41 and 43);
- Irrigation efficiency (“IE”), in percent, for the solid set sprinklers and basin flooding utilized by DFF, from Irmak and others (2011, p.3); and
- *De minimis* domestic water demand for housing and related buildings, as described under California’s Sustainable Groundwater Management Act or “SGMA” (CDWR, 2016).

2.3 Additional Records

In addition to the above information, Plateau downloaded the following records from websites to complete its analysis:

- Annual ET_o data, in inches, from Cuyama Station, available through CIMIS at cimis.water.ca.gov^d;

^d This automated weather station (No. 88) is located within the Basin and immediately borders DFF.

Estimated Well Pumpage in Cuyama Basin by Duncan Family Farms, 2010-2021

- Estimated tree watering requirements from the University of California’s Center for Landscape & Urban Horticulture (“UCCLUH), accessed at ucanr.edu/sites/UrbanHort/; and
- Annual precipitation data, in inches, for the PRISM pixel centered over DFF, via the Western Regional Climate Center (“WRCC”) at cefa.dri.edu/Westmap/.

3. Methodologies for Estimating Well Pumpage

3.1 Crops

3.1.1 Small Vegetables

Since its operations began in the Basin during 2010, DFF has irrigated from 808 to 828 acres of small vegetables each year. To estimate annual well pumpages associated with this irrigation, Plateau multiplied the irrigated area (IA) in a given year by a total water duty (WD) value. The latter represents the quantity of water, in feet, that the irrigator actually applies each year. If not directly measured, WD must be approximated and account for three, separate factors:

- the water demand of the crop (ET_c);
- local precipitation, which effectively offsets a portion of that demand (P_e); and
- the efficiency of the irrigation system in use (IE).

The difference between ET_c and P_e is referred to as the Net Irrigation Requirement (“NIR”) and, by dividing NIR by IE, one calculates WD.

As indicated in **Section 2** of this report, representative ET_c and P_e values for growing small vegetables in the Basin were taken from Cal Poly (2003). DFF is located within ET_o Zone 10, however, values for ET_o Zone 15 were utilized because they better characterize actual field conditions. The reason for this substitution is the Basin’s unique climate which, considering the ET_o data collected at CIMIS’ Cuyama Station, is more similar to adjacent ET_o Zone 15.^e Regarding IE, DFF utilizes solid set sprinklers to irrigate its small vegetables which have an estimated efficiency of about 70% based on published values from Irmak and others (2011) and field conditions reported by DFF.

In addition to calculating a representative WD for growing small vegetables in the Basin, it was necessary to account for the extra water DFF applies for weed germination. That was estimated more directly by DFF based on discharge rates from the manufacturer of its sprinkler heads and known watering schedules. This added approximately 0.1 feet to the 2.9 feet small vegetable WD for a combined, total WD of 3.0 feet which was then multiplied by annual IA values.

Further details on these calculations are provided in **Table 2**.

^e Review of the Cuyama Station ET_o data also indicate that ‘typical’ year Cal Poly (2003) ET_c and P_e values for Zone 15 best match Basin conditions during the period of interest (2010-2021). As a result, those values were used in Plateau’s analysis.

3.1.2 Cover

Besides small vegetables and weed germination, DFF irrigated from 130 and 675 acres of cover crops annually between 2010 and 2021. Similar to the WD estimate for weed germination described above, DFF used sprinkler head discharge rates and watering schedules to calculate an approximate WD of 0.3 feet for its cover crops. As shown in **Table 2**, this value was then multiplied by annual cover crop IAs to estimate associated well pumpages.

3.2 Windbreak

DFF also irrigates approximately 7.2 acres of pine trees that border its fields and serve as a windbreak. To estimate the well pumpage associated with this irrigation, Plateau relied on guidance from UCCLUH which states that the amount of water required by landscape trees (effectively, their ET_c) can be determined by multiplying local ET_o data by a single plant factor (“PF”) of 0.5. Following this guidance, Plateau used annual ET_o data from CIMIS’ Cuyama Station and multiplied those values by the recommended PF.

As explained in **Section 3.1.1**, to calculate WDs for the pine trees, the aforementioned ET_c values had to be adjusted for both P_e and IE. PRISM precipitation data were utilized to estimate P_e values, assuming conservatively that 100% of the local precipitation contributes to meeting the trees’ water demands. An IE of 60% was further assumed based on DFF’s use of basin flooding to irrigate its trees and published efficiency data from Irmak and others (2011).

Finally, WDs for the pine trees were multiplied by the IA of 7.2 acres to estimate annual well pumpages required to maintain the windbreak. **Table 2** shows all of these calculations and related data.

3.3 Compost Facility

To support its organic farming practices, DFF operates an on-site compost facility as well. To optimize the composting process, DFF periodically irrigates its compost piles which cover about 10 acres. Based on watering schedules, it estimates an annual WD for these piles of approximately 1.5 feet. As indicated in **Table 2**, this value was multiplied by the 10-acre IA to estimate annual well pumpages related to the facility.

3.4 Domestic

Lastly, some of DFF's well pumpage supplies the domestic needs of its employees. Based on employee and housing records, DFF estimates that its domestic water demand is equivalent to serving approximately eight houses and related buildings. To quantify the associated water use, Plateau assumed that each of these structures has a unit water demand of approximately 2 AFA, equal to the *de minimis* value provided under SGMA. Multiplying this unit demand by the number of equivalent buildings results in an estimated annual well pumpage for domestic needs.

As with the other components of DFF's water demand, these values are also tabulated in **Table 2**.

4. Results from Plateau Analysis

DFF's annual well pumpage in the Basin consists of five water demand components:

- Small vegetable cultivation;
- Cover crop cultivation;
- Windbreak maintenance;
- Operation of a compost facility; and
- Domestic needs.

Of these, small vegetable cultivation is by far the largest, with Plateau's associated well pumpage estimated to range from 2,438 to 2,499 AFA between 2010 and 2021. DFF's next largest water demand comes from its cultivation of cover crops which Plateau estimates has required another 39 to 205 AFA during the same period. That demand is followed by windbreak maintenance which is estimated to have required an extra 17 to 31 AFA. Finally, to operate its compost facility and meet its on-site domestic needs, Plateau estimates that DFF has had to pump an additional 15 and 16 AFA, respectively.

In total, from 2010 through 2021, Plateau determined that DFF has pumped an average of about 2,644 AFA in the Basin to satisfy its water demands, with a low of 2,587 AF in 2011 and a high of 2,701 in 2013. Considering the methodologies it utilized and supporting data, Plateau considers these estimates to be a reasonable approximation of the actual volumes of groundwater recently pumped by DFF.

5. Comparison to GSA Estimates

Table 3 compares Plateau’s estimates of DFF well pumpage in the Basin to GSA estimates of that pumpage for the common years 2010 through 2017.^f As indicated in this table and described below, differences between the estimates are substantial.

Between 2010 and 2017, the GSA estimated that DFF pumped an average of 725.35 AFA with a low of 486.50 AFA and a high of 959.24 AFA. By contrast, Plateau estimated that DFF pumped an average of 2,655 AFA during the same period, with values ranging from 2,587 AFA to 2,701 AFA. GSA’s estimates were substantially lower for all years compared. Indeed, for several of those years, its estimates were less than 25% of the values determined by Plateau.

Such differences are significant and, in Plateau’s opinion, warrant further review by the GSA, both of DFF’s recent well pumpage in the Basin and its 2023 and 2024 groundwater allocations. Recall from **Section 1.1** that GSA’s February 2023 Notice allocated 923.12 AF to DFF in 2023 and 886.28 AF to them in 2024. Those allocations largely reflect GSA estimates of recent DFF water use which, as indicated above, are inconsistent with Plateau’s analysis. Moreover, GSA’s future allocations are expected to be even lower, with DFF potentially receiving as little as 225 AFA. Clearly, such reductions need to be based on the best information available, and the additional information provided here by Plateau should be considered accordingly.

^f Plateau’s estimates were calculated by calendar year (January 1st through December 31st) while GSA’s estimates are based on WYs (October 1st through September 30th). Although some differences may result from using unlike starting months, those differences are considered minor for purposes of this comparison.

6. Summary and Conclusions

Following are a summary of the key findings and conclusions from this study, with cross-reference to relevant sections and tables in the report:

- DFF owns six contiguous parcels within the Basin, covering a total of approximately 931 acres (**Section 1**);
- Since 2010, DFF has used water on its parcels to irrigate organic small vegetables and cover crops, maintain a windbreak of pine trees, operate a compost facility, and supply domestic needs. All of these water demands were met by pumping on-site wells (**Section 1**);
- The GSA estimates that, on average, approximately 859 AFA of groundwater was applied to DFF's parcels from WY 1988 through 2017 (**Table 1**). Fennemore, who represents DFF, contracted with Plateau to independently estimate this annual water usage;
- Utilizing data from DFF, published documents and additional records (**Section 2**), plus various methodologies to estimate well pumpage (**Section 3**), Plateau determined that DFF has pumped an average of 2,644 AFA of groundwater from the Basin during CY 2010 through 2021, with a low of 2,587 AF in 2011 and a high of 2,701 AF in 2013. Plateau considers its estimates to be a reasonable approximation of DFF's actual well pumpage (**Section 4 and Table 2**);
- Comparison of GSA and Plateau well pumpage estimates for similar years shows substantial differences, with Plateau averaging 2,655 AFA from 2010 through 2017 contrasted with only 725.35 AFA by the GSA. In fact, GSA's estimates were significantly lower for all years compared and, for several of those years, its estimates were less than 25% of Plateau's values (**Section 5 and Table 3**);
- Based largely on its recent well pumpage estimates, the GSA proposes to allocate 923.13 AF of groundwater to DFF in CY 2023 and 886.4 AF in 2024. Moreover, by assuming a sustainable yield of 11,500 AFA and Basin landowners pump certain percentages of that yield, the GSA may eventually decrease DFF's allocation to only 225 AFA (**Table 1**);
- Any reduction in DFF's groundwater allocation obviously warrants careful consideration and should be based on the best available information; and

Estimated Well Pumpage in Cuyama Basin by Duncan Family Farms, 2010-2021

- In Plateau's opinion, GSA's estimates of DFF's recent well pumpage are unreasonably low. Using site-specific information, among other data sources, Plateau believes that its pumpage estimates are far more realistic and should be accounted for in current and future groundwater allocations.

7. References

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Tables

Estimated Well Pumpage in Cuyama Basin by Duncan Family Farms, 2010-2021

Table 1. Duncan Family Farms Data from GSA's February 2023 Notice to Cuyama Basin Landowners

Assessor Parcel No. (APN)	Acreage	Applied Water Estimate (AF, by WY) ^a									Estimated Portion of Total Water Applied, on Average	Estimated Allocations (AF, by CY) ^a	
		2010	2011	2012	2013	2014	2015	2016	2017	1998-2017 average		2023	2024
149-010-023	355.73	234.64	275.28	205.63	196.59	370.50	292.90	372.29	369.42	398.24	0.90%	428.11	411.0
149-010-024	191.28	52.94	85.73	105.11	112.61	157.20	202.77	123.60	174.05	142.10	0.32%	152.76	146.7
149-010-025	130.90	47.00	82.01	69.22	97.17	72.30	98.13	152.35	148.17	117.43	0.27%	126.23	121.2
149-010-026	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01%	0.00	0.0
149-290-007	81.00	66.09	69.41	2.92	3.99	0.15	0.16	66.25	83.07	60.91	0.14%	65.47	62.9
149-290-025	170.96	85.83	88.42	208.20	242.64	226.01	220.28	157.24	184.53	140.06	0.32%	150.56	144.6
Total:	930.87	486.50	600.85	591.08	653.00	826.16	814.24	871.73	959.24	858.74	1.96%	923.13	886.40

Note:

^a AF = acre-feet, CY = Calendar Year and WY = Water Year.

Table 2. Plateau Estimates of Duncan Family Farms Well Pumpage

Water Demand Component	Calendar Year												Data Source
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
<i>Irrigation of Organic Small Vegetables</i>													
Typical Year Crop Consumptive Use (ET _c), inches	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	Cal Poly (2003), Zone 15
Typical Year Effective Precipitation (P _e), inches	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	Cal Poly (2003), Zone 15
Net Irrigation Requirement (NIR), inches	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	ET _c - P _e
NIR, feet	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Unit conversion
Solid Set Sprinkler Irrigation Efficiency (IE _{SSS}), %	70	70	70	70	70	70	70	70	70	70	70	70	Irmak and others (2011, p.3)
Small Vegetable Water Duty (WD _{sv}), feet	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	NIR/IE _{SSS}
Weed Germination Water Duty (WD _{wg}), inches	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Duncan Family Farms
Weed Germination Water Duty (WD _{wg}), feet	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Unit conversion
Total Water Duty (WD _T), feet	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	WD _{sv} + WD _{wg}
Irrigated Area (IA), acres	808	808	808	808	808	808	808	808	808	828	828	828	Duncan Family Farms
Small Vegetable Well Pumpage (WP_{sv}), acre-feet	2,438	2,438	2,438	2,438	2,438	2,438	2,438	2,438	2,438	2,499	2,499	2,499	WD _T x IA
<i>Irrigation of Cover Crop</i>													
Cover Crop Water Duty (WD _{cc}), inches	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	Duncan Family Farms
Cover Crop Water Duty (WD _{cc}), feet	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Unit conversion
Irrigated Area (IA), acres	674.6	312.2	540.1	663.1	369.0	486.9	560.8	640.0	402.6	430.7	130.1	152.0	Duncan Family Farms
Cover Crop Well Pumpage (WP_{cc}), acre-feet	205	95	164	201	112	148	170	194	122	131	39	46	WD _{cc} x IA
<i>Domestic Use</i>													
De Minimis Domestic Water Demand (WD _{dmd}), acre-feet	2	2	2	2	2	2	2	2	2	2	2	2	SGMA 'de minimis' Value
Number of Houses and Related Structures, D	8	8	8	8	8	8	8	8	8	8	8	8	Duncan Family Farms
Domestic Well Pumpage (WP_d), acre-feet	16	16	16	16	16	16	16	16	16	16	16	16	WD _{dmd} x D
<i>Irrigation at Compost Facility</i>													
Compost Facility Water Duty (WD _{cf}), feet	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Duncan Family Farms
Irrigated Area (IA), acres	10	10	10	10	10	10	10	10	10	10	10	10	Duncan Family Farms
Compost Facility Well Pumpage (WP_{cf}), acre-feet	15	15	15	15	15	15	15	15	15	15	15	15	WD _{cf} x IA
<i>Irrigation of Windbreak</i>													
Annual Reference Crop Consumptive Use (ET _o), inches	60.1	60.1	62.7	64.9	66.3	63.1	63.5	63.5	64.5	62.3	63.5	67.8	CIMIS Cuyama Automated Weather Station (No. 88)
Plant Factor, PF	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	U of CA Center for Landscape and Urban Horticulture
Pine Tree Consumptive Use (ET _p), inches	30.1	30.1	31.4	32.5	33.2	31.6	31.8	31.8	32.3	31.2	31.8	33.9	ET _o x PF
Total Precipitation (P _e), inches	13.1	7.3	4.4	1.6	4.5	4.4	9.3	9.2	4.8	13.7	7.4	7.2	WRCC (2023); PRISM pixel over DFF office
Net Irrigation Requirement (NIR), inches	17.0	22.8	27.0	30.9	28.7	27.2	22.5	22.6	27.5	17.5	24.4	26.7	ET _p - P _e
NIR, feet	1.4	1.9	2.2	2.6	2.4	2.3	1.9	1.9	2.3	1.5	2.0	2.2	Unit conversion
Basin Irrigation Efficiency (IE _b), %	60	60	60	60	60	60	60	60	60	60	60	60	Irmak and others (2011, p.3)
Wind Break Water Duty (WD _{wb}), feet	2.4	3.2	3.7	4.3	4.0	3.8	3.1	3.1	3.8	2.4	3.4	3.7	NIR/IE _b
Irrigated Area (IA), acres	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	Duncan Family Farms
Wind Break Well Pumpage (WP_{wb}), acre-feet	17	23	27	31	28	27	22	22	27	17	24	27	WD _{wb} x IA
Estimated Total Well Pumpage, acre-feet	2,691	2,587	2,660	2,701	2,610	2,644	2,662	2,686	2,619	2,678	2,593	2,602	WP _{sv} + WP _{cc} + WP _d + WP _{cf} + WP _{wb}

Estimated Well Pumpage in Cuyama Basin by Duncan Family Farms, 2010-2021

Table 3. Comparison of GSA and Plateau Well Pumpage Estimates

Source	Estimated Annual Well Pumpage by Duncan Family Farms (acre-feet) ^a								
	2010	2011	2012	2013	2014	2015	2016	2017	2010-2017 average
GSA ^b	486.50	600.85	591.08	653.00	826.16	814.24	871.73	959.24	725.35
Plateau ^c	2,691	2,587	2,660	2,701	2,610	2,644	2,662	2,686	2,655

Note:

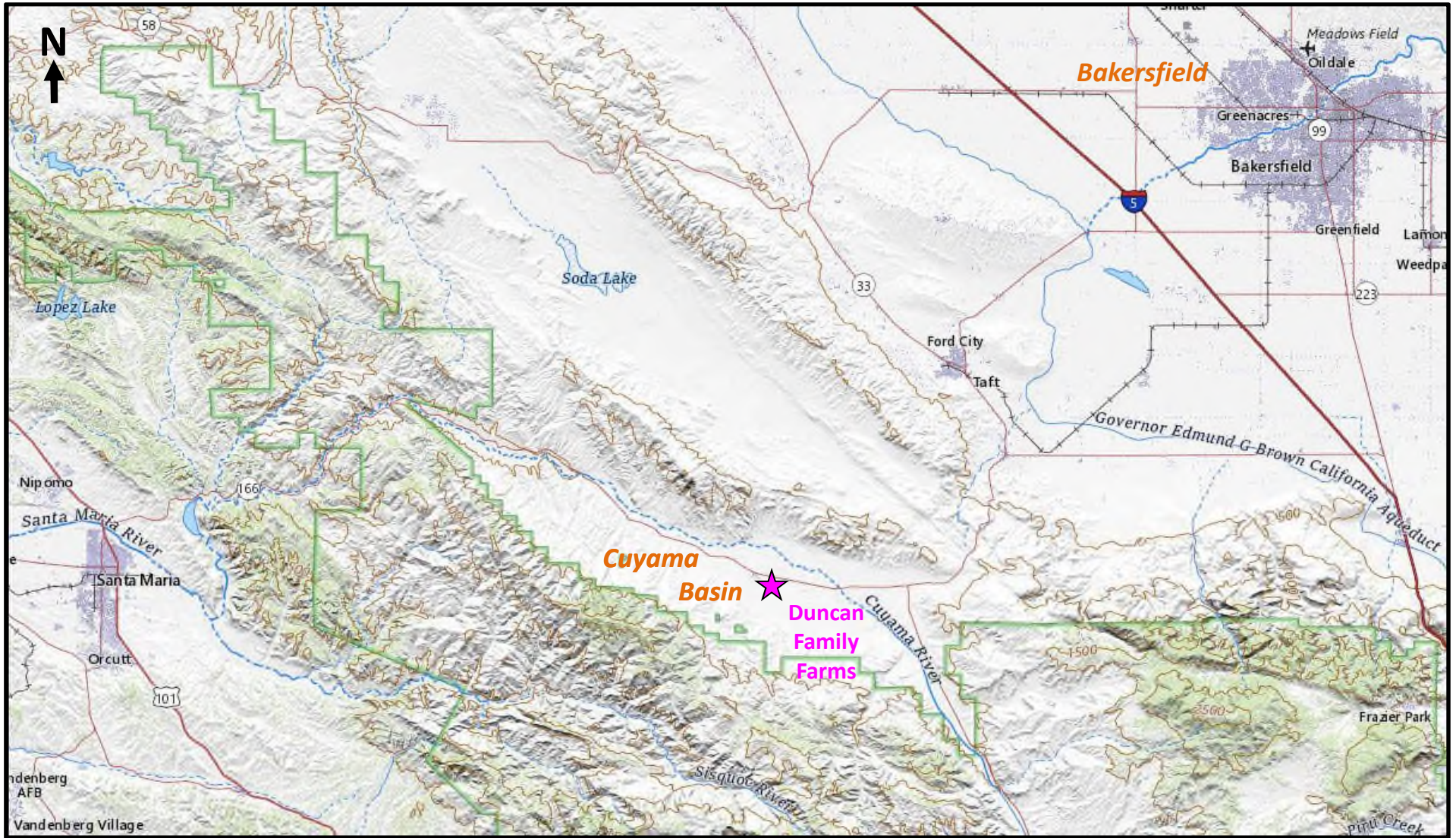
^a GSA's estimates are based on Water Year (October 1st through September 30th) while Plateau used Calendar Years (January 1st through December 31st). Any differences that result from using a different starting month are not considered significant for the purposes of this comparison.

^b See **Table 1** in this report for additional information, including GSA's estimates by APN.

^c See **Table 2** in this report for detailed calculations by water demand component, plus all data sources utilized by Plateau.

Figure

Figure 1. Location of Duncan Family Farms



Base Map: USGS, 2023.

EXHIBIT 2

To: Fennemore LLP

From: Amy L. Hudson, Ph.D., REM

Date: March 3, 2023

Subject: Evaluation of Cuyama Basin Water Resources Model (CBWRM) and Associated Water Allocation for Duncan Family Farms, LLC/Aquila G-Boys, LLC

Tetra Tech was requested by Fennemore LLP to review groundwater characterization and simulation as it relates to the Sustainable Groundwater Management Act (SGMA) implementation in the Cuyama Groundwater Basin. Specifically, Tetra Tech was asked to evaluate the Cuyama Basin Water Resources Model (CBWRM) documentation to understand how the assumptions made and inputs were used in the development of the water model, as well as how this could have affected the water allocation assigned to each property owner and specifically to Duncan Family Farms, LLC and Aquila G-Boys, LLC (collectively, DDF). Based upon the allocations proposed in the Cuyama Basin Groundwater Sustainability Agency's (CBGSA) February 3, 2023, *Notice of Central Management Area Policies and Landowner Requirements*, the allocation currently proposed for assignment to DFF represents significantly less than the actual annual water usage.

GSP MODEL DOCUMENTATION REVIEW

Chapter 2 and Appendix C of the Final Groundwater Sustainability Plan (GSP) for the Cuyama Basin (Woodard & Curran, 2022) summarize the conceptual model and inputs to the numeric water model, along with a summary of how the CBWRM was constructed. The Integrated Water Flow Model (IWFM) code was used to develop the CBWRM, as recommended in the SGMA regulations. In general, the documentation provides detail to understand overall assumptions and model construction, however, due to the large area covered by the model domain, the refinement of the mesh in the Central Management Area (as defined in the GSP [Woodard & Curran, 2022]), and the scale of the prepared figures, it is not possible to evaluate specific parameters that have been assigned to individual properties; a review of the actual model files would be required to accomplish this.

Based on the information presented in the GSP (Woodard & Curran, 2022), it appears that the soil type and the land use assigned to the DFF land are generally consistent with the types of crops currently being grown. As shown on Figure 1, the approximate location of the DFF land is outlined in aqua, and is categorized as being used to grow "truck crops". However, as noted above, the scale of the model and the highly refined mesh does not allow for evaluation of the model properties assigned to the elements representing the DFF land, and even small errors could result in significant misrepresentation of the land use. Small misalignments between the model elements and the property boundaries could result in the land being assigned an "idle" land use. Model figures should be provided at a scale, and include details regarding the model elements and parameterization, that can be evaluated for individual properties.

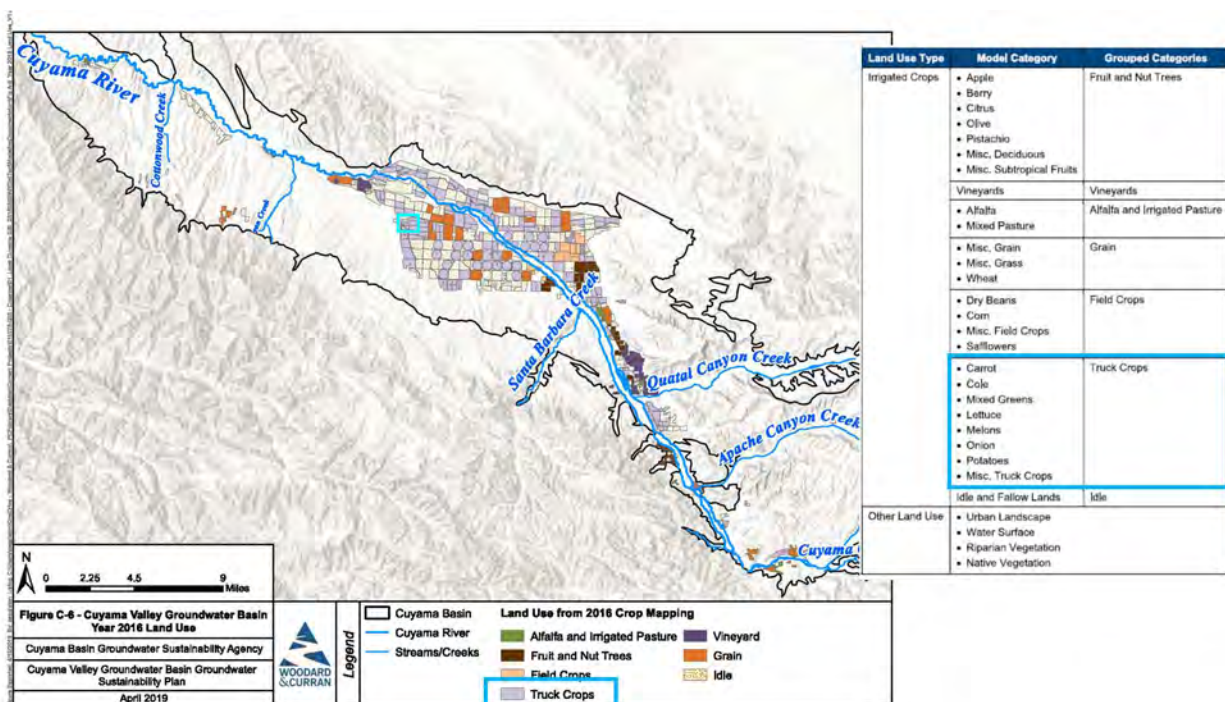


Figure 1: Cuyama Basin Land Use and Approximate DFF Property Location

The CBWRM model documentation raises significant questions with respect to the modeling and calibration approach. The objective of modeling is typically to develop a tool for evaluating the water system and impacts of changes to the system. This is generally accomplished through establishing initial conditions and calibrating the model parameters to represent observed conditions. Review of the CBWRM model documentation suggests there are two primary issues with the calibration of the model, (1) the simulation period and (2) the process.

CBWRM SIMULATION PERIOD

The first issue is the period of time used for calibration. After providing initial conditions to the model, the model is then run for a specific period of time to attempt to match data from a defined point in time (steady state) or period of time (transient). It is unclear in the documentation exactly what portion of the model simulation period is considered the calibration. Initially in Appendix 2 it states that the model simulates the water years 1995 to 2017 (October 1, 1994 to September 30, 2017), but later states in the calibration section that the effective calibration period is water years 1996 to 2015. General industry practice is to utilize a different simulation period for calibration than is intended to be used for evaluation. Typical modeling practice would use a timeframe prior to the period intended for evaluation purposes for the calibration or what is known as “history matching” (Anderson et al., 2015). The conditions used in the calibration should represent the system prior to system stresses such as pumping and be a sufficiently long period to allow for average conditions to be represented. It appears this model was calibrated to the same period as is being used to evaluate the current conditions, and therefore does not represent prestressed conditions. It is also not clear that the model represents a sufficiently long period of time due to the variable stresses that exist over the period of the calibration.

CBWRM CALIBRATION PROCESS

The second issue concerns the process used to calibrate the CBWRM model, which was also not typical with respect to a groundwater focused simulation. Groundwater modeling typically uses groundwater levels and/or surface water flow rates as the initial calibration focus to ensure that the hydraulic parameters (e.g.,

hydraulic conductivity, storage, recharge) are appropriately assigned. The CBWRM deviates from that practice by instead using a four-step process for calibration that *starts with* calibration of the water demand, followed by calibration of the surface water features, calibration of the overall water budget, and calibration of the groundwater levels. As noted in the model documentation, the first and most critical step in the calibration process was the establishment of the water demand for the model. This was accomplished using the IWFM Demand Calculator (IDC) included as a standalone module within the simulation software. Once the demand was established for the model, all other elements of the model were calibrated to this demand. It is noted that, “IDC calibration serves as the foundation of IWFM calibration as demand estimates directly affect the estimates of groundwater pumping” (Woodard & Curran, 2022). If the demand established and estimated during the calibration is incorrect, then all other simulation elements upon which this is based will be impacted and also incorrect.

The model documentation notes that the data sources used for the demand estimation were historical Department of Water Resources land use surveys, remote sensing data, and data provided by landowners. It is not clear how much data was provided by landowners (it is not specified in the GSP) nor how much of this data was utilized in the model development compared to the other data sources; the other primary data sources used are estimates from imagery. The agricultural demand calculated by the CBWRM IDC found 59,000 acre-feet per year (AFY) of water is used for irrigation in the Cuyama Basin (Woodard & Curran, 2022). The U.S. Geological Survey (USGS) groundwater model of the Cuyama Basin calculated a higher agricultural demand of 68,000 AFY (Hanson et al., 2015), while achieving a similar level of calibration to water levels as the CBWRM and utilizing a smaller modeling domain.

The calculated demand through the CBWRM model appears to assume a relatively constant demand across the Cuyama Basin. However, known changes in property ownership and crops grown have changed actual demands in the basin. For the DFF land, the agricultural demand appears to have been significantly underestimated, particularly in the last decade when the property came under new ownership and the crops grown have expanded and changed. The CBGSA calculated demand, represented as the total pumping, is also a critical component in the calculation of the pumping allocations for landowners in the Cuyama Basin. This suggests that the demand established as the basis of the CBWRM could be underestimating the actual agricultural demand for the DFF land, and thus under allocating water for the property.

There were four groundwater monitoring wells used for the CBWRM model calibration that are in close proximity to the DFF land (Woodard & Curran, 2022), as shown on Figure 2. The calibrated CBWRM model is overestimating the groundwater levels in the DFF area of the model. The simulated (solid line) and measured (blue dots) water levels from these four wells are presented in Figure 3, below (Woodard & Curran, 2022). Well 483, which is directly downgradient of the DFF land had the best fit between the measured and observed water levels but lacks data after 2013. The other three wells that are upgradient or cross-gradient of this DFF property showed the increased pumping demand after the ownership change in 2010 and the overestimation of the water levels after this time by the model. This suggests that a higher rate of pumping should be assigned to this area, which would be consistent with the actual water demand calculated for the DFF property.

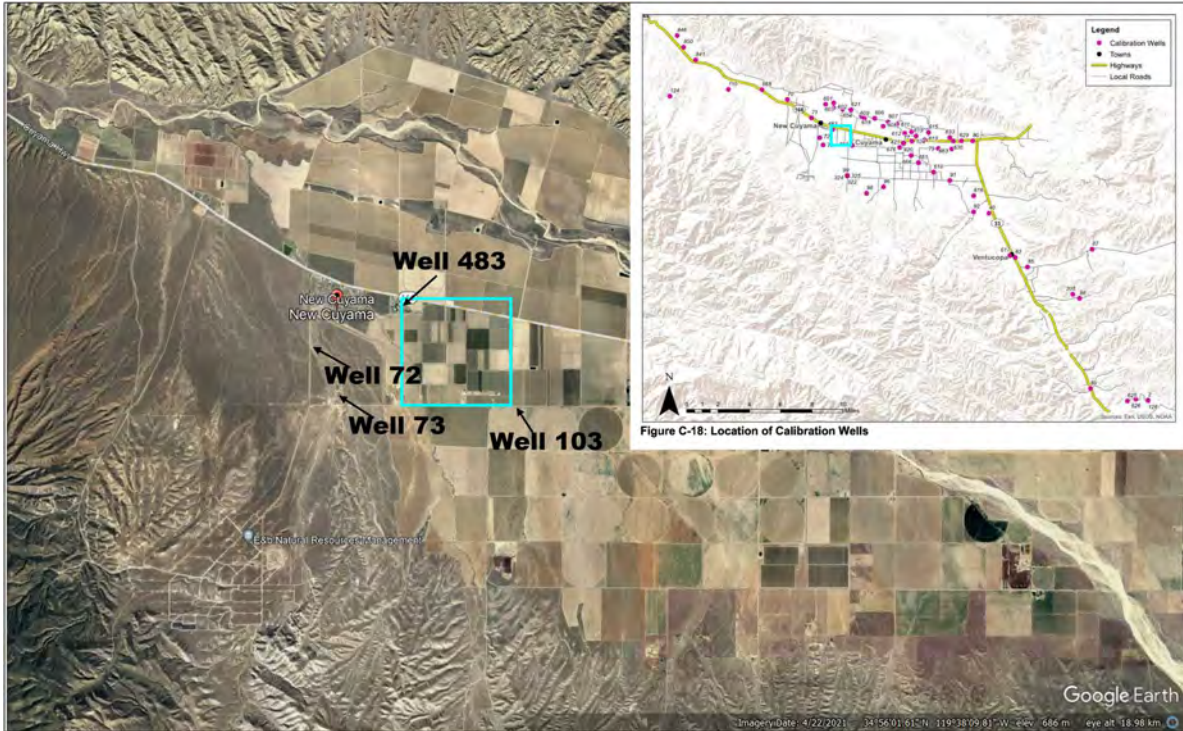


Figure 2: Approximate DFF Property Location and Closest CBWRM Calibration Targets

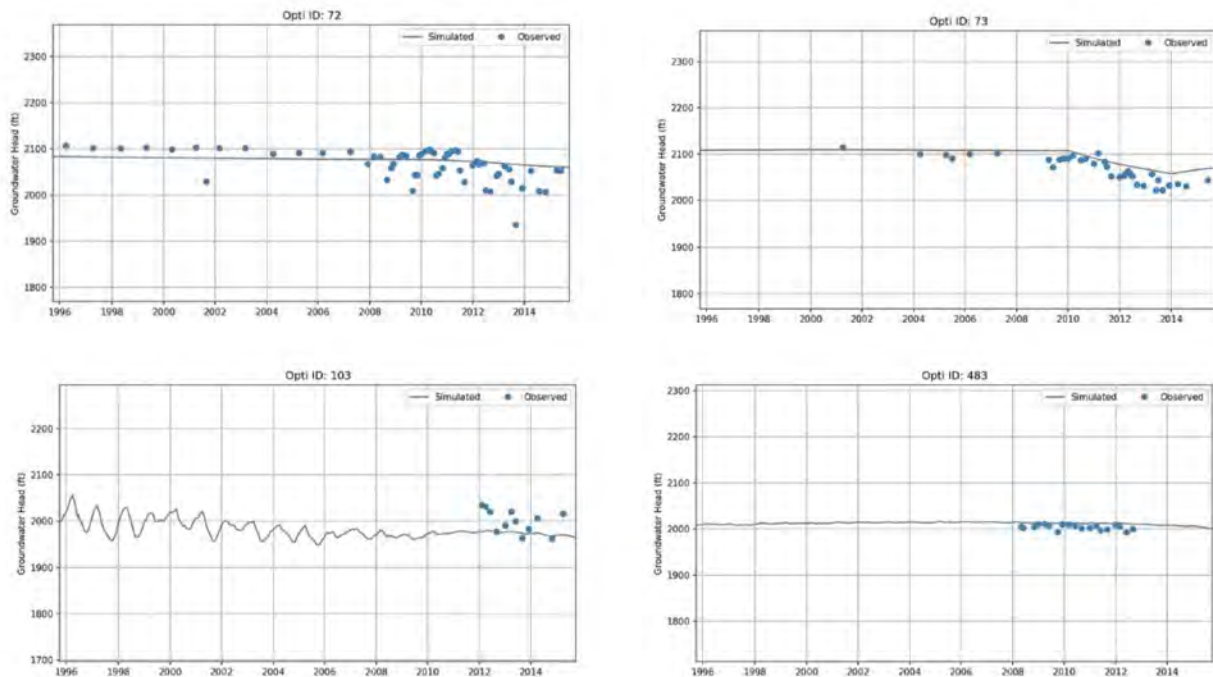


Figure 3: Hydrographs of Calibration Targets in Close Proximity of the DFF Land

In summary, the IDC is the basis for the model and is the foundation on which all of the estimates of pumping are based. An error in this critical first step makes all results and adjustments to the model after this unreliable. This element of the model should be revisited, with a focus on incorporating actual pumping rates/histories from the landowners rather than estimating the rates from remote sensing data. Significant

issues and deviations from best practices in how the model was calibrated have resulted in a significant underestimate of the actual agricultural demand and has under-allocation of water assigned to DFF.

References:

Anderson, M.P., Woessner, W.W., and Hunt, R.J., 2015. Applied Groundwater Modeling: Simulation of Flow and Advective Transport. Academic Press: San Diego.

Hanson, R.T., Flint, L.E., Faunt, C.C., Gibbs, D.R., and Schmid, W., 2015. Hydrologic models and analysis of water availability in Cuyama Valley, California (ver 1.1, May 2015): U.S. Geological Survey Scientific Investigations Report 2014-5150, 150 p.

Woodard & Curran, 2022. Cuyama Valley Groundwater Basin Groundwater Sustainability Plan. Prepared for Cuyama Basin Groundwater Sustainability Agency.

March 3, 2023

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RE: Objection to Cuyama Basin Central Management Area Revised Allocation and Second Variance Requests

Dear Mr. Blakslee:

On behalf of our clients, we submit the following objection to the Cuyama Basin Groundwater Sustainability Agency's (CBGSA) proposed Notice of Central Management Area Policies and Landowner Requirements, dated February 3, 2023 (Notice), and the "revised estimated allocations" and "pumping reduction program" for 2023 and 2024 set forth in the Notice (CMA Allocation Policy). Our firm represents a number of landowners within the Cuyama Basin including landowners inside and outside of the Central Management Area (CMA).

As described herein, our clients continue have significant concerns with the GSA's Notice and the CMA Allocation Policy—most importantly, that the GSA's CMA Allocation Policy has the potential to impair common law water rights without due process of law—and therefore submit these comments for the Board's consideration. These comments further supplement our prior objections and comments provided to the CBGSA on January 6, 2023 related to the Overarching Policy for Wells Inside and Outside the Central Management Area (Farm Unit Policy) and on September 1, 2022 related to the prior CMA Allocation Policy.

Taylor Blakslee

March 3, 2023

Page 2

I. Reservation of Rights

Our clients reserves all rights, claims and defenses with respect to the CMA Allocation Policy, the Farm Unity Policy, and any other action of the CBGSA. Our clients reserve the right to object to and challenge the CMA Allocation Policy, the Farm Unit Policy, and any other action by the GSA, administratively before the CBGSA, or through any other legal means, including through the pending comprehensive adjudication of the Cuyama Basin (*Bolthouse Land Company, LLC, et al. v. All Persons Claiming a Right to Extract Groundwater in the Cuyama Valley Groundwater Basin (No. 3-013)*) (the "Adjudication"). Our clients participation in the prior variance request process, this second variance request process and/or the CMA Allocation Policy in no way constitutes a waiver of their objections or an admission, opinion or support for the CBGSA's actions related to the CMA Allocation Policy, the Farm Unit Policy, or and any other action of the CBGSA.

II. The CMA Allocation Policy Conflicts with California Water Law

The GSA does not have the power to determine or alter groundwater rights. SGMA does not supplant the common law; rather it only supplements it. Yet, the Notice purports to limit the pumping of a subset of the Cuyama Basin's users without regard to any user's common law water rights.

For example, the CMA Allocation Policy is geographically discriminatory in that it constrains the pumping of a subset of overlying landowners within the CMA, even though all groundwater users share in a common groundwater resource. Regardless of whether a landowner is inside or outside the CMA, their pumping withdraws from the same supply. The CMA Allocation Policy ignores this fact and California groundwater law by regulating groundwater use by some, but not all. This approach is inconsistent with the physically interconnected nature of the Basin and with common law water rights.

The Farm Unit Policy further creates new inequities based solely upon the nature of a requester or landowner's operations that are completely unrelated to sustainable management of the groundwater resource. For example, a landowner that owns 50 acres of land inside the CMA and 50 acres of land outside the CMA and pumps 100 acre-feet per year ("AFY") from a well outside the CMA for use on the entire property is subject to the Farm Unit Policy and must comply with the CMA Allocation Policy's pumping reductions. Meanwhile, a neighbor that owns 50 acres of land outside the CMA that pumps 150 AFY from a well outside the CMA is not subject to CMA Allocation Policy under the Farm Unit Policy and need not engage in any pumping reductions. In fact, the neighbor could increase its water use above and beyond any pumping reductions by those subject to the Farm Unit Policy. As such, the Farm Unit Policy arbitrarily impairs exercise of overlying rights in a manner that is disconnected from sustainable management of the resource.

Moreover, in implementing SGMA, even area-specific responsive management actions must be specifically associated with avoiding undesirable results identified in the Cuyama Basin Groundwater Sustainability Plan (GSP). Notably, the Department of Water Resources issued a statement on March 2, 2023 stating that it plans to recommend further corrective actions that the CBGSA must include in

Taylor Blakslee
March 3, 2023
Page 3

its January 2025 GSP Update. Such corrective actions may implicate the CMA Allocation Policy and Farm Unit Policy and should be considered during the adoption of the CMA Allocation Policy given that they may impact implementation of Basin-wide sustainable management.

While an allocation policy is one means of ensuring sustainable groundwater management, such a policy must comport to fundamental principles of California Water Law—i.e., that the burdens of sustainable management are shared amongst similarly situated water right holders—while simultaneously avoiding the undesirable results on the Cuyama Basin.

III. The CMA Allocation Policy Should be Reconciled with the Ongoing Cuyama Basin Comprehensive Groundwater Adjudication

The Adjudication seeks to quantify all groundwater rights within the Cuyama Basin consistent with California water law. The Court—not the GSA—has exclusive jurisdiction to determine water rights through the Adjudication and to allocate the Cuyama Basin’s sustainable yield accordingly. The CMA Allocation Policy and Farm Unit Policy, which effectively quantify a subset of groundwater users’ water rights, conflict with the Adjudication because they seek to quantify and impair the rights of only a portion of the Cuyama Basin’s users. Ultimately, the Court’s decision with respect to water rights and a physical solution in the Adjudication will supersede the CMA Allocation Policy and the Farm Unit Policy.

Through the Adjudication, the Court will craft a physical solution to sustainably manage the Cuyama Basin. This physical solution should resolve the fundamental concerns with the CMA Allocation Policy and the Farm Unit Policy identified in this letter. Accordingly, the GSA should consider other approaches to improve sustainable groundwater management in the interim while the Adjudication unfolds and, at a minimum, revise the CMA Allocation Policy and the Farm Unit Policy to conform with the pending Adjudication.

IV. The CMA Allocation Policy Unclear and Fails to Acknowledge Uncertainties

Numerous components of the CMA Allocation lack evidentiary support and therefore are arbitrary and unclear. For example:

The GSA has acknowledged the modeled and operational CMA boundary is arbitrary given that users within the CMA pump groundwater from the same aquifer as users outside of the CMA who are exempt from the program. At the CBGSA Public Workshop on August 25, 2022, staff acknowledged that the CMA boundary was selected for political reasons and had no scientific basis. The CMA boundary also may no longer reflect current Basin groundwater levels following the significant storm events that may raise groundwater levels. Given that the CMA boundary is based, in part, by groundwater level information, the CBGSA must update the model to reflect current Basin conditions to define the boundary prior to imposing a punitive allocation program on a subset of landowners.

Taylor Blakslee

March 3, 2023

Page 4

Further, the CMA boundary was selected using Cuyama Basin Water Resources Model (CBWRM) results that have a margin of error based on model limitations and geographic projections that significant impact CMA Allocation Policy implementation but remain unexplained and unquantified. The model uncertainty undoubtedly impact the allocations assigned to water users yet it is unclear how, if at all, this uncertainty is accounted for in the individual allocations.

During the prior variance request process, we identified a flaw in the CBGSA's allocation methodology. Although the CBGSA addressed the identified error, it continues to rely on land use data from 1998-2021, including both landowner provided data and aerial survey data, imported into the CBWRM to estimate groundwater use in a manner that cannot be reproduced and verified by landowners. The Notice contains a description of the revised methodology but again it is not clear about the basis of the selected water use period and whether it accurately reflects historical and/or planned for pumping. Moreover, the CBGSA's characterization of the variance request process provides limited opportunities to correct the CBWRM data.

The CBWRM data further does not consider land use and irrigation efficiency practices in setting the pumping within the CMA and estimate individual allocations. The CMA Allocation Policy relies on a 20-year period (1998-2017) to calculate the individual allocations. In effect, this 20-year period takes into account historical, less-efficient irrigation practices. It also penalizes landowners who voluntarily employed significant conservation measures to limit their water use or fallowed lands. Landowners that may have temporarily modified their groundwater production to convert to more water efficient uses may also be penalized. None of this information is evident from the CMA Allocation Policy and should be considered through the policy and variance request process.

V. The Variance Request Process Is Flawed

First, the Notice does not set forth clear criteria or findings that the Board will use to determine whether to grant a variance, which may lead to arbitrary and capricious decision-making. This continues the same flawed process that the CBGSA took with the first iteration of variance requests. Further, since the variance request process will impact other landowners' allocations, even those that do not submit a variance request, the process must have clear criteria to provide adequate notice and clear procedures for all landowners.

Second, the Notice does not provide the data upon which the proposed allocations are based in a transparent manner that would allow for landowners to ascertain data errors as needed to submit a variance request form. The data tables attached to the Notice fail to provide landowners with any information as to the modeled calculation of an individual allocation such that a landowner can understand the potential source of data errors. Further, the CBWRM data is generally not available to digestible for individual landowners.

Taylor Blakslee
March 3, 2023
Page 5

Third, the Notice does not make it clear to landowners that do not intend to submit a variance request form that their individual allocations may change in response to the Board's action to grant a variance requested by another landowner. All landowners should be fully informed of the need and right to participate in the variance process in order to preserve their rights and avoid penalties.

Fourth, the California Constitution and SGMA contain specific substantive and procedural requirements on the adoption of fees and charges. The Cuyama GSA has not complied with any of these requirements in its adoption of a \$250 fee to submit a Variance Request Form.

VI. The CMA Allocation Policy Should Have Been Adopted Through A Formal Action And Was Not

The CBGSA has developed the current form of the CMA Allocation Policy through a series of minute orders over many months of CBGSA Board meetings. The CBGSA Board, however, has never taken formal action to adopt the CMA Allocation Policy, the Farm Unit Policy or any components thereof through a formal ordinance to establish this regulatory program.

Because the CMA Allocation Policy is clearly intended as a regulation, a formal document is needed to explain and elucidate the program and its requirements. Although titled "Central Management Area Policies and Landowner Requirements," the Notice and estimated allocation assigned to certain Basin landowners has the effect of a regulation that limits groundwater pumping by a subset of the Basin's landowners without due process and in conflict each landowner's exercise of its overlying property right in the Basin. The Notice also proposes to impose monetary and other penalties on those listed landowners who use groundwater in excess of the assigned estimated allocation. As such, the CMA Allocation Policy must be adopted through a formal ordinance that imposes specific regulations (allocations) and penalties for failure to comply with such regulations on landowners within the CMA to ensure that affected landowners receive due process.

An ordinance also is necessary to clearly document and allow for public comment on the mechanics of the program's requirements to allow for meaningful public participation and informed decision-making. Notably, the CBGSA Board still plans at least two actions which may further impact landowners rights and obligations under the CMA Allocation Policy: (1) action on the second iteration of variance requests at a March 29, 2023 special meeting; and (2) the "final adoption" at the May 3, 2023 meeting. These actions may further modify landowners allocations or the regulatory requirements of the CMA Allocation Policy. Absent a clear ordinance establishing the regulatory program described in the CMA Allocation Policy, landowners have no way to knowing whether to object to their current allocations or the program itself—a clear violation of due process.

Taylor Blakslee

March 3, 2023

Page 6

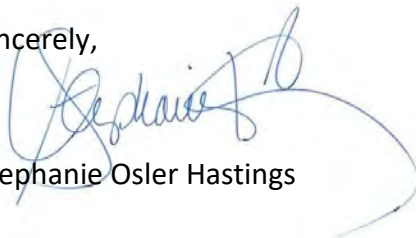
VII. The CBGSA Has Not Yet Complied with the California Environmental Quality Act

The CBGSA's actions are subject to the California Environmental Quality Act (CEQA). As discussed above, the CBGSA has asserted that the Notice and CMA Allocation Policy is a result of a series of directions proved over many months and CBGSA Board meetings by minute order. CEQA must be completed at the "earliest commitment" to a project or to a definite course of action. As such, the CBGSA's compliance with CEQA is long overdue.

Assuming that the Board has not taken a formal action to adopt the CMA Allocation Policy, the Board must consider whether the CMA Allocation Policy will have a direct or reasonably foreseeable indirect impact on the environment due to the potential for landowners to need to fallow land to comply with the program. The fallowing of land in response to the proposed allocation has reasonable foreseeable direct and indirect impacts on the environment including but not limited to impacts on air quality, land use, agricultural resources, and biological resources.

Thank you for your considerations of these comments. We also request that these comments be included in the CBGSA Board materials for its March 29, 2023 and May 3, 2023 meetings. Should you have questions, please contact me at (805) 882-1415 or Shastings@bhfs.com or Mack Carlson at (805) 882-1485 or Mcarlson@bhfs.com.

Sincerely,



Stephanie Osler Hastings

SOH

cc: Joseph Hughes, Klein DeNatale Goldner
Alex Dominguez, Klein DeNatale Goldner

11. Discussion and Appropriate Action on Variance Findings

Jim Beck / Alex Dominguez

March 29, 2023



Update on 2nd Variance Requests

- On July 6, 2022, the CBGSA Board approved a CMA allocation variance process, and nine Variance Request Forms were received
- During review of the initial variance requests, several issues were raised and presented to the Board on December 12, 2022. The two primary issues were identified during the variance review, and recommended for full Board discussion, are the (1) farming unit issue, and (2) model element component of allocation calculation issue
- Due to these policy-level issues, the CBGSA adopted a second variance process based on the improved allocation methodology and allowed for landowners to register their lands as farming units
- **2nd variance requests were due March 3, 2023, and seven (7) Variance Request Forms were received**

2nd Variance Request Received

1. Bolthouse Land Company, LLC
2. Brownstein – general comment letter (no specific “variance” request)
3. CCSH Farms, LLC
4. David Lewis
5. Duncan Family Farms / Aguila G-Boys, LLC
6. Grimmway Enterprises, Inc.
7. Sunrise Ranch Properties, LLC

Cuyama CMA Allocation/Variance Schedule



Development of Ad hoc Variance Findings

- Staff and the Central Management Area Policy ad hoc (Directors Anselm, Bantilan, Vickery, and Wooster) performed the following steps in developing the recommended variance findings:
 - Individual staff review of variance requests
 - Individual ad hoc review of each variance request
 - Ad hoc + staff discussion of variance requests
 - 1-hour consultation meetings with variance requesters
 - Additional staff and ad hoc discussions
 - Development of ad hoc recommended variance findings

Board Action on Variance Findings

- Potential Board action:
 - Adopt Ad hoc Variance Findings as-is; or
 - Adjust and adopt amended variance findings



March 19, 2023

Daniel T. Clifford, Esq.
Bolthouse Land Company, LLC
P.O. Box 20157
Bakersfield, California 93390

Re: Recommendation of the Central Management Area Ad Hoc Committee Regarding
Bolthouse Land Company, LLC's Variance Request

Dear Mr. Clifford:

The purpose of this letter is to report the recommendation of the Cuyama Basin Groundwater Sustainability Agency's (CBGSA) Central Management Area Ad Hoc Committee (Committee) regarding Bolthouse Land Company, LLC's (Bolthouse) variance request submitted on March 3, 2023

Thank you for taking the time to submit a variance request and meet with CBGSA staff and the Committee to discuss that request. After our meeting on March 14, 2023, CBGSA staff and the Committee met to further discuss your request. The Committee developed the following recommendation:

(1) Farming Unit Policy

Bolthouse requests that CBGSA "clarify the interim allocation set forth in the February 3, 2023 notice so that the allocation for each landowner within the farming unit is based upon the location of where the water is produced by the landowner and not where the groundwater is ultimately applied." (Variance Request, p. 1.) Bolthouse goes on to request that "[t]he updated proposed interim groundwater allocation set forth in the February 3, 2023 notice, be amended to clarify and set interim allocations based upon the amount of water actually pumped from BLC property." (*Id.* at 3.) Specifically, Bolthouse requests that "[CBGSA] revise the allocation for the BLC Farming Unit so that it takes into account the ownership of property where the groundwater was extracted based upon the 95%/5% split. . ." resulting in an interim allocation of 20,389 acre-feet per year for Bolthouse and 1,075 acre-feet per year for Perkins Farming Unit. (*Ibid.*)

Upon review, CBGSA staff and the Committee determined that this approach is not consistent with the Board of Director's (Board) adopted policy. CBGSA developed its proposed allocation using land use data from the historical period of 1998 – 2017. Accordingly, the proposed allocations are based on how each parcel within the Central Management Area has been historically used. To ensure that landowners within the Central Management Area better understand this process, the Committee will recommend to the Board that the final allocation schedule include a statement regarding the overall allocation development process and CBGSA's acknowledgement that such allocations do not reflect a determination of water rights.

March 19, 2023

Recommendations of the Central Management Area Ad Hoc Committee

Page 2 of 2

CBGSA's used the best available scientific information in establishing the proposed groundwater allocations. CBGSA continues to address multiple data gaps. One of those data gaps is a lack of metered pumping data for each water user within the Basin. But, as of March 31, 2022, CBGSA required each water user using more than 25 acre-feet of water per year from within the Basin to install a flow meter on its well(s). Further, these water users must annually report to CBGSA their respective monthly pumping totals. So, in 2023, CBGSA will have its first year of metered pumping data. When the Board revisits the allocation methodology for 2025, the Board will be in a better position to consider basing those future allocations on the metered pumping data provided by water users in the Basin. Until then, the Committee will recommend to the Board that CBGSA continue to rely on modeled data based on the best available scientific information.

(2) Cuyama Solar, LLC

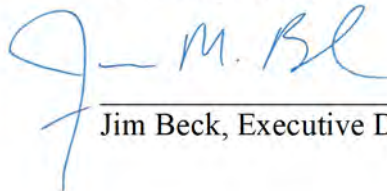
Bolthouse requests that the proposed allocation of 546 acre-feet assigned to Cuyama Solar, LLC be re-assigned to Bolthouse because when Bolthouse sold the property now owned by Cuyama Solar, LLC, Bolthouse reserved the associated water rights. (*Id.* at 3.) In support of this request, Bolthouse provided CBGSA staff and the Committee with a Grant Deed confirming this reservation.

In accordance with the Grant Deed, the Committee will recommend to the Board that the proposed allocation of 546 acre-feet assigned to Cuyama Solar, LLC be re-assigned to Bolthouse.

Thank you again for taking the time to meet with CBGSA staff and the Committee. SGMA requires the Board to make difficult decisions regarding management of groundwater in the Basin for the benefit of all stakeholders. Receiving and understanding the concerns of groundwater users is helpful in shaping those decisions. The Committee will present its recommendations to the Board for consideration at its March 29, 2023 special meeting. As a reminder, you will have an opportunity during that meeting to present Bolthouse's variance request to the full Board and address any of the Committee's recommendations.

If you have any questions about the process going forward, please do not hesitate to contact Taylor Blakslee by email at tblakslee@hgcpm.com or by phone at (661) 477-3385.

Very truly yours,



Jim Beck, Executive Director



March 19, 2023

Doug Slumskie
CCSH Farms, LLC
40480 Caballos
Murrieta, CA 92562

Re: Recommendations of the Central Management Area Ad Hoc Committee
Regarding the CCSH Farms, LLC's Variance Request

Dear Mr. Slumskie:

The purpose of this letter is to report the recommendation of the Cuyama Basin Groundwater Sustainability Agency's (CBGSA) Central Management Area Ad Hoc Committee (Committee) regarding CCSH Farms, LLC's (CCSH Farms) variance request submitted on March 3, 2023.

Thank you for taking the time to submit a variance request and meet with CBGSA staff and the Committee to discuss that request. After our meeting on March 14, 2023, CBGSA staff and the Committee met to further discuss your request. The Committee developed the following recommendations:

(1) Allocation Amount

CCSH Farms requests that it receive an allocation of 135 acre-feet per year because it "will need additional water for future crops and want[s] to be on the safe side." (Variance Request.) Notably, CCSH Farms did not submit any data or other information in support of its request. Instead, during our March 14 meeting, Mr. David Slumskie, on behalf of CCSH Farms, informed CBGSA staff and the Committee of a well-sharing arrangement between himself and two of his neighboring landowners. Mr. Slumskie further explained that these neighboring landowners are similarly situated in that he and those landowners farm the same crop on nearly identical acreage. Mr. Slumskie then clarified CCSH Farms' request, asking that CCSH Farms receive the same allocation as Mr. Slumskie's two similarly situated neighboring landowners.

Because CCSH Farms did not submit any data or other information in support of its request, the Committee will recommend to the Board of Directors (Board) that CBGSA not increase CCSH Farms' proposed allocation of 119.09 for 2023, and 114.34 for 2024. Instead, as discussed, the Committee recommends that CCSH Farms work with its similarly situated neighboring landowners to come to an agreement in which those other landowners agree to reduce their proposed allocations to supplement CCSH Farms to the extent that each of the three landowners party to the well-sharing arrangement have the same allocation. The Committee would like to remind CCSH Farms that the proposed allocation is for 2023 and 2024, and the Board will revisit the allocation methodology for 2025.

March 19, 2023

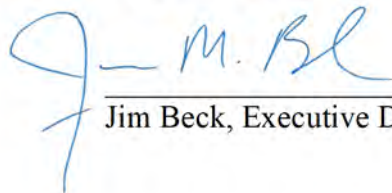
Recommendations of the Central Management Area Ad Hoc Committee

Page 2 of 2

Thank you again for taking the time to meet with CBGSA staff and the Committee. SGMA requires the Board to make difficult decisions regarding management of groundwater in the Basin for the benefit of all stakeholders. Receiving and understanding the concerns of groundwater users is helpful in shaping those decisions. The Committee will present its recommendations to the Board for consideration at its March 29, 2023 special meeting. As a reminder, you will have an opportunity during that meeting to present CCSH Farms' variance request to the full Board and address any of the Committee's recommendations.

If you have any questions about the process going forward, please do not hesitate to contact Taylor Blakslee by email at tblakslee@hgcpm.com or by phone at (661) 477-3385.

Very truly yours,

A handwritten signature in blue ink that reads "J. M. Beck". The signature is written in a cursive style with a large initial "J" and "M".

Jim Beck, Executive Director



March 19, 2023

David Lewis
PO Box 267
New Cuyama, CA 93254

Re: Recommendations of the Central Management Area Ad Hoc Committee
Regarding Mr. David Lewis' Variance Request

Dear Mr. Lewis:

The purpose of this letter is to report the recommendations of the Cuyama Basin Groundwater Sustainability Agency's (CBGSA) Central Management Area Ad Hoc Committee (Committee) regarding your variance request submitted on March 3, 2023.

Thank you for taking the time to submit a variance request and meet with CBGSA staff and the Committee to discuss that request. After our meeting on March 17, 2023, CBGSA staff and the Committee met to further discuss your request. The Committee developed the following recommendation:

(1) Central Management Area

At the heart of your variance request is the question of whether your parcel is properly located within the Central Management Area (CMA) boundary. Currently, CBGSA's records indicate that 50.46 percent of your parcel is located within the CMA boundary. After further review, the Committee learned that, while minor, it is common that certain mapping and modeling efforts may contain some margin of error. With that in mind, and the fact that your parcel is located within the CMA boundary by a fraction of a percent, CBGSA staff and the Committee determined that this fraction of a percent is likely within that margin of mapping or model error. Accordingly, the Committee will recommend to the Board that it grant you a variance and exclude your parcel from the CMA boundary.

You should be aware, however, that the Board will again consider groundwater allocations for 2025. This could possibly result in a larger management area, multiple management areas, or even basin-wide allocations. The variance granted to you now will not exempt you from any future allocations or any revisions to the CMA and use of management areas. You should therefore plan accordingly.

Thank you again for taking the time to meet with CBGSA staff and the Committee. SGMA requires the Board to make difficult decisions regarding management of groundwater in the Basin for the benefit of all stakeholders. Receiving and understanding the concerns of groundwater users is helpful in shaping those decisions. The Committee will present its recommendations to the Board for consideration at its March 29, 2023 special meeting. As a reminder, you will have an

March 19, 2023

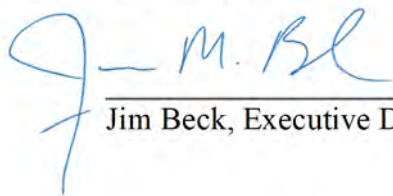
Recommendations of the Central Management Area Ad Hoc Committee

Page 2 of 2

opportunity during that meeting to present your variance request to the full Board and address any of the Committee's recommendations.

If you have any questions about the process going forward, please do not hesitate to contact Taylor Blakslee by email at tblakslee@hgcpm.com or by phone at (661) 477-3385.

Very truly yours,

A handwritten signature in blue ink that reads "J. M. Beck". The signature is written in a cursive style with a large initial "J" and "M".

Jim Beck, Executive Director



March 19, 2023

Derek Hoffman, Esq.
Fennemore, LLP
550 E. Hospitality Lane, Suite 350
San Bernardino, California 92408

Re: Recommendations of the Central Management Area Ad Hoc Committee Regarding
Duncan Family Farms, LLC and Aguila G-Boys, LLC's Variance Request

Dear Mr. Hoffman:

The purpose of this letter is to report the recommendations of the Cuyama Basin Groundwater Sustainability Agency's (CBGSA) Central Management Area Ad Hoc Committee (Committee) regarding Duncan Family Farms, LLC and Aguila G-Boys, LLC's (collectively, Duncan Family Farms) variance request submitted on March 3, 2023.

Thank you for taking the time to submit a variance request and meet with CBGSA staff and the Committee to discuss that request. After our meeting on March 14, 2023, CBGSA staff and the Committee met to further discuss your request. The Committee developed the following recommendations:

(1) Method of Adoption

Duncan Family Farms contends that "[a]ny allocation policy must be adopted through a formal, publicly noticed ordinance or resolution that specifically defines the regulations or allocations and all penalties for failure to comply with those regulations." (Variance Request at p. 2.)

CBGSA staff and the Committee are not aware of any provision of SGMA requiring CBGSA to adopt its groundwater allocation policies by ordinance or resolution. SGMA authorizes a groundwater sustainability agency (GSA) to "perform any act necessary or proper to carry out the purposes of this part." (Wat. Code, § 10725.2, subd. (a).) Further, a "[GSA] may adopt rules, regulations, ordinances, and resolutions for the purpose of [SGMA], in compliance with any procedural requirements applicable to the adoption of a rule, regulation, ordinance, or resolution by the [GSA]." (Wat. Code, § 10725.2, subd. (b).) Additionally, SGMA expressly authorizes a GSA to establish groundwater allocations. (Wat. Code, § 10726.4, subd. (a)(2).) Nowhere in this section does it require that a GSA adopt a groundwater allocation policy by ordinance or resolution.

CBGSA has adopted its groundwater allocation policies in an open and transparent manner, in accordance with the Brown Act. These policies are the result of numerous open and public meetings during which many members of the public engaged with the Board of Directors (Board). Nonetheless, the Board intends to adopt and approve the final groundwater allocations, including the penalties for over-pumping, via resolution. Further, to ensure that the public has easy access to

March 19, 2023

Recommendations of the Central Management Area Ad Hoc Committee

Page 2 of 5

CBGSA's groundwater allocation policies, the Committee will recommend to the Board that CBGSA staff develop and post on the CBGSA's website a comprehensive groundwater allocation policy packet.

(2) Groundwater Allocation Data and Variance Request Evaluation Criteria

Duncan Family Farms requests that “[t]he CBGSA . . . provide the underlying data upon which the proposed allocations were based. . . and clearly establish the evaluation criteria that will apply in evaluating variance requests.” (*Ibid.*)

First, the data CBGSA used to develop the proposed groundwater allocations is available to the public upon request, much of which has been discussed in depth at past meetings of the Board. If you would like any of this data, please contact Taylor Blakslee by email at tblakslee@hgcpm.com or by phone at (661) 477-3385. Mr. Blakslee will work with you to provide the appropriate information.

Second, on July 27, 2022, CBGSA staff mailed a packet entitled “Notice of Central Management Area Policies and Landowner Requirements” to each landowner within the Central Management Area (CMA). In this packet, CBGSA staff informed each CMA landowner that the proposed groundwater allocations were determined using “the average water use for each parcel over the 1998-2017 period. . . .” CBGSA staff then explained that “[t]he water use estimates were determined by a model” and included “a description of how those estimates were estimated” in the packet. Further, CBGSA staff advised each CMA landowner to “review the detailed allocation for each parcel” and if “there is an error with the water use calculations, or the allocation calculated is not accurate” to submit a variance request to CBGSA staff.

Third, on February 3, 2023, CBGSA staff mailed a similar notice regarding the opportunity for a second variance process to each landowner within the CMA. In this letter, CBGSA staff advised each CMA landowner to submit a variance request if they “believe there is an error with the revised allocations. . . .” CBGSA staff and the Committee reaffirm that the focus of this variance process was the identification and correction of any errors with the revised allocations.

(3) California Water Law

Duncan Family Farms requests that “[t]he allocations in the Revised Allocation Notice . . . be deferred pending the outcome or at least substantial development of the pending comprehensive groundwater basin adjudication in which only the court may determine and quantity water rights.” (*Ibid.*)

CBGSA acknowledges that nothing in SGMA nor CBGSA's groundwater sustainability plan (GSP) “determines or alters surface water rights or groundwater rights under common law or any provision of law that determines or grants surface water rights.” (Wat. Code, § 10720.5, subd. (b).) But SGMA does expressly authorize CBGSA to establish groundwater allocations. (Wat. Code, § 10726.4, subd. (a)(2).) Further, SGMA mandates CBGSA to implement its GSP within

March 19, 2023

Recommendations of the Central Management Area Ad Hoc Committee

Page 3 of 5

the Basin and achieve groundwater sustainability in the Basin by 2040. Unless directed otherwise by the State Legislature or ordered by a court, CBGSA will continue to perform its duties under SGMA and carry out its GSP.

(4) Data Used for Establishing Proposed Allocations

Duncan Family Farms requests that CBGSA “review and account for the data contained in the Initial Disclosures and address the significant discrepancies with its modeling assumptions before imposing any pumping allocations.” (*Id.* at p. 3.)

CBGSA’s used the best available scientific information in establishing the proposed groundwater allocations. CBGSA continues to fill multiple data gaps. One of those data gaps is a lack of metered pumping data for each water user within the Basin. But, as of March 31, 2022, CBGSA required each water user using more than 25 acre-feet of water per year from within the Basin to install a flow meter on its well(s). Further, these water users must annually report to CBGSA their respective monthly pumping totals. So, in January 2023, CBGSA will have its first year of metered pumping data. When the Board revisits the allocation methodology for 2025, the Board will be in a better position to consider basing those future allocations on the metered pumping data provided by water users in the Basin or other data, such as Initial Disclosures. Until then, the Committee will recommend to the Board that CBGSA continue to rely on modeled data based on the best available scientific information.

(5) Baseline Historical Period

Duncan Family Farms objects to CBGSA’s use of “an average water use from 1998 – 2017 as a baseline or basis for establishing allocations.” (*Ibid.*) Duncan Family Farms goes on to explain that, since its acquisition of the subject property, Duncan Family Farms has “expanded its irrigation system and has more actively farmed its property than prior owners.” Duncan Family Farms then requests that “[a]ny allocation for Duncan Family Farms . . . reflect its actual water demand.” (*Ibid.*)

CBGSA adopted the baseline historical period of 1998 to 2017 to encompass numerous water years with distinct hydrological features to create an accurate representation of water use. To narrow this historical period to include only the time when the current landowner acquired the subject property could result in wide-spread inequitable allocations throughout the CMA. Following this logic, CBGSA would have to consistently monitor land acquisitions and revise allocations each time land changes hands. For these reasons, the Committee will recommend that the Board continue to rely on the baseline historical period of 1998 to 2017.

(6) Categories of Water Use

Duncan Family Farms contends that “[t]he CBGSA’s proposed pumping allocation fails to account for all categories of Duncan Family Farms’ water usage.” Relying on a report titled, “Estimate Well Pumpage in Cuyama Basin by Duncan Family Farms, 2010 – 2021,” (Plateau

March 19, 2023

Recommendations of the Central Management Area Ad Hoc Committee

Page 4 of 5

Report), Duncan Family Farms goes on to contend that its average pumping from 2010 through 2017 is “more than 3.5 times greater than CBGSA estimates.” (*Id.* at p. 3.)

CBGSA staff and the Committee reviewed the Plateau Report. Upon review, CBGSA staff and the Committee were not made aware of any verifiable information that could rebut CBGSA’s model data. During our March 14 meeting, CBGSA staff and the Committee requested that Duncan Family Farms provide specific land use data to verify or otherwise support the claims made in the Plateau Report. On March 17, 2023, Duncan Family Farms provided supplemental information. CBGSA staff and the Committee will review this supplemental information and make a recommendation to the Board. CBGSA staff and the Committee will provide that recommendation to Duncan Family Farms in advance of the March 29, 2023 Board meeting.

(7) Continued Use of Modeled Data Based on the Best Available Scientific Information

Relying on a report titled, “Evaluation of Cuyama basin Water Resources Model (CBWRM) and Associated Water Allocation” (Tetra Tech Report), Duncan Family Farms contends that CBGSA’s CBWRM contains “flaws in sustainable yield and individual property assumptions, which comprise critical components of the proposed allocation equation used in the Revised Allocation Notice.” (*Id.* at p. 4.)

As mentioned above, CBGSA used the best available scientific information in establishing the proposed groundwater allocations. CBGSA is consistently working to improve the CBWRM when errors are identified. For example, during the first round of variance requests, an error was identified and corrected, thereby resulting in revised proposed allocation and this second round of variance requests.

CBGSA staff and the Committee reviewed the Tetra Tech Report. Upon review, CBGSA staff and the Committee were not made aware of any errors that warranted change to CBGSA’s model. Therefore, the Committee will recommend to the Board that CBGSA continue to rely on its existing model and its model data that is based on the best available scientific information.

(8) Variance Request

Duncan Family Farms contends that its allocation “should reflect its more accurate 2021 water usage of 2,602 AF.” (*Id.* at p. 5.)

As mentioned above, during our March 14 meeting, CBGSA staff and the Committee requested that Duncan Family Farms provide specific land use data to verify or otherwise support the claims made in the Plateau Report. On March 17, 2023, Duncan Family Farms provided supplemental information. CBGSA staff and the Committee will review this supplemental information and make a recommendation to the Board. CBGSA staff and the Committee will provide that recommendation to Duncan Family Farms in advance of the March 29, 2023 Board meeting.

March 19, 2023

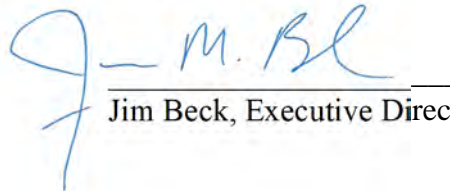
Recommendations of the Central Management Area Ad Hoc Committee

Page 5 of 5

Thank you again for taking the time to meet with CBGSA staff and the Committee. SGMA requires the Board to make difficult decisions regarding management of groundwater in the Basin for the benefit of all stakeholders. Receiving and understanding the concerns of groundwater users is helpful in shaping those decisions. The Committee will present its recommendations to the Board for consideration at its March 29, 2023 special meeting. As a reminder, you will have an opportunity during that meeting to present Duncan Family Farms' variance request to the full Board and address any of the Committee's recommendations.

If you have any questions about the process going forward, please do not hesitate to contact Taylor Blakslee by email at tblakslee@hgcpm.com or by phone at (661) 477-3385.

Very truly yours,



Jim Beck, Executive Director



March 19, 2023

Matt Vickery
 Grimmway Enterprises, Inc.
 P.O. Box 81498
 Bakersfield, CA 93380

Re: Recommendations of the Central Management Area Ad Hoc Committee
 Regarding Grimmway Enterprises, Inc.'s Variance Request

Dear Mr. Vickery:

The purpose of this letter is to report the recommendations of the Cuyama Basin Groundwater Sustainability Agency's (CBGSA) Central Management Area Ad Hoc Committee (Committee) regarding Grimmway Enterprises, Inc.'s (Grimmway) variance request submitted on March 3, 2023.

Thank you for taking the time to submit a variance request and meet with CBGSA staff and the Committee to discuss that request. After our meeting on March 16, 2023, CBGSA staff and the Committee met to further discuss your request. The Committee developed the following recommendations:

(1) Allocation Spreadsheet Notation

Grimmway requests that CBGSA add the following two notations to the allocation spreadsheet:

1. Nothing in this spreadsheet is intended as a precedential allocation or a determination of water rights.
2. The allocations to property owners shown with an asterisk (*) are part of a larger farming unit allocation and do not represent a specific allocation to that particular owner/parcel within the farming unit.

Regarding Notion No. 1, CBGSA acknowledges that nothing in SGMA nor CBGSA's groundwater sustainability plan (GSP) "determines or alters surface water rights or groundwater rights under common law or any provision of law that determines or grants surface water rights." (Wat. Code, § 10720.5, subd. (b).) Accordingly, the Committee will recommend to the Board of Directors (Board) that the allocation spreadsheet include an acknowledgement that the proposed allocations do not reflect a determination of water rights.

March 19, 2023

Recommendations of the Central Management Area Ad Hoc Committee

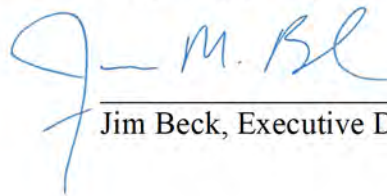
Page 2 of 2

Regarding Notion No. 2, the Committee does not believe that, just because an allocation is included in a farming unit, that the allocation is no longer specific to a certain parcel. Therefore, the Committee will not recommend to the Board that the allocation spreadsheet include the entirety of Notion No. 2, but instead, the following language: “the allocations to property owners shown with an asterisk (*) are part of a larger farming unit allocation.”

Thank you again for taking the time to meet with CBGSA staff and the Committee. SGMA requires the Board to make difficult decisions regarding management of groundwater in the Basin for the benefit of all stakeholders. Receiving and understanding the concerns of groundwater users is helpful in shaping those decisions. The Committee will present its recommendations to the Board for consideration at its March 29, 2023 special meeting. As a reminder, you will have an opportunity during that meeting to present Grimmway’s variance request to the full Board and address any of the Committee’s recommendations.

If you have any questions about the process going forward, please do not hesitate to contact Taylor Blakslee by email at tblakslee@hgcpm.com or by phone at (661) 477-3385.

Very truly yours,



Jim Beck, Executive Director



March 19, 2023

James Markman, Esq.
 B. Tilden Kim, Esq.
 Richards, Watson & Gershon
 350 South Grand Avenue, 37th Floor
 Los Angeles, California 90071

Re: Recommendations of the Central Management Area Ad Hoc Committee
 Regarding Sunrise Ranch Properties, LLC's Variance Request

Dear Messrs. Markman and Kim:

The purpose of this letter is to report the recommendations of the Cuyama Basin Groundwater Sustainability Agency's (CBGSA) Central Management Area Ad Hoc Committee (Committee) regarding Sunrise Ranch Properties, LLC's (Sunrise Ranch) variance request submitted to CBGSA on March 2, 2023.

Thank you for taking the time to submit a variance request and meet with CBGSA staff and the Committee to discuss that request. After our meeting on March 16, 2023, CBGSA staff and the Committee met to further discuss your request. The Committee developed the following recommendations:

(1) Allocation Amount

Sunrise Ranch requests that CBGSA "correct its average historical pumping value . . . of 2,388.77 AFY to be 2,834.33 AFY." (*Second Variance Request of Sunrise Ranch Properties, LLC*, p. 1.) Using available electrical data, Sunrise Ranch then explains the basis of its calculations that support its increased historical pumping value. (*Id.* at p. 2.)

CBGSA staff and the Committee reviewed Sunrise Ranch's methods used to support an increased historical pumping value. The first method strictly considers a historical period much shorter than the baseline historical period of 1998 – 2017, adopted by the Board of Directors (Board). The second method provides "an alternate basis for calculating water use" based on information provided by the former landowner of the subject parcel; however, no actual supporting data or information was provided to back-up these claims. Finally, Sunrise Ranch admits that under the current ramp-down, Sunrise Ranch "would have to fallow trees sometime in the 2029 – 2030 period." (*Id.* at p. 4.) The Committee would like to remind Sunrise Ranch that the proposed allocation is for 2023 and 2024, and the Board will revisit the allocation methodology for 2025. For these reasons, the Committee will recommend to the Board that the CBGSA not increase Sunrise Ranch's proposed allocation of 2,567.90 AF for 2023 or 2,465.38 AF for 2024.

March 19, 2023

Recommendations of the Central Management Area Ad Hoc Committee

Page 2 of 2

(2) Data Used for Establishing Proposed Allocations

Sunrise Ranch goes on to contend that the historical value of 2,388.77 acre-feet per year is “unsupported” and that CBGSA “has not provided the specific analysis of [Sunrise Ranch’s] parcels past water requirement to support [CBGSA’s] determination.” (*Id.* at p. 2.)

CBGSA’s used the best available scientific information to establish the proposed groundwater allocations. The information and data CBGSA used to develop the proposed groundwater allocations is available to the public upon request, much of which has been discussed in depth at past meetings of the Board. If you would like any of this data, please contact Taylor Blakslee by email at tblakslee@hgcpm.com or by phone at (661) 477-3385. Mr. Blakslee will work with you to provide the appropriate information.

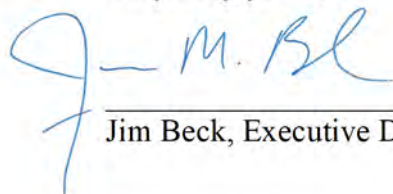
(3) Potential Future Water Management Tools

CBGSA staff and the Committee appreciate your comments regarding potential future water management tools that could help “mitigate financial hardship” to water users within the Central Management Area. (*Id.* at pp. 5 – 6.) The Board has discussed some of these proposed concepts during prior meetings, such as the authorization of carryover and the establishment of water markets. The Committee will recommend that the Board continue to discuss these concepts and consider implementing some of them in the future.

Thank you again for taking the time to meet with CBGSA staff and the Committee. SGMA requires the Board to make difficult decisions regarding management of groundwater in the Basin for the benefit of all stakeholders. Receiving and understanding the concerns of groundwater users is helpful in shaping those decisions. The Committee will present its recommendations to the Board for consideration at its March 29, 2023 special meeting. As a reminder, you will have an opportunity during that meeting to present Sunrise Ranch’s variance request to the full Board and address any of the Committee’s recommendations.

If you have any questions about the process going forward, please do not hesitate to contact Taylor Blakslee by email at tblakslee@hgcpm.com or by phone at (661) 477-3385.

Very truly yours,

A handwritten signature in blue ink that reads "J - M. Beck". The signature is written in a cursive style with a large initial "J" and "M".

Jim Beck, Executive Director



TO: Standing Advisory Committee
Agenda Item No. 8

FROM: Brian Van Lienden, Woodard & Curran

DATE: March 23, 2023

SUBJECT: Approve Annual Report

Recommended Motion

Standing Advisory Committee feedback requested.

Discussion

In compliance with the Sustainable Groundwater Management Act, annual reports on basin sustainability metrics and progress on Groundwater Sustainability Plan implementation must be submitted to the California Department of Water Resources (DWR) by April 1st of each year.

A summary of the draft annual report for Water Year 2021-2022 (October 1, 2021 through September 30, 2022) is provided as Attachment 1, and the full report is provided as Attachment 2 for consideration of approval.

Cuyama Basin Groundwater Sustainability Agency

8. Approve Annual Report
Van Lienden

March 29, 2023



Annual Report Timeline

- DWR's GSP Emergency Regulations require that an Annual Report be submitted each year by April 1.
- Staff is requesting approval of the [Annual Report](#) by the CBGSA Board

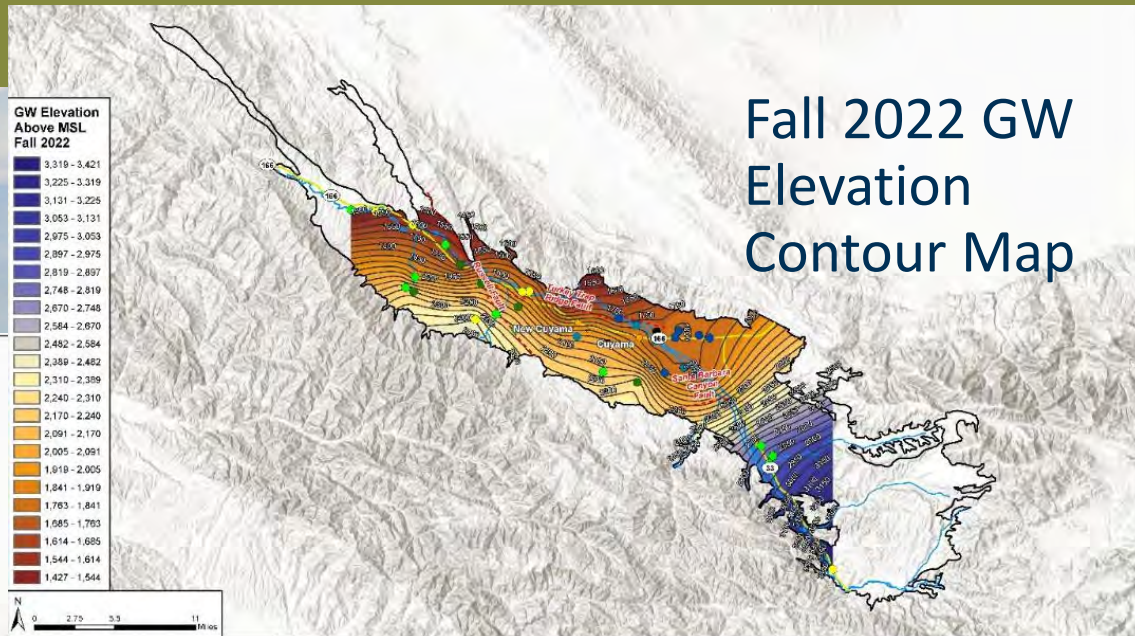
Data and Model Updates

- Groundwater elevations:
 - Available data collected for all wells in monitoring network through 2022
- Groundwater model update
 - Historical model period is extended through 2022 (previously was simulated for 1998-2021)
 - No change will be made to the model calibration
 - Updated land use, precipitation and evapotranspiration data collected for 2022
 - Updated land use data has been provided for 2022 period by Bolthouse and Grimmway. Other key landowners have confirmed no change relative to 2021.
 - LandIQ developed land use estimates for other landowners for WY 2022

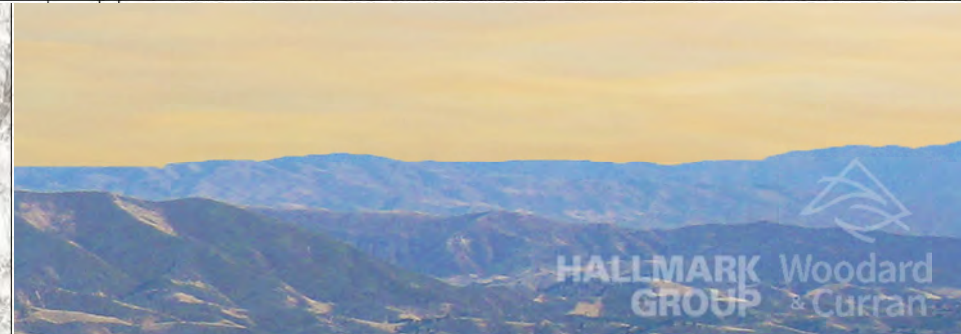
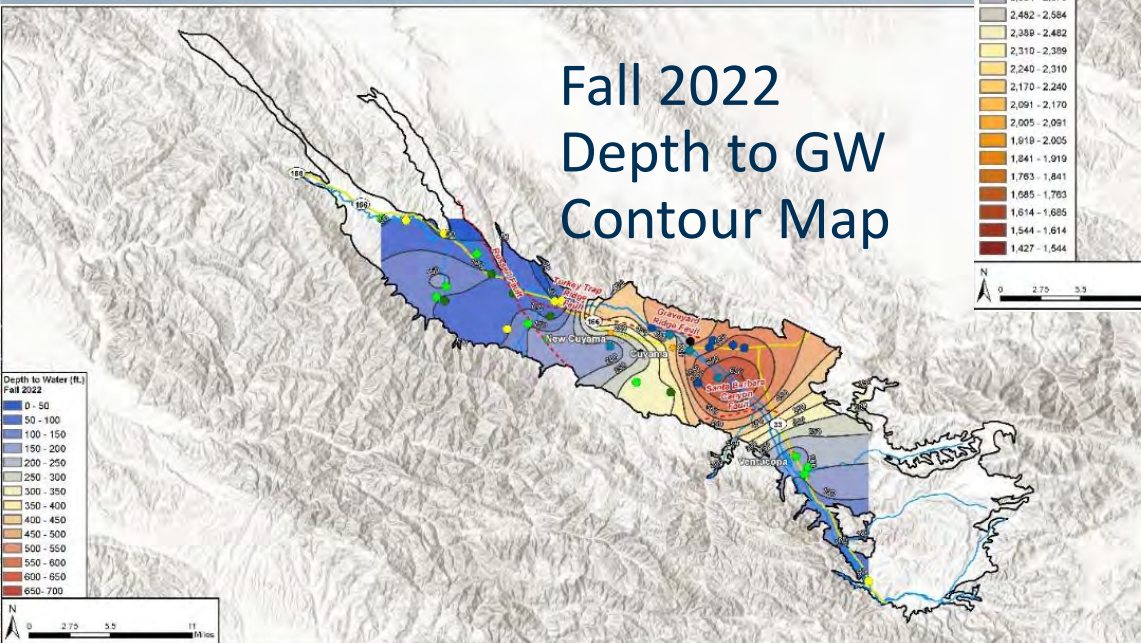
Updated Groundwater Conditions Figures

Updated Contour Maps were created for 2022 (Spring and Fall)

Fall 2022 GW Elevation Contour Map

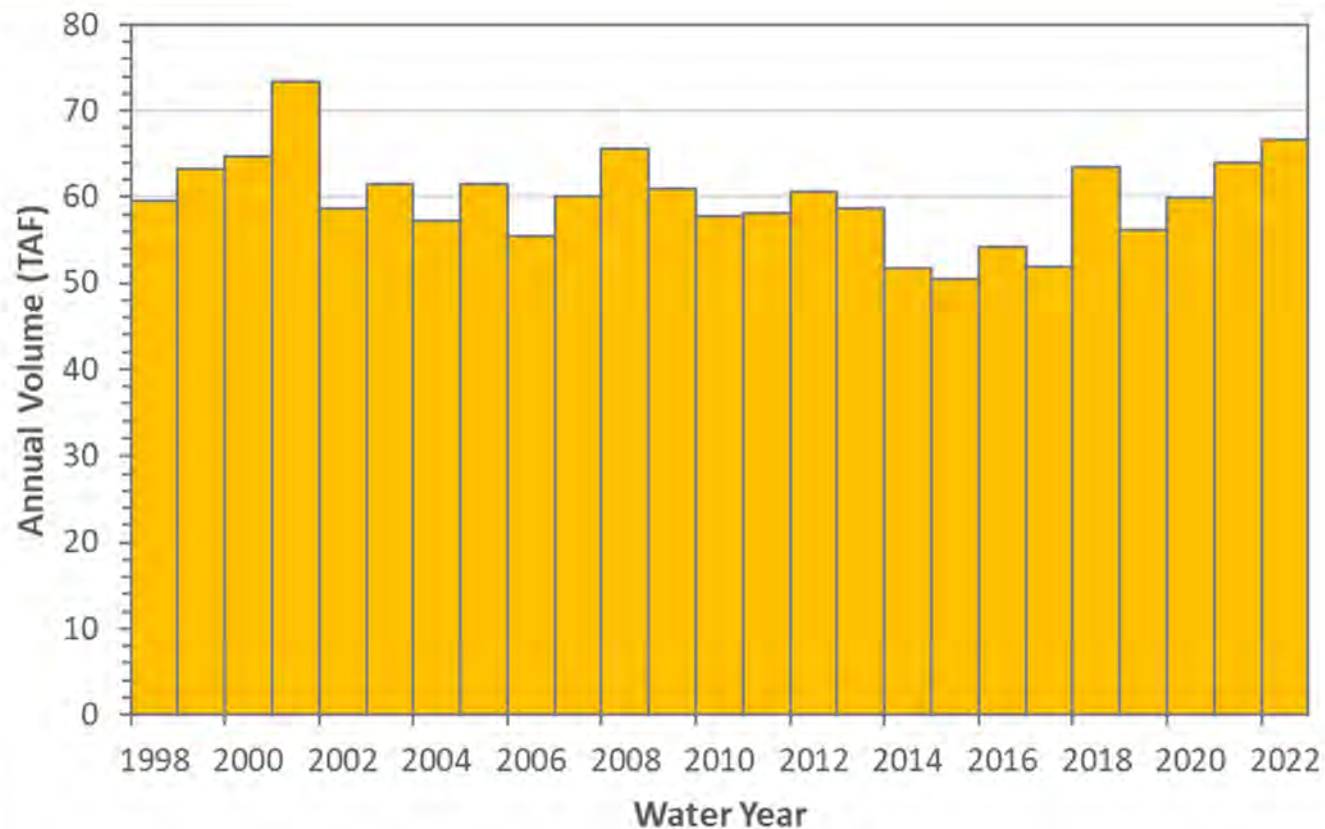


Fall 2022 Depth to GW Contour Map



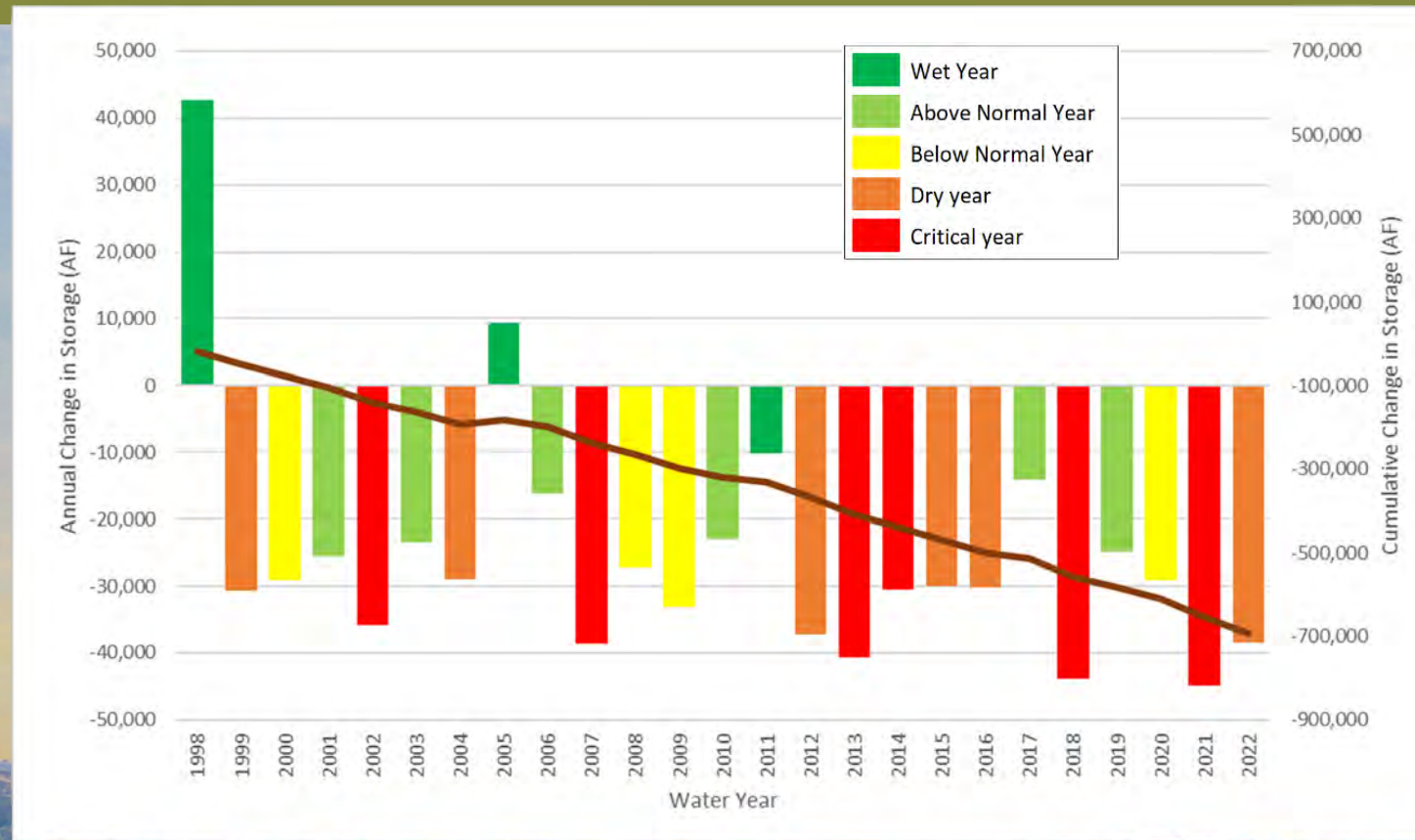
Estimated Groundwater Extraction

- Figure has been updated to include 2022
- Estimated groundwater extractions
 - 2021: 64,000 AF
 - 2022: 66,700 AF



Change in Groundwater Storage

- Figure has been updated to include 2021
- Estimated change in storage
 - 2021: -44,800 AF
 - 2022: -38,500 AF





**Cuyama Basin
Groundwater Sustainability Plan—
Annual Report for 2021-2022 Water Year**

Prepared by:



March 2023

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Table of Contents

Executive Summary	ES-1
ES-1 Introduction	ES-1
ES-2 Groundwater Levels	ES-2
ES-3 Water Use	ES-3
ES-4 Change in Groundwater Storage	ES-4
ES-5 Groundwater Quality	ES-4
ES-6 Land Subsidence	ES-5
ES-7 Plan Implementation	ES-5
Section 1. Introduction	1-1
1.1 Introduction and Agency Information	1-1
1.1.1 Management Structure	1-1
1.1.2 Legal Authority.....	1-2
1.1.3 Groundwater Sustainability Plan	1-2
1.2 Plan Area	1-3
Section 2. Groundwater Levels	2-7
2.1 Groundwater Levels Representative Monitoring Network	2-7
2.2 Groundwater Contour Maps	2-9
2.3 Hydrographs	2-15
Section 3. Water Use	3-1
3.1 Groundwater Extraction.....	3-1
3.2 Surface Water Use.....	3-2
3.3 Total Water Use	3-2
Section 4. Change in Groundwater Storage	4-1
Section 5. Groundwater Quality	5-1
Section 6. Land Subsidence	6-1
Section 7. Plan Implementation	7-1
7.1 Progress Toward Achieving Interim Milestones	7-1
7.2 Funding to Support GSP Implementation	7-3
7.3 Stakeholder Outreach Activities in Support of GSP Implementation	7-4
7.4 Progress on Implementation of GSP Projects	7-4
7.4.1 Project 1: Flood and Stormwater Capture	7-5
7.4.2 Project 2: Precipitation Enhancement	7-6
7.4.3 Project 3: Water Supply Transfers or Exchanges.....	7-6

7.4.4	Project 4: Improve Reliability of Water Supplies for Local Communities	7-6
7.5	Management Actions	7-6
7.5.1	Management Action 1: Basin-Wide Economic Analysis	7-6
7.5.2	Management Action 2: Pumping Allocations in Central Basin Management Area	7-6
7.6	Adaptive Management	7-6
7.7	Progress Toward Implementation of Monitoring Networks.....	7-7
7.7.1	Groundwater Levels Monitoring Network	7-7
7.7.2	Surface Water Monitoring Network	7-7
Section 8.	References	8-1

Tables

Table 2-4:	Groundwater Trends by Threshold Regions.....	2-15
Table 4-1:	Groundwater Budget Estimates for Water Years 2020, 2021, and 2022	4-1
Table 5-1:	Groundwater Quality Monitoring Network Well List and TDS, Nitrate, and Arsenic Results	5-3
Table 7-1:	Measured Depths to Groundwater Compared to 2025 Interim Milestones	7-2
Table 7-2:	Summary of Projects and Management Actions included in the GSP	7-5

Figures

Figure ES-1:	GSP Plan Area	1
Figure ES-2:	Cuyama Basin Depth to Water Contour Map (Fall 2022)	2
Figure ES-3:	Annual Groundwater Extraction in the Cuyama Basin in Water Years 1998-2021..	3
Figure ES-4:	Change in Groundwater Storage by Year, Water Year Type, and Cumulative Water Volume	4
Figure 1-1:	Cuyama Valley Groundwater Sustainability Plan Area.....	1-4
Figure 1-2:	Cuyama Valley Groundwater Sustainability Agency Boundary.....	1-5
Figure 2-1:	Groundwater Level Monitoring Network	2-8
Figure 2-2:	Cuyama Basin Spring 2022 Groundwater Elevation Contours	2-11
Figure 2-3:	Cuyama Basin Spring 2022 Depth to Groundwater Contours	2-12
Figure 2-4:	Cuyama Basin Fall 2022 Groundwater Elevation Contours.....	2-13
Figure 2-5:	Cuyama Basin Fall 2022 Depth to Groundwater Contours.....	2-14
Figure 2-6:	Cuyama Basin Threshold Regions.....	2-16
Figure 2-7:	Example Well Hydrographs – Northwestern Region	2-17

Figure 2-8: Example Well Hydrographs – Western Region	2-18
Figure 2-9: Example Well Hydrographs – Central Region	2-19
Figure 2-10: Example Well Hydrographs – Central Region	2-20
Figure 2-11: Example Well Hydrographs – Eastern Region	2-21
Figure 2-12: Example Well Hydrographs – Southeastern Region	2-22
Figure 3-1: Annual Groundwater Extraction in the Cuyama Basin in Water Years 1998-20223-2	
Figure 3-2: Locations of Groundwater Use in the Cuyama Basin	3-3
Figure 4-1: Estimated Groundwater Level Storage Change Between Fall 2021 and Fall 2022 4-2	
Figure 4-2: Change in Groundwater Storage by Year, Water Year Type, and Cumulative Water Volume	4-3
Figure 5-1: Groundwater Quality Representative Monitoring Network.....	5-7
Figure 5-2: Cuyama Basin 2021 Groundwater Quality Measurements – TDS.....	5-8
Figure 5-3: Cuyama Basin 2022 Groundwater Quality Measurements – Nitrate.....	5-9
Figure 5-4: Cuyama Basin 2022 Groundwater Quality Measurements – Arsenic	5-10
Figure 6-1: Subsidence Monitoring Data	6-1

Appendices

Appendix A: Updated Hydrographs for Representative Wells

Abbreviations and Acronyms

AF	acre-feet
CBGSA	Cuyama Basin Groundwater Sustainability Agency
CBWD	Cuyama Basin Water District
CBWRM	Cuyama Basin Water Resources Model
CCSD	Cuyama Community Services District
DMS	Data Management System
DWR	California Department of Water Resources
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
SAC	Standing Advisory Committee
SBCWA	Santa Barbara County Water Agency
SGMA	Sustainability Groundwater Management Act
SR	State Route
TSS	Technical Support Services
USGS	United States Geological Survey

Executive Summary

§356.2 (a)	General information, including an executive summary and a location map depicting the basin covered by the report.
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ES-1 Introduction

In 2014, the California legislature enacted the Sustainable Groundwater Management Act (SGMA) in response to continued overdraft of California’s groundwater resources. The Cuyama Groundwater Basin (Basin) is one of 21 basins and subbasins identified by the California Department of Water Resources (DWR) as being in a state of critical overdraft. SGMA requires that a Groundwater Sustainability Plan (GSP) be prepared to address the measures necessary to attain sustainable conditions in the Cuyama Groundwater Basin. Within the framework of SGMA, sustainability is generally defined as the conditions that result in long-term reliability of groundwater supply and the absence of undesirable results.

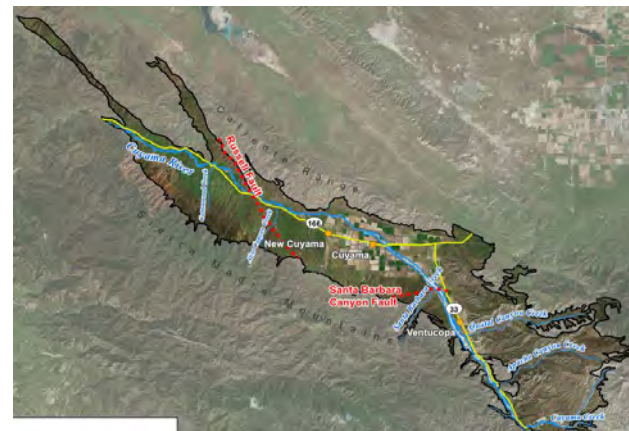
In response to SGMA, the Cuyama Basin Groundwater Sustainability Agency (CBGSA) was formed in 2017. The CBGSA is a joint-powers agency that is comprised of Kern, Santa Barbara, San Luis Obispo and Ventura Counties, plus the Cuyama Community Services District and the Cuyama Basin Water District. The CBGSA is governed by an 11-member Board of Directors, with one representative from Kern, San Luis Obispo and Ventura counties, two representatives from Santa Barbara County, one member from the Cuyama Community Services District, and five members from the Cuyama Basin Water District.

The Draft Cuyama Basin GSP was adopted on December 4, 2019 by the CBGSA and submitted to DWR on January 28, 2020. SGMA requires that the CBGSA develop a GSP that achieves groundwater sustainability in the Basin by the year 2040.

On January 21, 2021, DWR determined that the GSP was “incomplete” and recommended CBGSA to amend the GSP to address four corrective actions. To address these corrective actions, CBGSA developed supplemental sections to the GSP and resubmitted to DWR on July 18, 2022. On March 2, 2023, DWR announced that the Revised GSP had been Approved.

The jurisdictional area of the CBGSA is defined by DWR’s Bulletin 118, 2013, the 2016 Interim Update, and the latest 2020 update. The Cuyama Groundwater Basin generally underlies the Cuyama Valley, as shown in **Figure ES-1**.

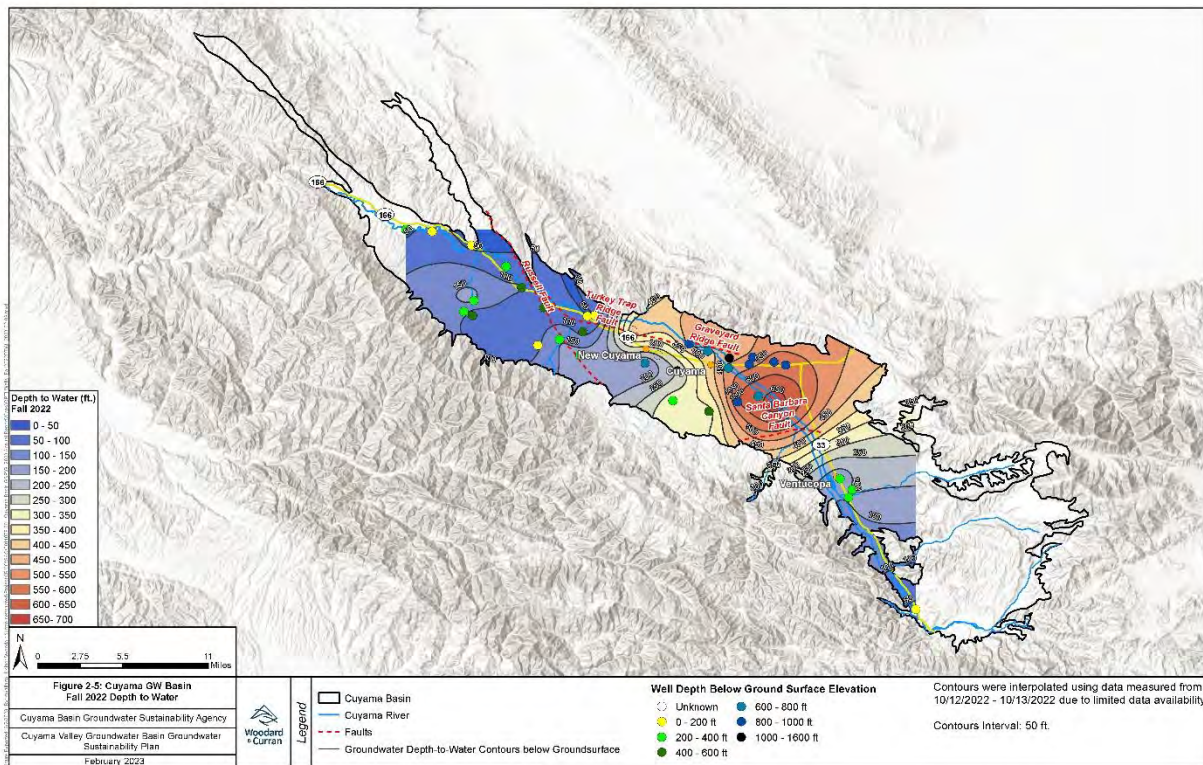
Figure ES-1: GSP Plan Area



ES-2 Groundwater Levels

The Annual Report for the 2022 water year includes groundwater contours for Spring and Fall of 2022, and updated hydrographs for the groundwater level monitoring network identified in the Cuyama Basin GSP. The Cuyama Basin consists of a single principal aquifer, and water levels in Basin monitoring wells are considered representative of conditions in that aquifer. Groundwater levels in some portions of the Basin have been declining for many years while other areas of the Basin have experienced no significant change in groundwater levels. Groundwater levels vary across the Basin, with the highest depth to water occurring in the central portion of the Basin (**Figure ES-2**). The western and eastern portions of the Basin have generally shallower depth to water. Generally, depth to water and groundwater elevation in 2022 have changed a small amount in the central basin compared to 2021 levels with little change in other parts of the basin.

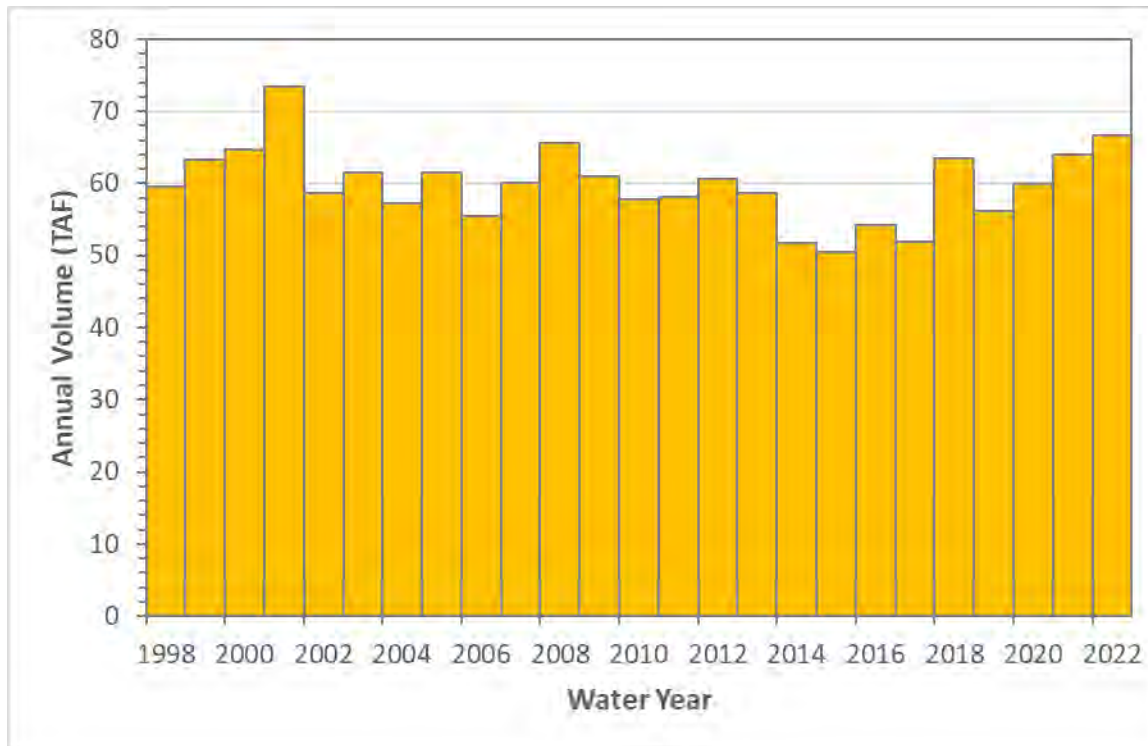
Figure ES-2: Cuyama Basin Depth to Water Contour Map (Fall 2022)



ES-3 Water Use

The Cuyama Groundwater Basin is supplied entirely by groundwater, with virtually no surface water use. Groundwater pumping in the Basin is estimated to have been about 66,700 AF in 2022. This reflects an increase of about 2,700 AF as compared to 2021. (See **Figure ES-3**).

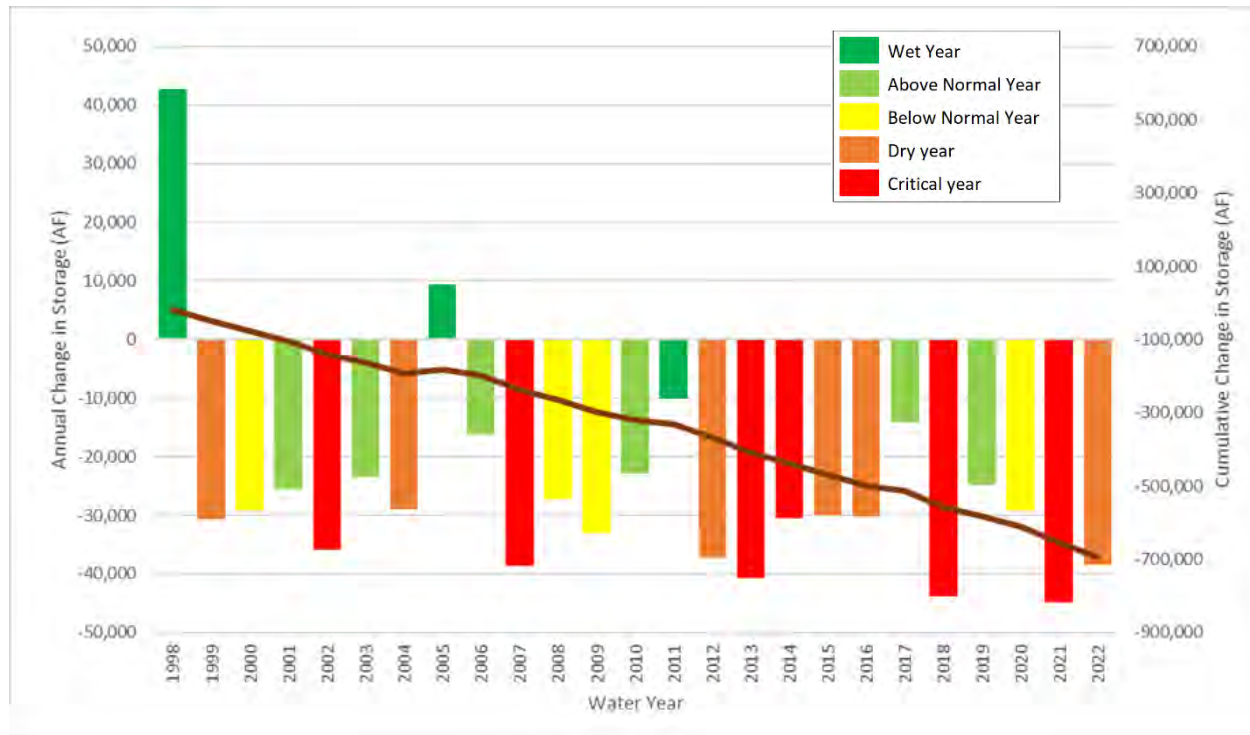
Figure ES-3: Annual Groundwater Extraction in the Cuyama Basin in Water Years 1998-2021



ES-4 Change in Groundwater Storage

It is estimated that there was a reduction in Basin groundwater storage of 38,500 AF in 2022. This continues the long-term trend in groundwater storage reduction in the Basin since 1999. **Figure ES-4** shows the historical change in groundwater storage by year, water year type,¹ and cumulative water volume in each year for the period from 1998 through 2022.

Figure ES-4: Change in Groundwater Storage by Year, Water Year Type, and Cumulative Water Volume



ES-5 Groundwater Quality

Only 28% of monitoring wells were sampled for total dissolved solids (TDS) in 2022 due to limitations in gaining access to well sites. Approximately 50% of measured wells exceeded their measurable objective and 22% exceeded their minimum threshold for TDS. However, due to questions about the quality of the data, the CBGSA considers it premature to use this data to evaluate the performance of groundwater quality at this time. Approximately 17% of monitoring wells were also sampled for nitrate, and 11% of monitoring wells were sampled for arsenic during the water year. The CBGSA intends to reevaluate the groundwater quality representative monitoring network going forward.

¹ Water year types are customized for the Basin watershed based on annual precipitation as follows:

- Wet year = more than 19.6 inches
- Above normal year = 13.1 to 19.6 inches
- Below normal year = 9.85 to 13.1 inches
- Dry year = 6.6 to 9.85 inches
- Critical year = less than 6.6 inches.

ES-6 Land Subsidence

Observed subsidence rates in the Basin are well below the minimum threshold, and thus undesirable results for subsidence are not occurring in the Basin.

ES-7 Plan Implementation

The following plan implementation activities were accomplished in 2022:

- Approval of a groundwater extraction fee and supplemental fee, which is expected to generate revenue to cover the administrative costs of the CBGSA for the period from January 1, 2023, through December 31, 2023.
- A total of 13 public meetings were conducted at which GSP development and implementation was discussed.
- The Cuyama Basin Groundwater Sustainability Agency (CBGSA) Board continued implementation of the groundwater levels monitoring network, includes quarterly monitoring at each monitoring well.
- The CBGSA was awarded a COD SGMA Implementation Grant for \$7.6 million in funding for implementation activities over the next 3 years.
- The CBGSA and Cuyama Basin Water District (CBWD) continued implementation of management actions in the Central management area.

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Section 1. Introduction

§356.2 (a)	General information, including an executive summary and a location map depicting the basin covered by the report.
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1.1 Introduction and Agency Information

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

This Annual Report meets regulatory requirements established by the California Department of Water Resources (DWR) as provided in Article 7 of the California Code of Regulations, Title 23, Division 2, Chapter 1.5, Subchapter 2.

The CBGSA was created by a Joint Exercise of Powers Agreement among the following agencies:

- Counties of Kern, San Luis Obispo, and Ventura
- Santa Barbara County Water Agency (SBCWA), representing the County of Santa Barbara
- Cuyama Basin Water District (CBWD)
- Cuyama Community Services District (CCSD)

The CBGSA Board of Directors includes the following individuals:

- Derek Yurosek – Chairperson, CBWD
- Vacant – Vice Chairperson, CCDS
- Byron Albano – CBWD
- Cory Bantilan – SBCWA
- Jimmy Paulding – County of San Luis Obispo
- Zack Scrivner – County of Kern
- Arne Anselm – County of Ventura
- Rick Burns – CBWD
- Matt Vickery – CBWD
- Das Williams – SBCWA
- Jane Wooster – CBWD

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

1.1.1 Management Structure

The CBGSA is governed by an 11-member Board of Directors that meets bi-monthly (i.e. six-times a year). A General Manager manages day-to-day operations of the CBWD, while Board Members vote on actions of the CBGSA; the Board is the CBGSA’s decision-making body. The Board also formed a Standing Advisory Committee comprised of nine stakeholders to provide recommendations to the Board on key technical issues which also meets regularly.

1.1.2 Legal Authority

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

1.1.3 Groundwater Sustainability Plan

The CBGSA Board of Directors approved the first iteration of the Cuyama Groundwater Sustainability Plan (GSP) on December 4, 2019. The GSP was submitted to DWR for approval on January 28, 2020.

On January 21, 2021, DWR determined that the GSP was “incomplete” and recommended CBGSA amend the GSP to address the following four corrective actions:

- Provide justification for, and effects associated with, the sustainable management criteria;
- Use of groundwater levels as a proxy for depletion of interconnected surface water;
- Further address degraded water quality; and
- Provide explanation for how overdraft will be mitigated in the basin.

To address these corrective actions, the CBGSA developed the following supplement sections to the GSP and resubmitted to DWR on July 18, 2022:

- Supplemental Section 2.2.7: Basin Settings, Groundwater Conditions, Groundwater Quality performed additional data collection efforts for nitrate and arsenic measurements.
- Supplemental Section 3.3: Undesirable Results, Evaluation of the Presence of Undesirable Results provided additional information regarding the rationale for the criteria used in the GSP to define the point at which Basin conditions cause significant and unreasonable effects to occur.
- Supplemental Section 4.10: Monitoring Networks, Depletions of Interconnected Surface Water Monitoring Network identifies a subset of groundwater level representative monitoring wells for use in ISW monitoring and provides a rationale for their selection and adequate data collection and monitoring for ISWs.
- Supplemental Section 5.2: Minimum Thresholds, Measurable Objectives, and Interim Milestones, Chronic Lowering of Groundwater Levels performed two technical analyses to provide additional information related to the effects of the GSP’s groundwater levels minimum thresholds and undesirable results on well infrastructure and on environmental uses of groundwater.
- Supplemental Section 5.5: Minimum Thresholds, Measurable Objectives, and Interim Milestones, Degraded Water Quality provides information on why groundwater management is unlikely to affect nitrate and arsenic concentrations.
- Supplemental Section 7.2: Projects and Management Actions, Management Areas provide additional information regarding the Ventucopa management area and the northwestern region of the Basin.
- Supplemental Section 7.6: Projects and Management Actions, Adaptive Management explains the circumstances of when adaptative management strategies may be also triggered for other reasons.

The resubmitted and updated GSP is available for viewing online at <http://cuyamabasin.org/>. On March 2, 2023, DWR announced that the Revised GSP had been Approved.

1.2 Plan Area

Figure 1-1 shows the Basin and its key geographic features. The Basin encompasses an area of about 378 square miles² and includes the communities of New Cuyama and Cuyama, which are located along State Route (SR) 166, and Ventucopa, which is located along SR 33. The Basin encompasses an approximately 55-mile stretch of the Cuyama River, which runs through the Basin for much of its extent before leaving the Basin to the northwest and flowing toward the Pacific Ocean. The Basin also encompasses stretches of Wells Creek in its north-central area, Santa Barbara Creek in the south-central area, the Quatal Canyon drainage and Cuyama Creek in the southern area of the Basin. Most of the agriculture in the Basin occurs in the central portion east of New Cuyama, and along the Cuyama River near SR 33 through Ventucopa.

Figure 1-2 shows the CBGSA boundary. The CBGSA boundary covers all of the Cuyama Valley Groundwater Basin.

² The 2003 version of Bulletin 118 section on the Cuyama Valley Groundwater Basin incorrectly stated that the Basin area is 230 square miles. The estimate of 378 square miles shown here and in the GSP is consistent with the mapping shown on DWR's GSA Map Viewer.

Figure 1-1: Cuyama Valley Groundwater Sustainability Plan Area

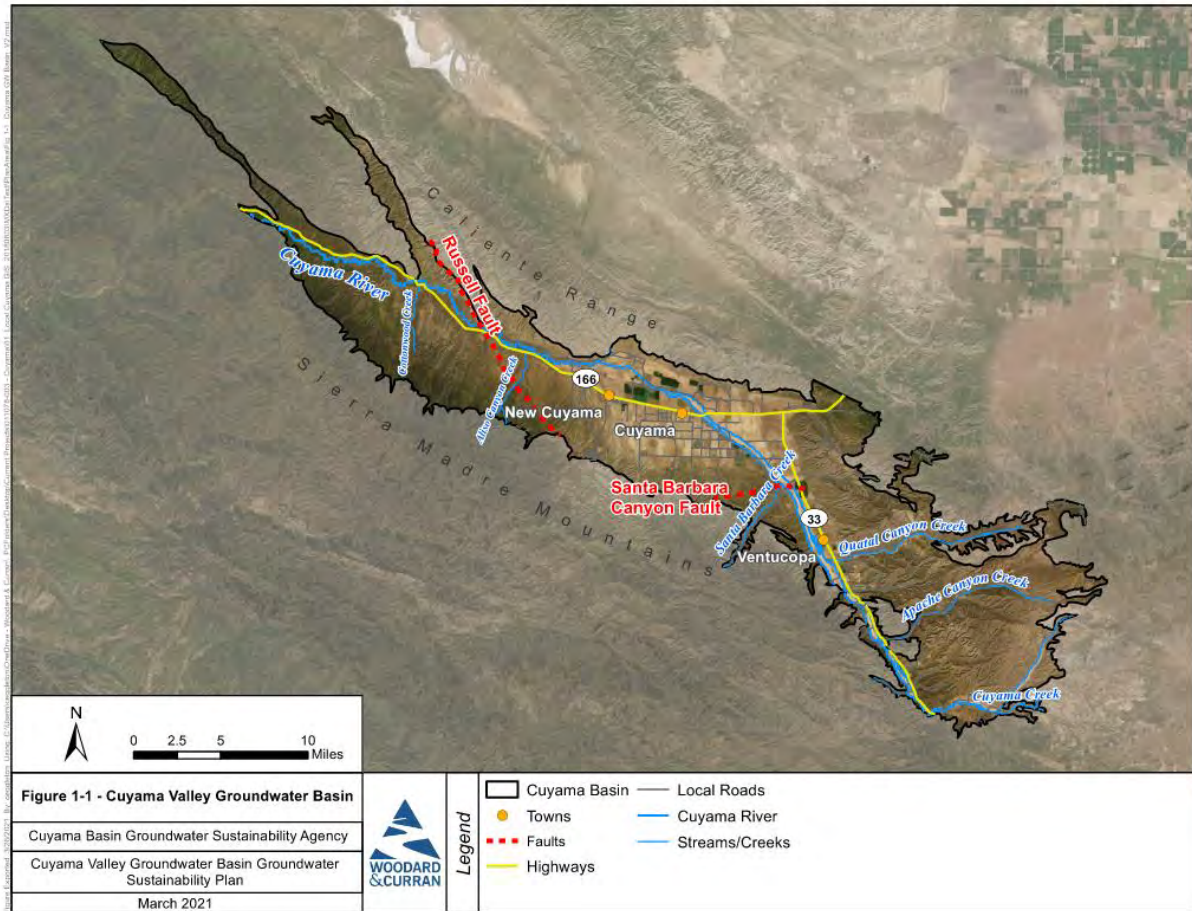
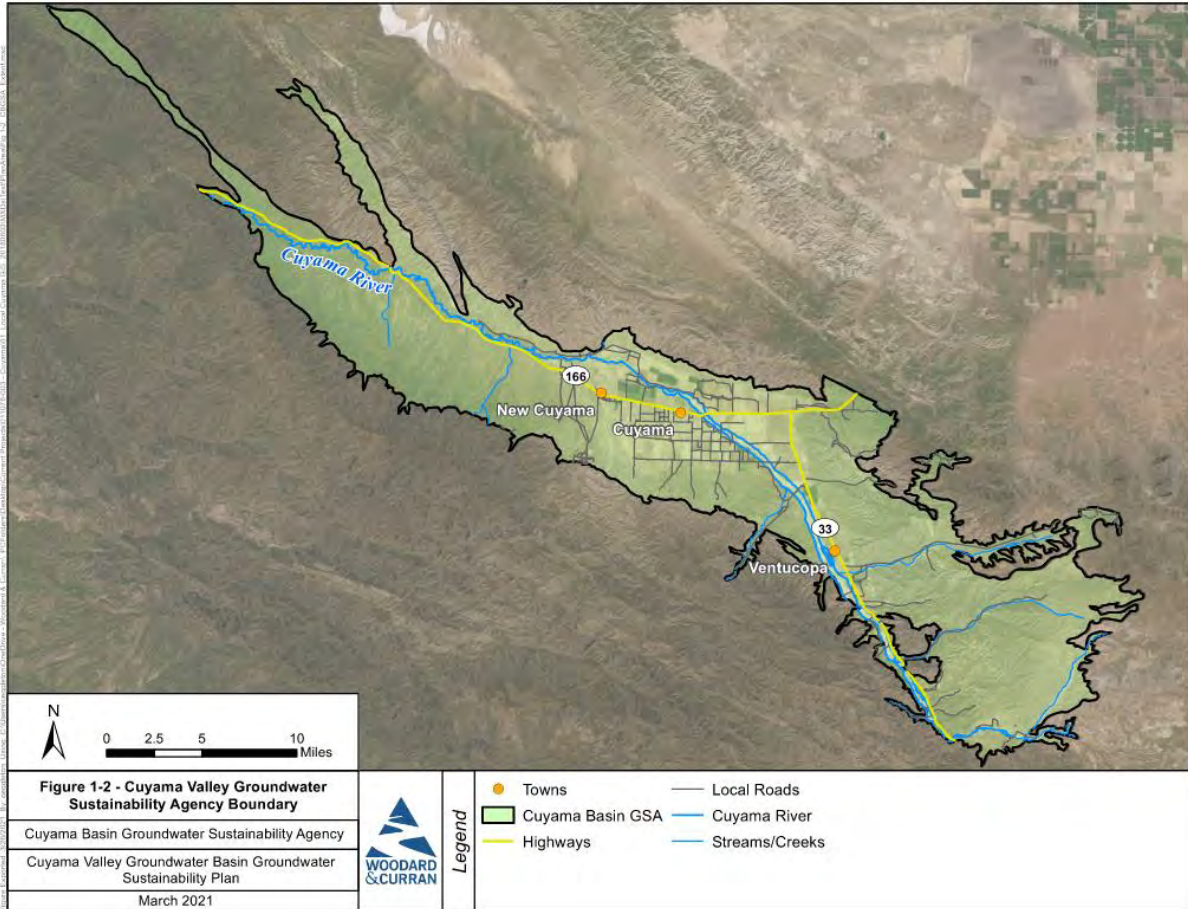


Figure 1-2: Cuyama Valley Groundwater Sustainability Agency Boundary



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Section 2. Groundwater Levels

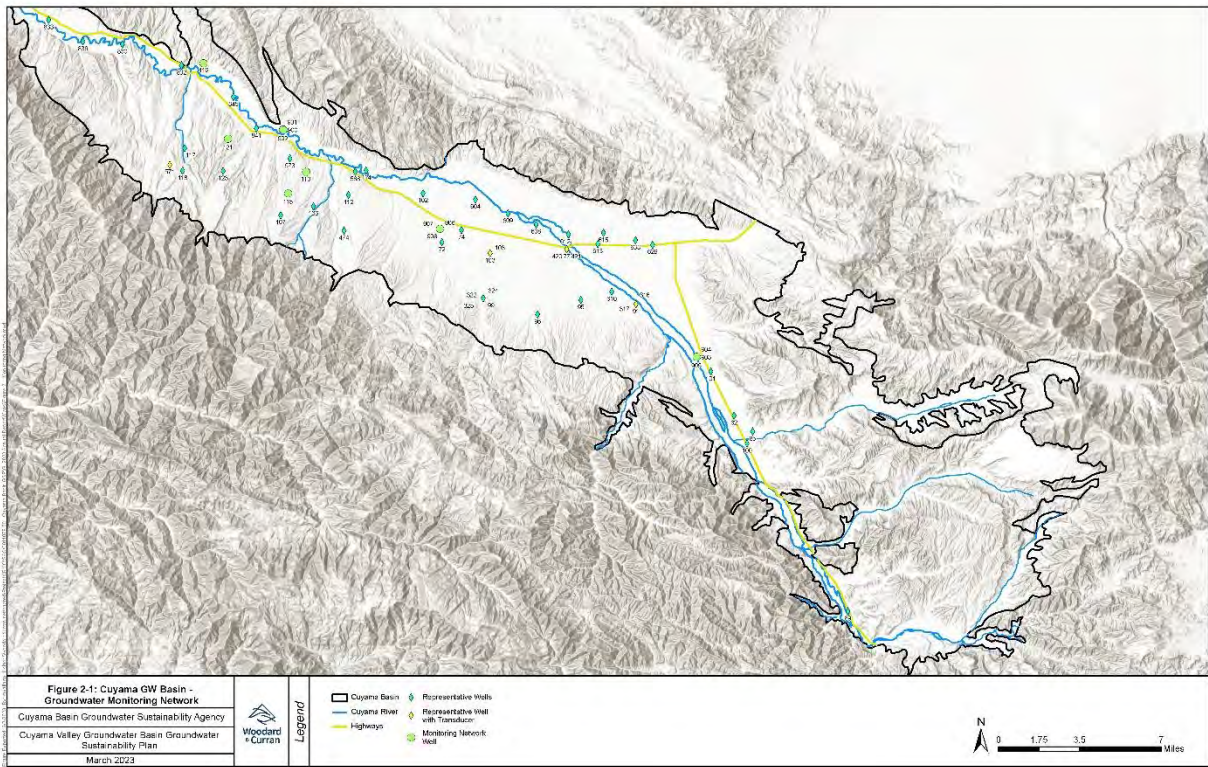
§356.2 (b)(1)	Groundwater elevation data from monitoring wells identified in the monitoring network shall be analyzed and displayed as follows:
§356.2 (b)(1)(A)	Groundwater elevation contour maps for each principal aquifer in the basin illustrating, at a minimum, the seasonal high and seasonal low groundwater conditions.
§356.2 (b)(1)(B)	Hydrographs of groundwater elevations and water year type using historical data to the greatest extent available, including from January 1, 2015, to current reporting year.

2.1 Groundwater Levels Representative Monitoring Network

As required by DWR’s SGMA regulations, a monitoring network and representative monitoring network were identified in the Cuyama Basin GSP utilizing existing wells. The current groundwater levels representative monitoring network that was approved by the CBGSA Board is shown on **Figure 2-1**: . The Cuyama Basin consists of a single principal aquifer, and water levels in monitoring network wells are considered representative of conditions in that aquifer. The objective of the representative monitoring network is to detect undesirable results in the Basin related to groundwater levels using the sustainability thresholds described in the GSP. Other related objectives of the monitoring network are defined via the SGMA regulations as follows:

- Demonstrate progress toward achieving measurable objectives described in the GSP.
- Monitor impacts to the beneficial uses or users of groundwater.
- Monitor changes in groundwater conditions relative to measurable objectives and minimum thresholds.
- Quantify annual changes in water budget components.
- Monitoring that has occurred on the groundwater level monitoring network since the development of the Cuyama Basin GSP is included in this Annual Report. Collected groundwater level data has been analyzed to prepare contour maps and updated hydrographs, which are presented in the following sections.

Figure 2-1: Groundwater Level Monitoring Network



2.2 Groundwater Contour Maps

The submitted GSP included contour maps up through the spring of 2018. The previous Annual Report included contour maps for spring and fall of 2019 through 2021. For this Annual Report, analysis was conducted to incorporate data through October 2022 that was collected by the CBGSA and local landowners. Data was then added to the Data Management System (DMS) and processed to analyze the current groundwater conditions by creating seasonal groundwater contour/raster maps for the spring and fall of 2022 and hydrographs of Basin monitoring wells.

A contour map shows changes in groundwater elevations by interpolating groundwater elevations between monitoring sites. The elevations are shown on the map with the use of a contour line, which indicates that at all locations that line is drawn, the line represents groundwater at the elevation indicated. There are two versions of contour maps used in this section: one that shows the elevation of groundwater above mean sea level, which is useful because it can be used to identify the horizontal gradients of groundwater, and one that shows contours of depth to water, the distance from the ground surface to groundwater, which is useful because it can identify areas of shallow or deep groundwater.

Analysts prepared groundwater contour maps under the supervision of a Certified Hydrogeologist in the State of California for both groundwater elevation and depth to water for both spring and fall of 2022.

Each contour map is contoured at a 50-foot contour interval, with contour elevations indicated in white numeric label. The groundwater contours were also based on assumptions in order to accumulate enough data points to generate useful contour maps. Assumptions are as follows:

- Measurements from wells of different depths are representative of conditions at that location and there are no significant known vertical gradients. Due to the limited spatial amount of monitoring points, data from wells of a wide variety of depths were used to generate the contours.
- Measurements collected by the CBGSA monitoring program in January-April 2022 were used to develop the spring contours and from October 2022 to develop the fall contours. It is assumed that these measurements are representative of conditions during the spring or fall season, and conditions have not changed substantially from the time of the earliest measurement used to the latest.

These assumptions generate contours that are useful at the planning level for understanding groundwater levels across the Basin, and to identify general horizontal gradients and regional groundwater level trends. The contour maps are not indicative of exact values across the Basin because groundwater contour maps approximate conditions between measurement points, and do not account for topography. Therefore, a well on a ridge may be farther from groundwater than one in a canyon, and the contour map will not reflect that level of detail.

Figure 2-2 shows groundwater elevation contours for Spring of 2022 Based on data that was collected by local landowners and the CBGSA. The contours developed using the available data show two general trends in the Basin. First, in most of the Basin, groundwater generally reflects the topography of the Basin. For example, groundwater elevations decrease moving from the highest portions of the Valley in the Southeastern portion of the Basin towards the central portion, and groundwater also travels down slope in a northern direction off of the southern foothills towards the Cuyama River. The second trend and potential exception to the first, is the central portion of the Basin where there is a clear depression and deviation from the topography (more clearly seen in the following figure). Groundwater levels near the town of Cuyama and slightly towards the east are much deeper and do not match the surface topography. There is also a greater decline in groundwater elevations between the Ventucopa area and the central portion of the Basin.

Figure 2-3 shows the depth to groundwater contours for Spring 2022 and more clearly shows a depression in the central portion of the Basin greater than 600 ft below ground surface. Groundwater levels then increase toward the west reaching depths above 100 ft in the western portion of the Basin. These levels align with trends seen in previous contour maps provided in previous Annual Reports.

Figure 2-4 shows the groundwater elevation contours for Fall of 2022. Groundwater elevations show a depression in the central portion of the Basin and a steep gradient between the central portion of the Basin and the Ventucopa area, which is consistent with contour maps for 2015 through 2021 conditions and previous Annual Reports. Contours indicate a groundwater flow down the Basin from east to west, with a decrease in gradient through the central portion of the Basin.

Figure 2-5 shows the depth to groundwater contours for the fall of 2022. Depth to water contours indicate a depression in the central portion of the Basin, and a steep gradient between the central portion of the Basin and the Ventucopa area, which is consistent with contour maps for 2015 through 2021 conditions and previous Annual Reports.

Figure 2-2: Cuyama Basin Spring 2022 Groundwater Elevation Contours

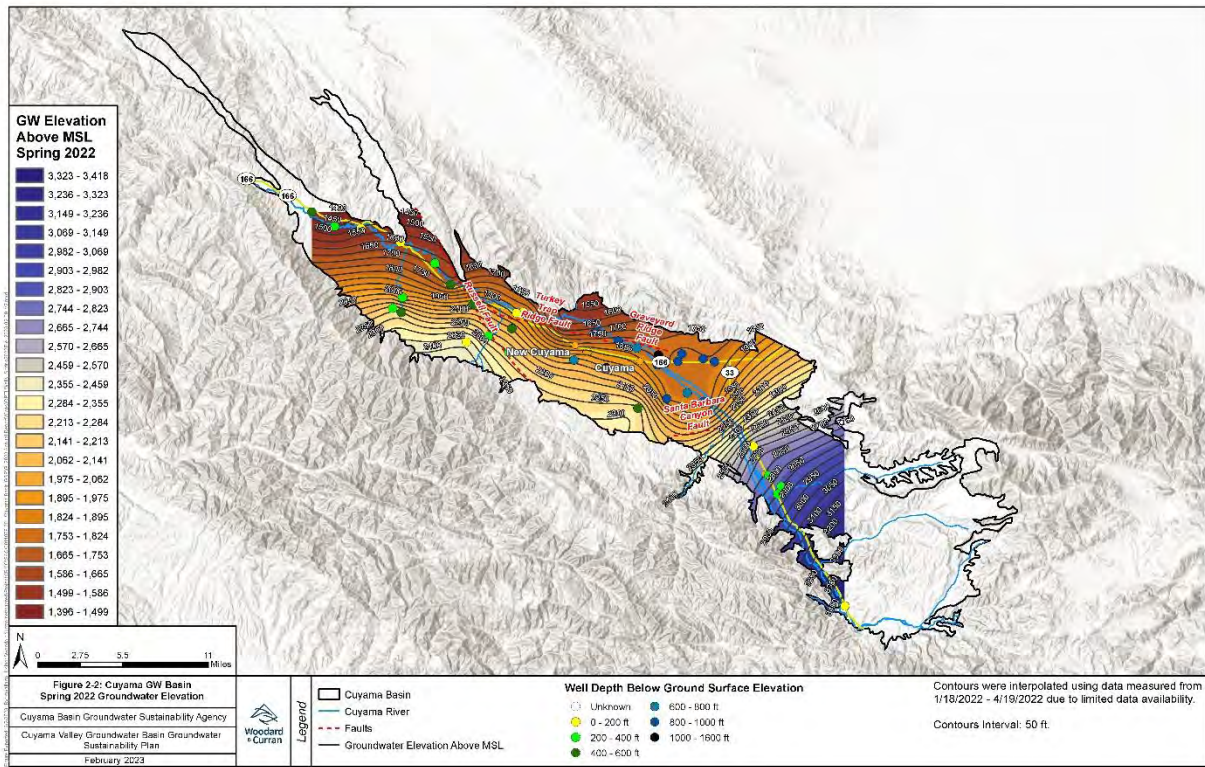


Figure 2-3: Cuyama Basin Spring 2022 Depth to Groundwater Contours

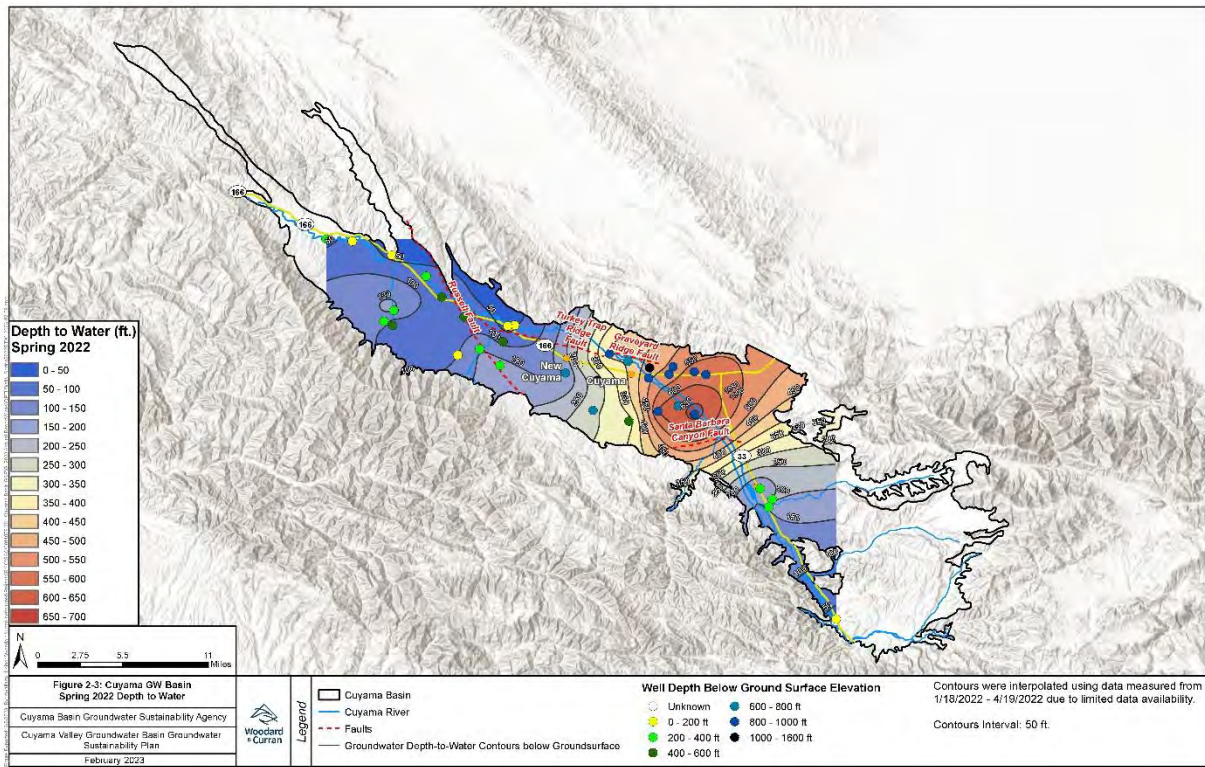


Figure 2-4: Cuyama Basin Fall 2022 Groundwater Elevation Contours

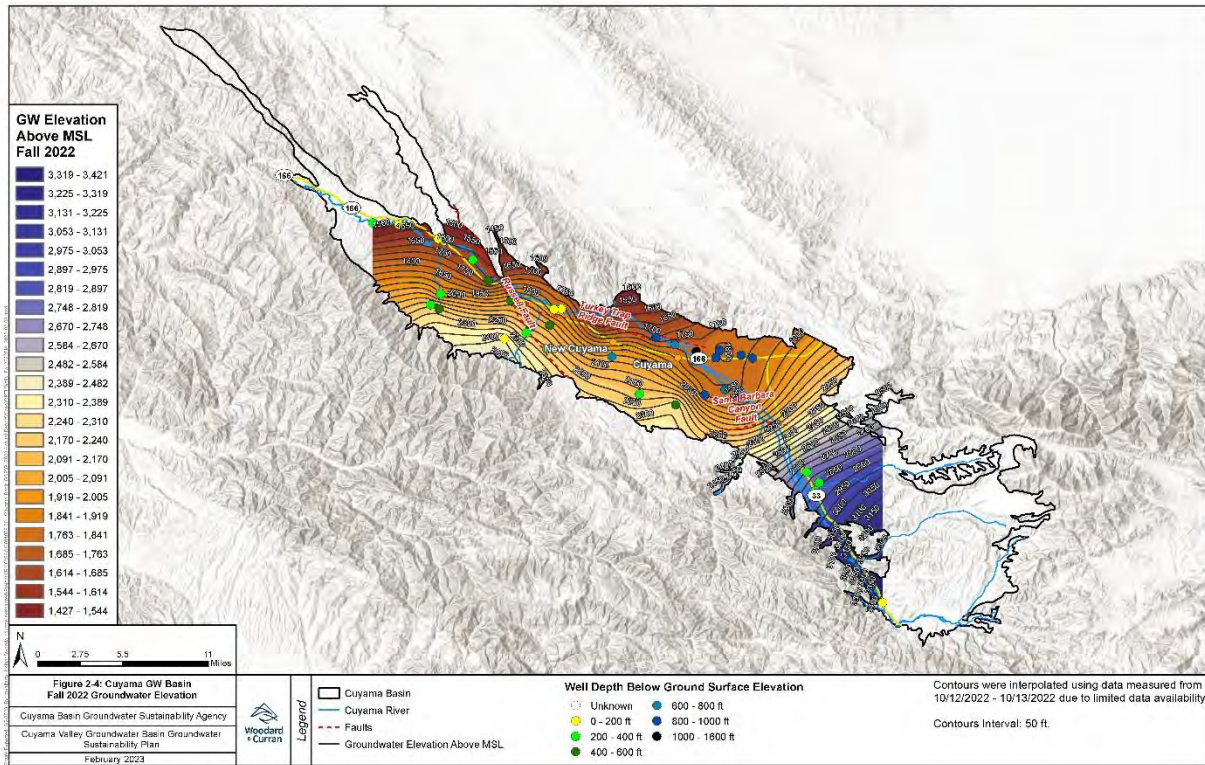
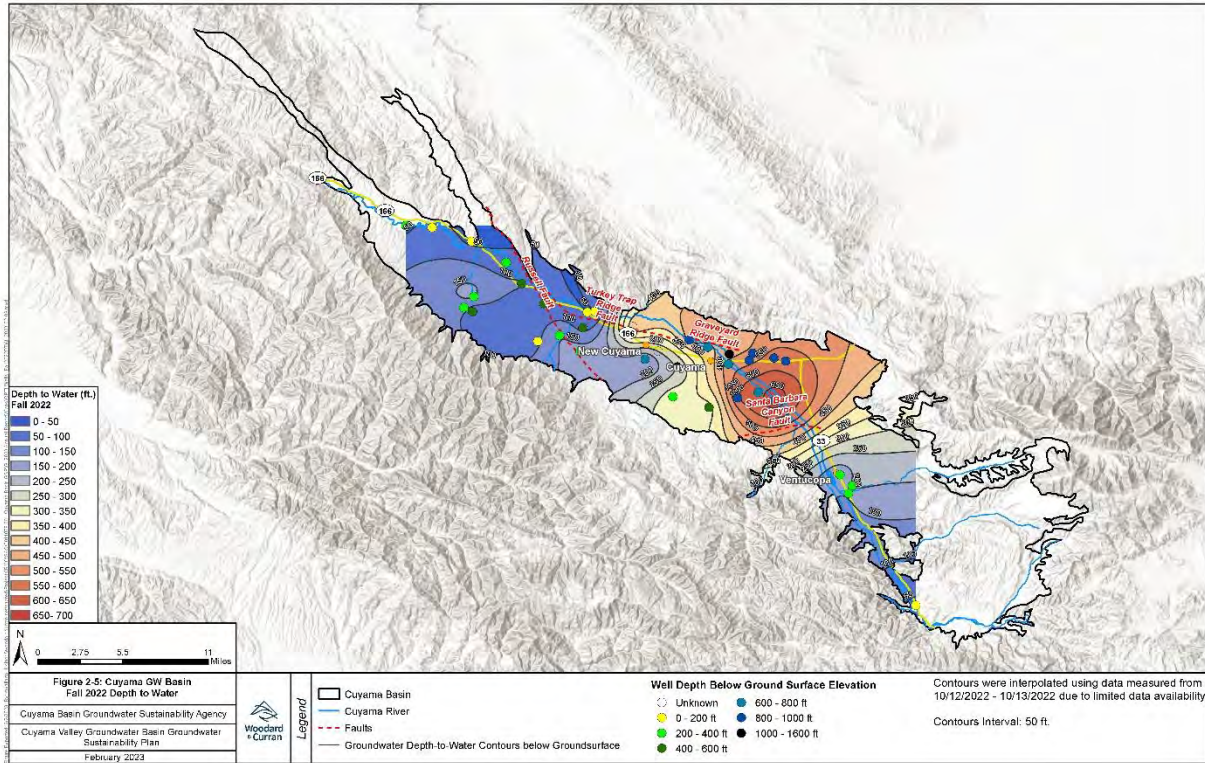


Figure 2-5: Cuyama Basin Fall 2022 Depth to Groundwater Contours



2.3 Hydrographs

Groundwater hydrographs were developed for each representative monitoring network well to provide indicators of groundwater trends throughout the Basin. Measurements from each well with historical monitoring data were compiled into one hydrograph for each well. A selection of wells from each threshold region are provided below, while hydrographs for every groundwater level representative network well are presented in Appendix A.

In many cases, changes in historical groundwater conditions at particular wells have been influenced by climactic patterns in the Basin. Historical precipitation is highly variable, with several relatively wet years and some multi-year droughts.

Groundwater conditions generally vary in different parts of the Basin. To provide a comparative analysis general groundwater trends are provided in **Table 2-1** and are accompanied by hydrographs for an example well in each threshold regions. A map of threshold regions is provided in **Figure 2-6**, which also shows the locations of example wells used in each threshold region.

Table 2-1: Groundwater Trends by Threshold Regions

Threshold Region	Groundwater Trend	Example Well(s)
Northwestern Region	A downward trend influenced by seasonal fluctuations. This is expected as recent changes in land use have begun to pump groundwater. Levels are still approximately 100 ft above the Measurable Objective.	841 (Figure 2-7)
Western Region	Levels in this region have either are slightly above the Measurable Objective or slightly below the Measurable Objective.	571 (Figure 2-8)
Central Region	Levels have historically had a steady downward trend with some seasonal fluctuations. This pattern remains with trends continuing downward and, in some cases, levels surpassing minimum thresholds. There is some indication of recovery in some wells, but more time is needed to determined if this is due to pumping pattern changes or is a broader trend for this region.	74 and 91 (Figure 2-9 & Figure 2-10)
Eastern Region	This region has seen an overall decline over several decades. Recent groundwater trends appear to be approaching Measurable Objective	62 (Figure 2-11)
Southeastern Region	Levels in this relatively small region decreased slightly during the last drought but have recovered over the past few years and are well above the Measurable Objective.	89 (Figure 2-12)

Figure 2-6: Cuyama Basin Threshold Regions

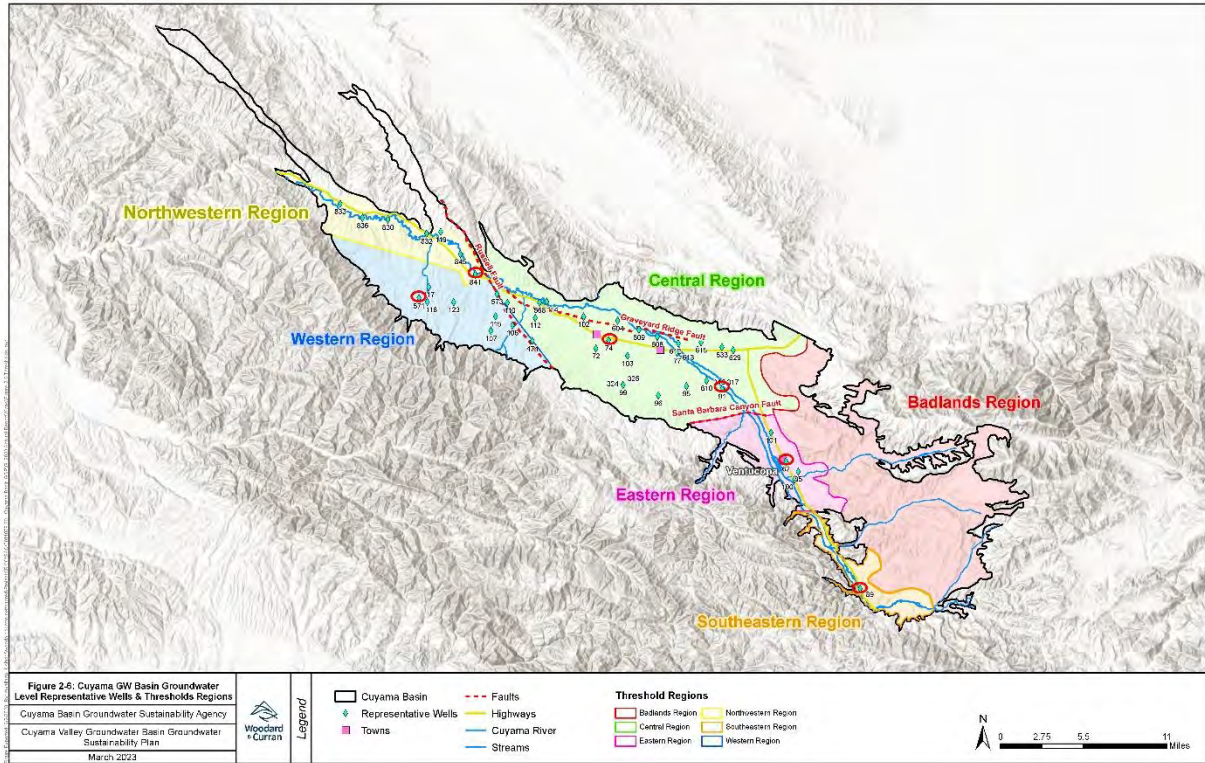


Figure 2-7: Example Well Hydrographs – Northwestern Region

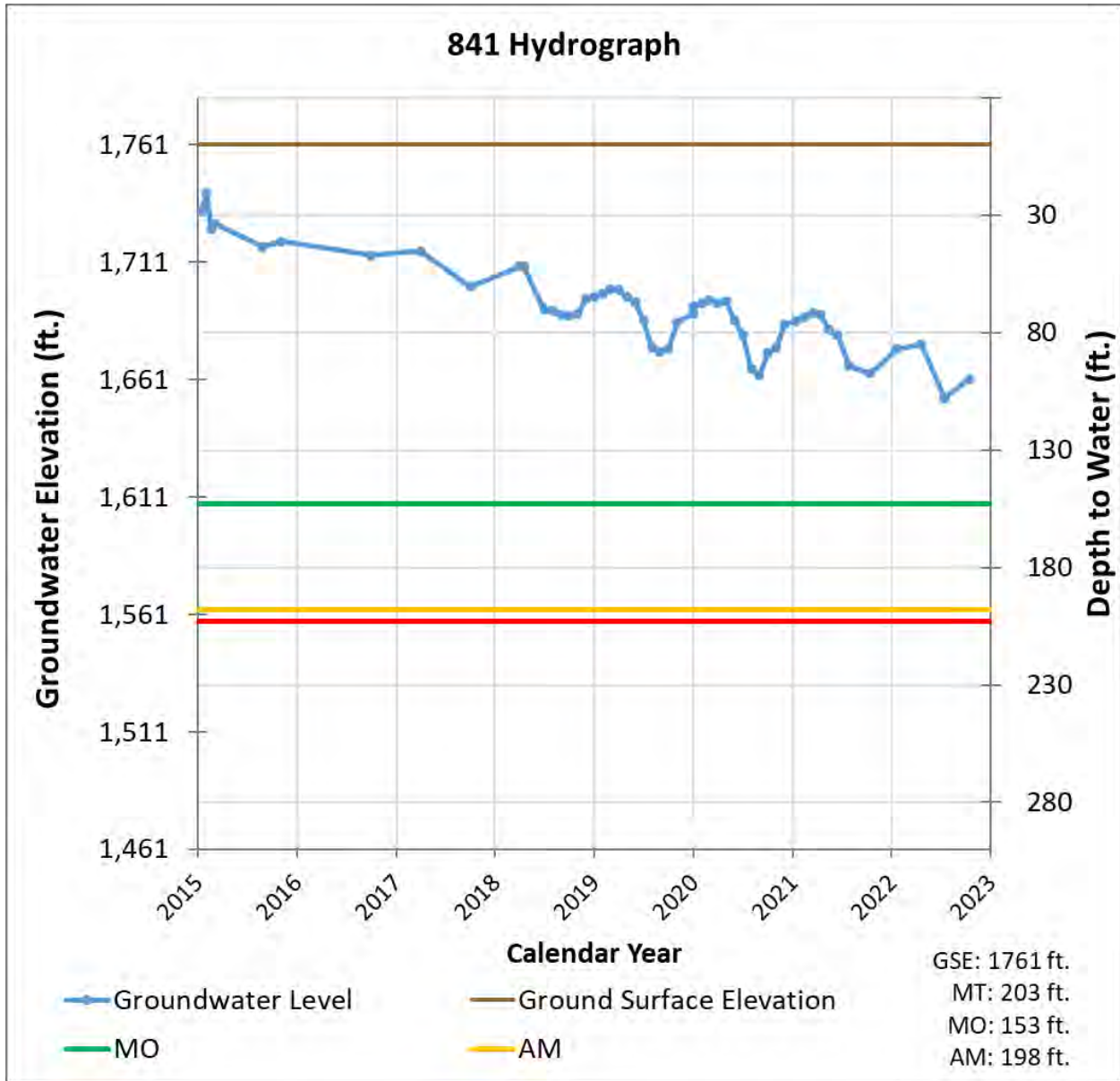


Figure 2-8: Example Well Hydrographs – Western Region

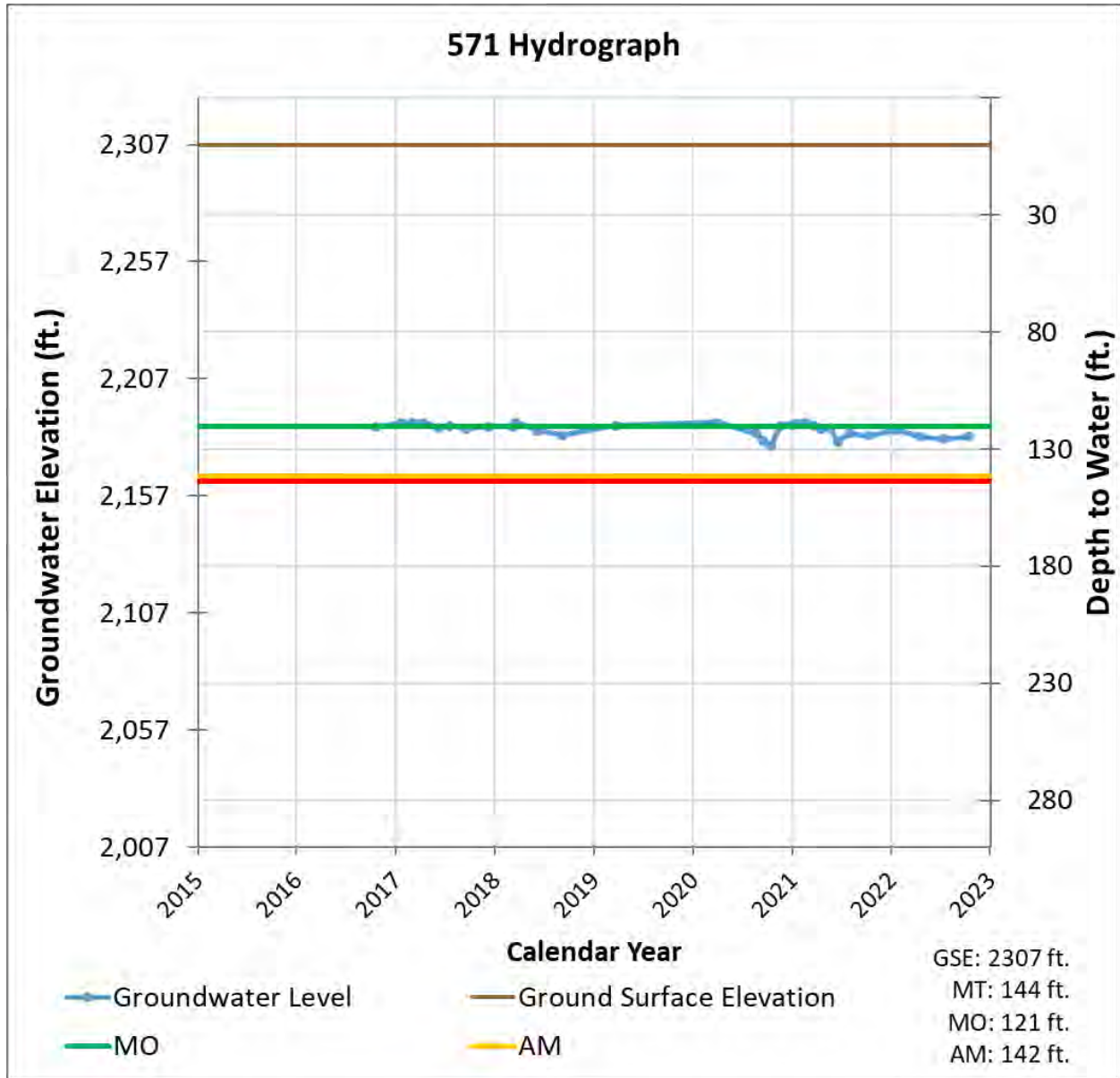


Figure 2-9: Example Well Hydrographs – Central Region

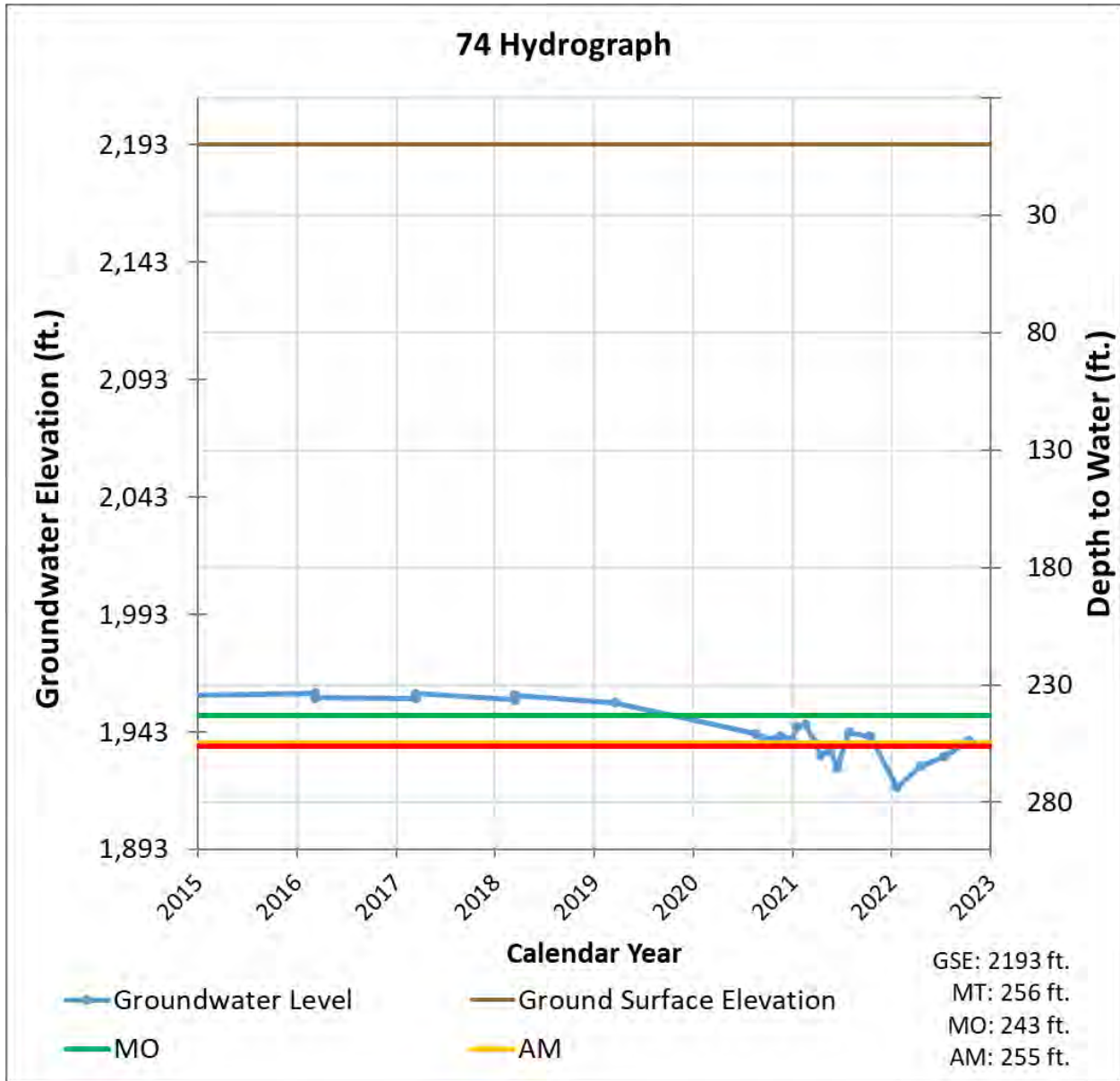


Figure 2-10: Example Well Hydrographs – Central Region

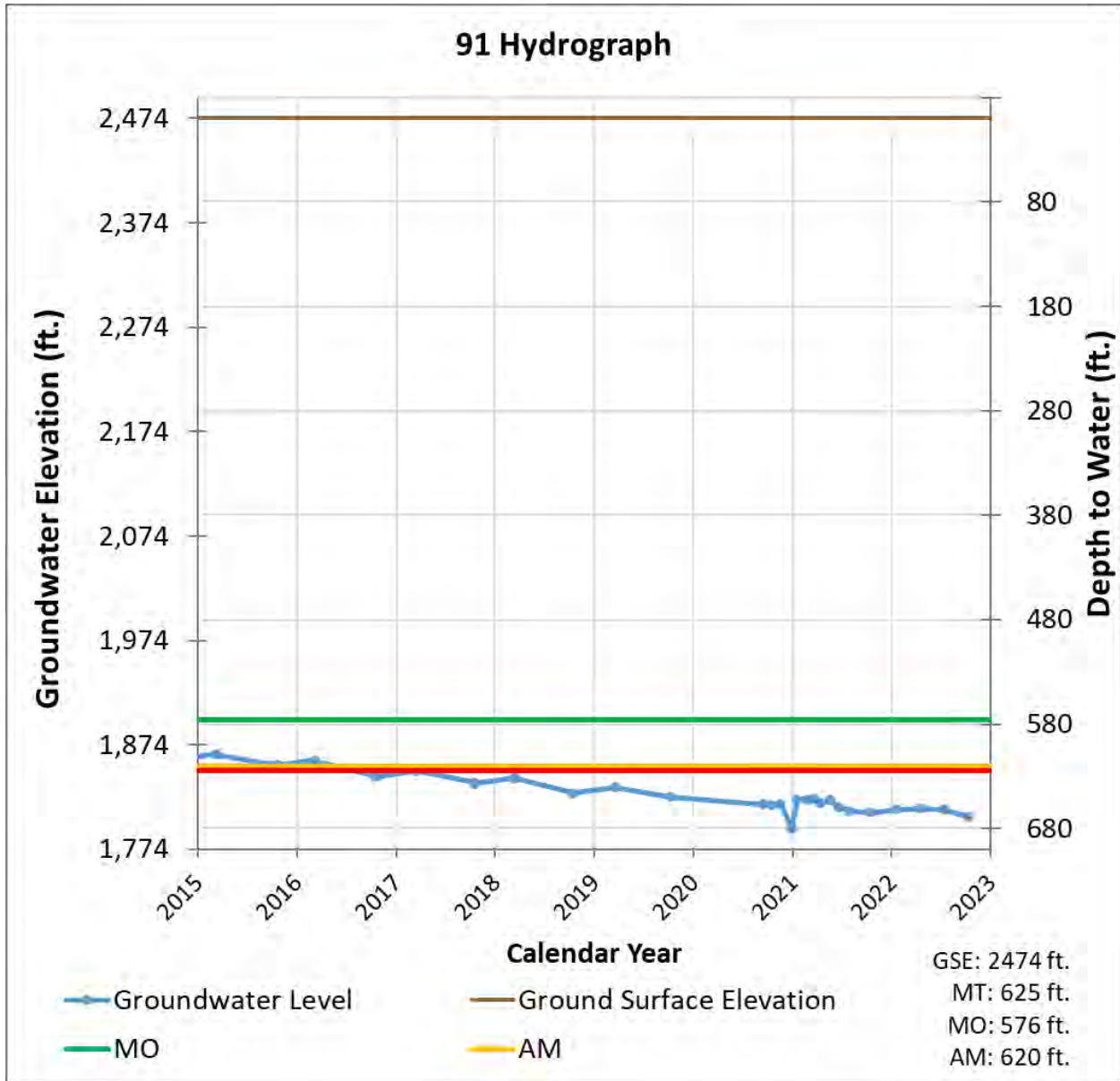


Figure 2-11: Example Well Hydrographs – Eastern Region

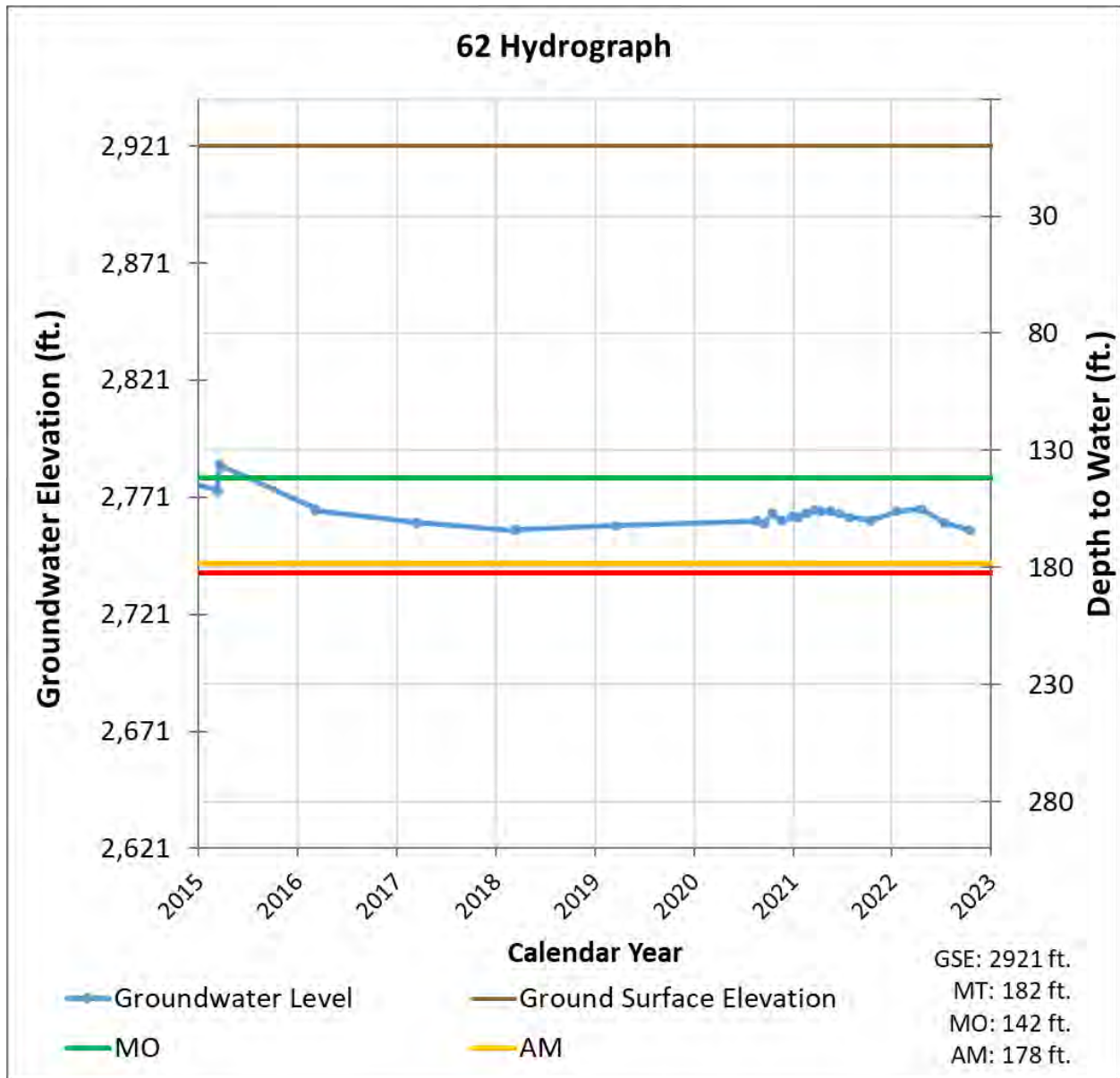
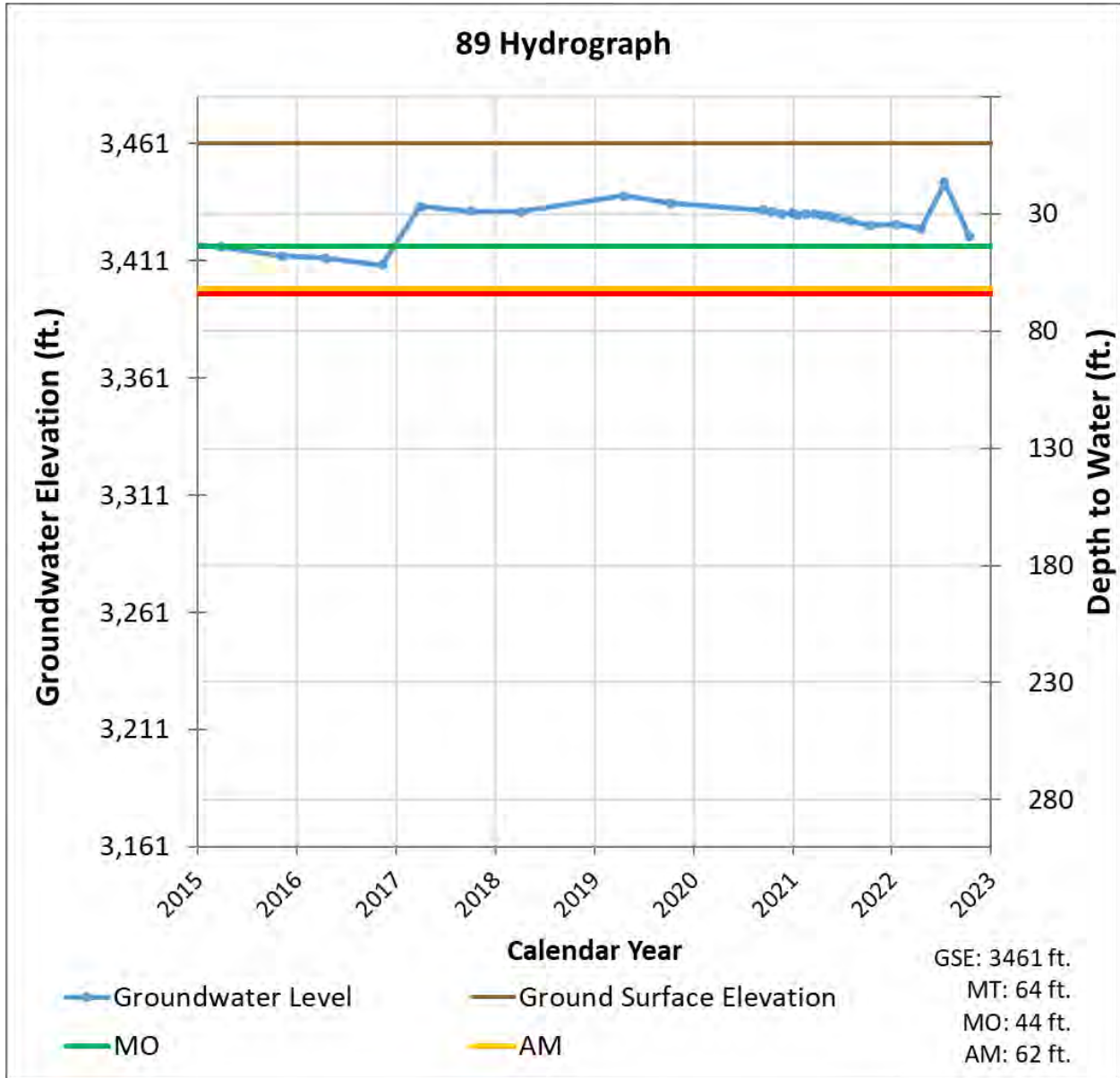


Figure 2-12: Example Well Hydrographs – Southeastern Region



Section 3. Water Use

§356.2 (b) (2)	Groundwater extraction for the preceding water year. Data shall be collected using the best available measurement methods and shall be presented in a table that summarizes groundwater extractions by water use sector, and identifies the method of measurement (direct or estimate) and accuracy of measurements, and a map that illustrates the general location and volume of groundwater extractions.
§356.2 (b) (3)	Surface water supply used or available for use, for groundwater recharge or in-lieu use shall be reported based on quantitative data that describes the annual volume and sources for the preceding water year.
§356.2 (b) (4)	Total water use shall be collected using the best available measurement methods and shall be reported in a table that summarizes total water use by water use sector, water source type, and identifies the method of measurement (direct or estimate) and accuracy of measurements. Existing water use data from the most recent Urban Water Management Plans or Agricultural Water Management Plans within the basin may be used, as long as the data are reported by water year.

3.1 Groundwater Extraction

Water budgets in the Cuyama Basin GSP were developed using the Cuyama Basin Water Resources Model (CBWRM) model, which is a fully integrated surface and groundwater flow model covering the Basin. The CBWRM was used to develop a historical water budget that evaluated the availability and reliability of past surface water supply deliveries, aquifer response to water supply, and demand trends relative to water year type. For the GSP, the CBWRM was used to develop water budget estimates for the hydrologic period of 1998 through 2017. As discussed in the GSP, the model was developed based on the best available data and information as of June 2018. An assessment of model uncertainty included in the GSP estimated an error range in overall model results of about +/- 10%. An update of the model, including re-calibration based on recently available data, was completed in June 2022. It is expected that the model will be refined in the future as improved and updated monitoring information becomes available for the Basin. For the current Annual Report, the CBWRM model was extended to include the 2022 water year, utilizing updated land use, temperature, and precipitation³ data from those years.

Figure 3-1 shows the annual time series of groundwater pumping for the water years 1998 through 2022.⁴ The CBWRM estimates a total groundwater extraction amount of 66,700 AF in the Cuyama Basin in the 2022 water year. This reflects an increase of about 2,700 AF as compared to 2021. Almost all groundwater extraction in the Basin is for agriculture use. There is approximately 300 AF of domestic use in each year, with the remainder in each year being for agricultural use.

³ Precipitation data provided by PRISM was updated and there are minor changes to some historical (pre-2020) data reflected in the water budget results when compared to previous reports.

⁴ Groundwater extraction estimates for years 1998 through 2021 differ from estimates reported in previous Cuyama Basin Annual Reports due to model updates using the most recent land use data.

Figure 3-1: Annual Groundwater Extraction in the Cuyama Basin in Water Years 1998-2022

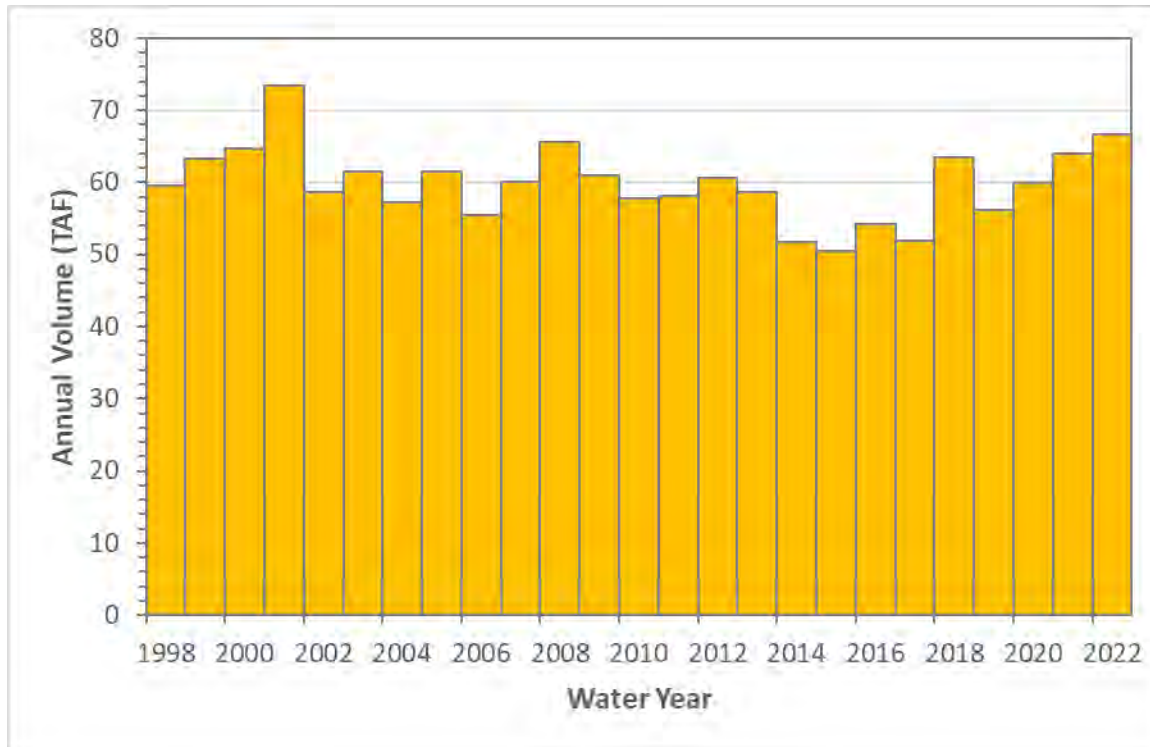


Figure 3-2 shows the locations where groundwater is applied in the Basin. The locations of groundwater use have not changed since completion of the GSP.

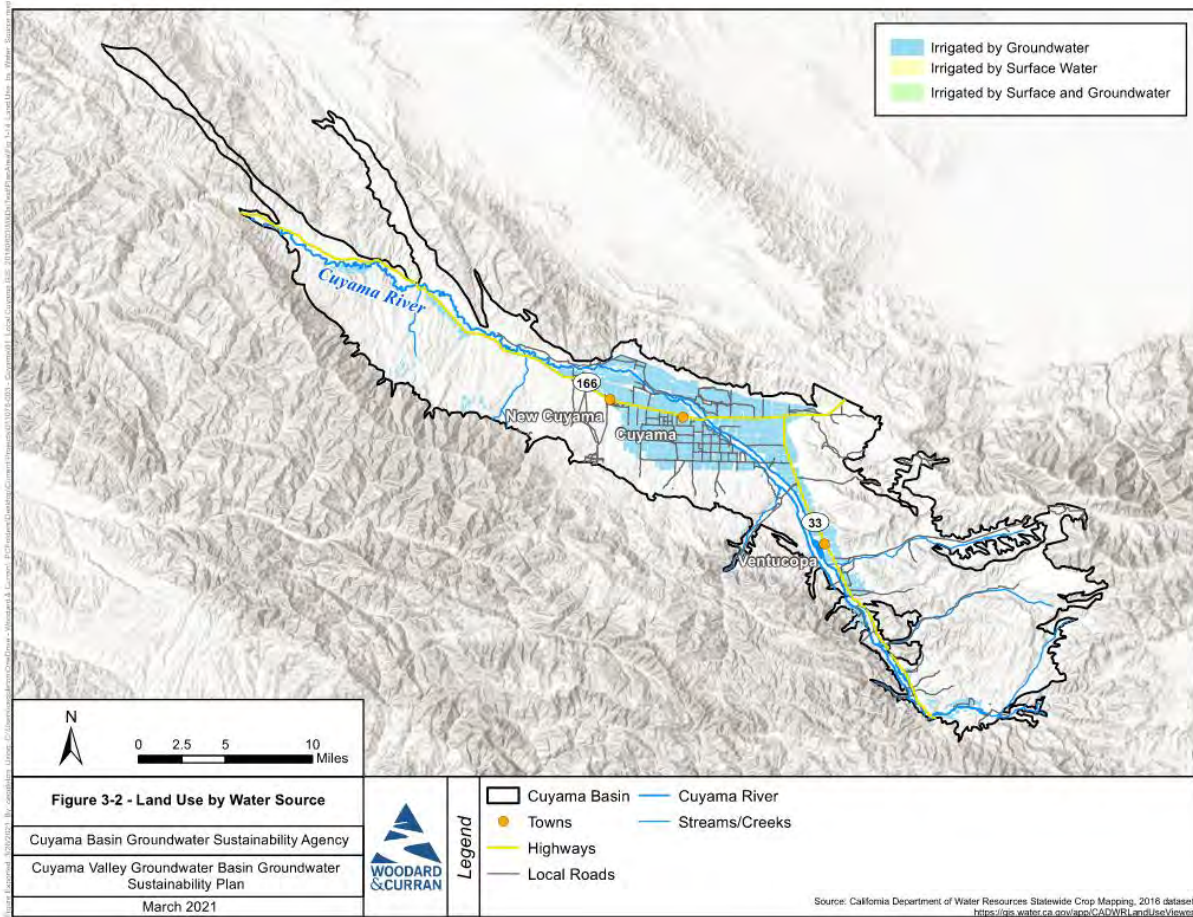
3.2 Surface Water Use

No surface water was used in the Cuyama Basin during the reporting period.

3.3 Total Water Use

Since there is no surface water use in the Cuyama Basin, the total water use equals the groundwater extraction in each year, as shown in Section 3.1.

Figure 3-2: Locations of Groundwater Use in the Cuyama Basin



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Section 4. Change in Groundwater Storage

§356.2 (b) (5)	Change in groundwater in storage shall include the following:
§356.2 (b) (5) (A)	Change in groundwater in storage maps for each principal aquifer in the basin.
§356.2 (b) (5) (B)	A graph depicting water year type, groundwater use, the annual change in groundwater in storage, and the cumulative change in groundwater in storage for the basin based on historical data to the greatest extent available, including from January 1, 2015, to the current reporting year.

Figure 4-1 shows contours of the estimated change in groundwater levels in the Cuyama Basin between fall 2021 and fall 2022. The changes shown are based on historical measurements of groundwater elevations in Cuyama Basin representative wells that have recorded measurements in the fall period of each year. These contours are useful at the planning level for understanding groundwater levels across the Basin, and to identify general horizontal gradients and regional groundwater level trends. The contour map is not indicative of exact values across the Basin because groundwater contour maps approximate conditions between measurement points, and do not account for topography.

A quantitative estimate of the annual change in groundwater storage was estimated using the CBWRM model, which was extended to include the 2022 water year as described in the groundwater extraction section above. The CBWRM was used to estimate the full groundwater budget for each year in the Cuyama Basin, which consists of a single principal aquifer. The estimated values for each water budget component in each of the past three years are shown in **Table 4-1**. The CBWRM estimates reductions in groundwater storage of 29,100 AF in 2020, 44,800 AF in 2021, and 38,500 AF in 2022.⁵

Table 4-1: Groundwater Budget Estimates for Water Years 2020, 2021, and 2022

Component	Water Year 2020 (AFY)	Water Year 2021 (AFY)	Water Year 2022 (AFY)
Inflows			
Deep percolation	26,200	17,500	21,900
Stream seepage	3,700	800	4,900
Subsurface inflow	900	900	1,400
Total Inflow	30,800	19,200	28,200
Outflows			
Groundwater pumping	59,900	64,000	66,700
Total Outflow	59,900	64,000	66,700
Change in Storage	-29,100	-44,800	-38,500

⁵ Groundwater budget estimates for years 2020 and 2021 differ from estimates reported in previous Cuyama Basin Annual Reports due to model updates using the most recent land use data.

Figure 4-1: Estimated Groundwater Level Storage Change Between Fall 2021 and Fall 2022

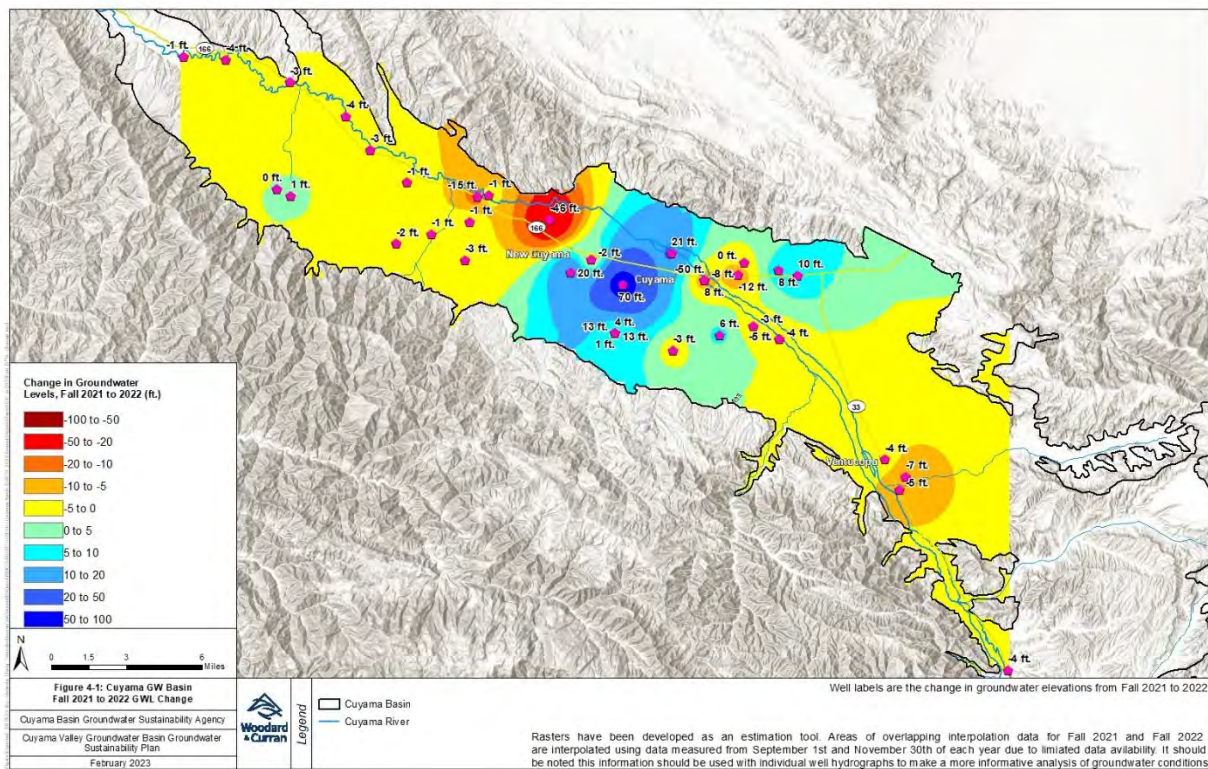


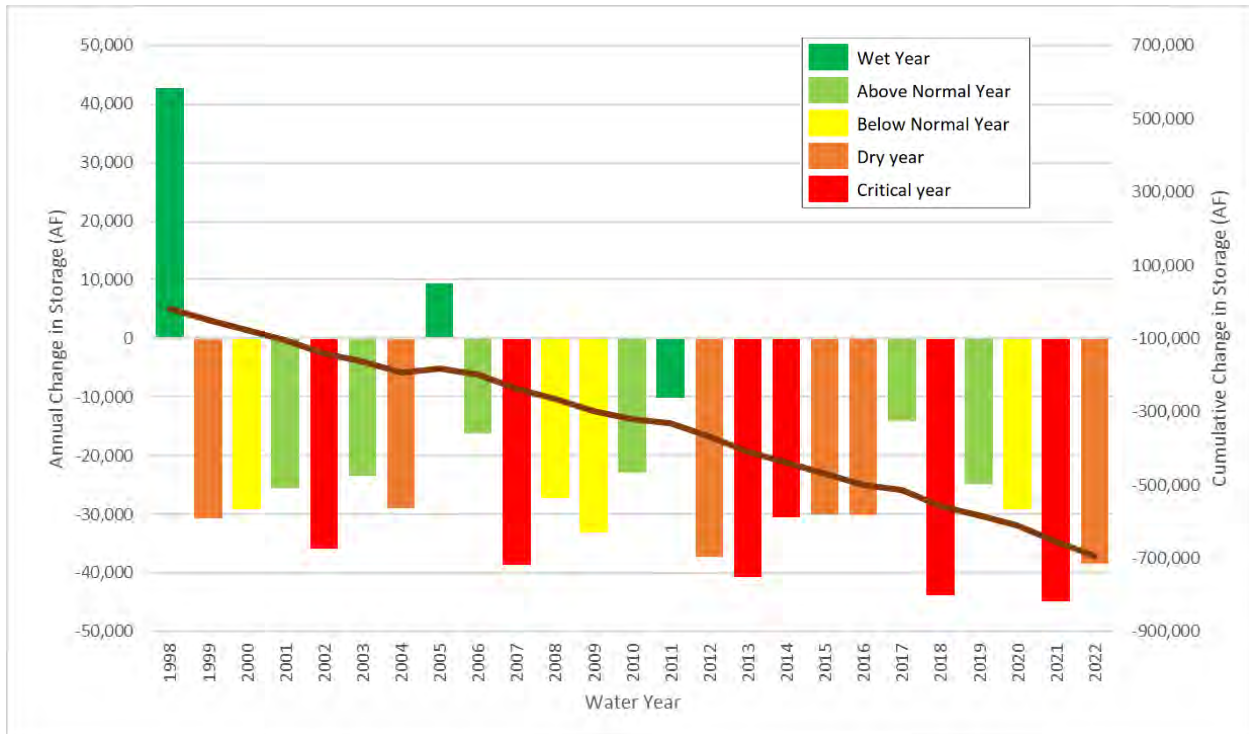
Figure 4-2 shows the historical change in groundwater storage by year, water year type,⁶ and cumulative water volume in each year for the period from 1998 through 2022.⁷ The change in groundwater storage in each year was estimated by the CBWRM model. The color of bar for each year of change in storage correlates a water year type defined by Basin precipitation.

⁶ Water year types are customized for the Basin watershed based on annual precipitation as follows:

- Wet year = more than 19.6 inches
- Above normal year = 13.1 to 19.6 inches
- Below normal year = 9.85 to 13.1 inches
- Dry year = 6.6 to 9.85 inches
- Critical year = less than 6.6 inches.

⁷ Groundwater storage change estimates for years 1998 through 2021 differ from estimates reported in previous Cuyama Basin Annual Reports due to model updates using the most recent land use data.

Figure 4-2: Change in Groundwater Storage by Year, Water Year Type, and Cumulative Water Volume



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Section 5. Groundwater Quality

As discussed in Section 4.8 of the Cuyama GSP, the CBGSA's groundwater quality network is designed to monitor salinity levels (as total dissolved solids (TDS)). The groundwater quality network is composed of 64 wells, all of which are representative, and are listed in **Table 5-1** and shown on **Figure 5-1**.

In 2022, the CBGSA collected TDS measurements at 18 of the 64 wells in the groundwater quality representative monitoring network. The results are listed in **Table 5-1** and shown on **Figure 5-2**. Of the 18 wells measured in water year 2022, nine wells exceeded their measurable objective, and four wells exceeded the minimum threshold and 2025 interim milestone. Therefore, 50% of measured wells exceeded their measurable objective and 22% exceeded their minimum threshold. However, 72% of wells were not sampled due to limitations in gaining access to well sites. TDS measurements were also not reported in the DWR's Groundwater Ambient Monitoring and Assessment Program (GAMA) or the USGS's National Water Information System (NWIS) platforms for these wells. Furthermore, since the measurement at many of these wells was the first or second measurement taken in many years, and significant differences were noted relative to previous measurements (in both a positive and negative direction), the CBGSA considers it premature to use this data to evaluate the performance of groundwater quality at this time. The CBGSA intends to reevaluate the groundwater quality representative monitoring network based on the well information, site access, and landowner participation moving forward to ensure that the representative monitoring network both provides adequate coverage and representative data for the Basin while ensuring continued and consistent monitoring is conducted over the implementation horizon. This may also include reassessing threshold values and consideration of the proper translation of measured electrical conductivity (EC) versus TDS.

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). To supplement the understanding of nitrate and arsenic concentrations in the basin, the CBGSA performed additional measurements of nitrate and arsenic at several water quality wells identified in the GSP (GSP Figure 4-20) during calendar year 2022. Nitrate measurements collected at 11 wells in the groundwater quality representative monitoring network are listed in **Table 5-1** and shown on **Figure 5-3**. 53 wells, or 83% of wells in the representative morning network, were not able to be sampled for nitrate in 2022. Arsenic measurements collected at seven of the wells in the groundwater quality representative monitoring network are listed in **Table 5-1** and shown on **Figure 5-4**. 57 wells, or 89% of wells in the representative morning network, were not sampled for arsenic in 2022.

These results 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.

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Cuyama Basin Groundwater
Sustainability Plan—
2021-2022 WY Annual Report

Table 5-1: Groundwater Quality Monitoring Network Well List and TDS, Nitrate, and Arsenic Results

Opti ID	TDS					Nitrate		Arsenic	
	Date	Measurement (mg/L)	MO (mg/L)	MT (mg/L)	2025 Interim Milestone (mg/L)	Date	Measurement (mg/L)	Date	Measurement (µg/L)
61	-	-	585	615	615	-	-	-	-
72	8/18/22	980	996	1,023	1,023	8/18/22	-	8/18/22	42
73	-	-	805	856	856	-	-	-	-
74	8/18/22	1,700	1,500	1,833	1,833	8/18/22	0.61	8/18/22	3.4
76	-	-	1,500	2,307	2,307	-	-	-	-
77	-	-	1,500	1,592	1,592	-	-	-	-
79	-	-	1,500	2,320	2,320	-	-	-	-
81	-	-	1,500	2,788	2,788	-	-	-	-
83	8/18/22	1,400	1,500	1,726	1,726	8/18/22	0.88	8/18/22	-
85	-	-	618	1,391	1,391	-	-	-	-
86	-	-	969	975	975	-	-	-	-
87	-	-	1,090	1,165	1,165	-	-	-	-
88	8/17/22	300	302	302	302	8/17/22	0.31	8/17/22	-
90	8/18/22	1,400	1,500	1,593	1,593	8/18/22	2	8/18/22	-
91	-	-	1,410	1,487	1,487	-	-	-	-
94	-	-	1,050	1,245	1,245	-	-	-	-
95	8/23/22	1,700	1,500	1,866	1,866	8/23/22	-	8/23/22	-
96	8/17/22	1,500	1,500	1,632	1,632	8/17/22	0.39	8/17/22	-
98	-	-	1,500	2,400	2,400	-	-	-	-
99	9/8/22	1,300	1,490	1,562	1,562	9/8/22	-	9/8/22	33

Cuyama Basin Groundwater
Sustainability Plan—
2021-2022 WY Annual Report

Opti ID	TDS					Nitrate		Arsenic	
	Date	Measurement (mg/L)	MO (mg/L)	MT (mg/L)	2025 Interim Milestone (mg/L)	Date	Measurement (mg/L)	Date	Measurement (µg/L)
101	8/17/22	1,400	1,500	1,693	1,693	8/17/22	8.1	8/17/22	-
102	8/17/22	2,100	1,500	2,351	2,351	8/17/22	3.5	8/17/22	-
130	-	-	1,500	1,855	1,855	-	-	-	-
131	-	-	1,500	1,982	1,982	-	-	-	-
157	-	-	1,500	2,360	2,360	-	-	-	-
196	-	-	851	904	904	-	-	-	-
204	8/17/22	340	253	269	269	-	-	-	-
226	-	-	1,500	1,844	1,844	-	-	-	-
227	-	-	1,500	2,230	2,230	-	-	-	-
242	8/17/22	1,100	1,470	1,518	1,518	8/17/22	7.8	8/17/22	-
269	-	-	1,500	1,702	1,702	-	-	-	-
309	-	-	1,410	1,509	1,509	-	-	-	-
316	-	-	1,380	1,468	1,468	-	-	-	-
317	-	-	1,260	1,337	1,337	-	-	-	-
318	-	-	1,080	1,152	1,152	-	-	-	-
322	9/8/22	1,500	1,350	1,386	1,386	9/8/22	0.35	9/8/22	49
324	9/8/22	850	746	777	777	9/8/22	-	9/8/22	9.5
325	9/8/22	1,400	1,470	1,569	1,569	9/8/22	-	9/8/22	2.6
400	-	-	918	976	976	-	-	-	-

Cuyama Basin Groundwater
Sustainability Plan—
2021-2022 WY Annual Report

Opti ID	TDS					Nitrate		Arsenic	
	Date	Measurement (mg/L)	MO (mg/L)	MT (mg/L)	2025 Interim Milestone (mg/L)	Date	Measurement (mg/L)	Date	Measurement (µg/L)
420	-	-	1,430	1,490	1,490	-	-	-	-
421	-	-	1,500	1,616	1,616	-	-	-	-
422	-	-	1,500	1,942	1,942	-	-	-	-
424	8/18/22	1,600	1,500	1,588	1,588	8/18/22	3.1	8/18/22	-
467	8/18/22	1,400	1,500	1,764	1,764	8/18/22	-	8/18/22	25
568	8/17/22	920	871	1,191	1,191	8/17/22	1.9	8/17/22	-
702	-	-	110	2,074	2,074	-	-	-	-
703	-	-	400	4,097	4,097	-	-	-	-
710	-	-	1,040	1,040	1,040	-	-	-	-
711	-	-	928	928	928	-	-	-	-
712	-	-	977	978	978	-	-	-	-
713	-	-	1,200	1,200	1,200	-	-	-	-
721	-	-	1,500	2,170	2,170	-	-	-	-
758	-	-	900	954	954	-	-	-	-
840	-	-	559	559	559	-	-	-	-
841	-	-	561	561	561	-	-	-	-
842	-	-	547	547	547	-	-	-	-
843	-	-	569	569	569	-	-	-	-
844	-	-	481	481	481	-	-	-	-
845	-	-	1,250	1,250	1,250	-	-	-	-
846	-	-	918	918	918	-	-	-	-
847	-	-	480	480	480	-	-	-	-
848	-	-	674	674	674	-	-	-	-
849	-	-	1,500	1,780	1,780	-	-	-	-

Cuyama Basin Groundwater
Sustainability Plan—
2021-2022 WY Annual Report

Opti ID	TDS				2025 Interim Milestone (mg/L)	Nitrate		Arsenic	
	Date	Measurement (mg/L)	MO (mg/L)	MT (mg/L)		Date	Measurement (mg/L)	Date	Measurement (µg/L)
850	-	-	472	472	472	-	-	-	-

Note: Shaded cells represent sustainable management criteria exceedances.

Figure 5-1: Groundwater Quality Representative Monitoring Network

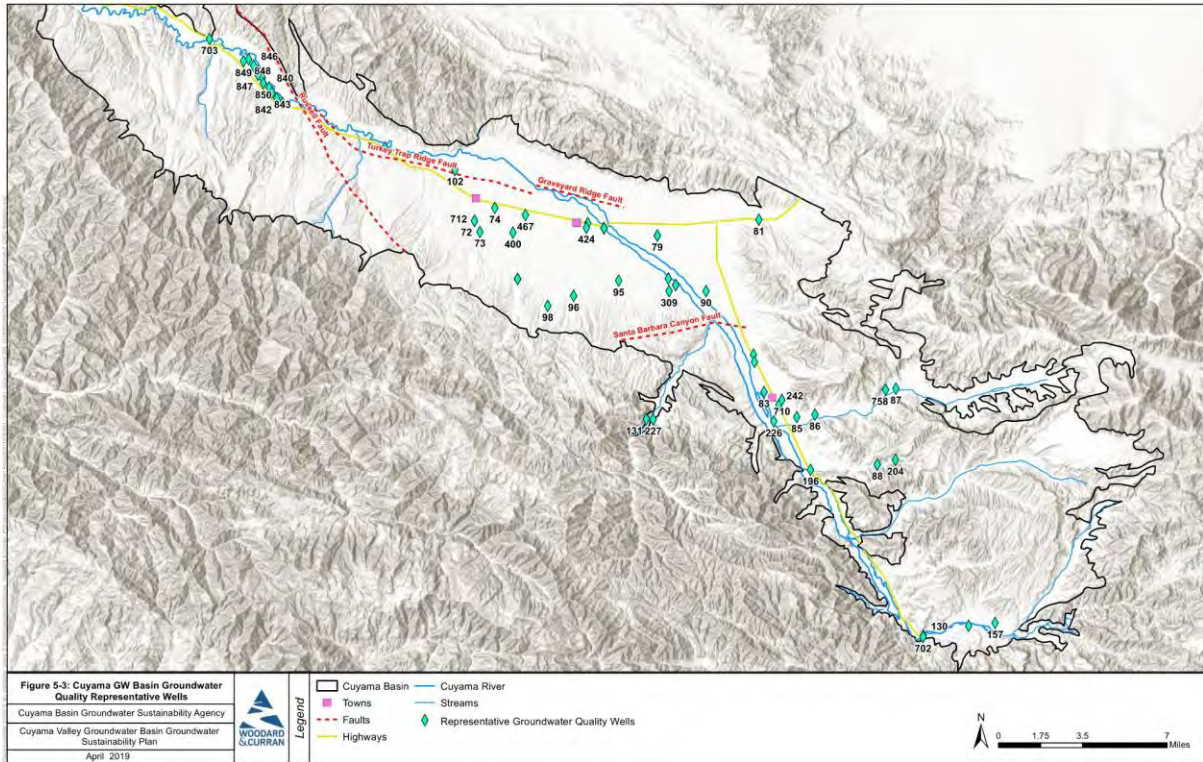


Figure 5-2: Cuyama Basin 2021 Groundwater Quality Measurements – TDS

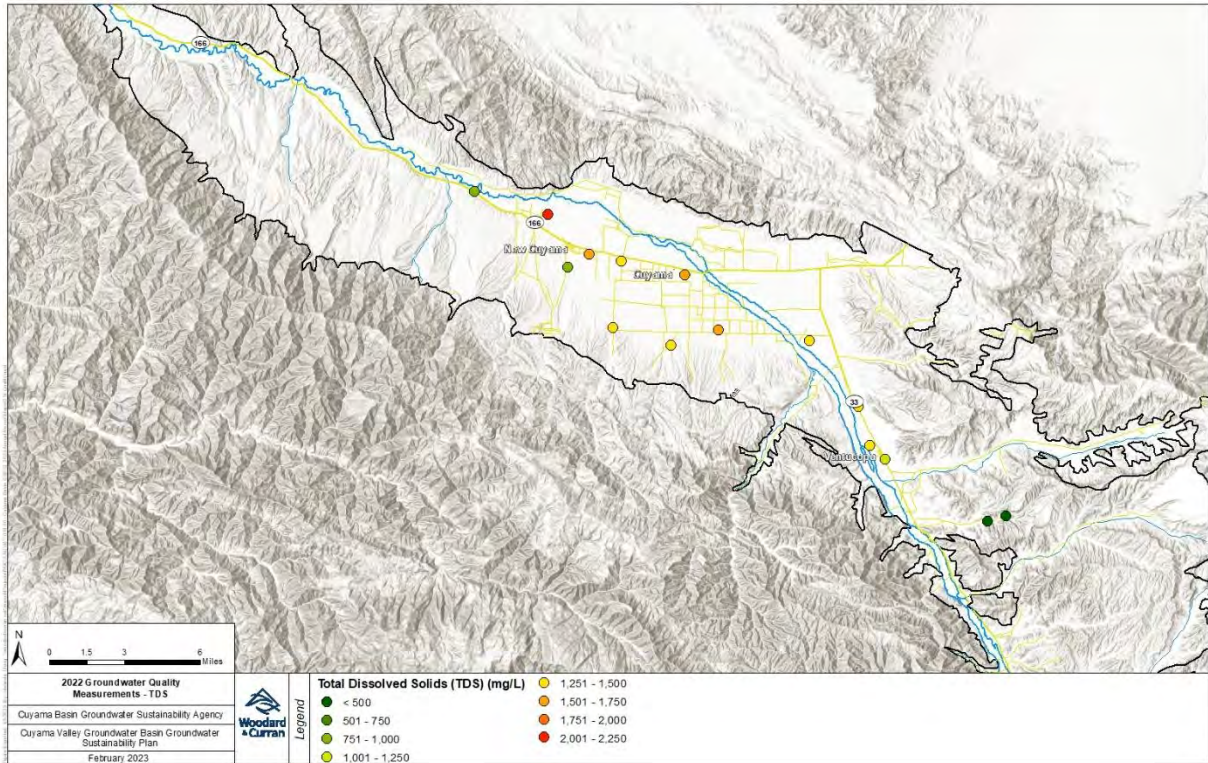


Figure 5-3: Cuyama Basin 2022 Groundwater Quality Measurements – Nitrate

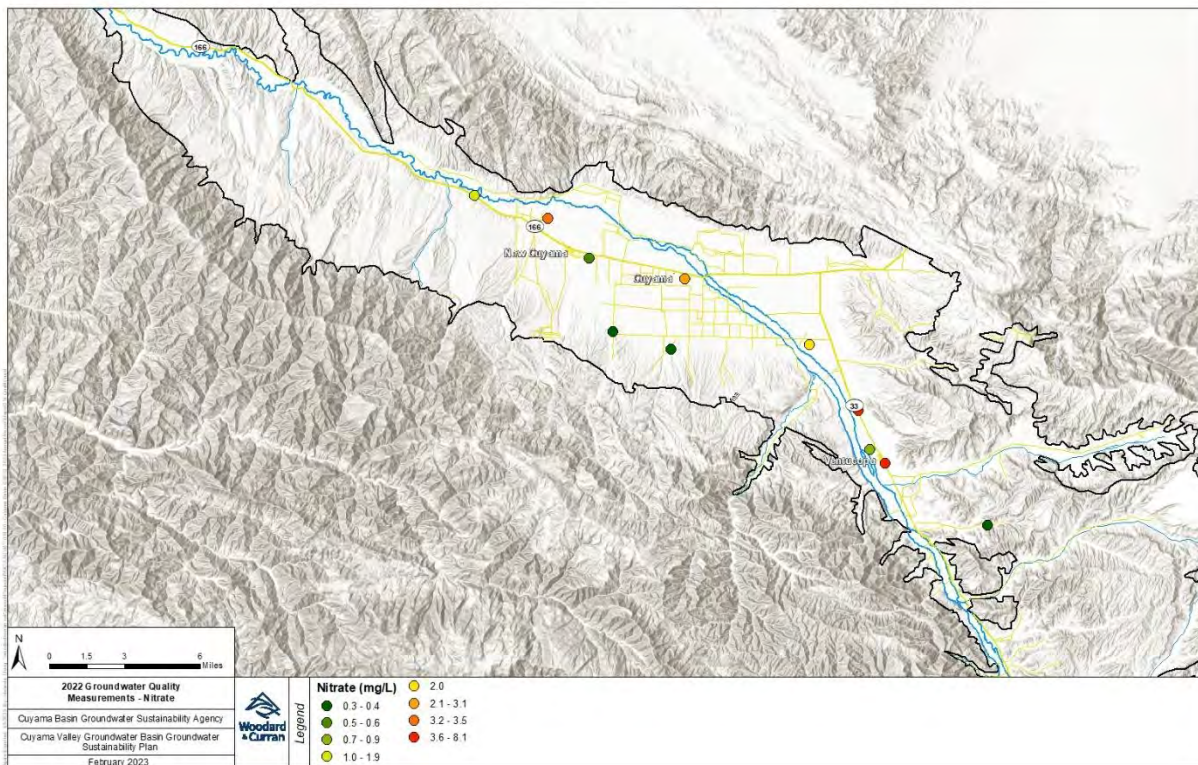
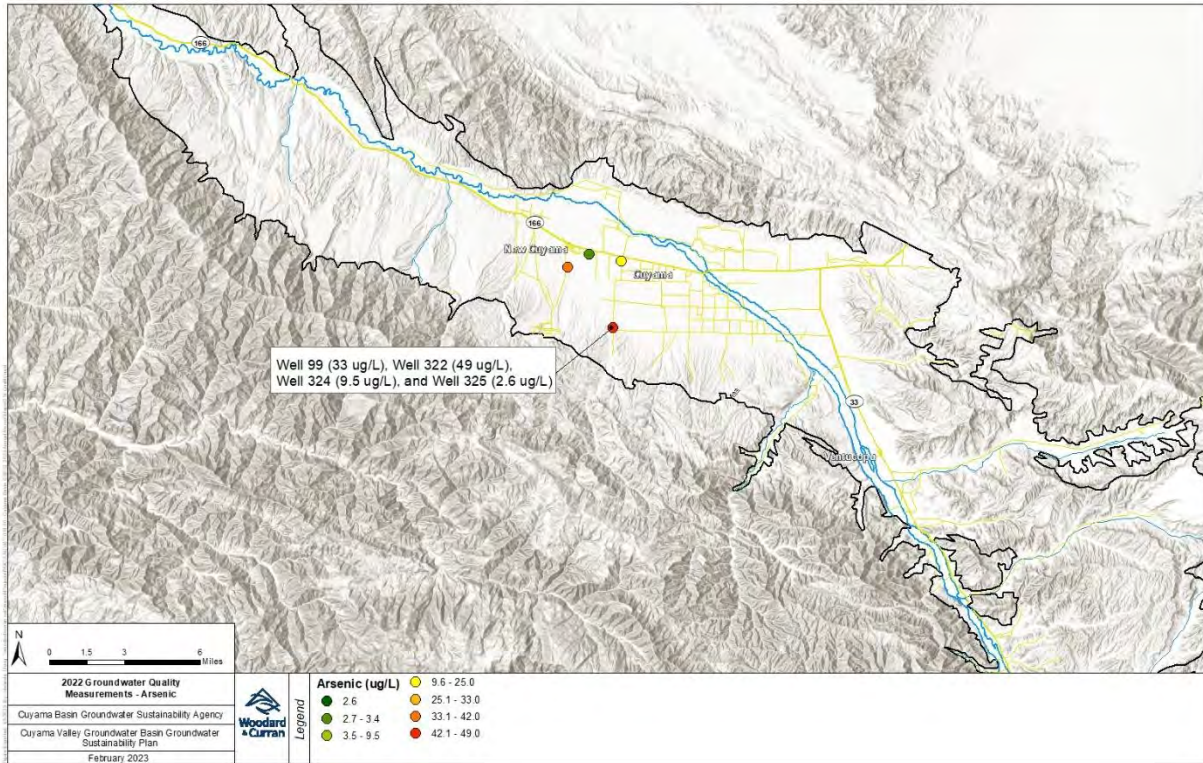


Figure 5-4: Cuyama Basin 2022 Groundwater Quality Measurements – Arsenic



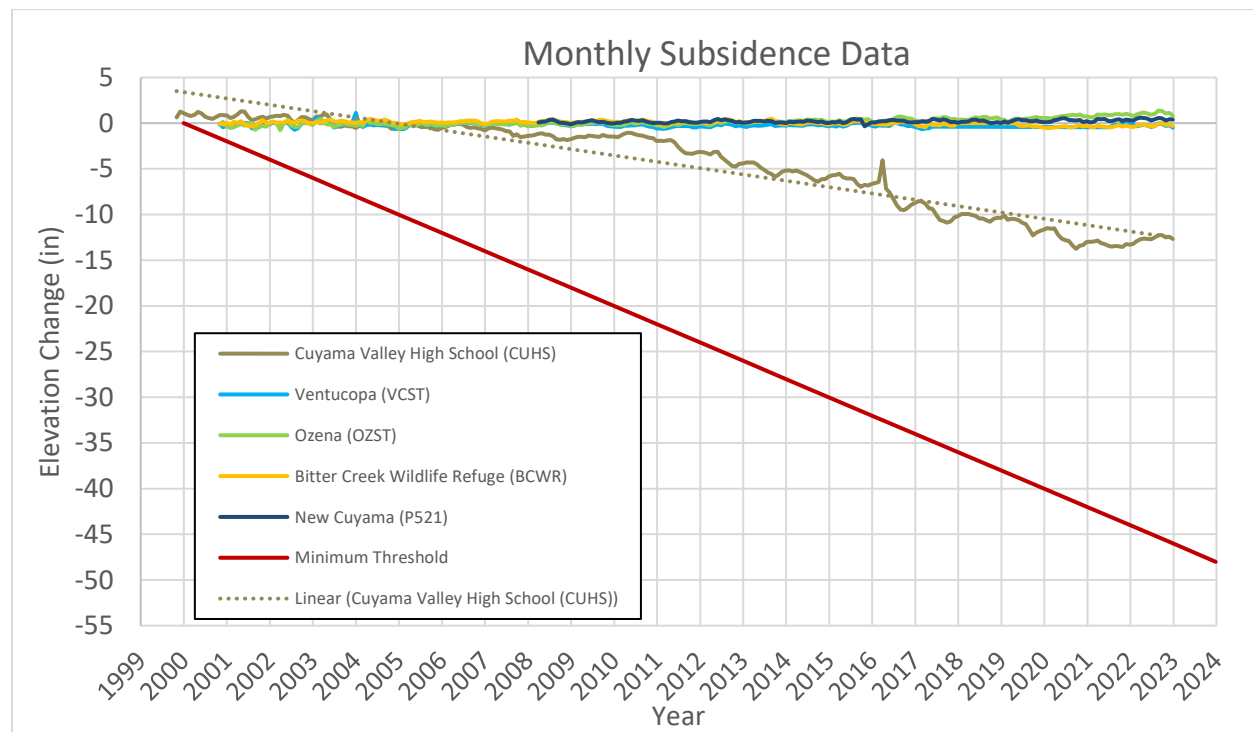
Section 6. Land Subsidence

Section 4.9 of the Cuyama GSP describes the monitoring network for land subsidence in the Basin, which is composed of five continuous geographic positioning system (CGPS) stations in and around the Basin to monitor lateral and vertical ground movements. Two of the five stations, the Cuyama Valley High School (CUHS) and the Ventucopa (VCST) stations are within the Basin boundary. The other three stations are outside of the Basin and provide data comparative data for vertical movements that are more likely related to tectonic displacement rather than land subsidence.

The undesirable result for subsidence, as described in Section 3.2.5, is detected when 30 percent of representative subsidence monitoring sites (i.e. 1 of 2 sites) exceed the minimum threshold for subsidence over two years. The minimum threshold for subsidence, as defined in GSP Section 5.6.3, is 2 inches per year.

At the time the GSP was submitted in 2020, subsidence rates for the CUHS station were -0.56 inches per year. As shown in **Figure 6-1**, data through 2022 was downloaded from UNAVCO⁸ and the subsidence trend for CUHS was recalculated. Subsidence rates during 2021 and 2022 actually reflected a positive change in ground surface elevation, and current subsidence rates in the central portion of the Basin are 34.02mm per year or 1.34 inches per year. (for WY 2022). This is rate is below the minimum threshold, and thus undesirable results for subsidence are not occurring in the Basin.

Figure 6-1: Subsidence Monitoring Data



⁸ <https://www.unavco.org/data/web-services/documentation/documentation.html#!/GNSS47GPS/getPositionByStationId>

Section 7. Plan Implementation

§356.2 (c)	A description of progress toward implementing the Plan, including achieving interim milestones, and implementation of projects or management actions since the previous annual report.
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This section describes management activities taken by the CBGSA to implement the Cuyama Basin GSP from adoption of the GSP through preparation of this Annual Report.

7.1 Progress Toward Achieving Interim Milestones

Since the GSP was adopted by the CBGSA Board recently and CBGSA data collection efforts began in the second half of 2020, progress toward achieving interim milestones is in its early stages.

To track changes in groundwater conditions and the Basins progress towards sustainability, the GSA compiles a quarterly groundwater condition reports based on the data collected to monitoring groundwater levels. Current data collection occurs quarterly with corresponding reports. Data collection prior to 2022 was conducted monthly, but the CBGSA determined quarterly data collection was sufficient after a full year of monthly monitoring had been performed.

As described in Section 5 of the GSP (Minimum Thresholds, Measurable Objectives, and Interim Milestones), all interim milestones (IMs) are calculated the same way in each threshold region. IMs are equal to the MT in 2025, with a projected improvement to one-third the distance between the MT and MO in 2030 and half the distance between the MT and MO in 2035. **Table 7-1** includes measurements of depth to water (DTW) at each well and compares them to their respective 2025 IMs. For each well, the groundwater level measurement taken in October 2022 is used if available; otherwise, the most recent measurement taken in January, April, or July 2022 is used instead. As is shown in the table, 21 wells are currently above their IM, while 25 are below, relative to the most recent measurement. Three wells did not have measurements taken during the water year, either because an access agreement has not granted, or the well was inaccessible.

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). As of October 2022, 51% of representative wells (25 of 49) were below the minimum threshold. At least 30% of representative monitoring wells (i.e. 16 wells) had been below the minimum threshold for 17 or more consecutive months, which indicated that undesirable results for the chronic lower of groundwater levels would be observed during the July 2023 groundwater levels monitoring if conditions in one or more wells did not improve before then. Steps that the CBGSA Board has taken in response to these observed basin conditions are described in Section 7.6 Adaptive Management, below.

Cuyama Basin Groundwater Sustainability Plan—
2021-2022 WY Annual Report

Table 7-1: Measured Depths to Groundwater Compared to 2025 Interim Milestones

Well	Region	Depth to Water (feet)	Measurement Month	2025 IM (feet)	Status
72	Central	157	Oct 2022	169	Above IM
74	Central	254	Oct 2022	256	Above IM
77	Central	507	Oct 2022	450	Below IM
91	Central	669	Oct 2022	625	Below IM
95	Central	598	Oct 2022	573	Below IM
96	Central	337	Oct 2022	333	Below IM
98	Central	-	N/A	450	Unknown
99	Central	355	Oct 2022	311	Below IM
102	Central	425	Apr 2022	235	Below IM
103	Central	257	Oct 2022	290	Above IM
112	Central	86	Oct 2022	87	Above IM
114	Central	48	Oct 2022	47	Below IM
316	Central	671	Oct 2022	623	Below IM
317	Central	661	Jul 2022	623	Below IM
322	Central	356	Oct 2022	307	Below IM
324	Central	335	Oct 2022	311	Below IM
325	Central	313	Oct 2022	300	Below IM
420	Central	561	Oct 2022	450	Below IM
421	Central	499	Oct 2022	444	Below IM
474	Central	166	Oct 2022	188	Above IM
568	Central	54	Oct 2022	37	Below IM
604	Central	450	Jan 2022	526	Above IM
608	Central	441	Oct 2022	436	Below IM
609	Central	460	Oct 2022	458	Below IM
610	Central	634	Oct 2022	621	Below IM
612	Central	480	Oct 2022	463	Below IM
613	Central	536	Oct 2022	503	Below IM
615	Central	513	Oct 2022	500	Below IM
629	Central	567	Oct 2022	559	Below IM
633	Central	572	Oct 2022	547	Below IM
62	Eastern	164	Oct 2022	182	Above IM
85	Eastern	206	Oct 2022	233	Above IM
100	Eastern	158	Oct 2022	181	Above IM
101	Eastern	106	Jan 2022	111	Above IM
841	Northwestern	100	Oct 2022	203	Above IM
845	Northwestern	74	Oct 2022	203	Above IM
2	Southeastern	-	N/A	72	Unknown

Cuyama Basin Groundwater Sustainability Plan—
2021-2022 WY Annual Report

89	Southeastern	39	Oct 2022	64	Above IM
106	Western	144	Oct 2022	154	Above IM
107	Western	92	Oct 2022	91	Below IM
117	Western	153	Oct 2022	160	Above IM
118	Western	58	Oct 2022	124	Above IM
124	Western	-	N/A	73	Unknown
571	Western	124	Oct 2022	144	Above IM
573	Western	72	Oct 2022	118	Above IM
830	Far-West Northwestern	63	Oct 2022	59	Below IM
832	Far-West Northwestern	42	Oct 2022	45	Above IM
833	Far-West Northwestern	34	Jul 2022	96	Above IM
836	Far-West Northwestern	39	Oct 2022	79	Above IM

7.2 Funding to Support GSP Implementation

On May 4, 2022, the CBGSA Board held a rate hearing and set a groundwater extraction fee of \$38 per acre-foot for FY 22-23. The fee was based on user-reported water usage totaling 28,000 acre-feet and the Fiscal Year 2022-2023 budget and cash flow projection.

Additionally, the CBGSA has recently been awarded a \$7.6 million in grant fund under the Critically Overdrafted Basin (COD) SGMA Implementation Round 1 grant opportunity, with funding requested for the following activities through 2026:

- Ongoing Monitoring and Enhancements
 - Installation of Piezometers
 - installation of dedicated monitoring wells
 - DMS maintenance and enhancements
 - Groundwater level and quality monitoring
 - USGS stream gage maintenance
- Project and Management Action Implementation
 - CBWRM model update and re-calibration
 - Develop and implement framework for pumping allocations
 - Analysis of management actions implementation options
 - Adaptive management support
 - Precipitation enhancement technical analysis
 - Flood and stormwater capture technical analysis
- GSP Implementation and Outreach Activities
 - GSP implementation program management
 - Stakeholder engagement and community outreach

- Prepare annual reports
- Modify GSP in response to DWR determination
- 5-year GSP update
- Improving Understanding of Basin Water Use
 - Perform updated land use survey
 - Perform river channel survey
 - Enhance existing CIMIS station and implement new stations

The CBGSA has also recently submitted a proposal to DWR for approximately \$2 million under the SGMA Implementation Round 2 grant opportunity with funding to do additional implementation tasks. These tasks directly support and expand on several tasks included in the Round 1 award.

7.3 Stakeholder Outreach Activities in Support of GSP Implementation

The following is a list of public meetings where GSP development and implementation was discussed during the 2021-2022 water year.

- CBGSA Board meetings: November 3, January 5, March 2, May 4, July 6, and September 7,
- Standing Advisory Committee (SAC) meetings: October 28, January 4, February 24, April 28, June 30, and September 1

7.4 Progress on Implementation of GSP Projects

Table 7-2 shows the projects and management actions that were included in the GSP. The following subsections describe the progress of implementation of each GSP project.

Table 7-2: Summary of Projects and Management Actions included in the GSP

Activity	Current Status	Anticipated Timing	Estimated Cost ^a
Project 1: Flood and Stormwater Capture	Conceptual project evaluated in 2015	<ul style="list-style-type: none"> Feasibility study: 0 to 5 years Design/Construction: 5 to 15 years 	<ul style="list-style-type: none"> Study: \$1,000,000 Flood and Stormwater Capture Project: \$600-\$800 per AF (\$2,600,000 – 3,400,000 per year)
Project 2: Precipitation Enhancement	Initial Feasibility Study completed in 2016	<ul style="list-style-type: none"> Refined project study: 0 to 2 years Implementation of Precipitation Enhancement: 0 to 5 years 	<ul style="list-style-type: none"> Study: \$200,000 Precipitation Enhancement Project: \$25 per AF (\$150,000 per year)
Project 3: Water Supply Transfers/Exchanges	Not yet begun	<ul style="list-style-type: none"> Feasibility study/planning: 0 to 5 years Implementation in 5 to 15 years 	<ul style="list-style-type: none"> Study: \$200,000 Transfers/Exchanges: \$600-\$2,800 per AF (total cost TBD)
Project 4: Improve Reliability of Water Supplies for Local Communities	Completed for CCSD; not yet begun for other communities	<ul style="list-style-type: none"> Feasibility studies: 0 to 2 years Design/Construction: 1 to 5 years 	<ul style="list-style-type: none"> Study: \$100,000 Design/Construction: \$1,800,000
Management Action 1: Basin-Wide Economic Analysis	Completed	<ul style="list-style-type: none"> December 2020 	<ul style="list-style-type: none"> \$60,000
Management Action 2: Pumping Allocations in Central Basin Management Area	Preliminary allocations developed; to be implemented in 2023 calendar year	<ul style="list-style-type: none"> Pumping Allocation Study completed: 2022 Allocations implemented: 2023 through 2040 	<ul style="list-style-type: none"> Plan: \$300,000 Implementation: \$150,000 per year
Adaptive Management	Not yet begun	Only implemented if triggered; timing would vary	TBD

^a Estimated cost based on planning documents and professional judgment
AF = acre-feet

7.4.1 Project 1: Flood and Stormwater Capture

The CBGSA application for COD SGMA Implementation Grant funding from DWR includes a task to understand the feasibility of future flood and stormwater capture. Specifically, funding was sought to perform a water rights analysis on flood and stormwater capture flows in the Basin to understand the feasibility of further developing a stormwater capture project in the Basin given water availability and existing water rights. This water rights analysis has not yet been completed, but is expected to be completed in 2023.

7.4.2 Project 2: Precipitation Enhancement

The CBGSA application for COD SGMA Implementation Grant funding from DWR which includes a task to understand the feasibility of precipitation enhancements efforts. Specifically, funding was sought to perform a feasibility study of the precipitation enhancement action identified in the GSP to determine if this action should be pursued and implemented in the Basin. The precipitation enhancement feasibility study is planned to be initiated in 2023.

7.4.3 Project 3: Water Supply Transfers or Exchanges

No progress was made toward implementation of this project since completion of the GSP in January 2020.

7.4.4 Project 4: Improve Reliability of Water Supplies for Local Communities

The CCSD has installed a new production well with funding from a grant award from DWR's IRWM program.

7.5 Management Actions

Table 7-2 shows the projects and management actions that were included in the GSP. The following subsections describe the progress of implementation of each GSP management action.

7.5.1 Management Action 1: Basin-Wide Economic Analysis

A Basin-wide direct economic analysis of proposed GSP actions was completed. The results of this analysis were presented to the GSP Board on December 4, 2019, and the final report was completed in December 2019. The final Basin-wide economic analysis report was provided in the 2020 Annual Report. This management action is 100% complete.

7.5.2 Management Action 2: Pumping Allocations in Central Basin Management Area

CBGSA staff is working with the Board and stakeholders to implement pumping allocations in the Central Management Area starting in the 2023 calendar year. As directed by the Board, in July 2022, CBGSA staff developed preliminary pumping allocations for 2023 and 2024 for each parcel located within the Central Management Area. Following a variance request process, the Board directed CBGSA staff to develop revised pumping allocations, which were distributed in January 2023. A second variance process is currently underway; a final set of allocations for 2023 and 2024 are expected to be approved by the Board during the spring of 2023.

7.6 Adaptive Management

As discussed in the previous annual report, because several wells in the basin are trending towards undesirable results, the CBGSA Board undertook an effort to review wells that have exceeded minimum thresholds, investigate potential causes of the exceedances, and identify if any domestic or production wells are affected by declining groundwater levels. To support the understanding of potential impacts, a form was added to the CBGSA website to allow landowners to report issues that occur with wells due to groundwater level declines.

During the 2021-2022 water year, the CBGSA performed the following additional activities to better inform decision-making in response to the observed declines in groundwater levels:

- A survey was conducted of pumping wells in the Basin; the objective of the survey was to identify domestic and other de minimis wells so as to better evaluate potential impacts to those users

- An analysis was conducted to analyze water level trends at representative monitoring wells with respect to historical hydrology and groundwater extraction trends. The analysis found that groundwater levels wells in the Ventucopa region have historically recovered during historical wet periods. The analysis found that wells in the Central Region tended to maintain more stable groundwater levels during historical wet periods. These results suggest that there would likely be fewer wells exceeding minimum thresholds if the basin had experienced much wetter hydrology during recent historical years.
- The CBWRM model was used to simulate the pumping allocations management action according to the schedule included in the GSP for the Central Management Area and to compare the resulting groundwater levels in representative wells with the levels that would be experienced in the absence of pumping reductions. The results showed that the pumping allocation management action will likely result in improved groundwater elevations in 2040 as compared to the scenario where no pumping reductions are implemented, but that many wells will still be below minimum threshold levels.

The Board continues to consider potential actions to address minimum threshold exceedances, including restricting pumping in individual wells, adjusting minimum thresholds or the undesirable result criteria identified in the GSP, and accelerating basin-wide pumping reductions. Potential options for implementing these actions will be discussed by the Board during the upcoming water year.

7.7 Progress Toward Implementation of Monitoring Networks

This section provides updates about implementation of the monitoring networks identified during GSP development.

7.7.1 Groundwater Levels Monitoring Network

As described in the previous annual reports, on December 4, 2019, the CBGSA Board approved a task to begin implementation of the groundwater levels monitoring network. As part of this task, well information sheets were prepared for each well in the monitoring network to allow for implementation of regular monitoring at each well. This work was completed in early 2021, and monthly groundwater data were collected at each well in the monitoring network through July 2021. Starting in October 2021, the CBGSA transitioned to quarterly monitoring at each well, which continued through the 2021-2022 water year.

7.7.2 Surface Water Monitoring Network

Under a Category 1 grant from DWR, two new surface flow gages were installed on the Cuyama River during 2021. These gages are managed by the United States Geologic Survey (USGS), and data collected at the gage locations are available on the USGS website at the following links:

https://waterdata.usgs.gov/nwis/uv?site_no=11136500

https://waterdata.usgs.gov/ca/nwis/uv?site_no=11136710

Section 8. References

California Department of Water Resources (DWR). 2003. *California's Groundwater Bulletin 118—Update 2003*. <https://water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/3-13.pdf>

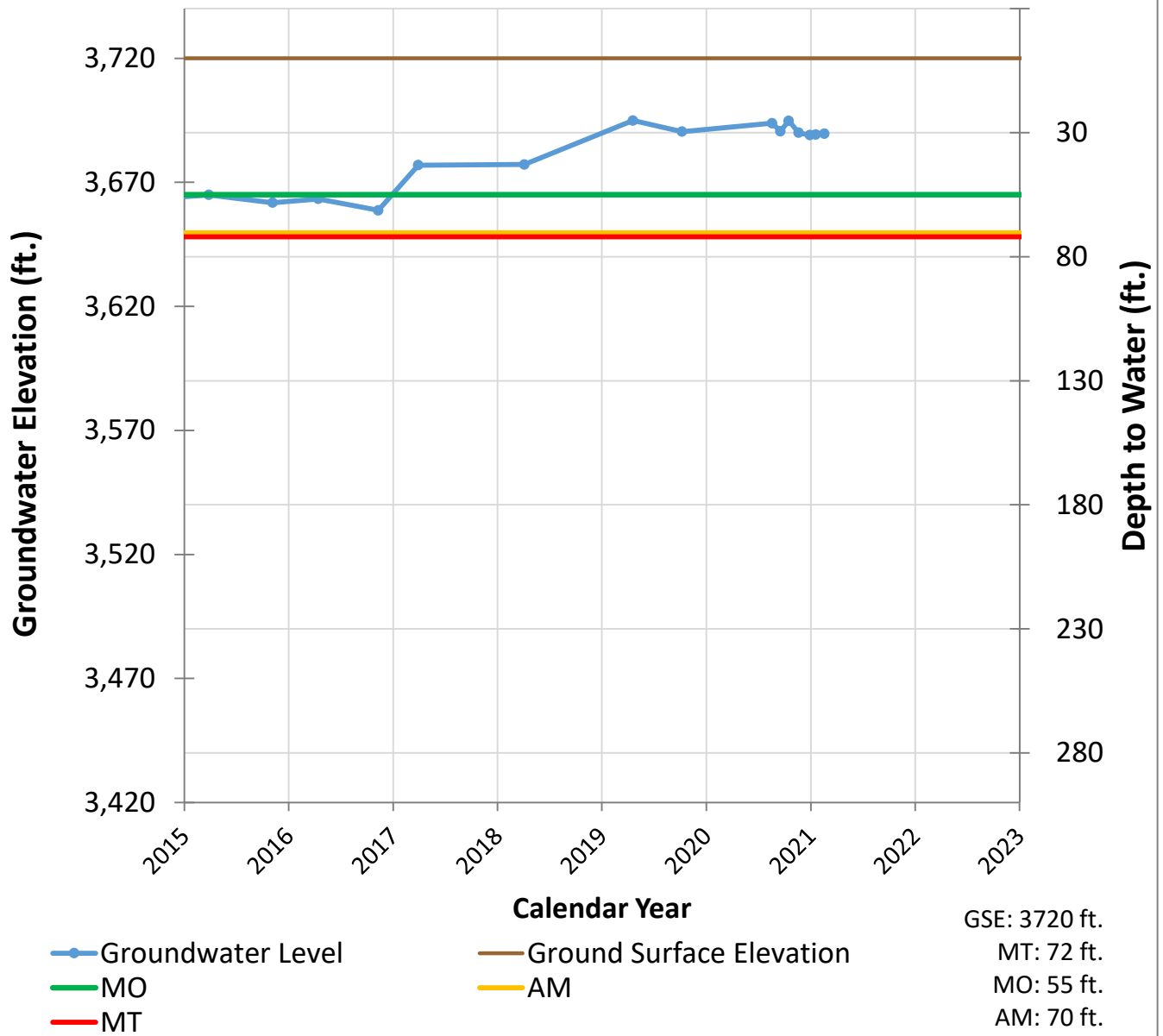
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Appendix A

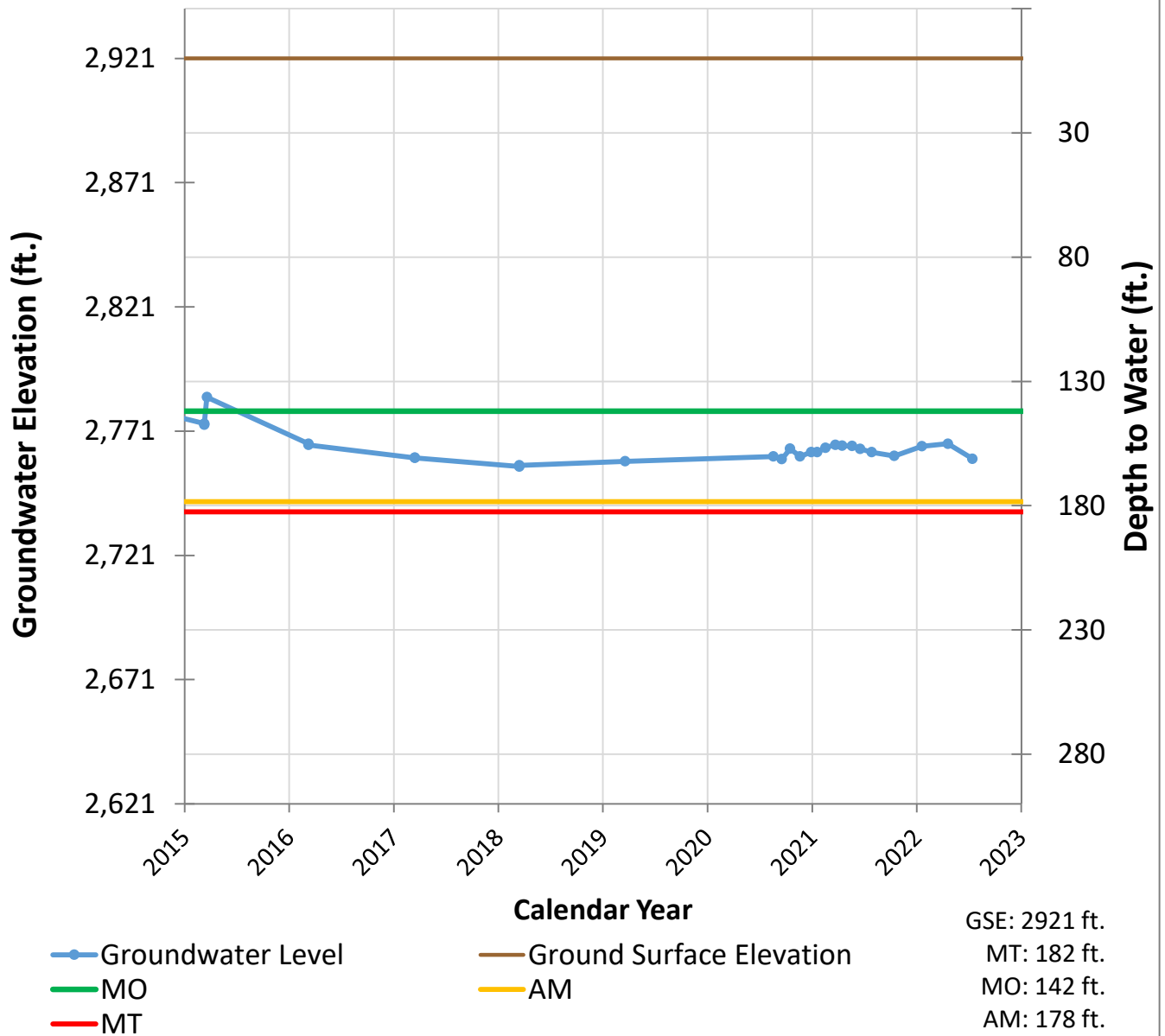
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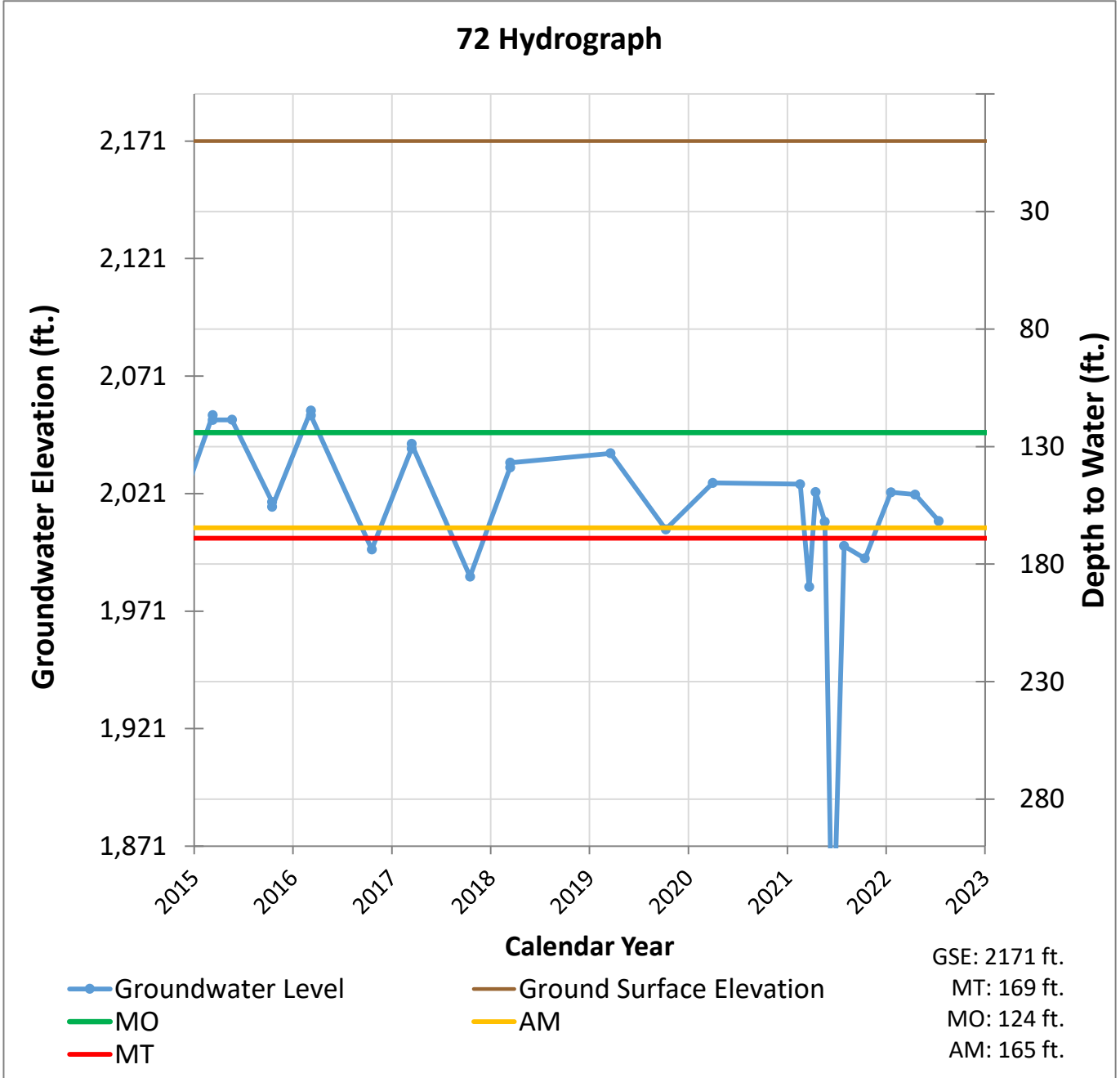
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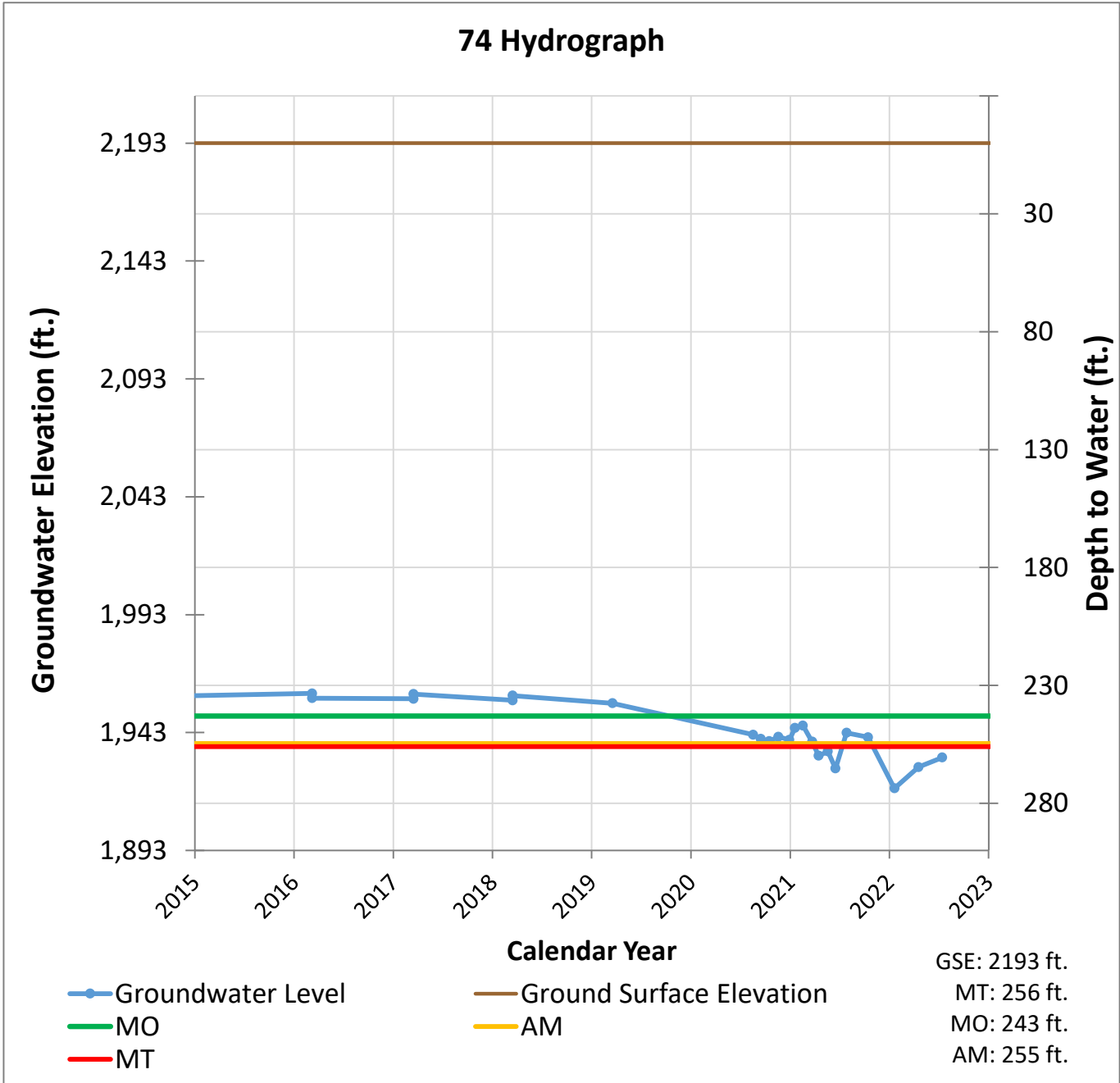


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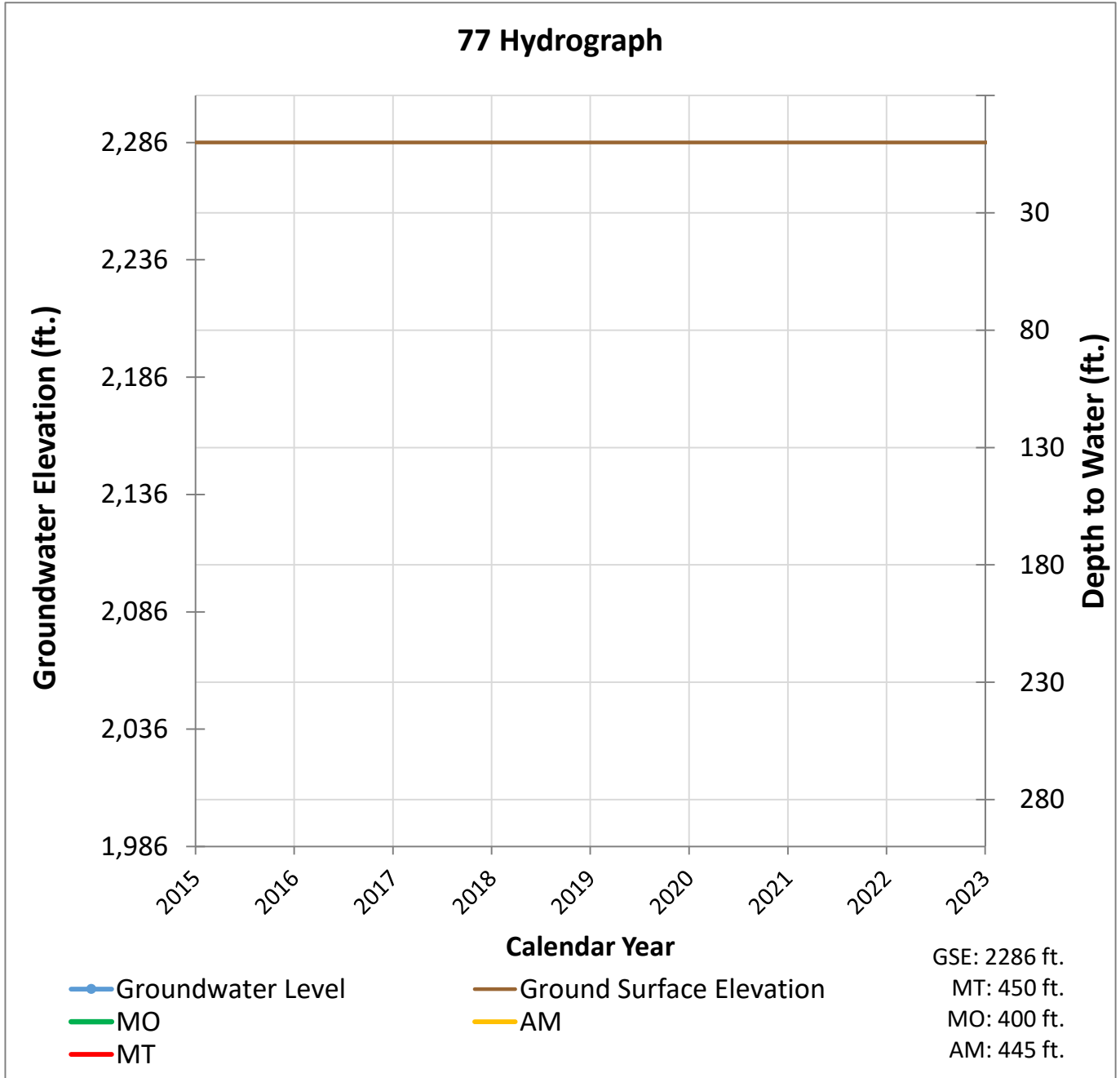




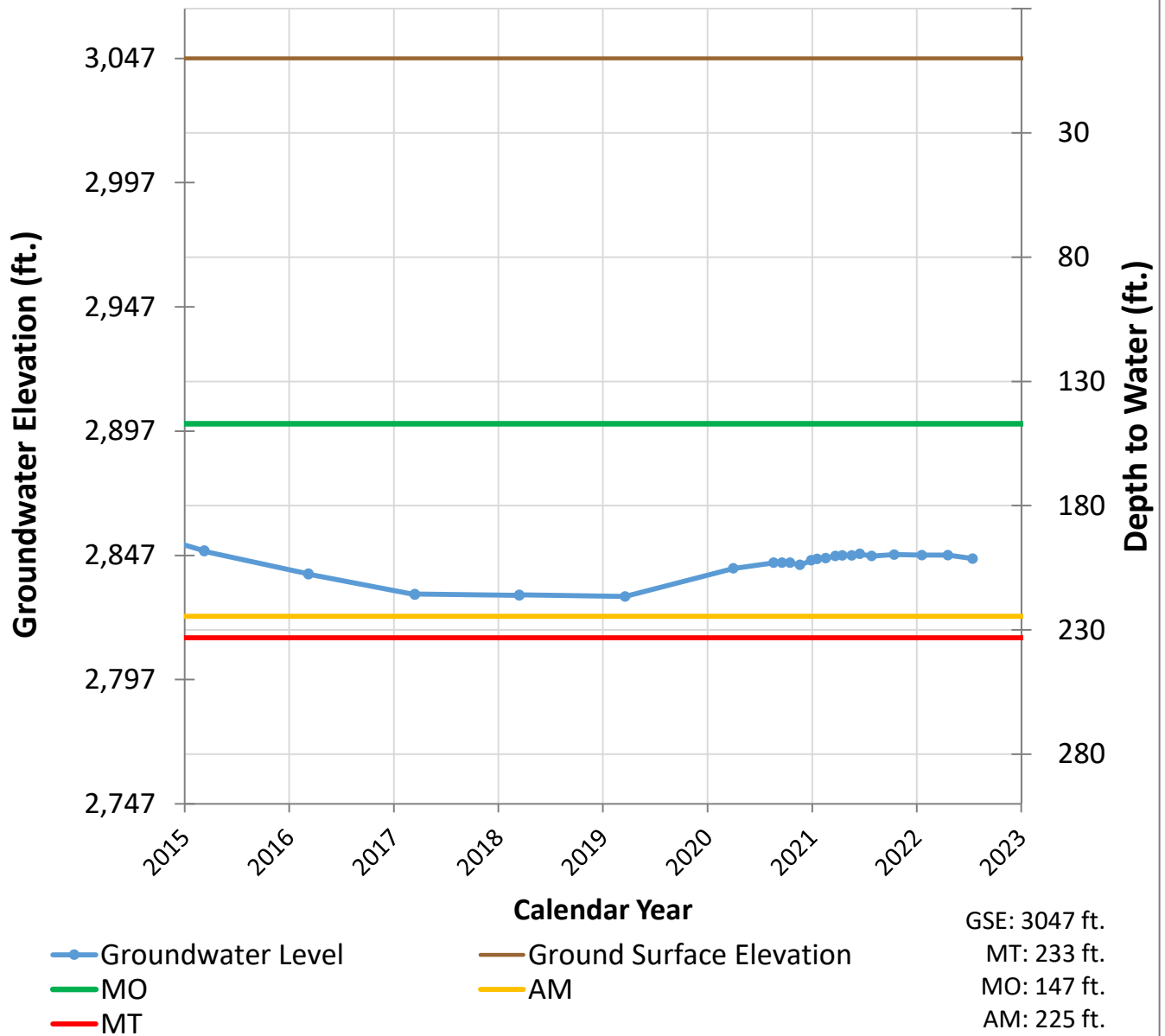
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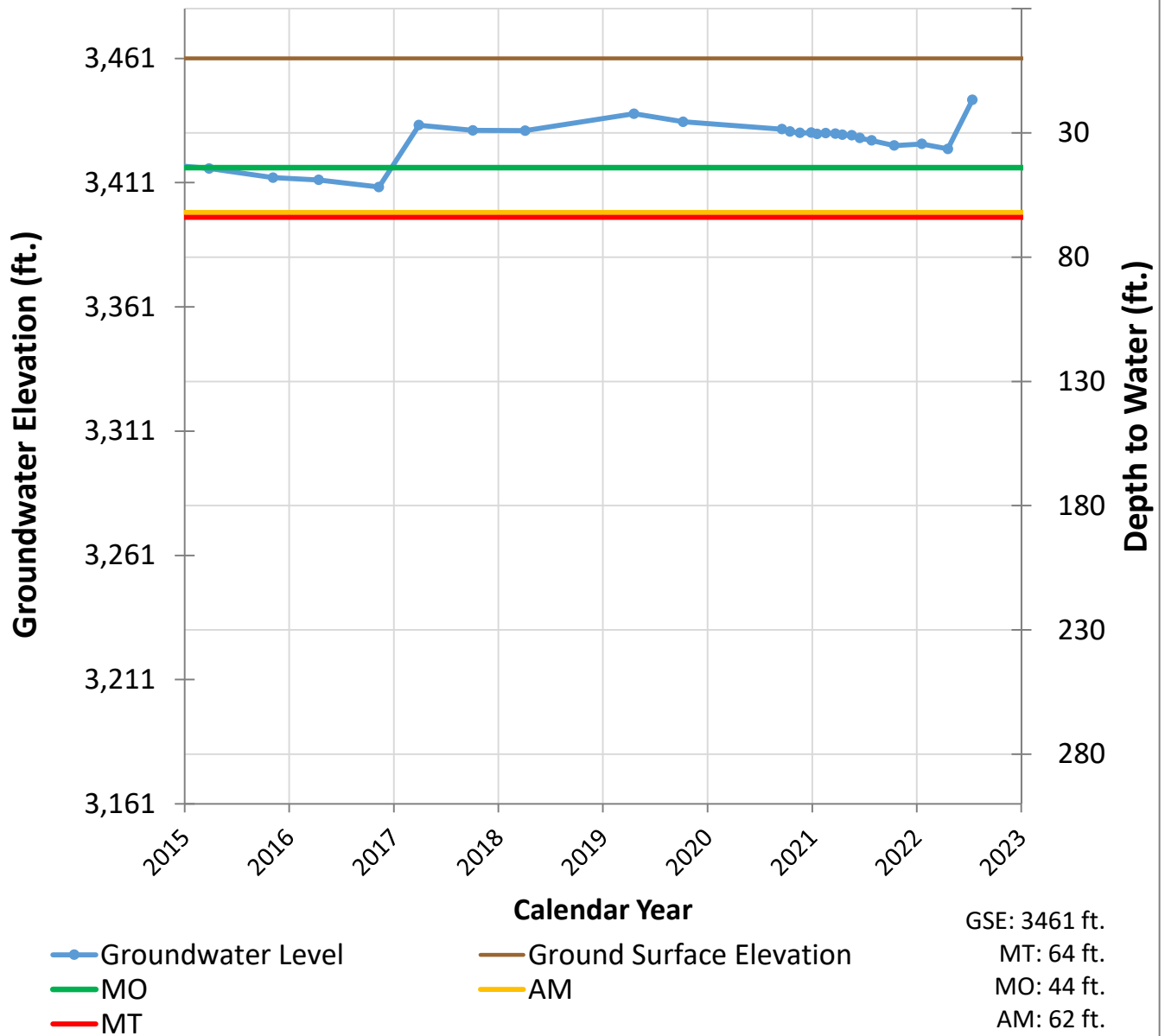
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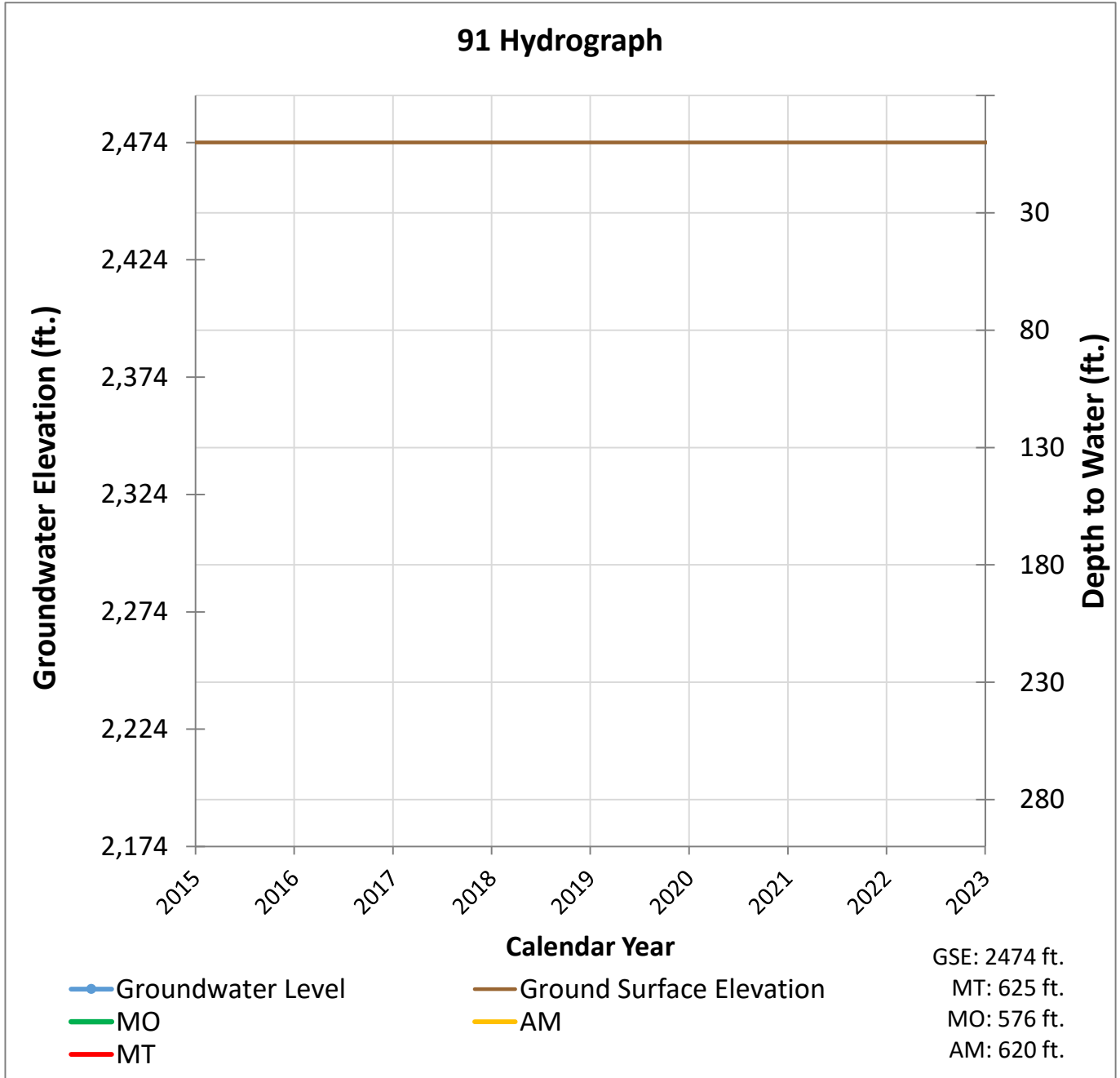
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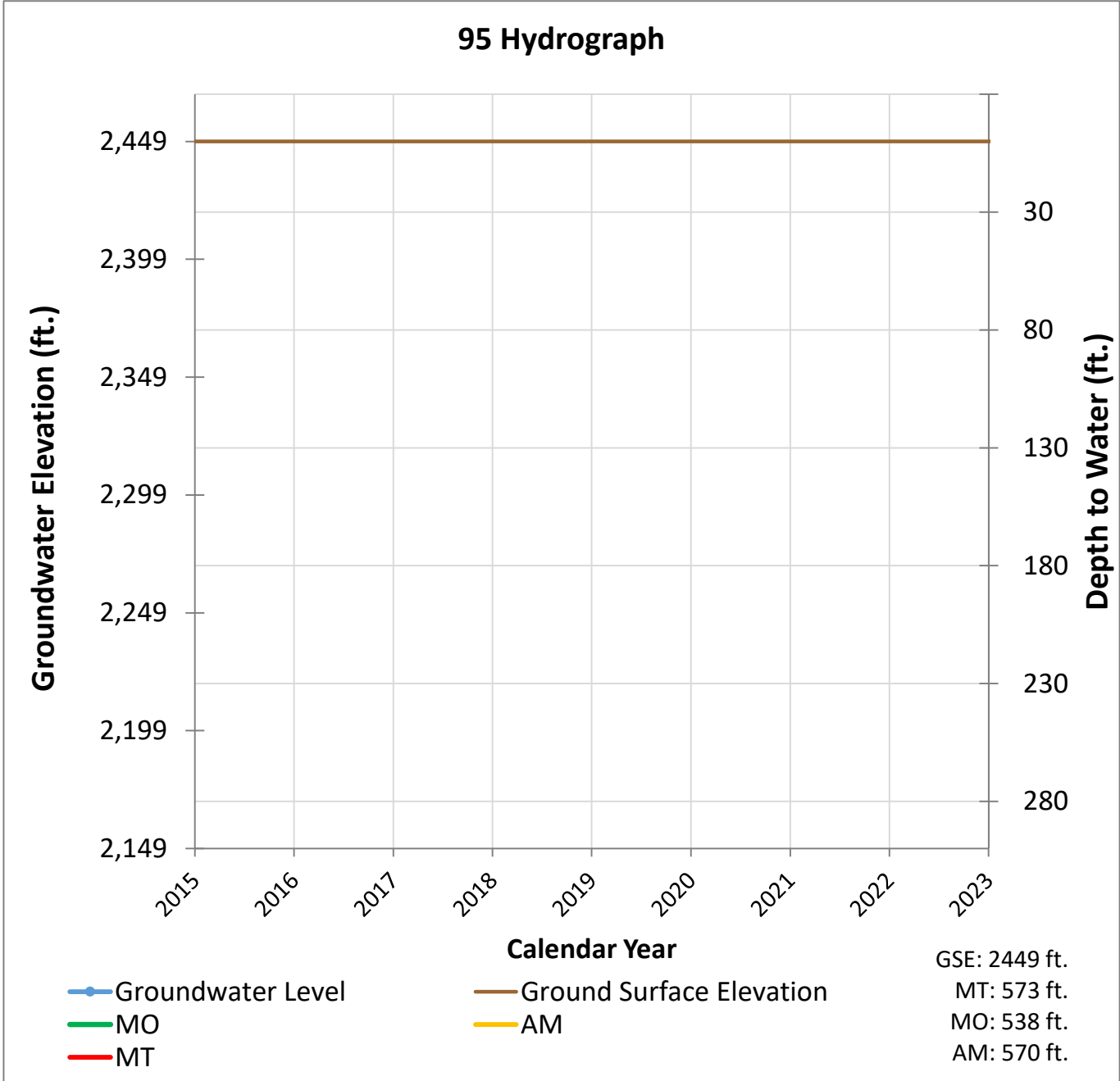
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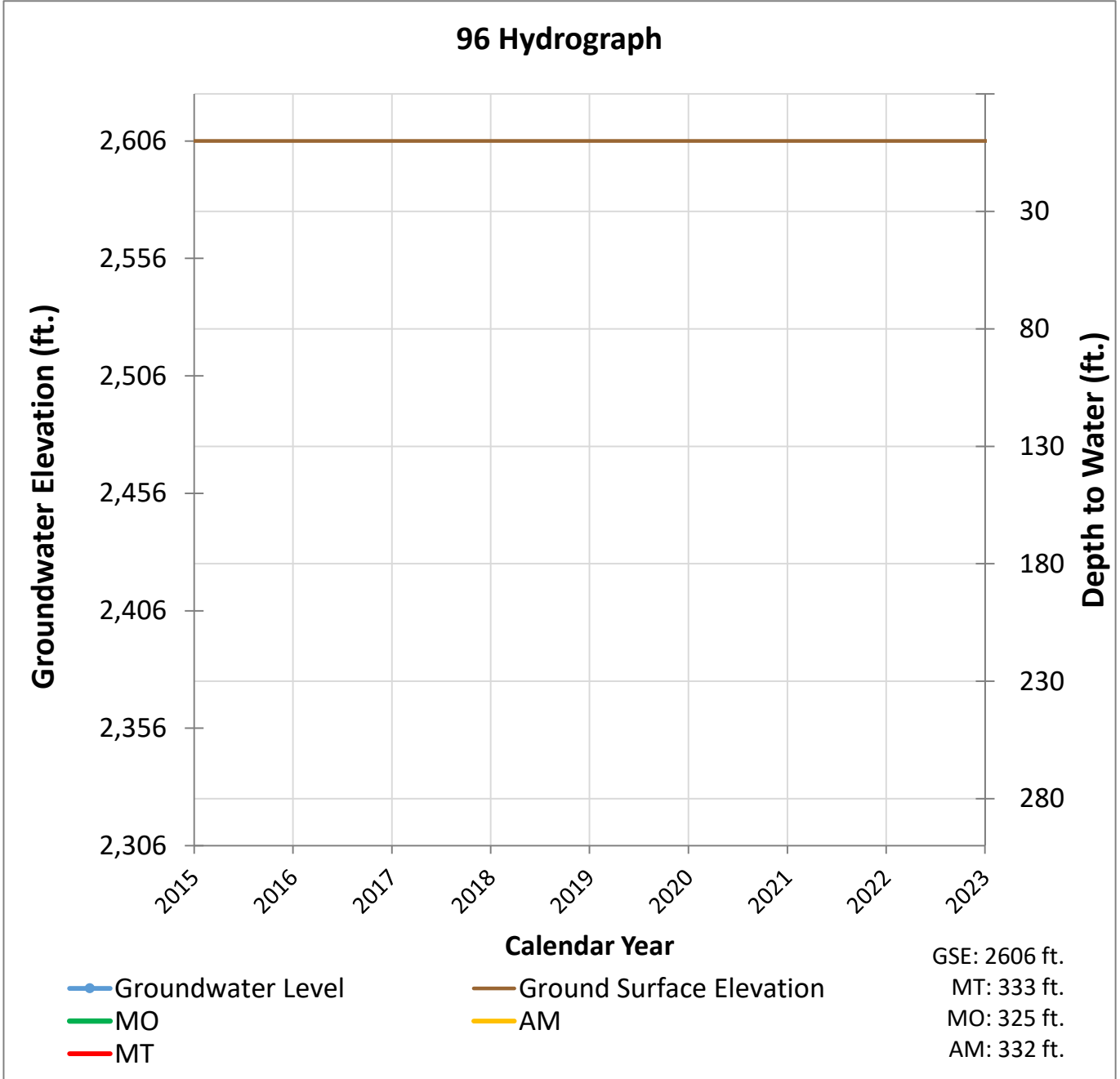


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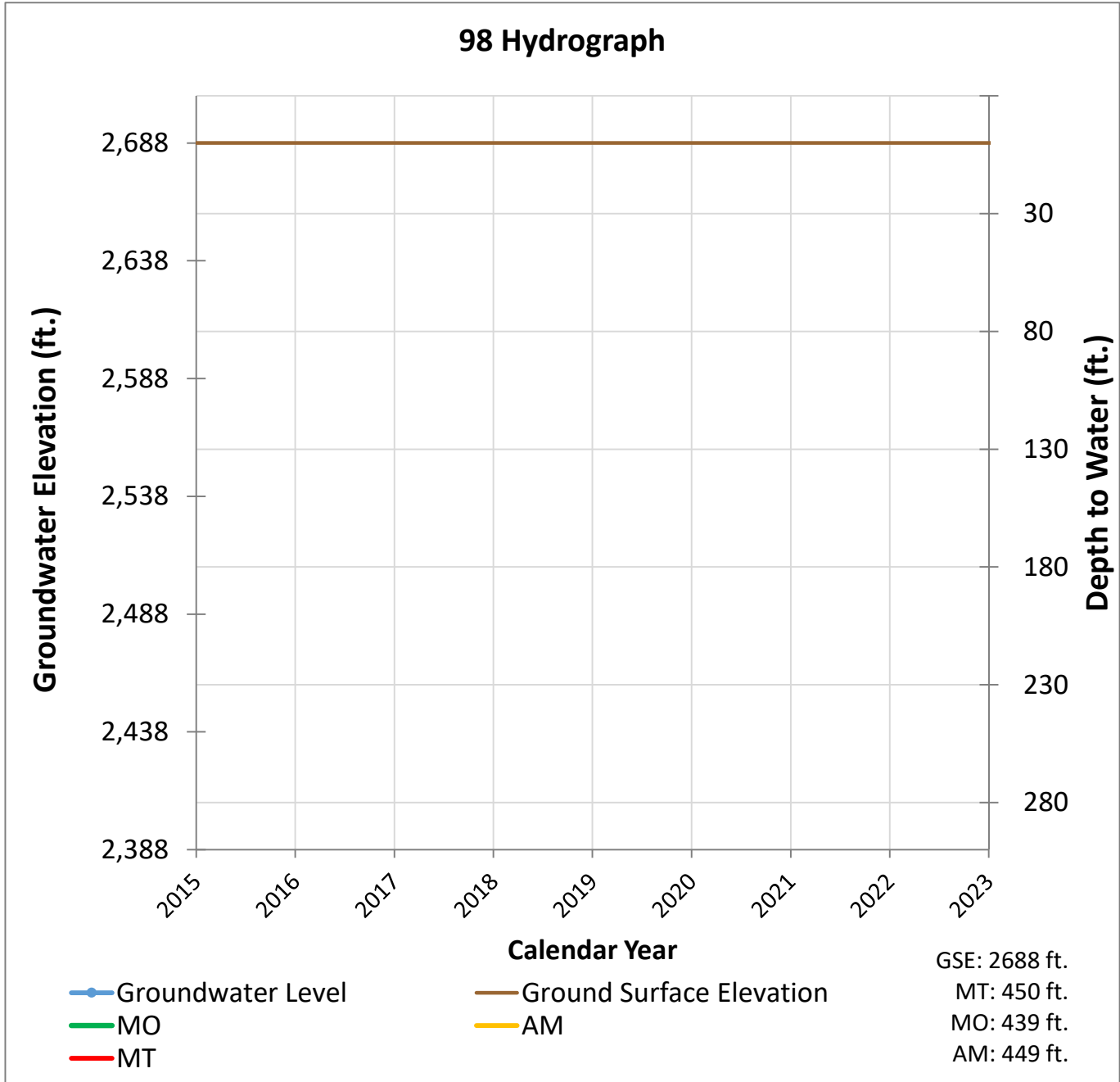


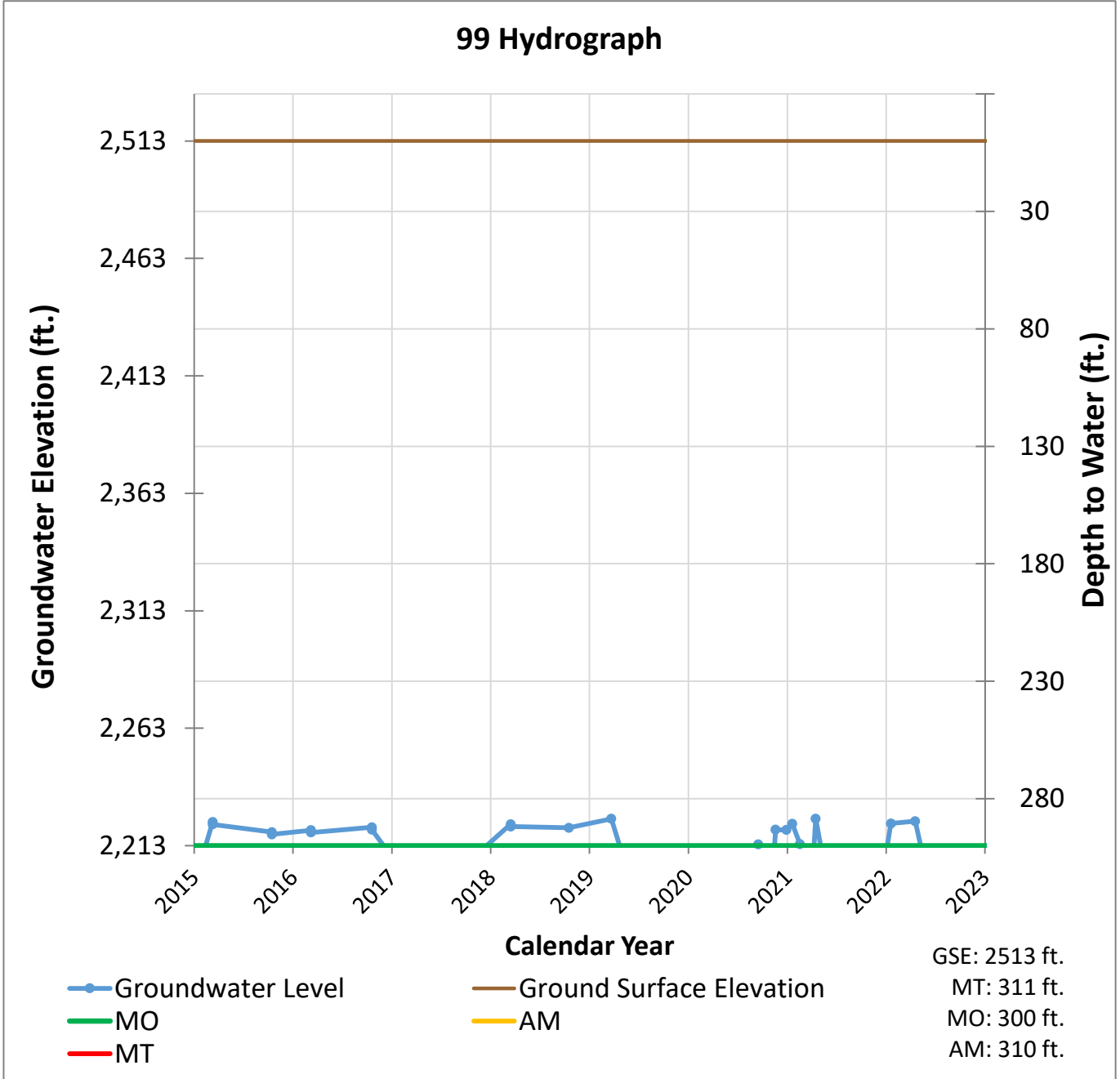
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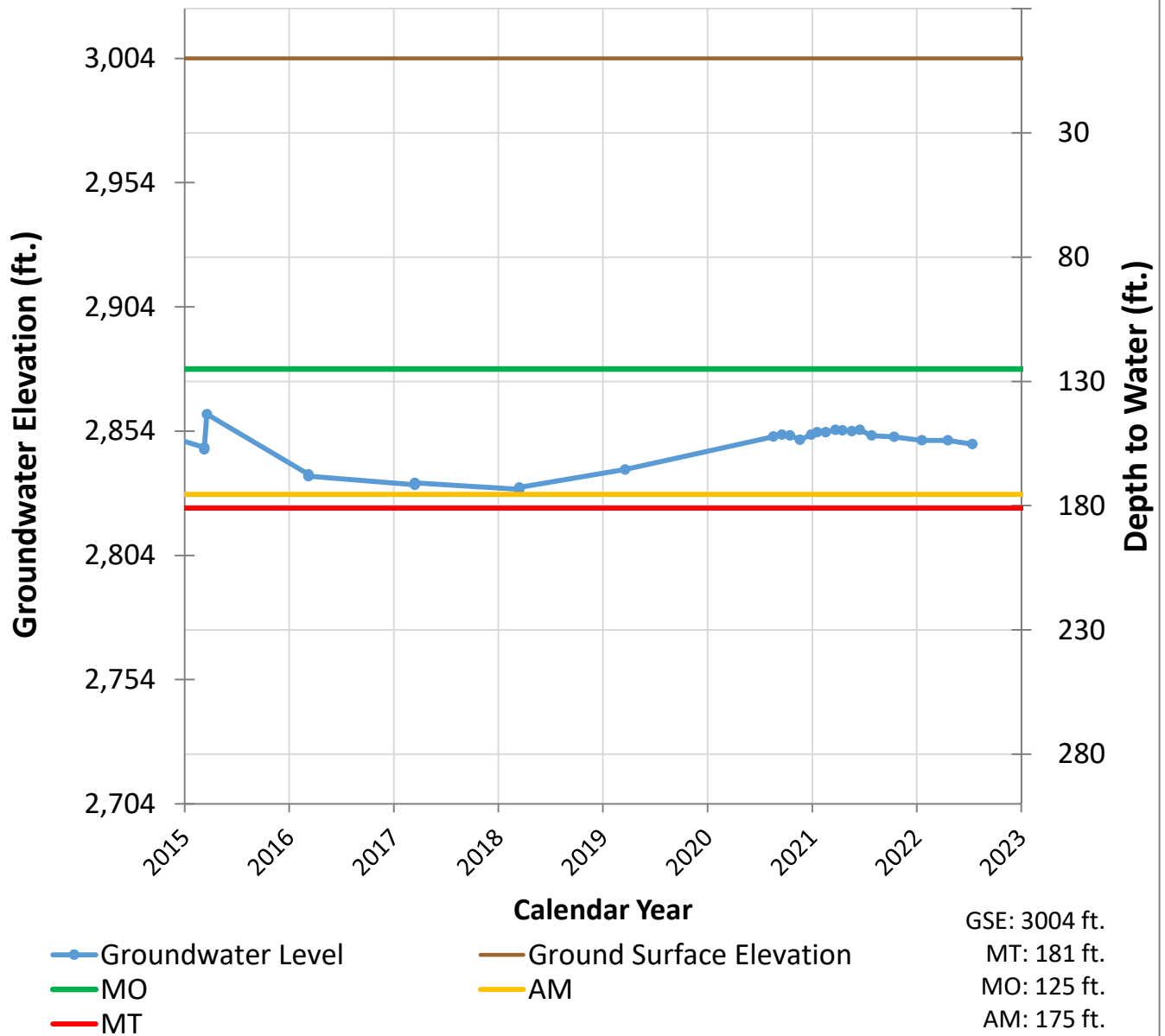


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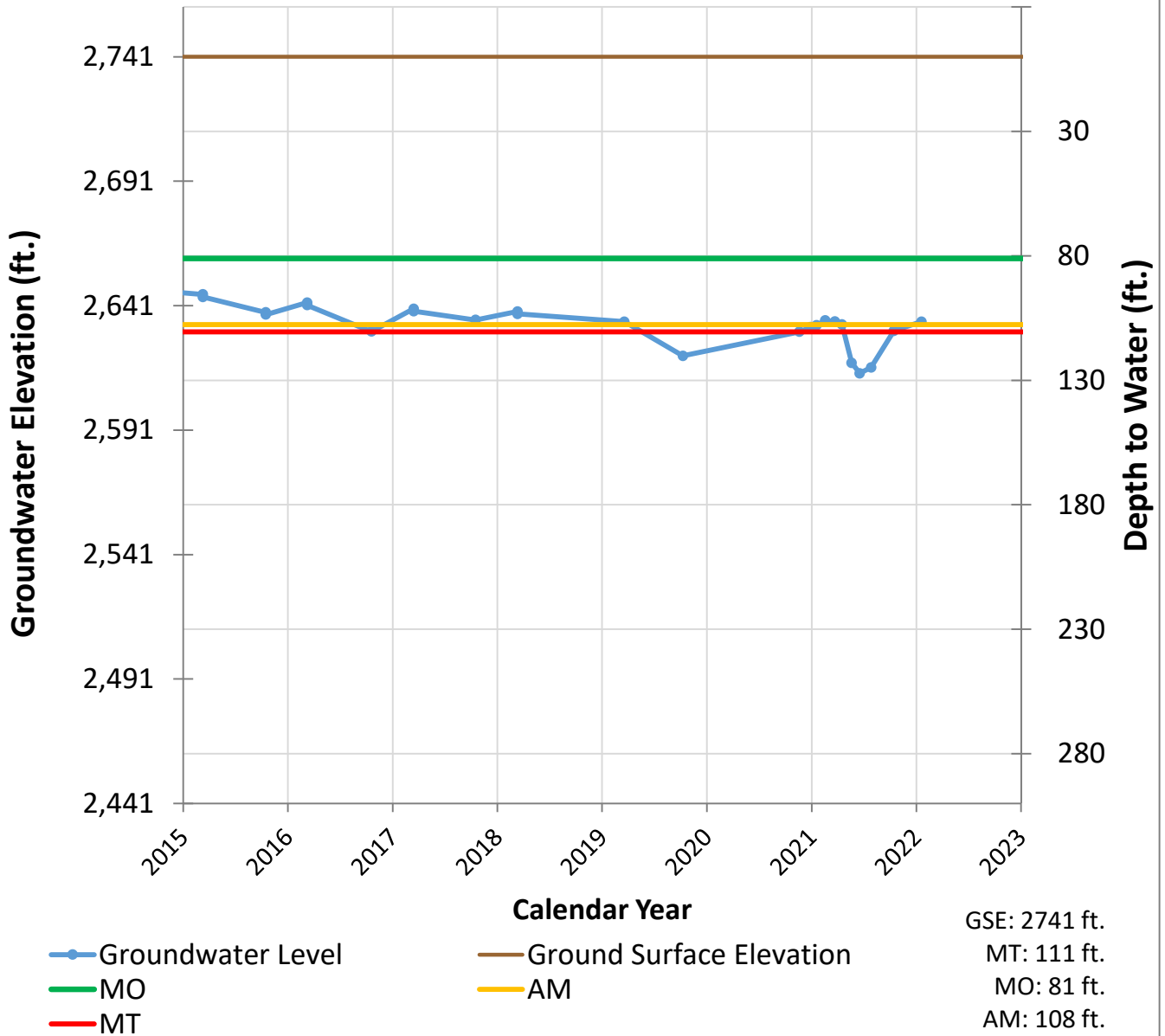




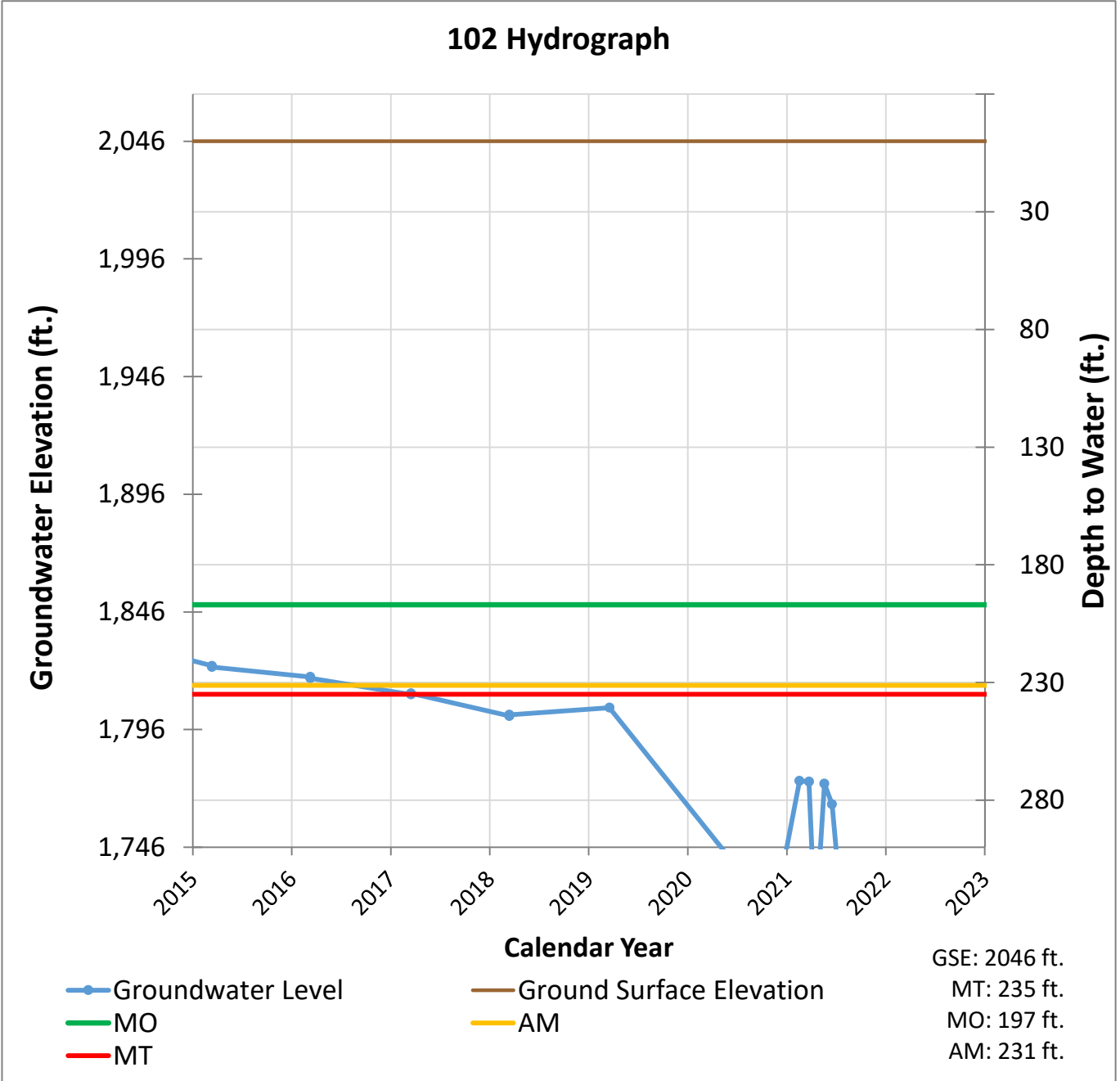
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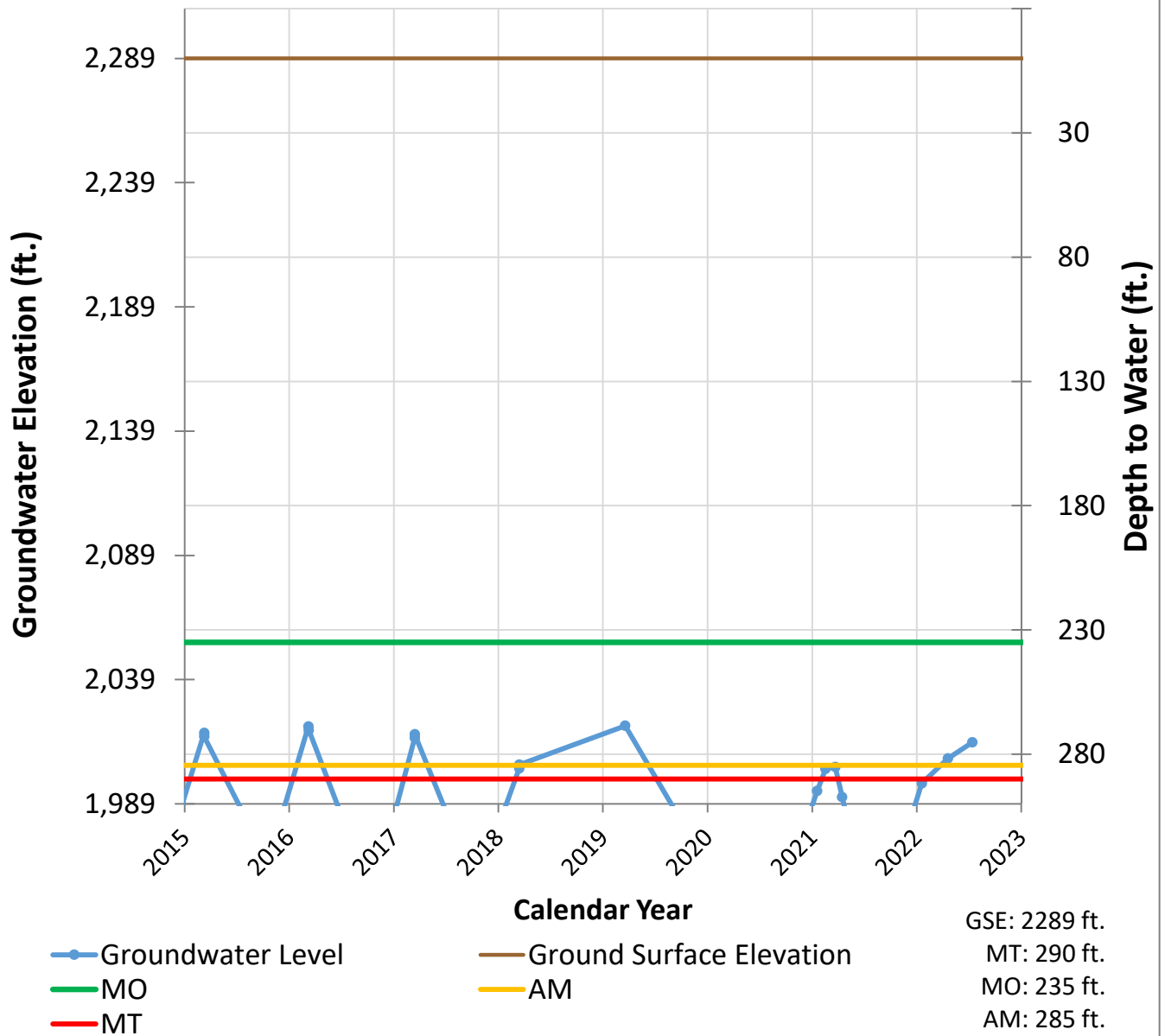
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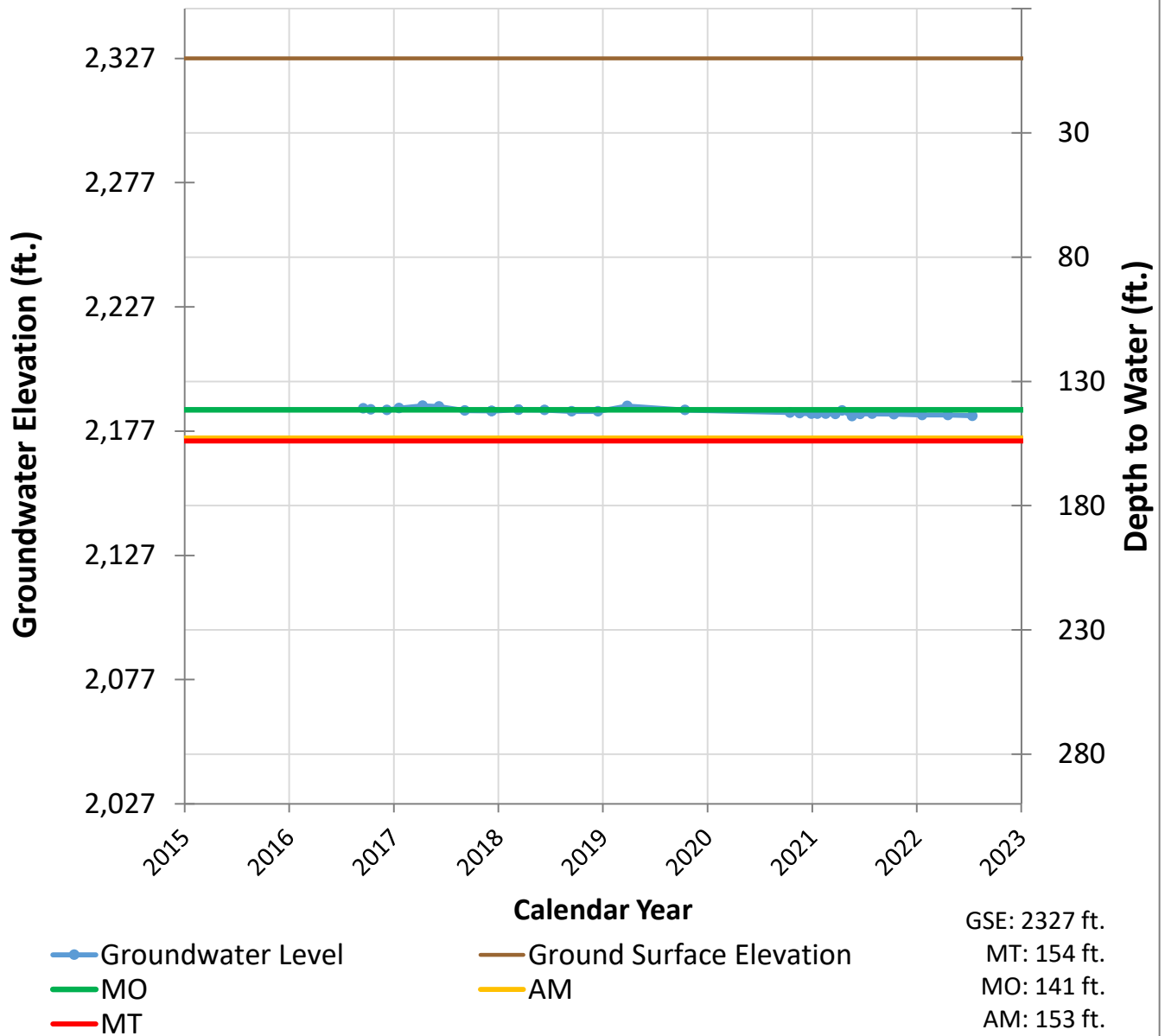
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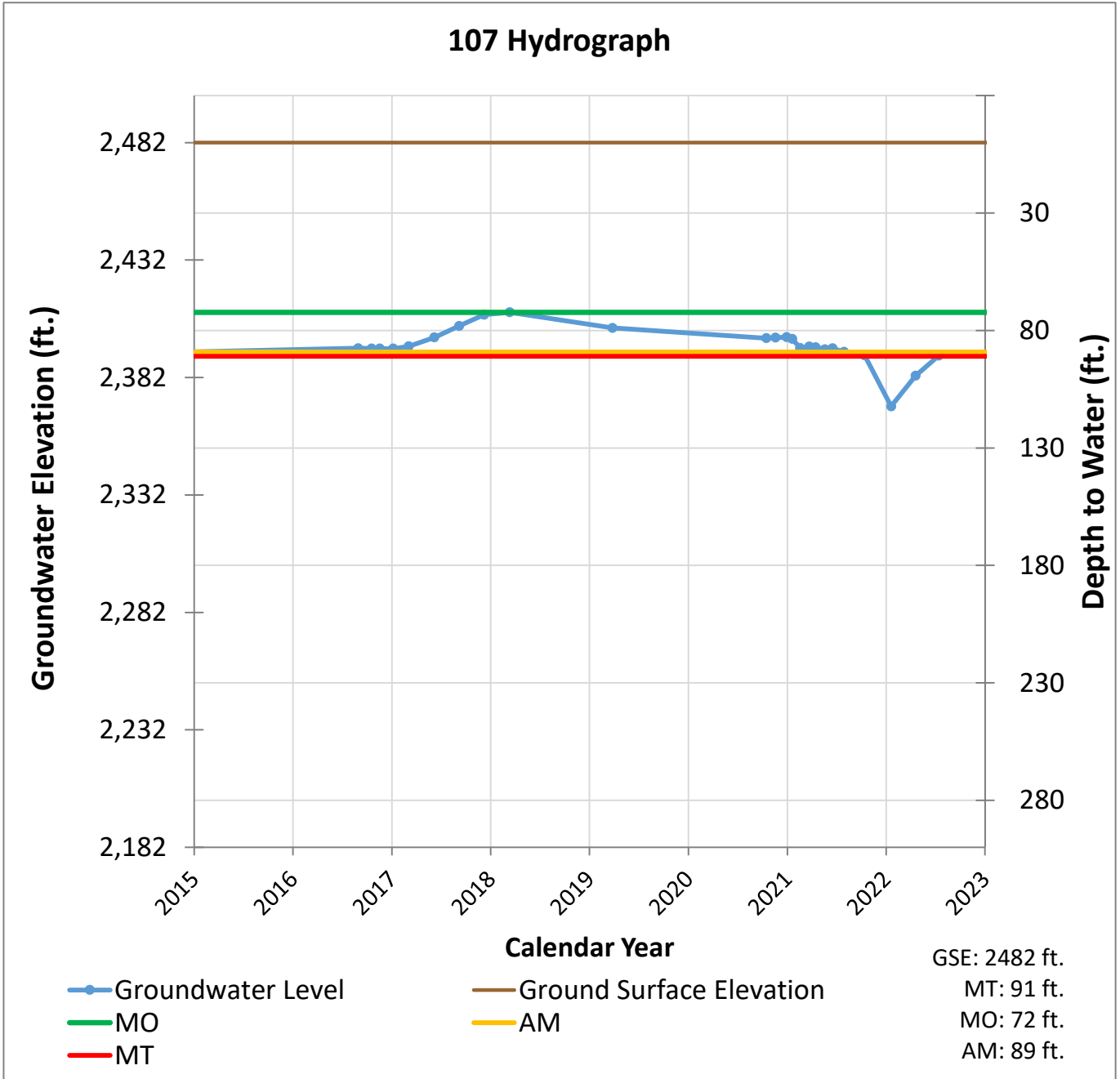
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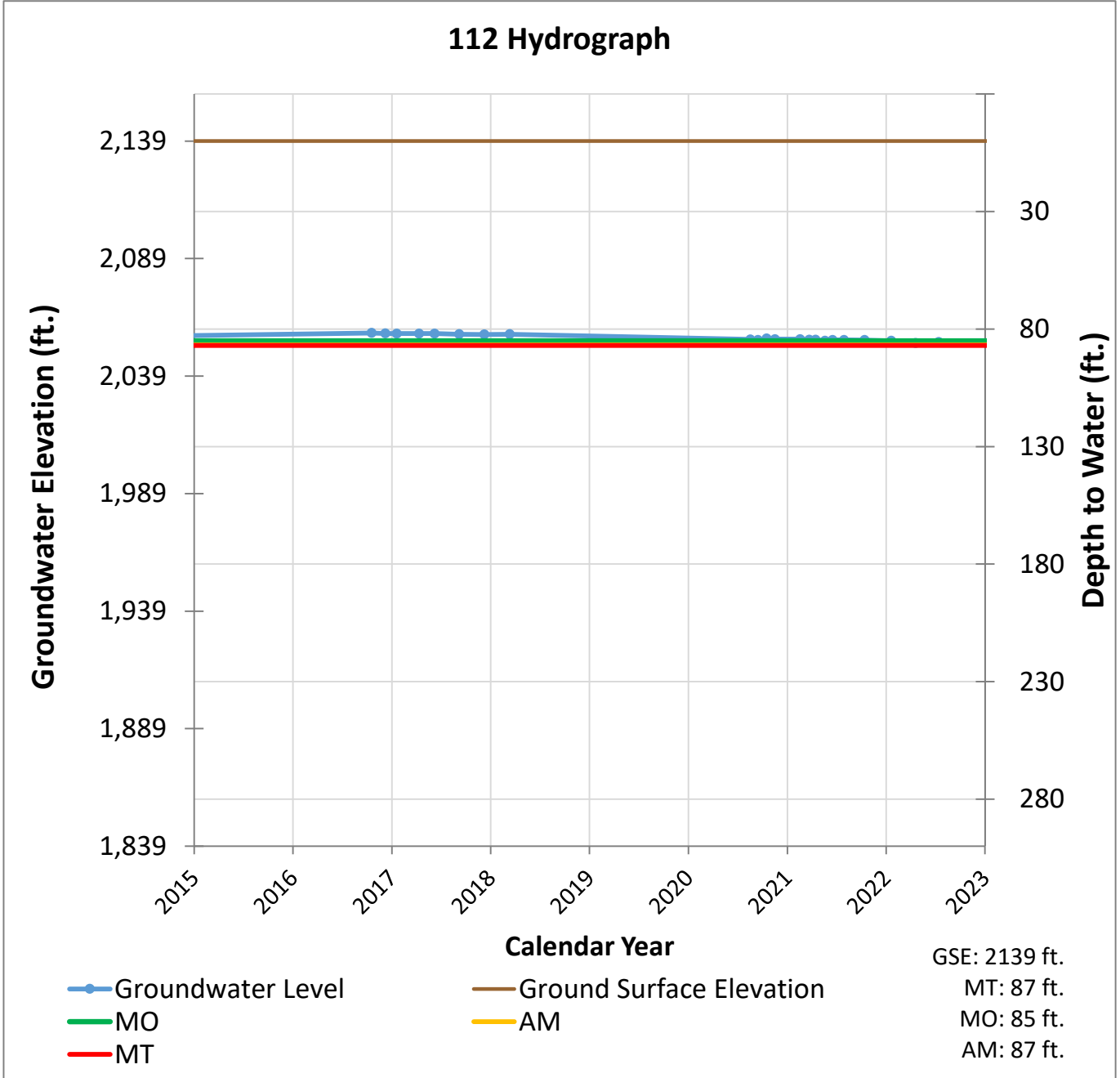
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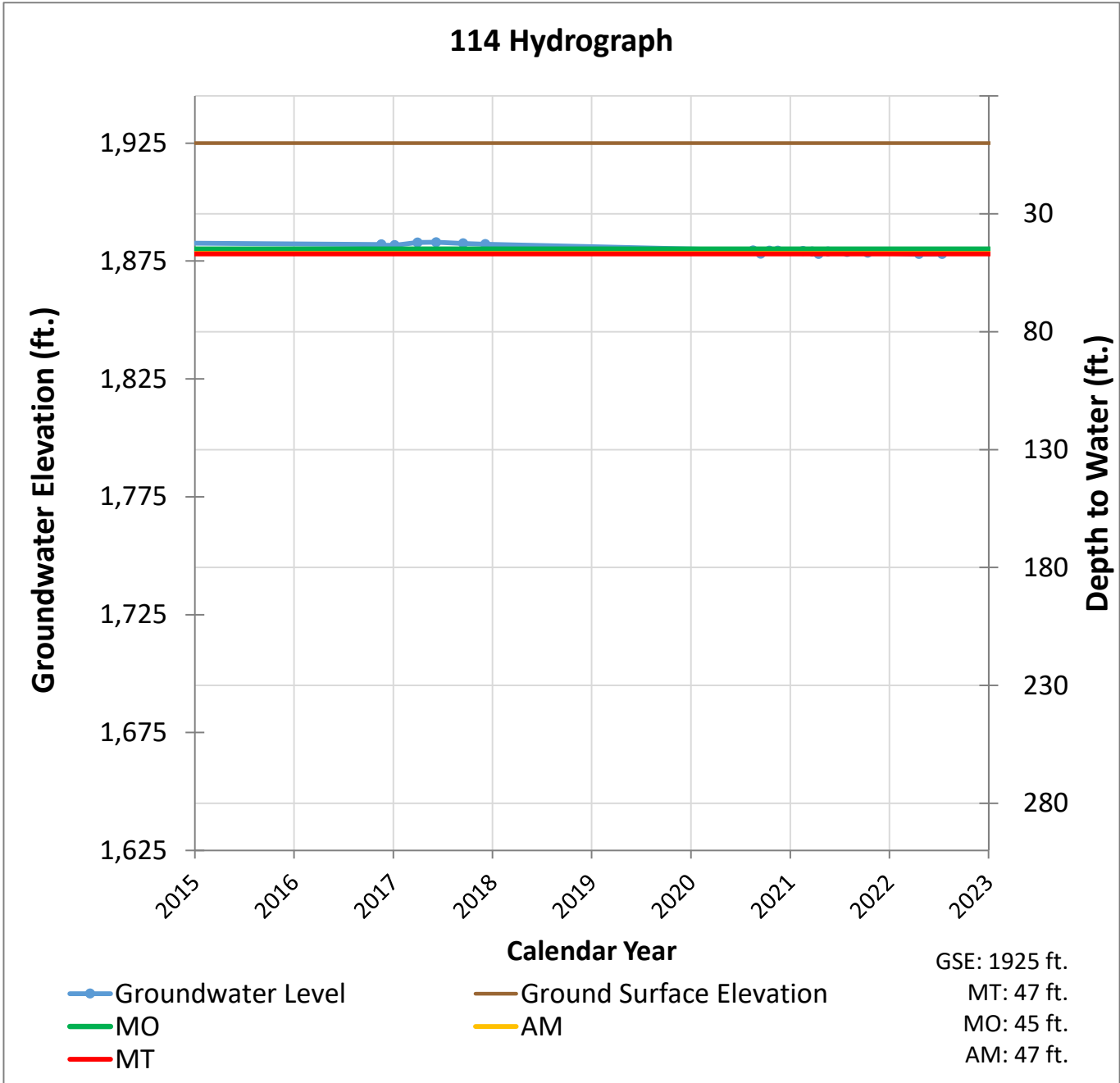
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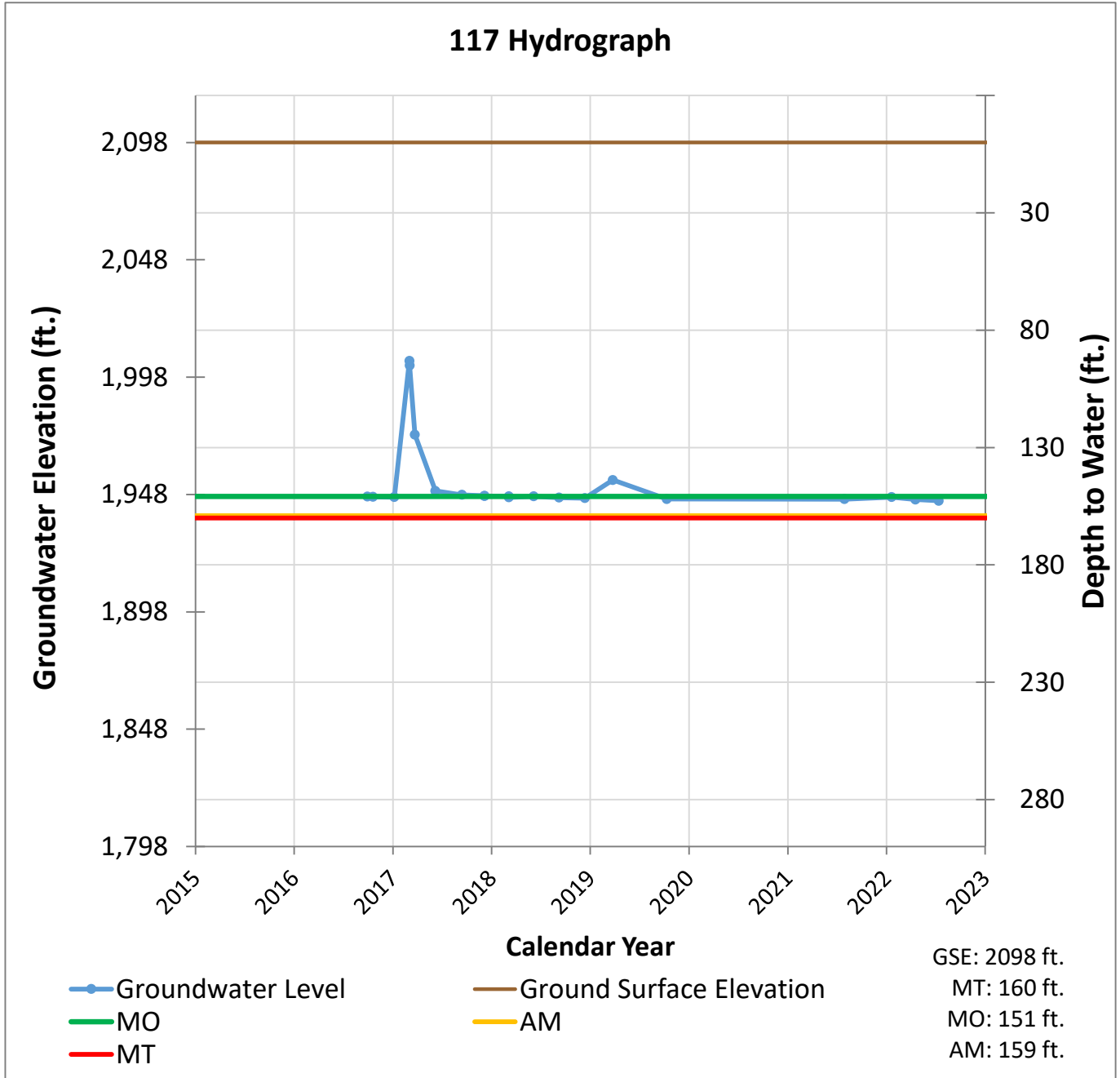


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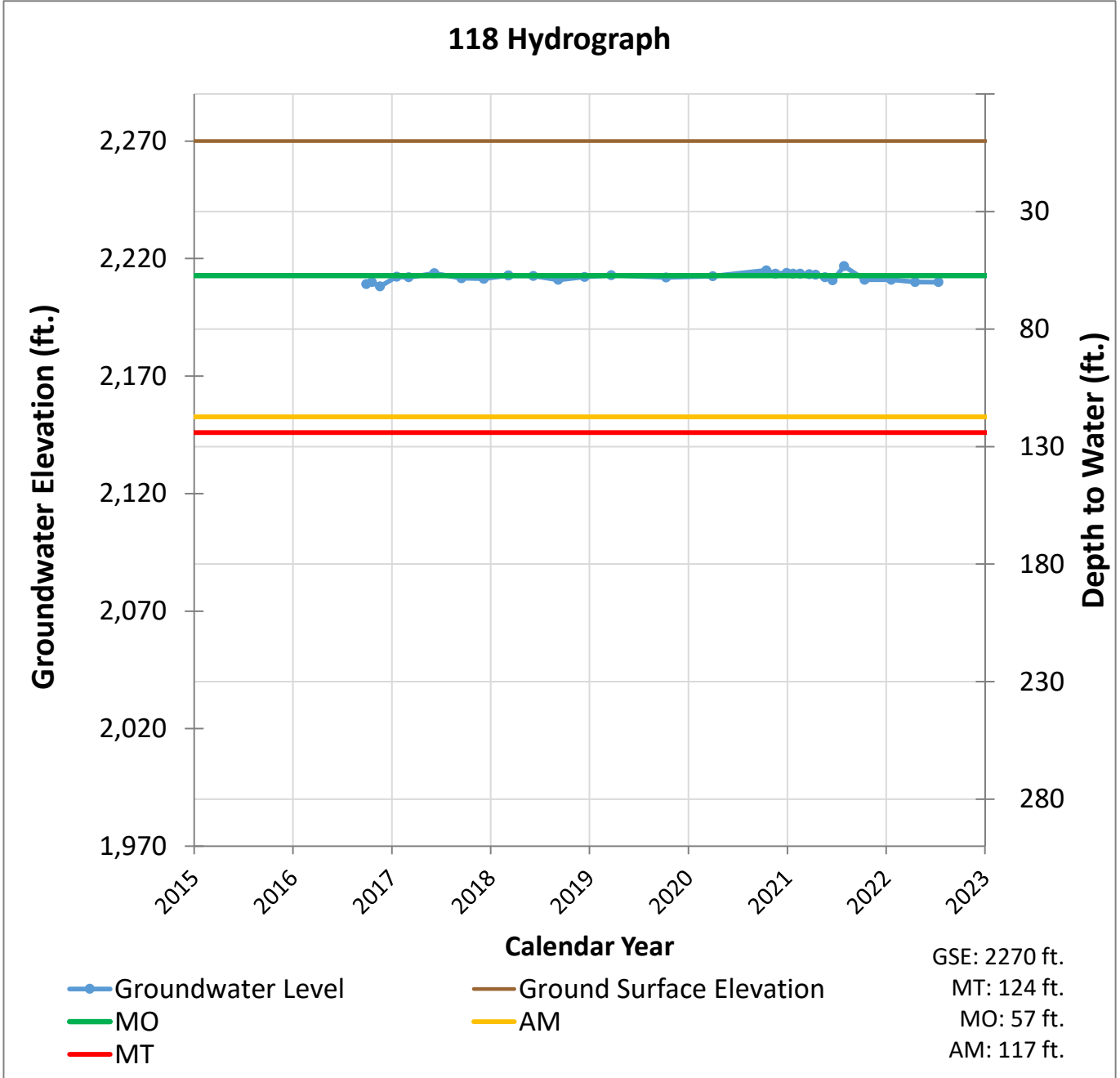


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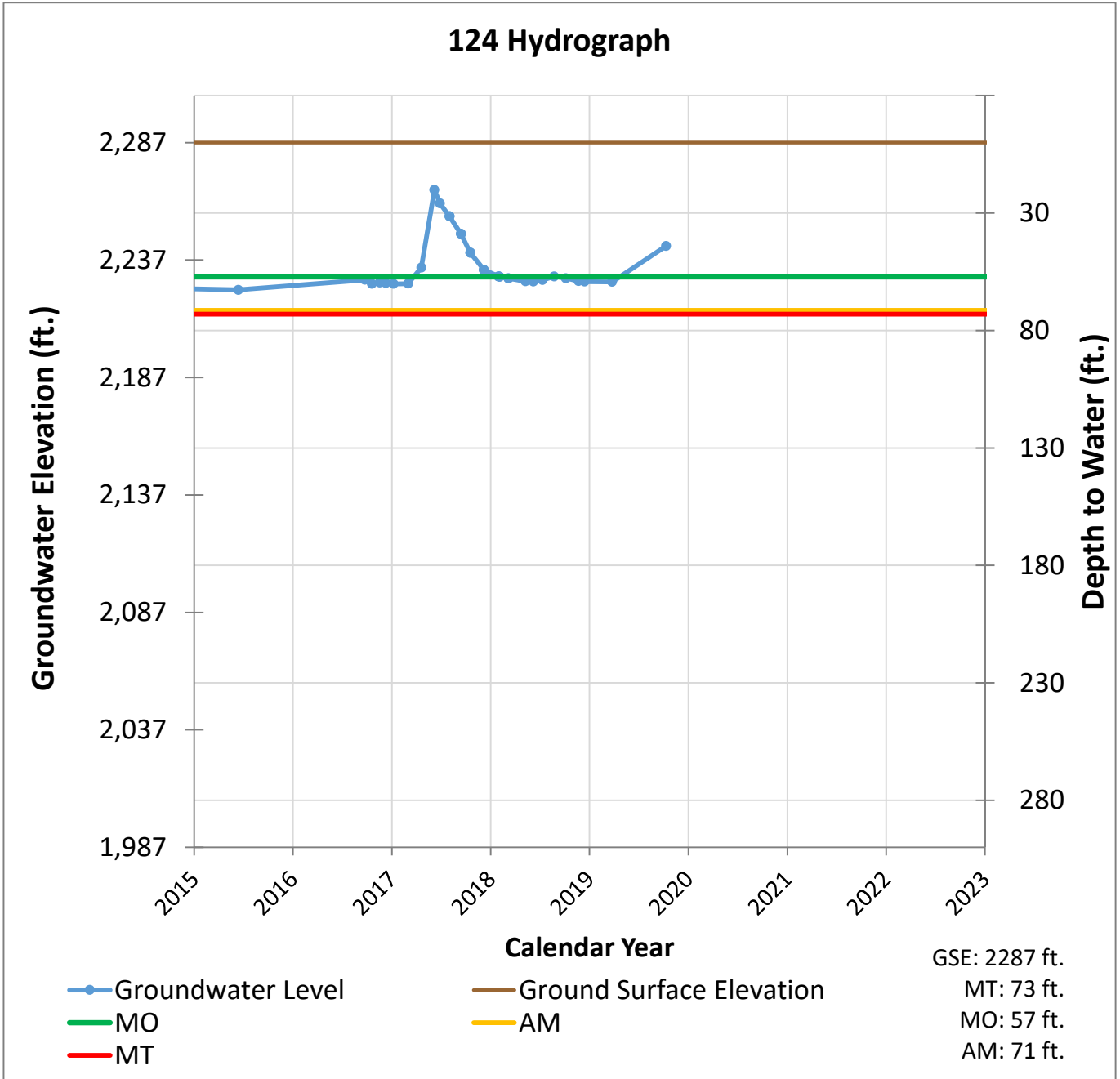




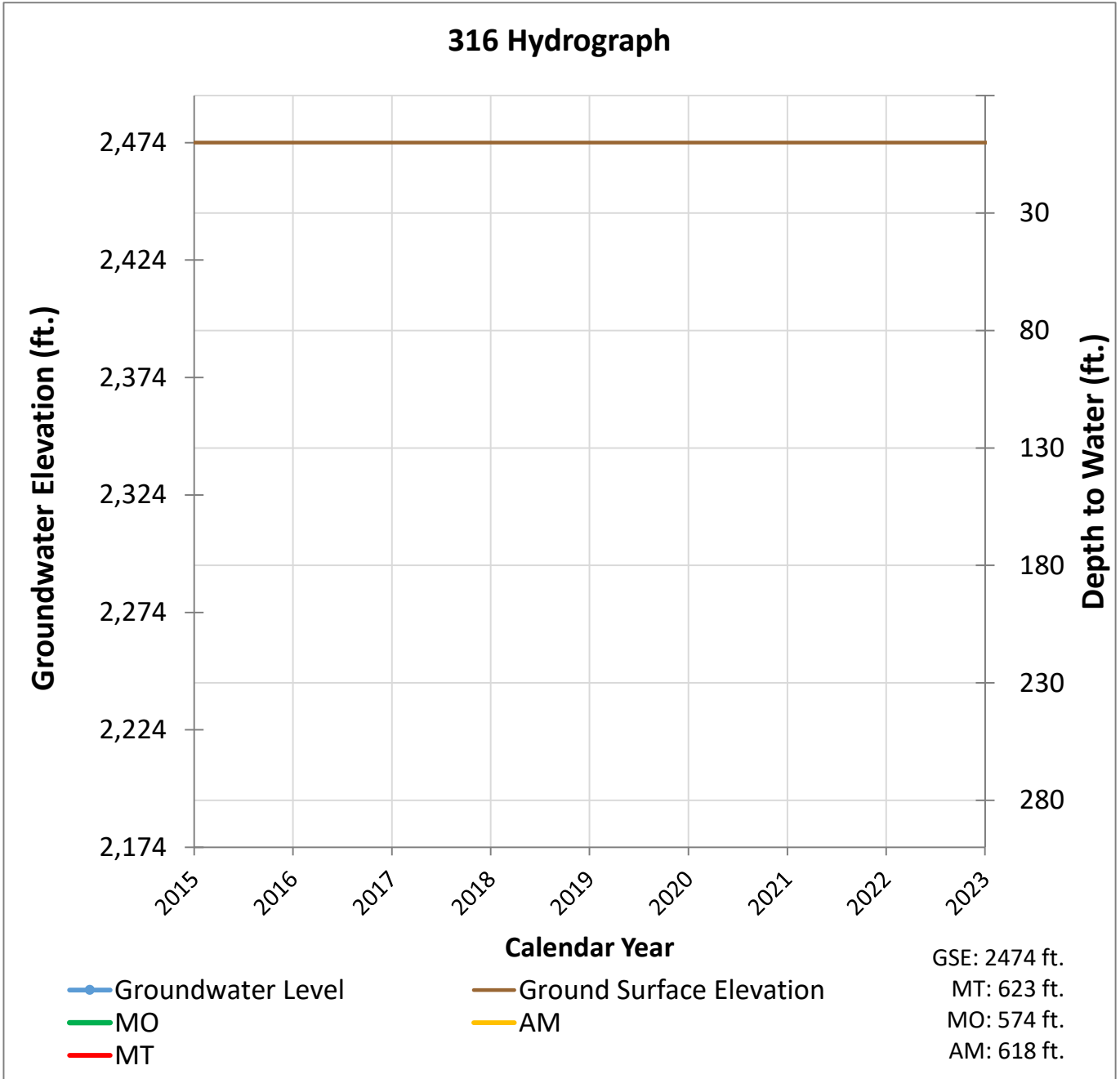
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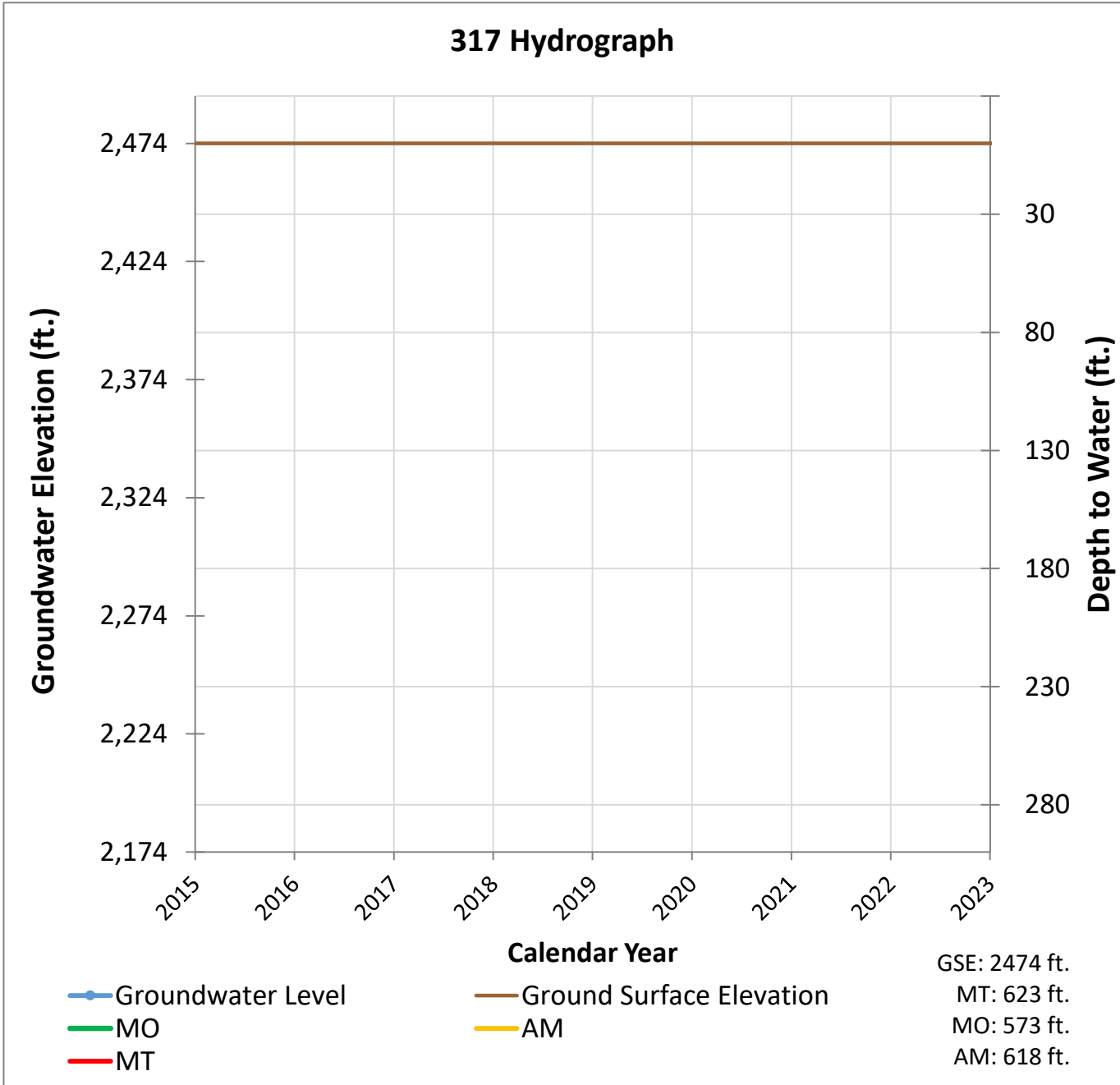
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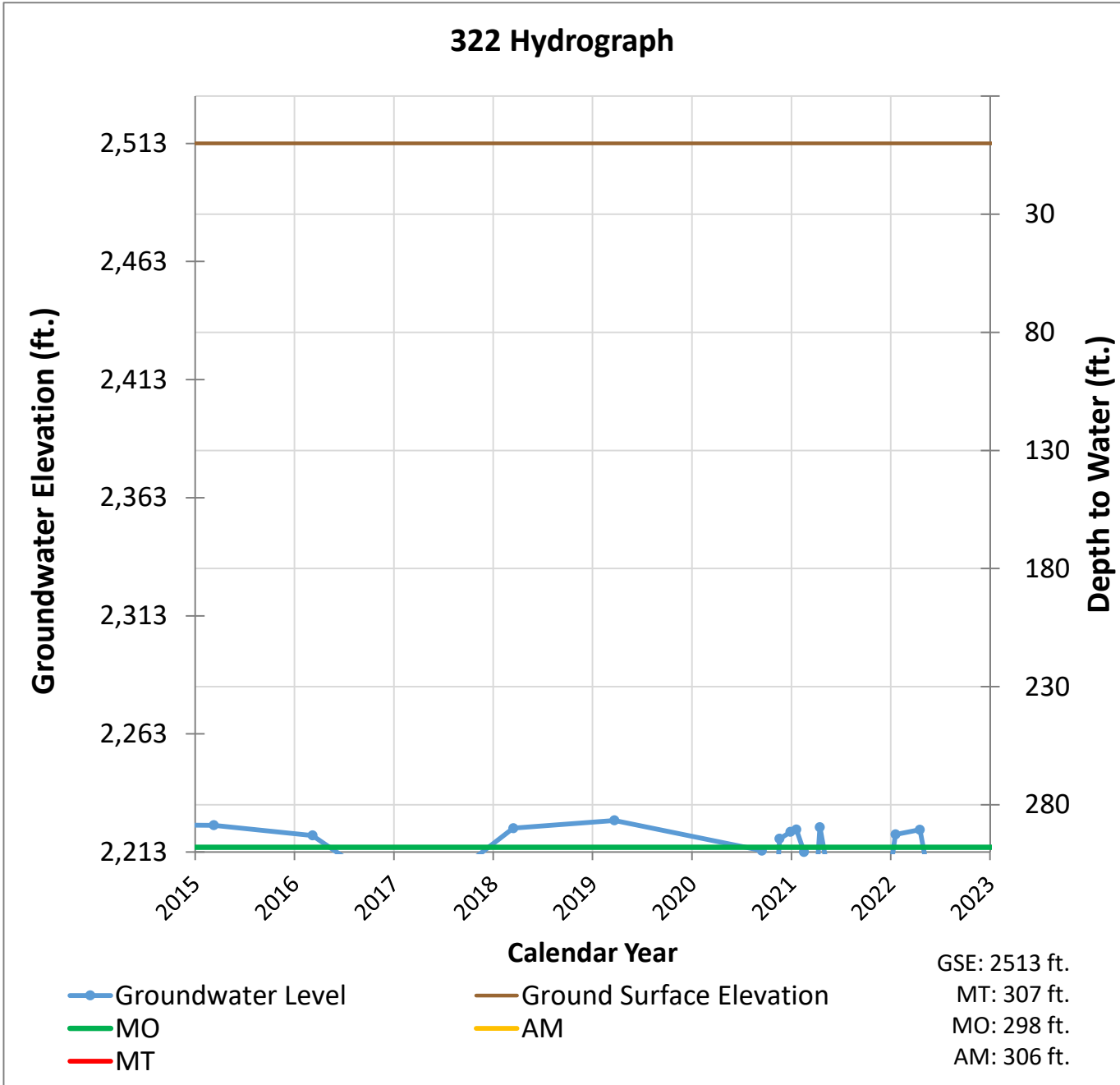
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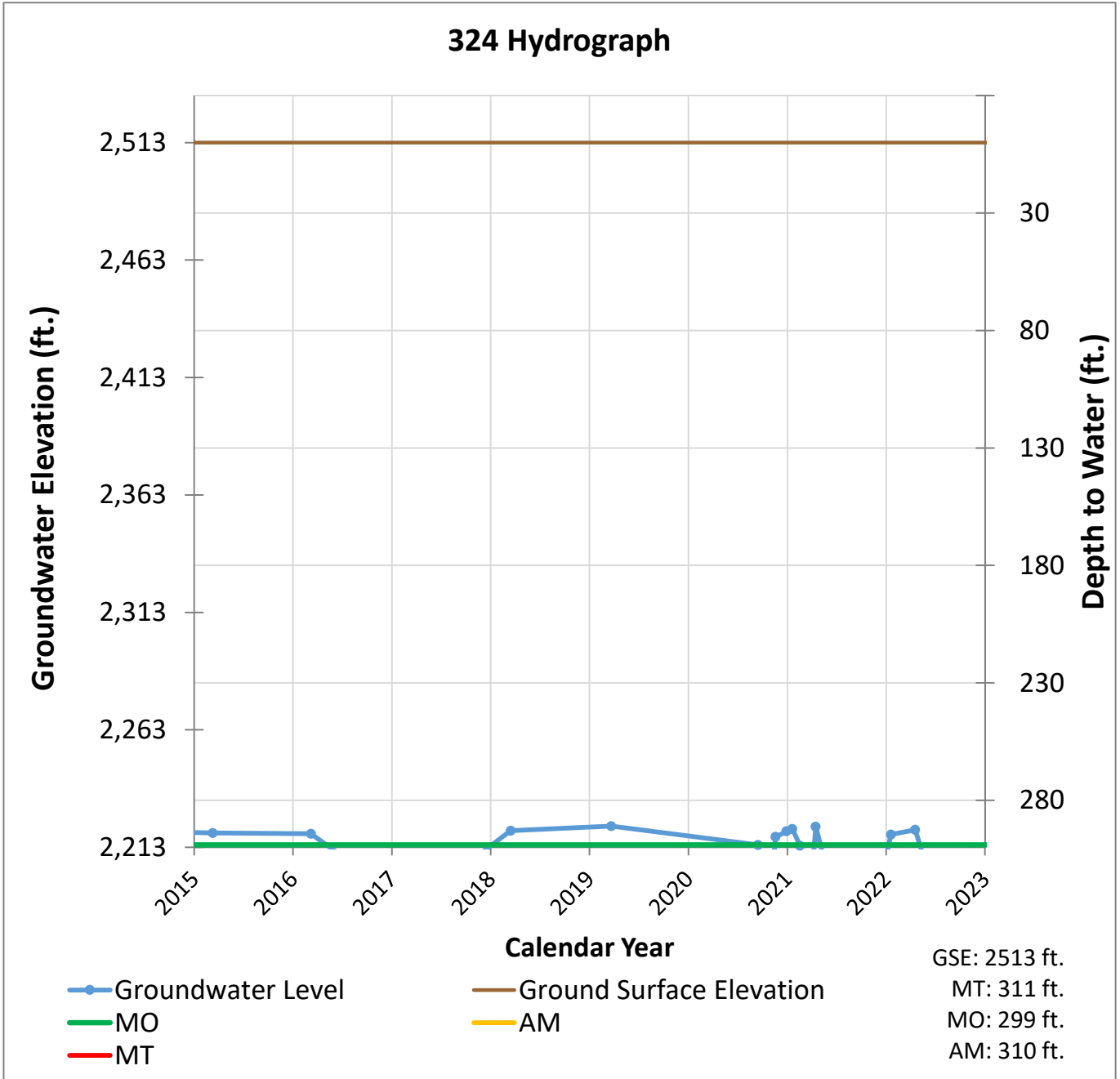
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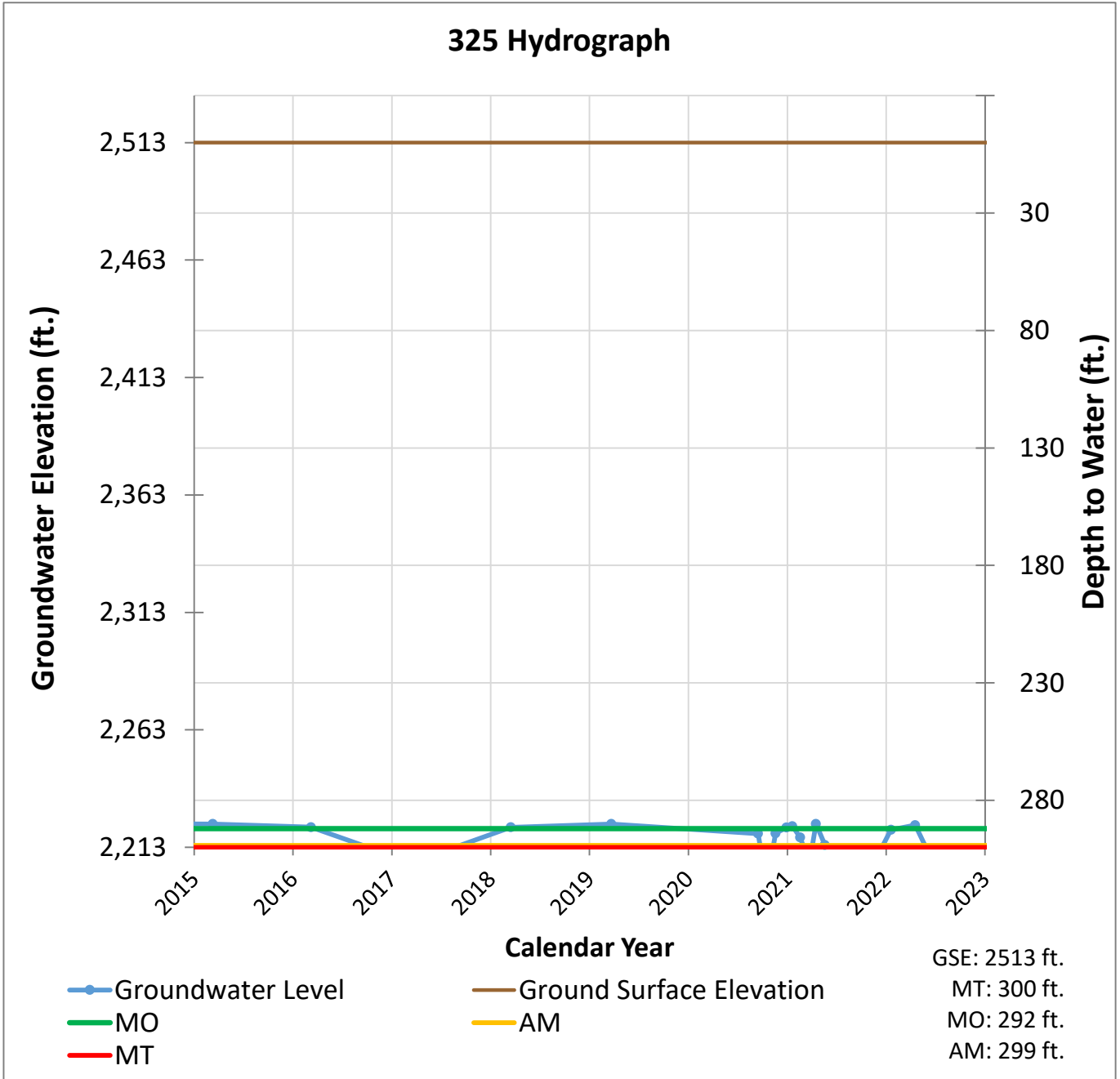
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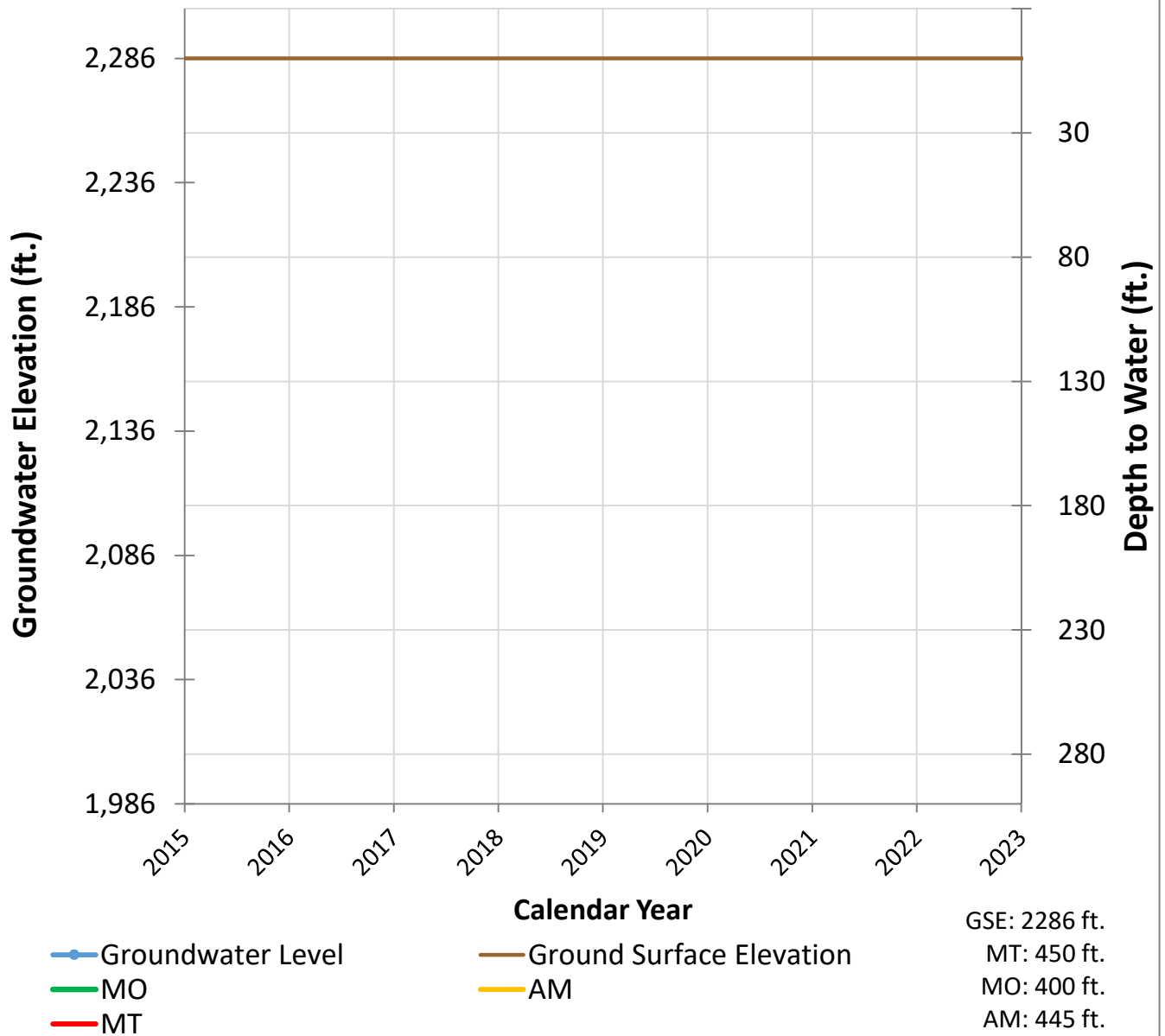
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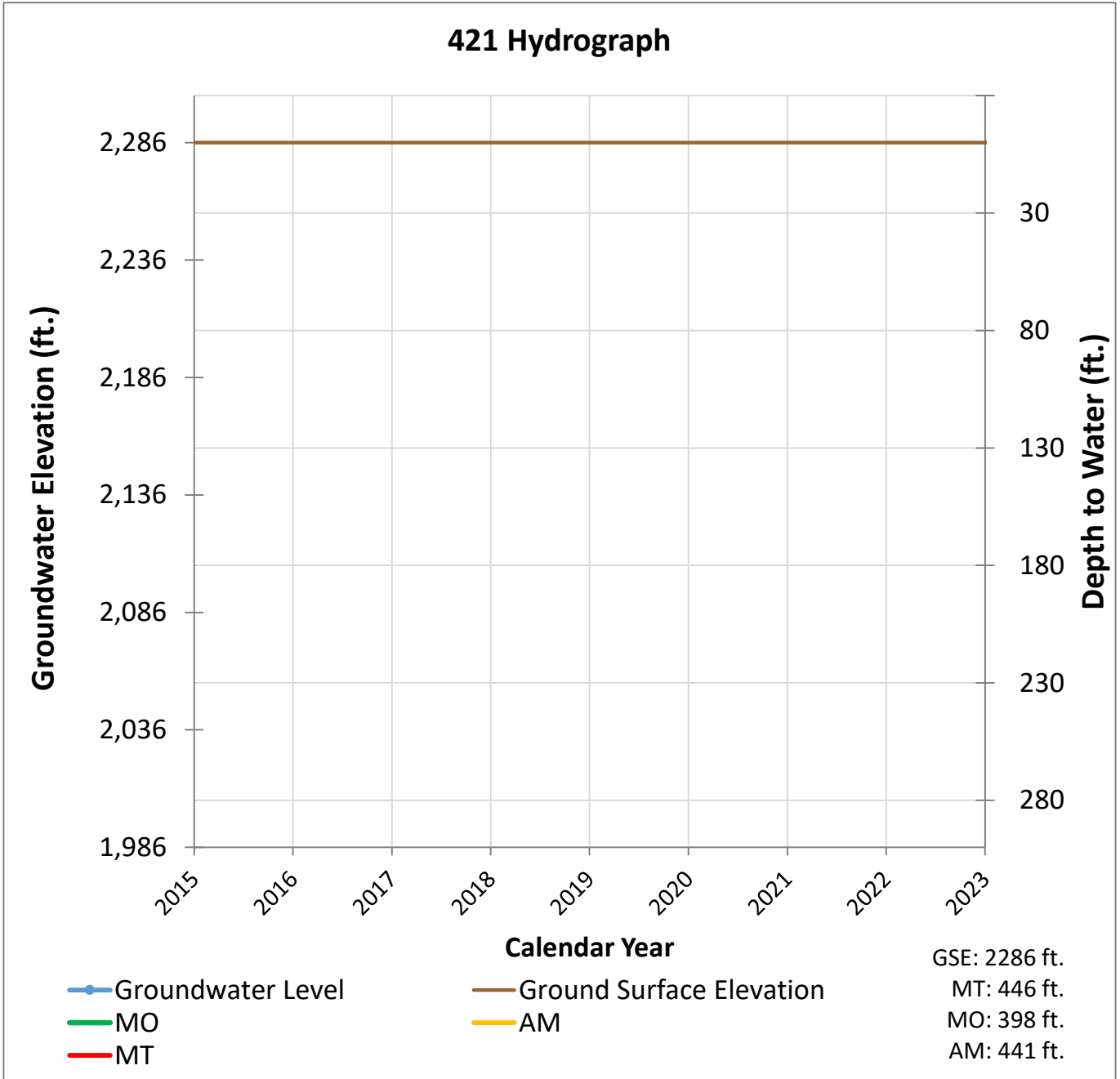
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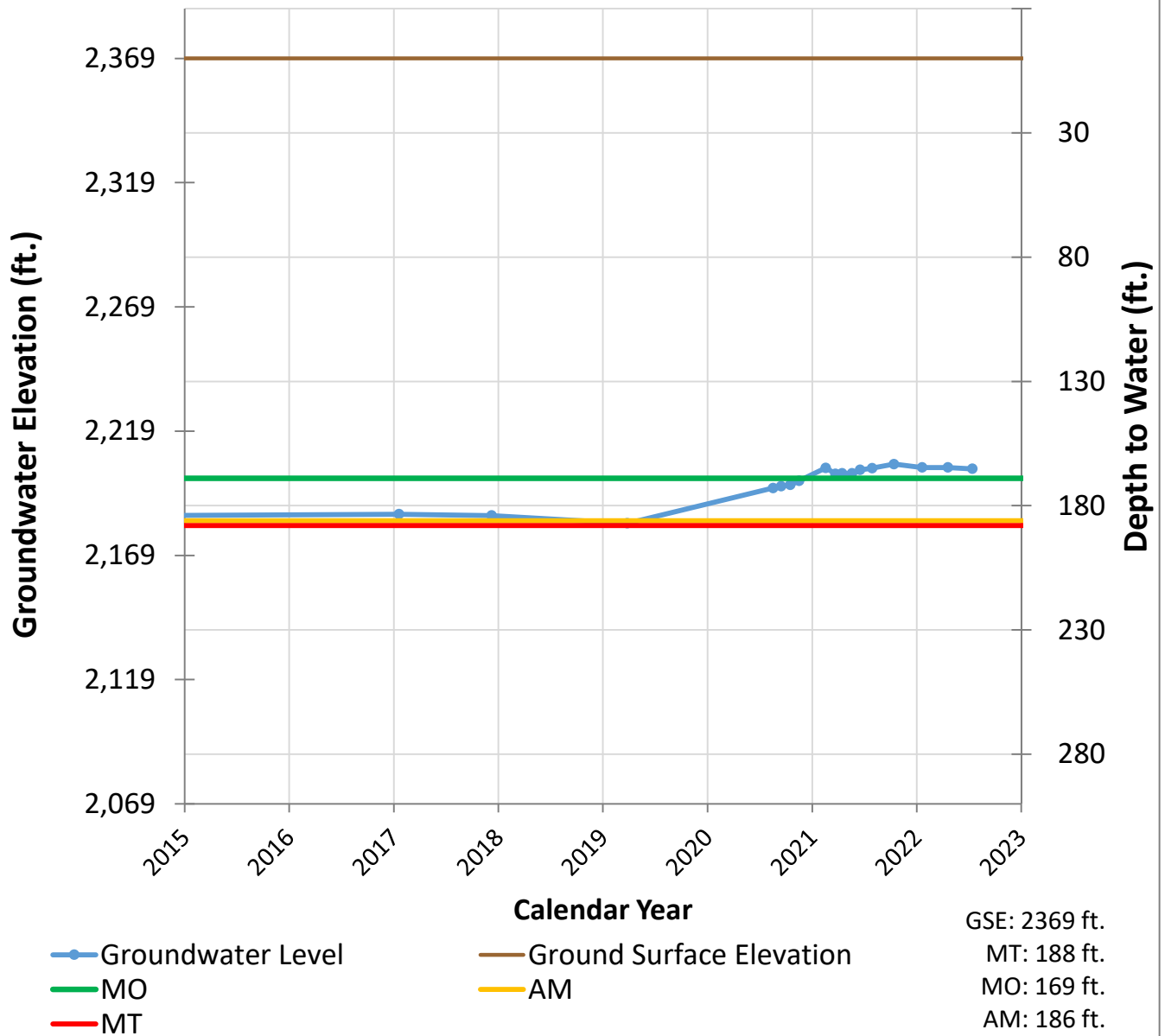
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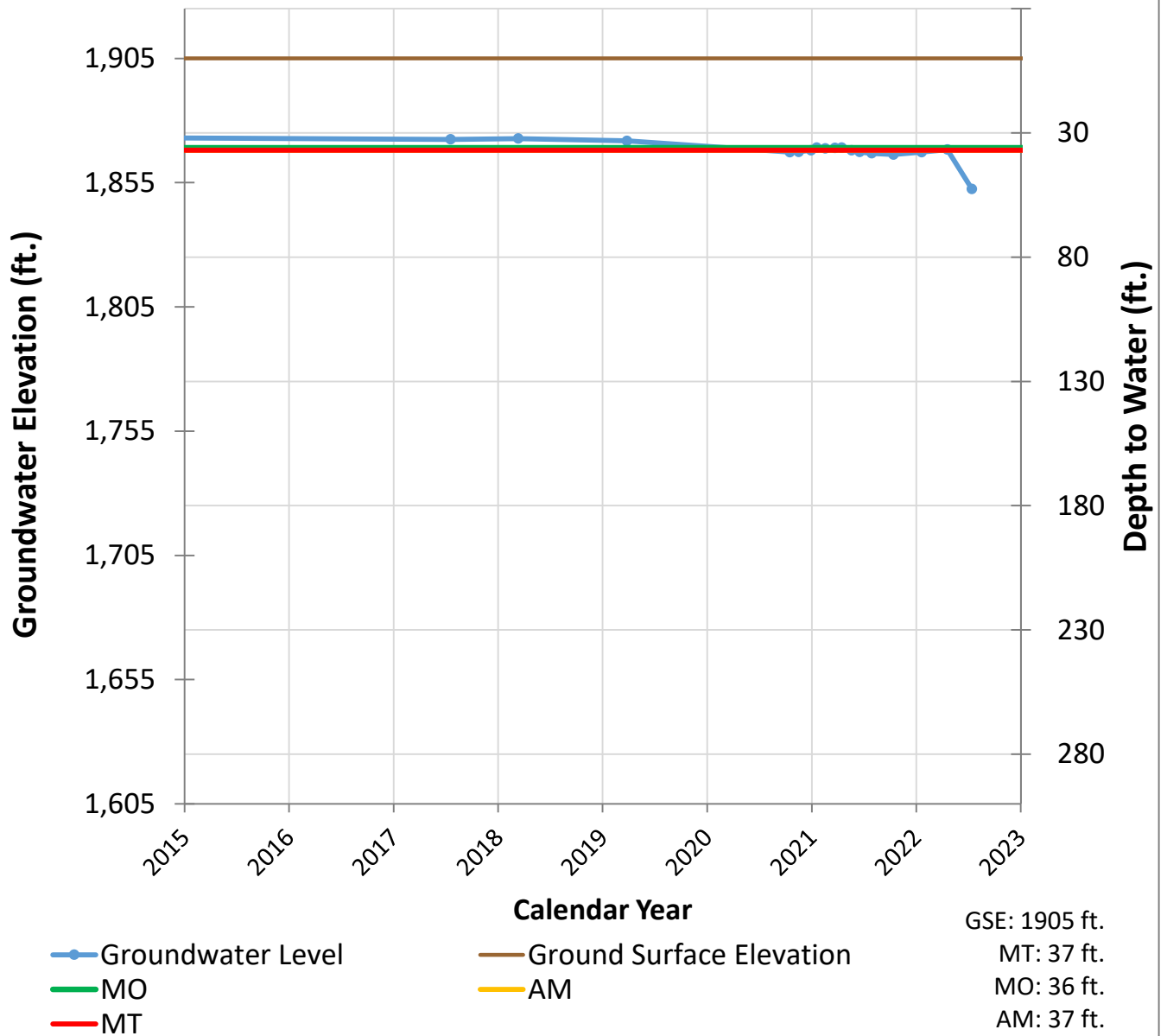
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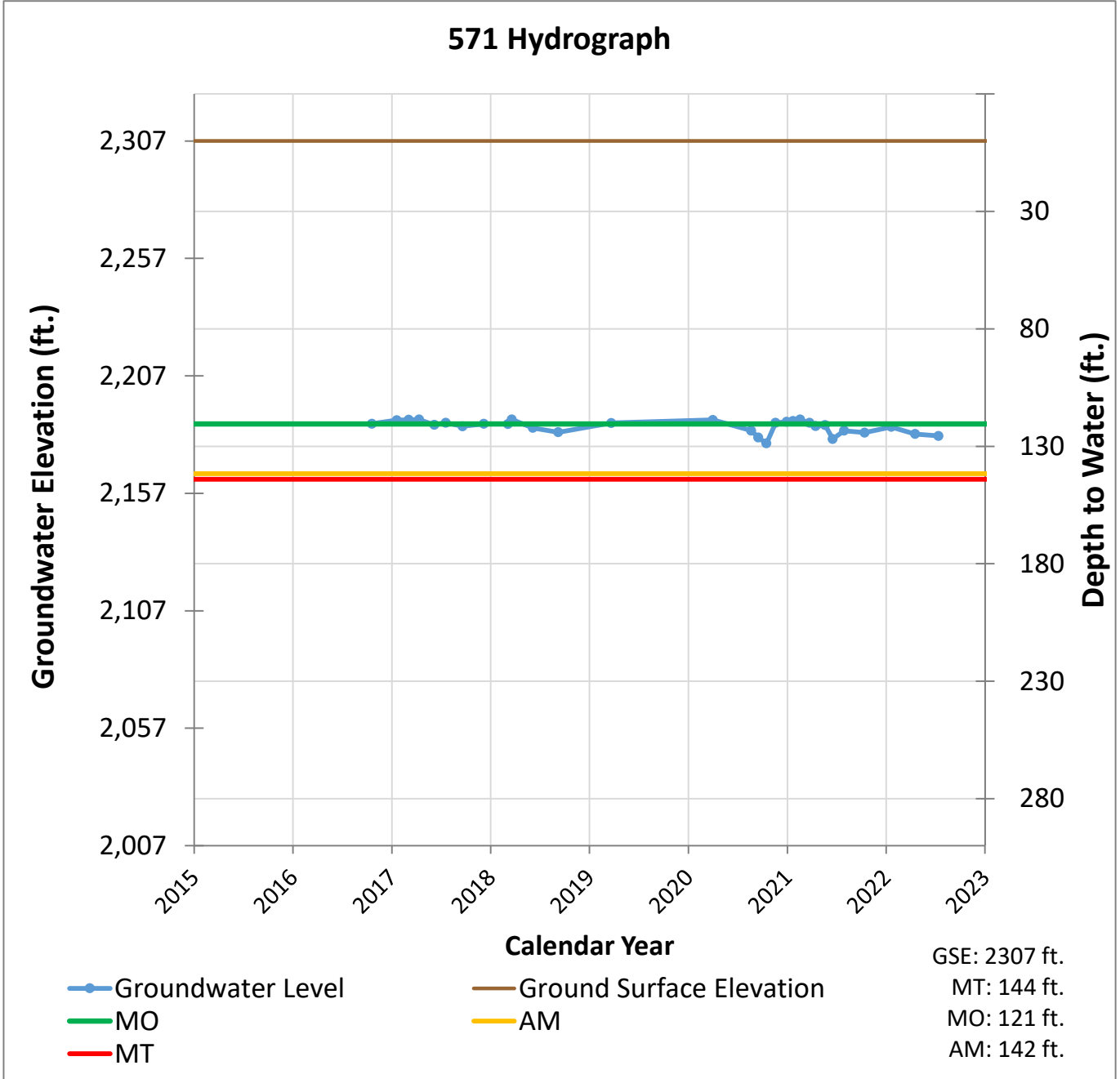


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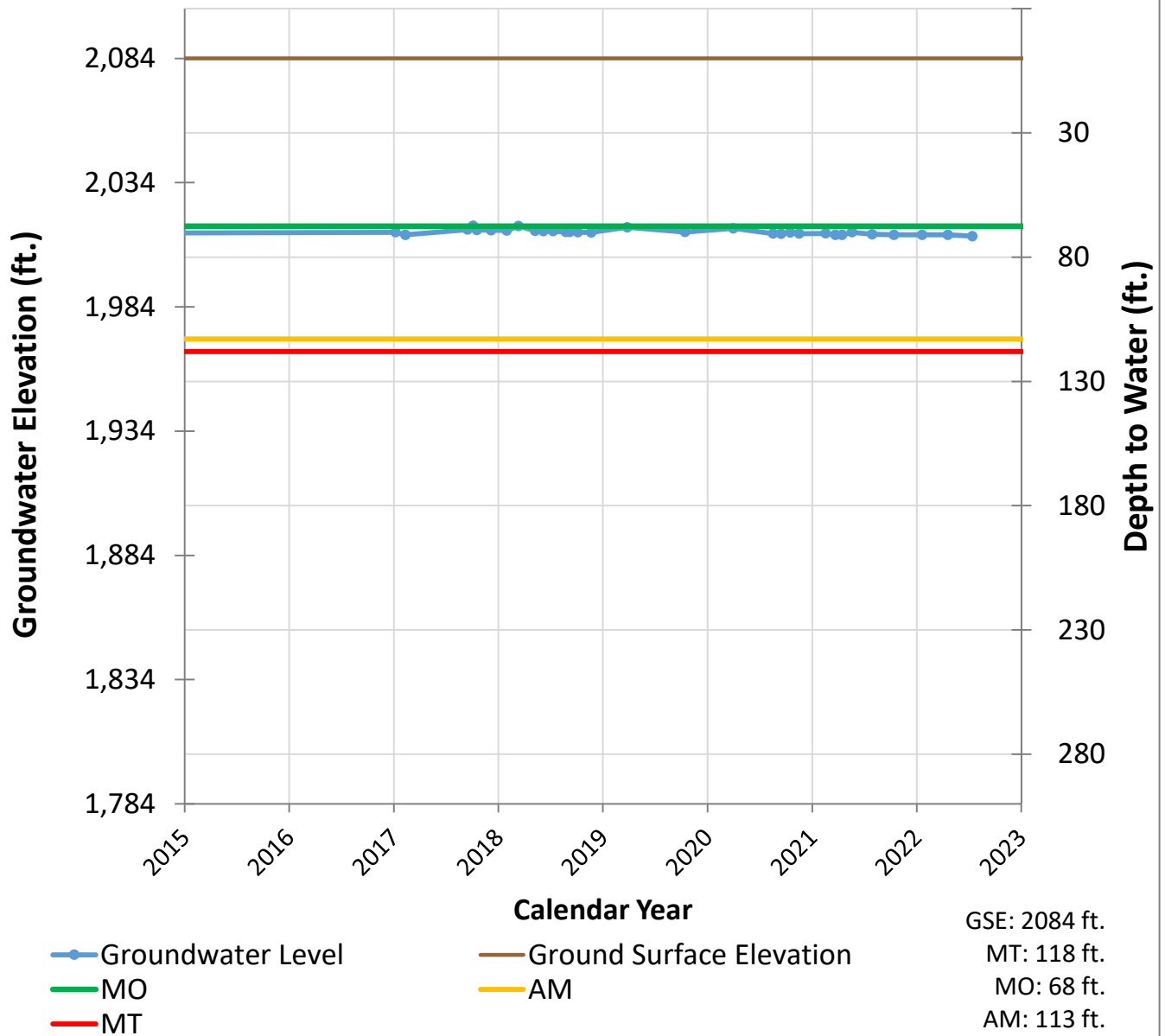


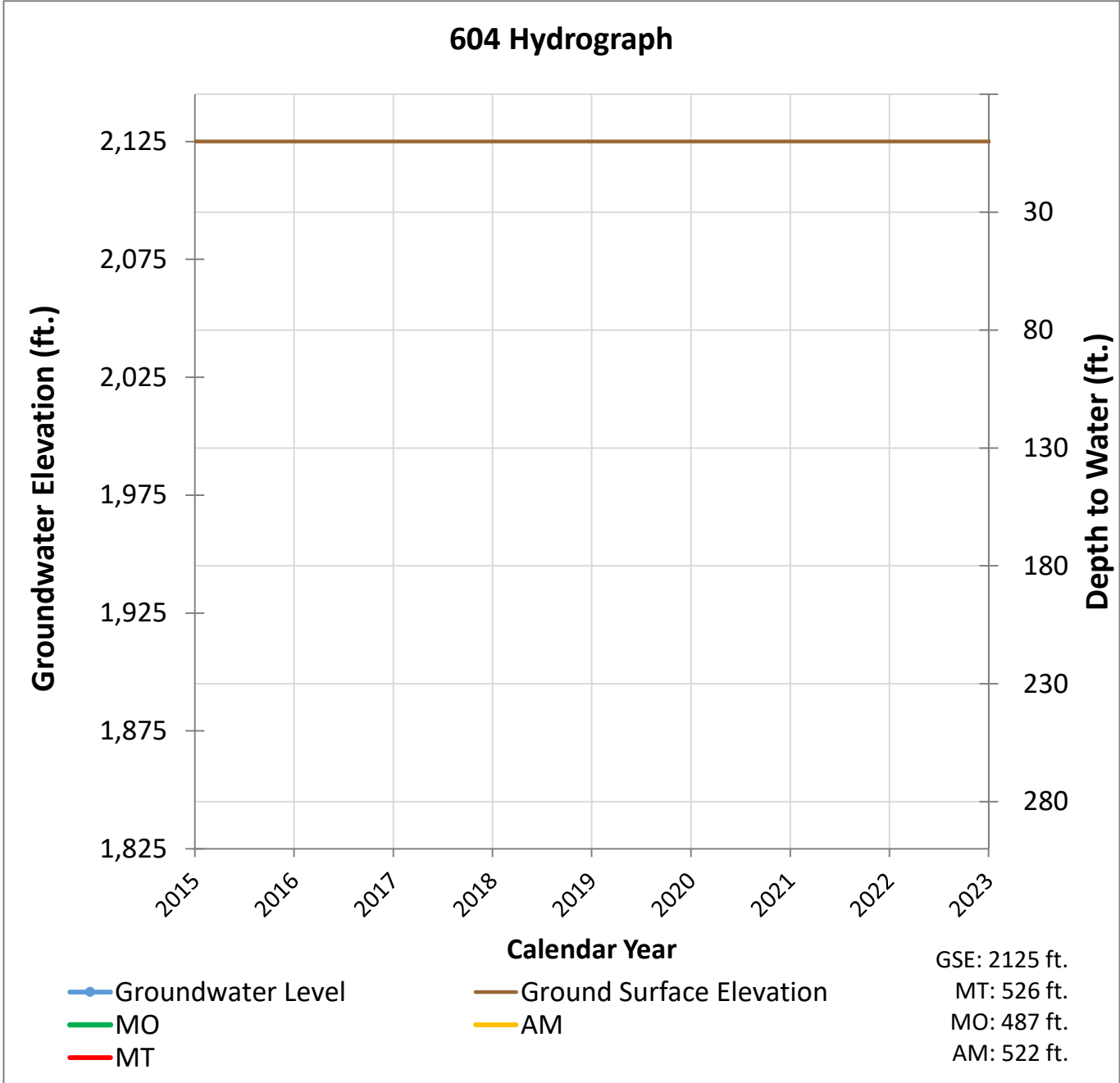
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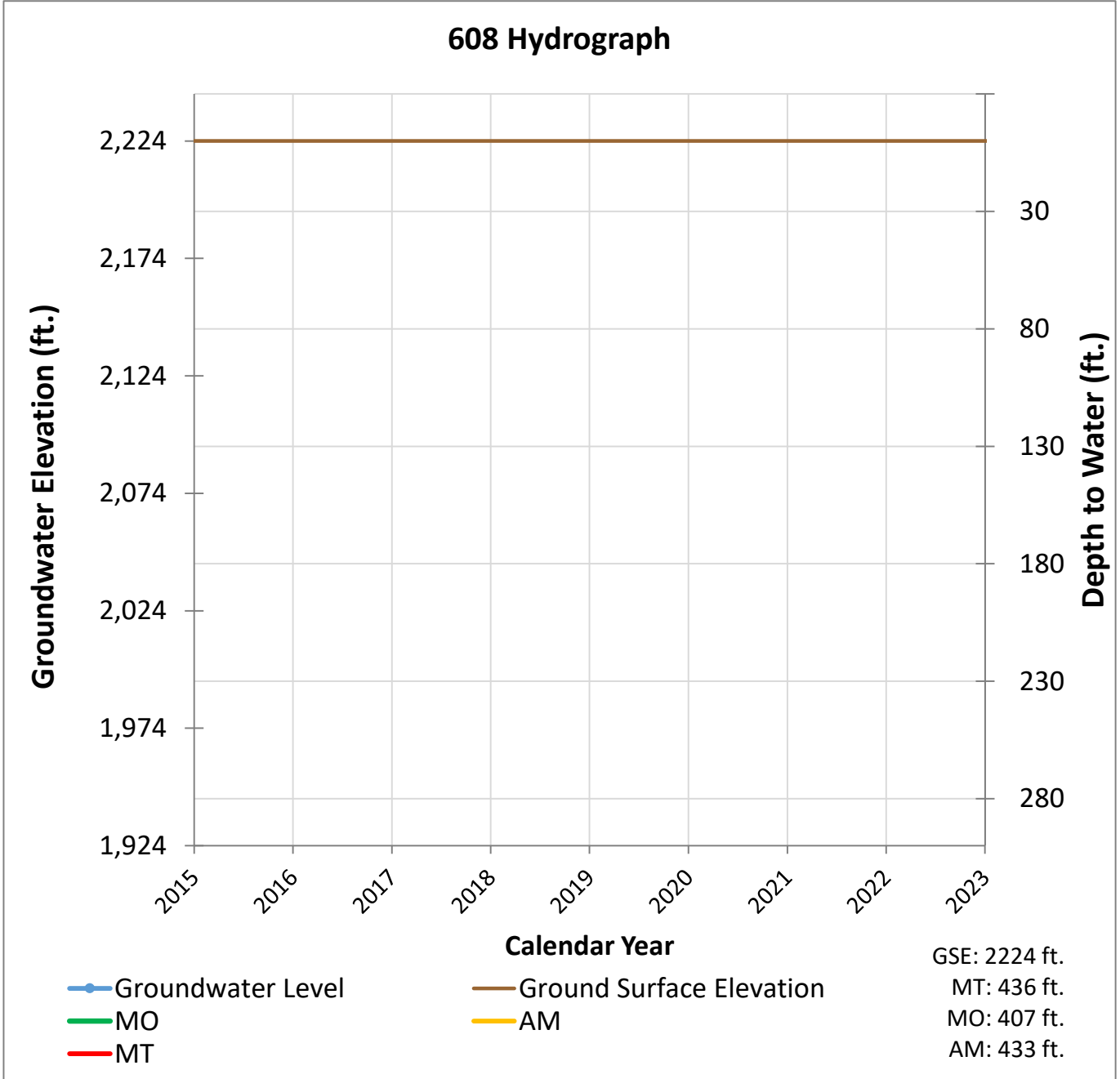




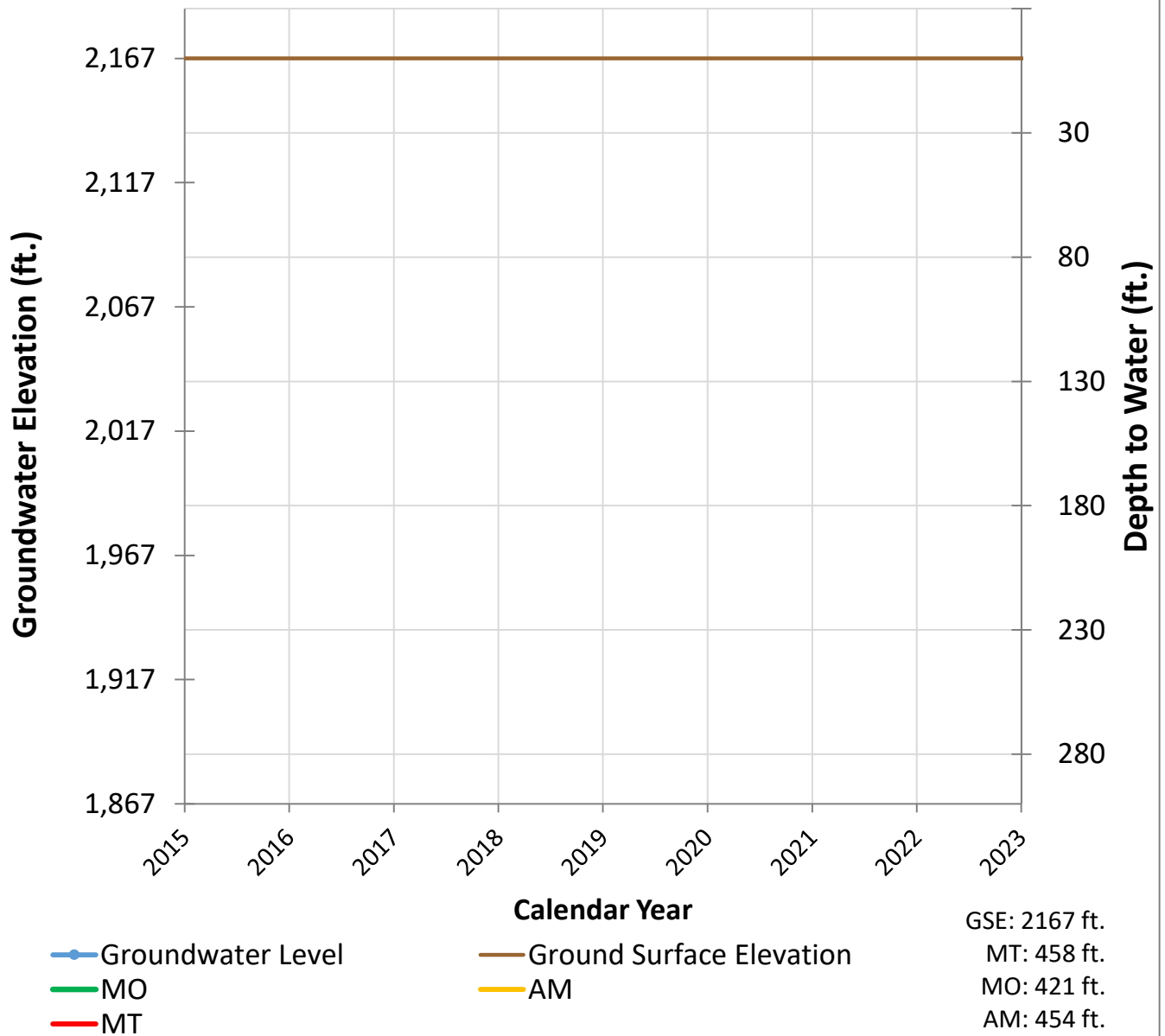
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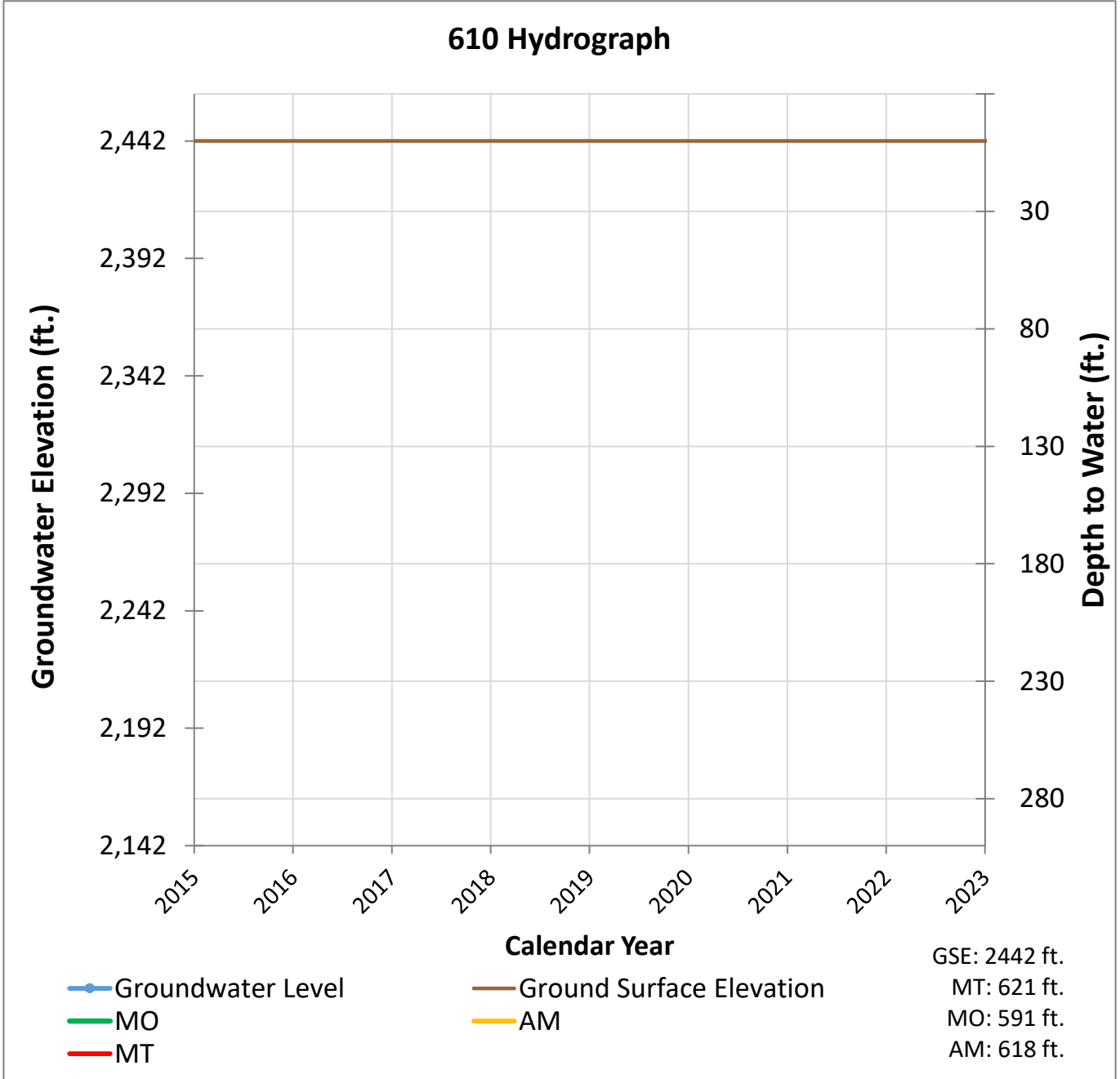


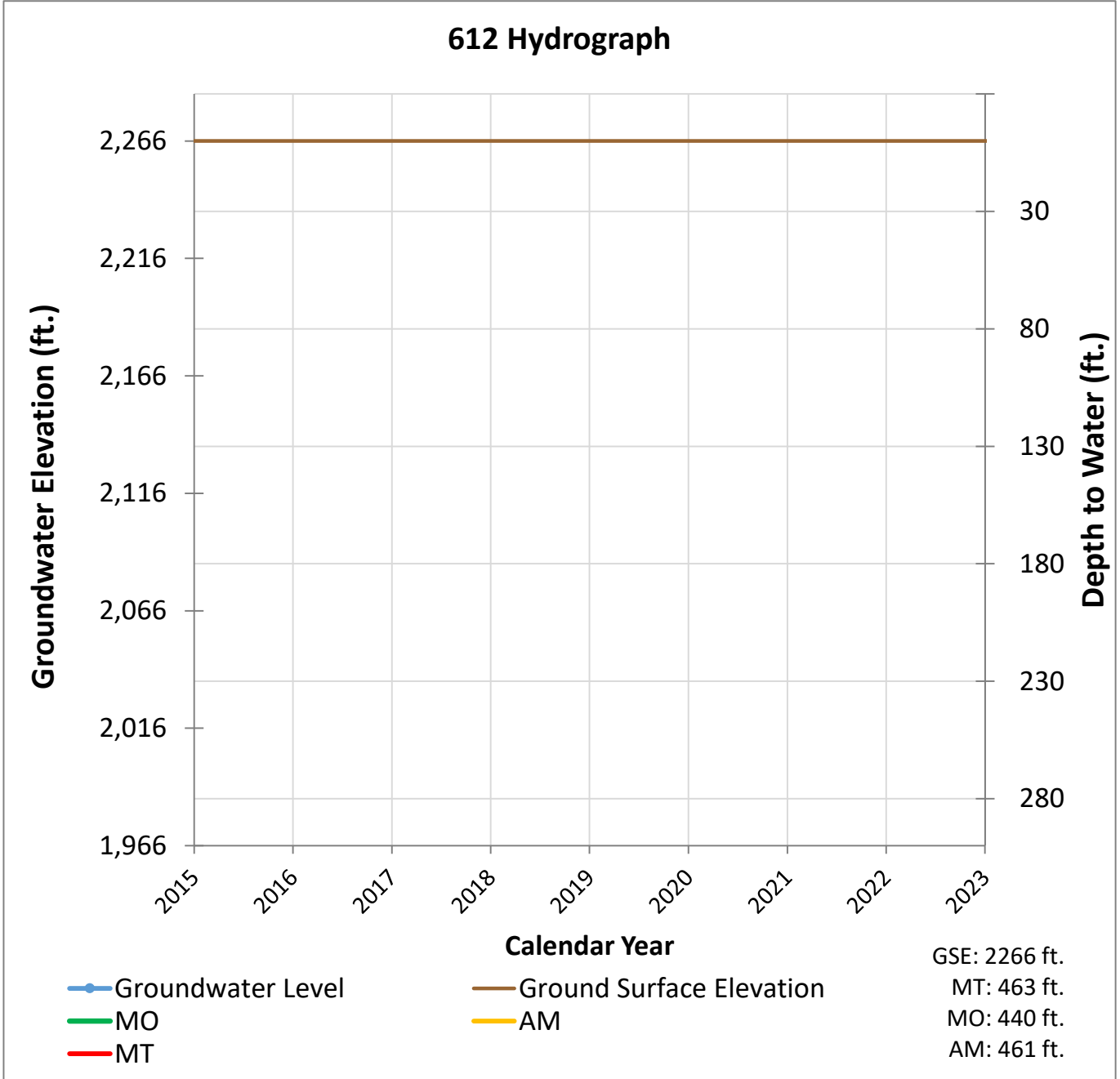




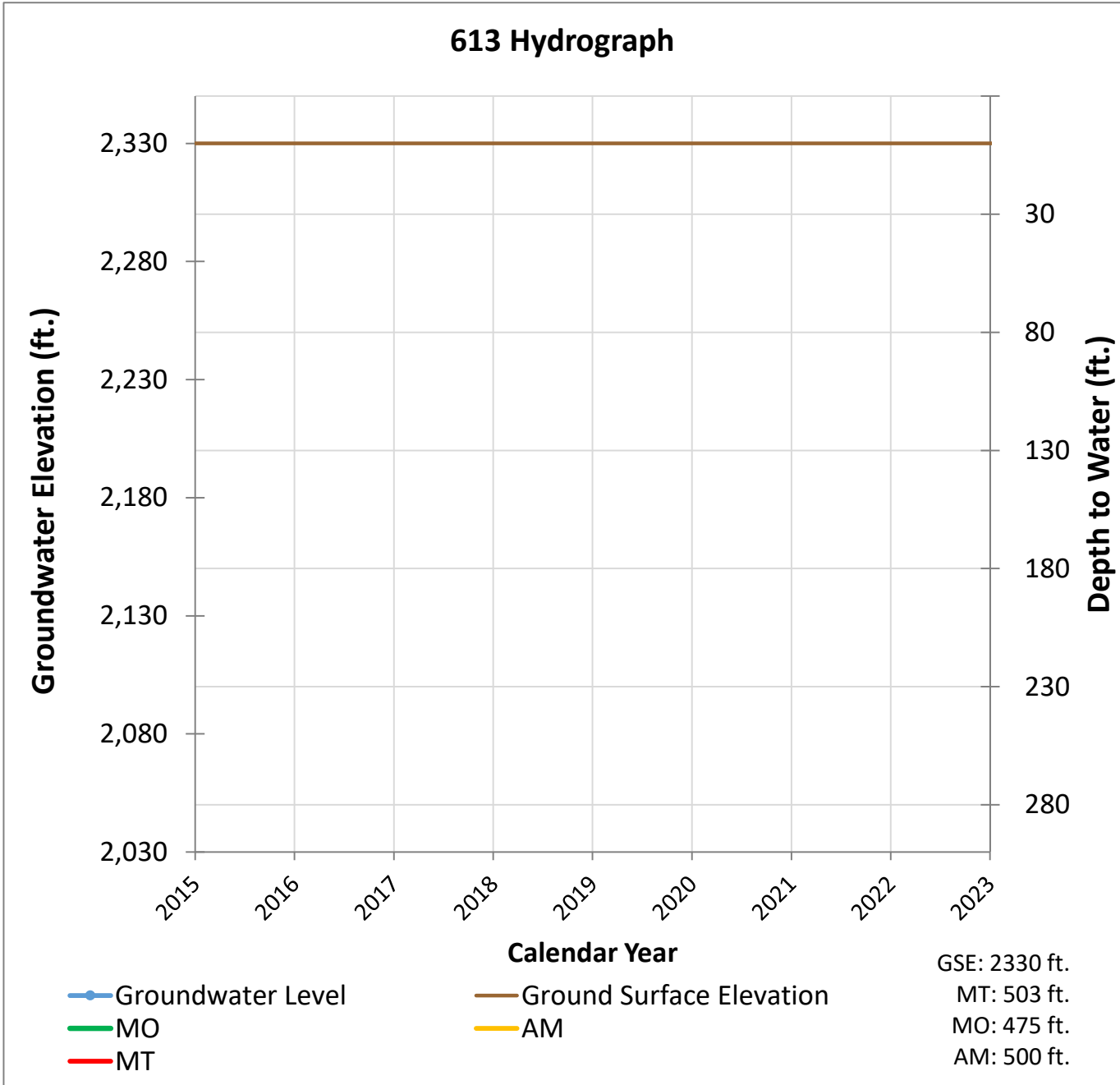
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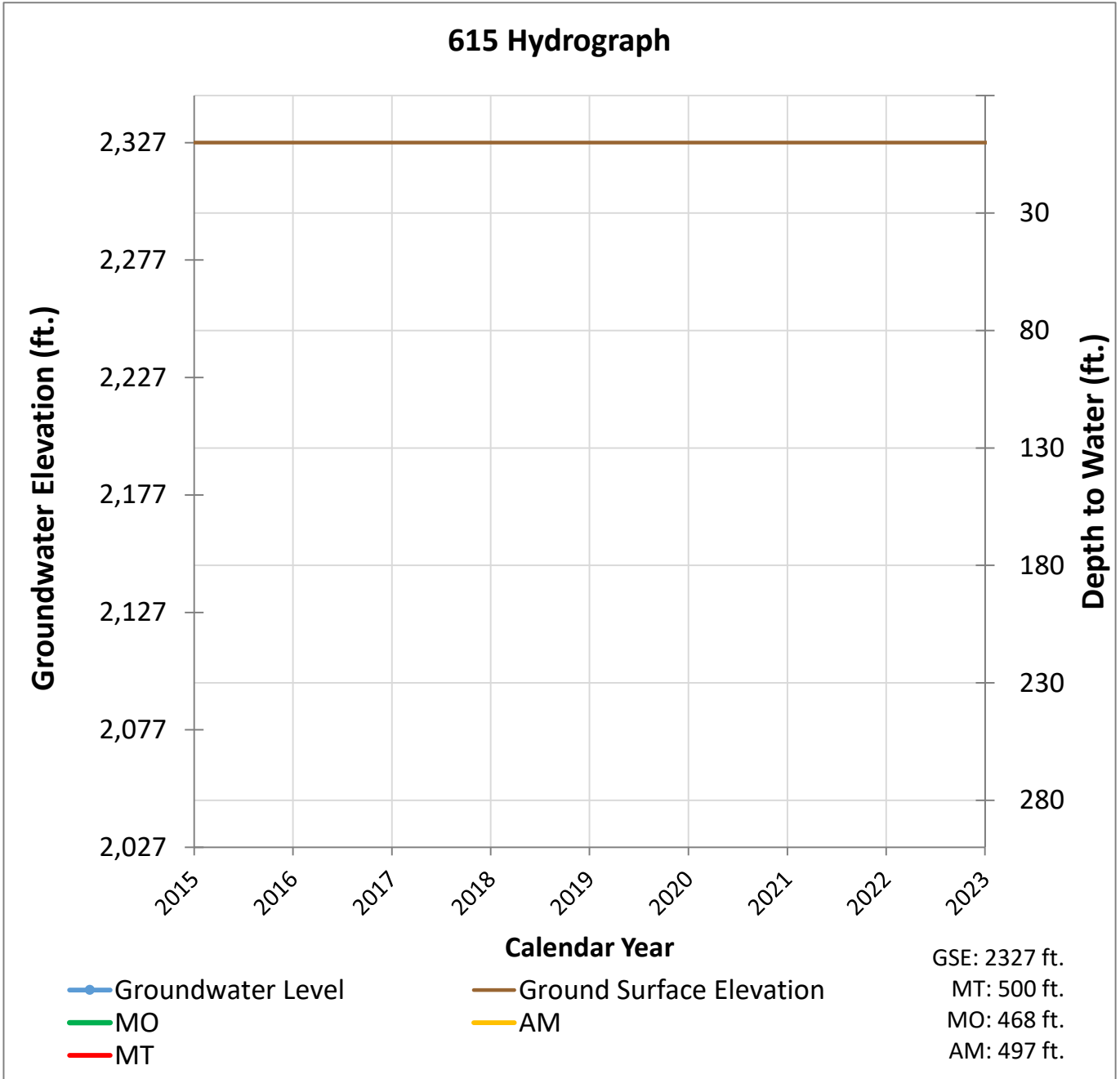




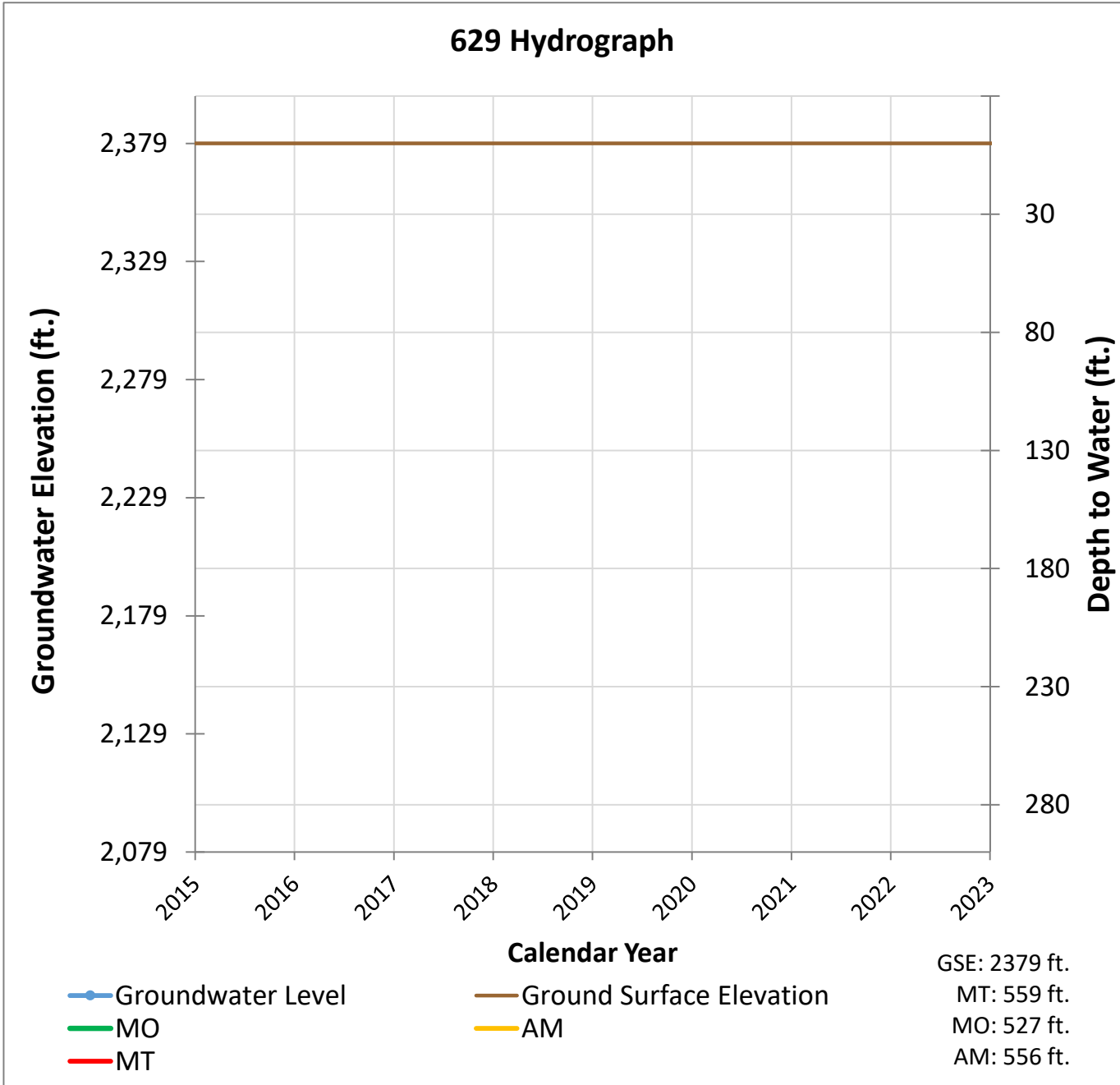
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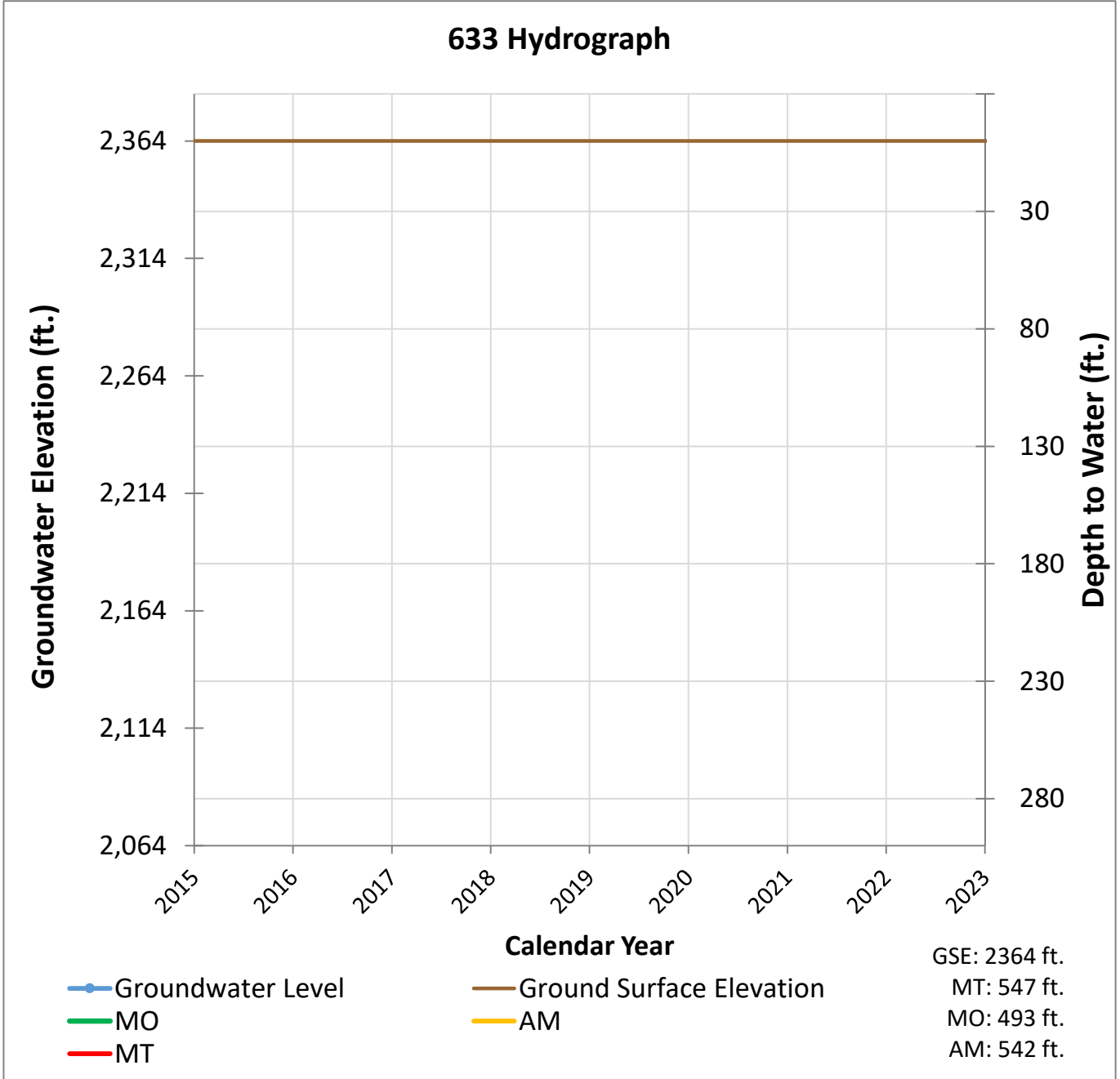


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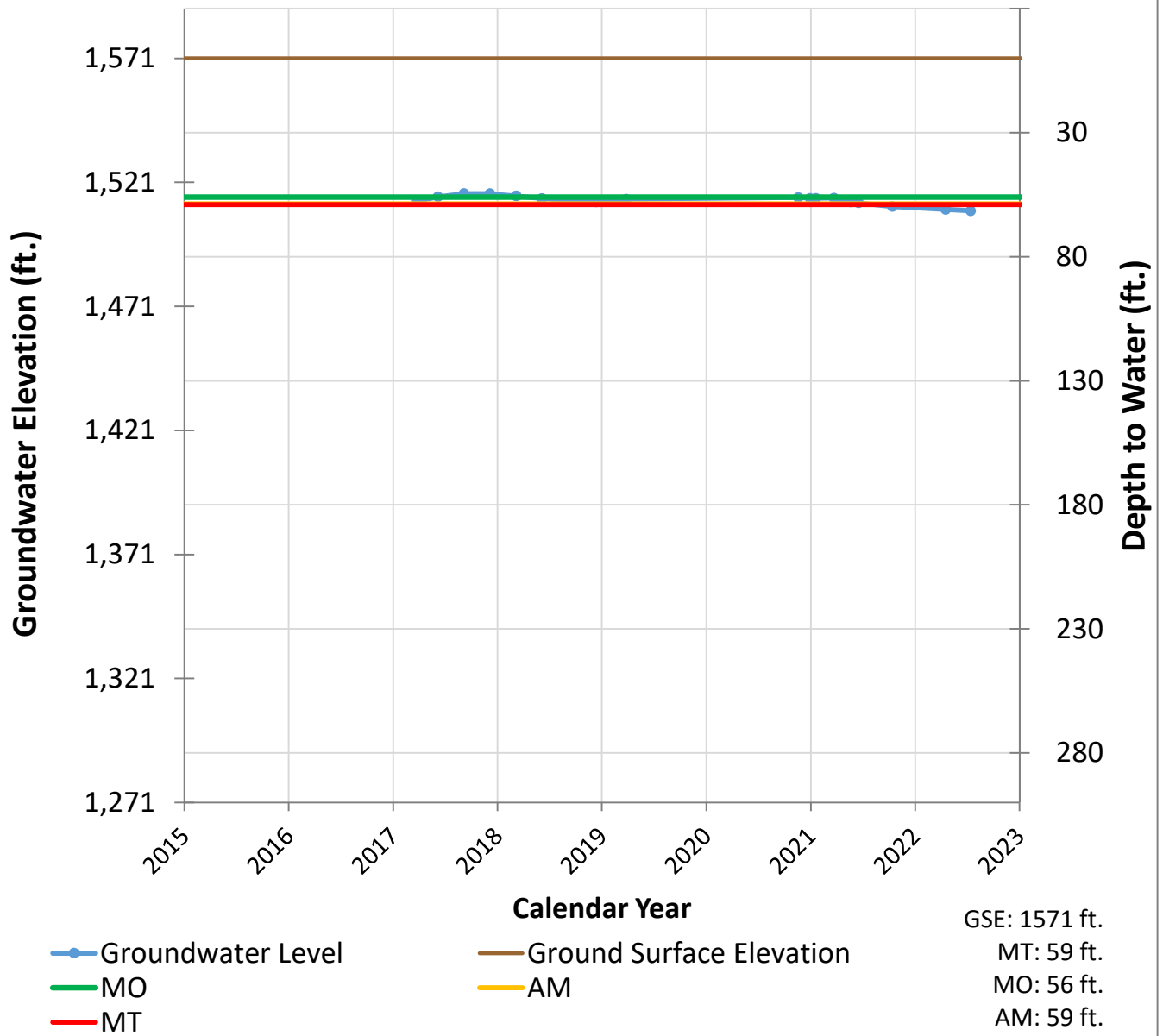


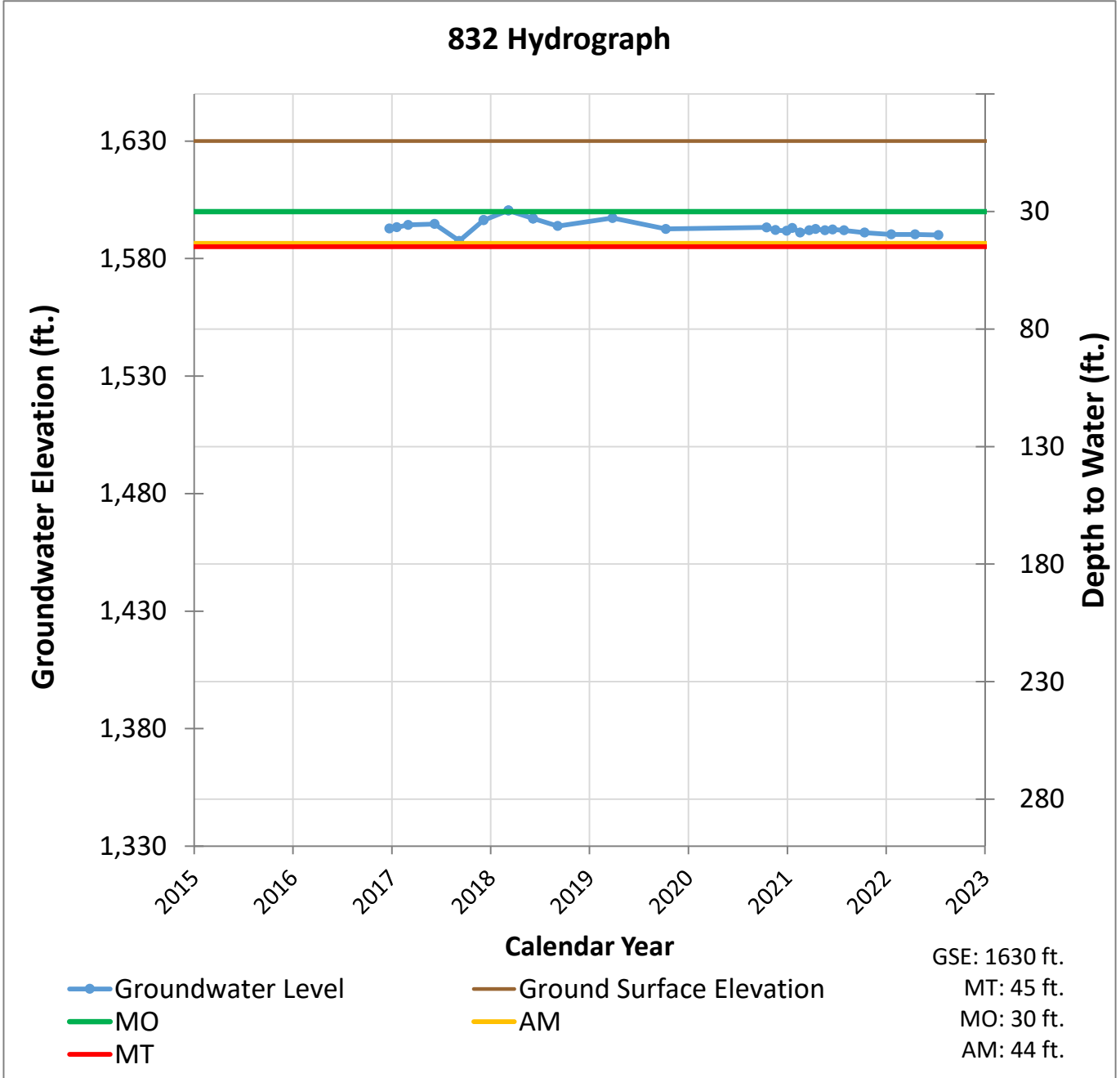
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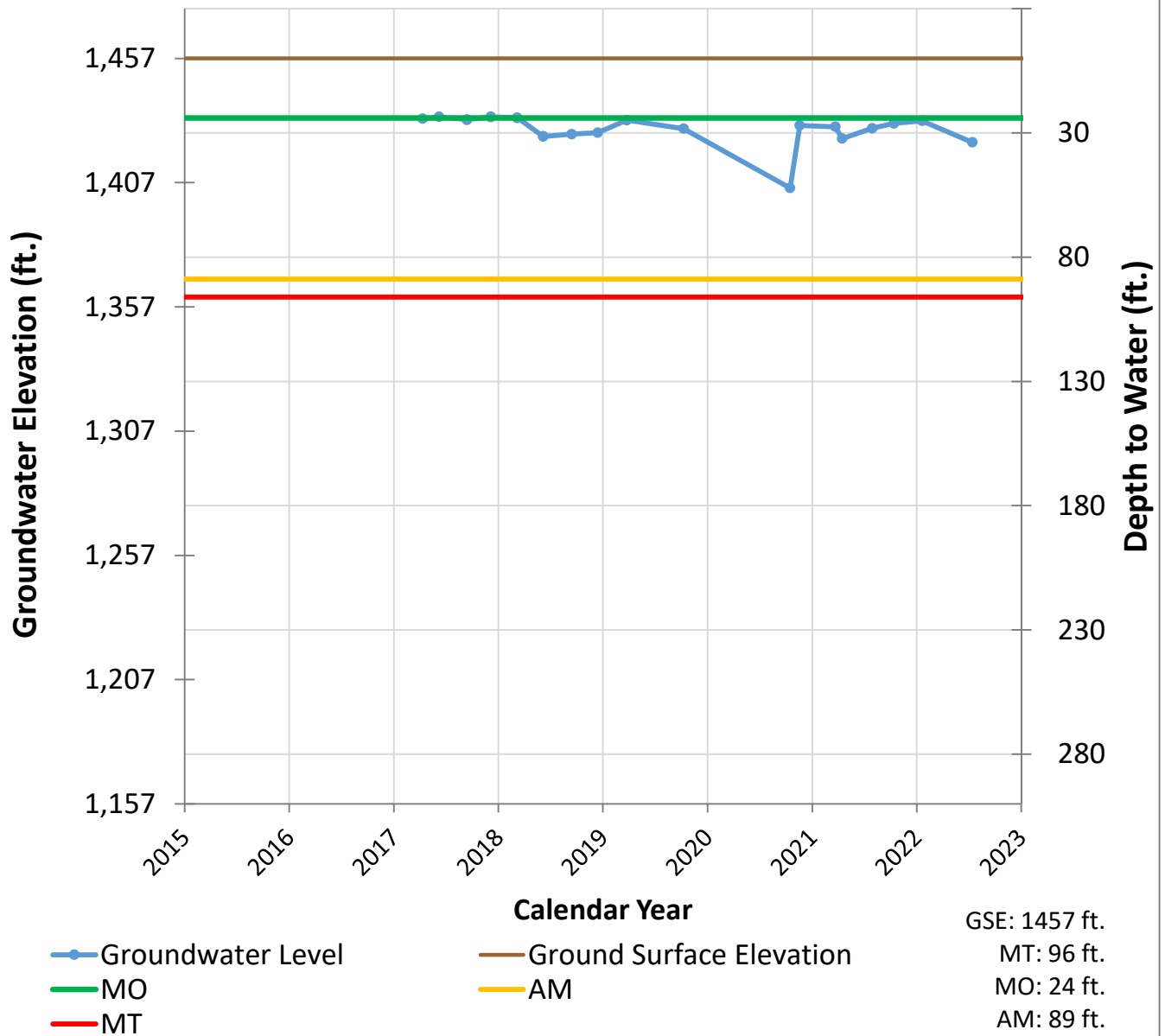


830 Hydrograph

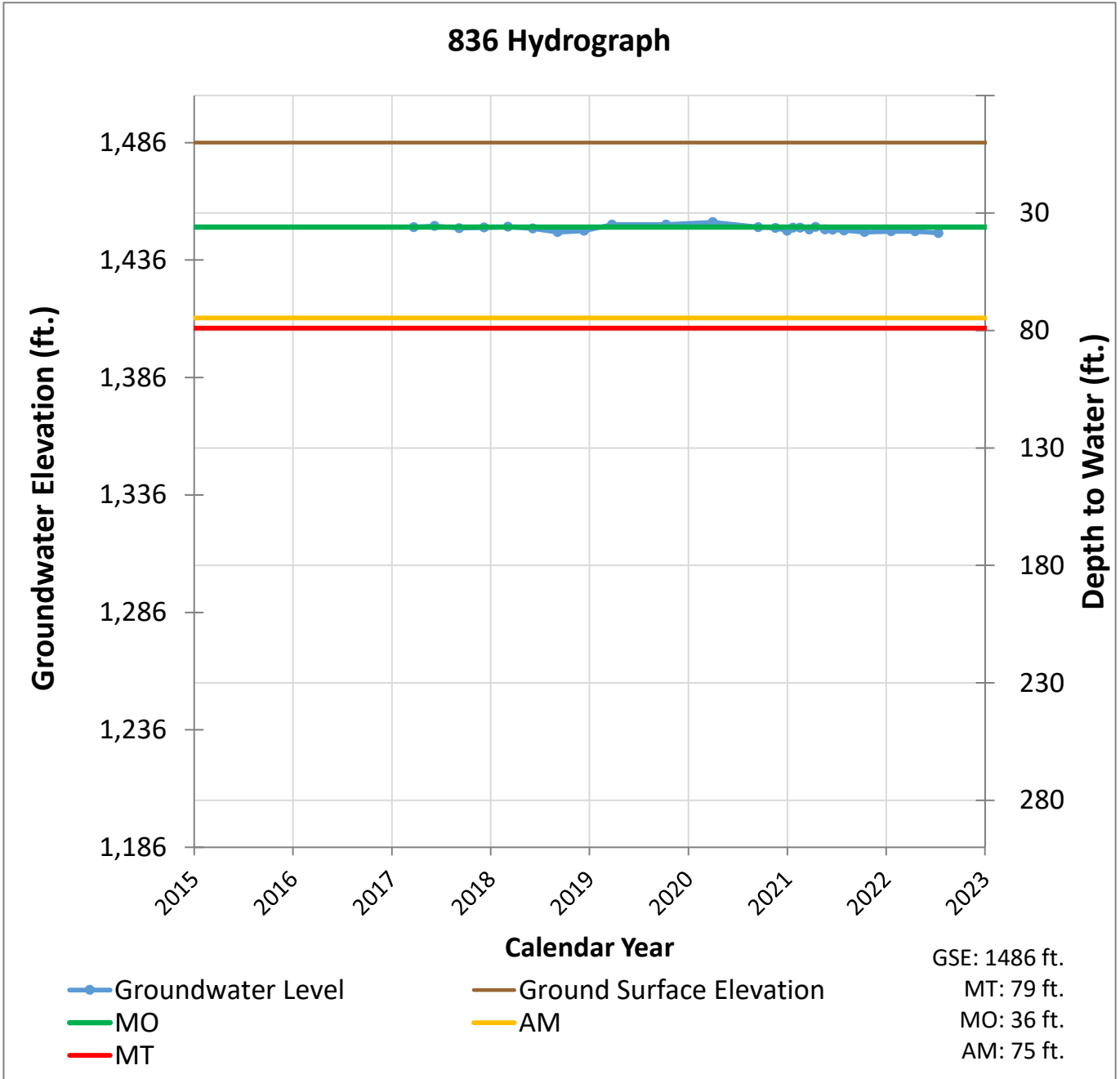




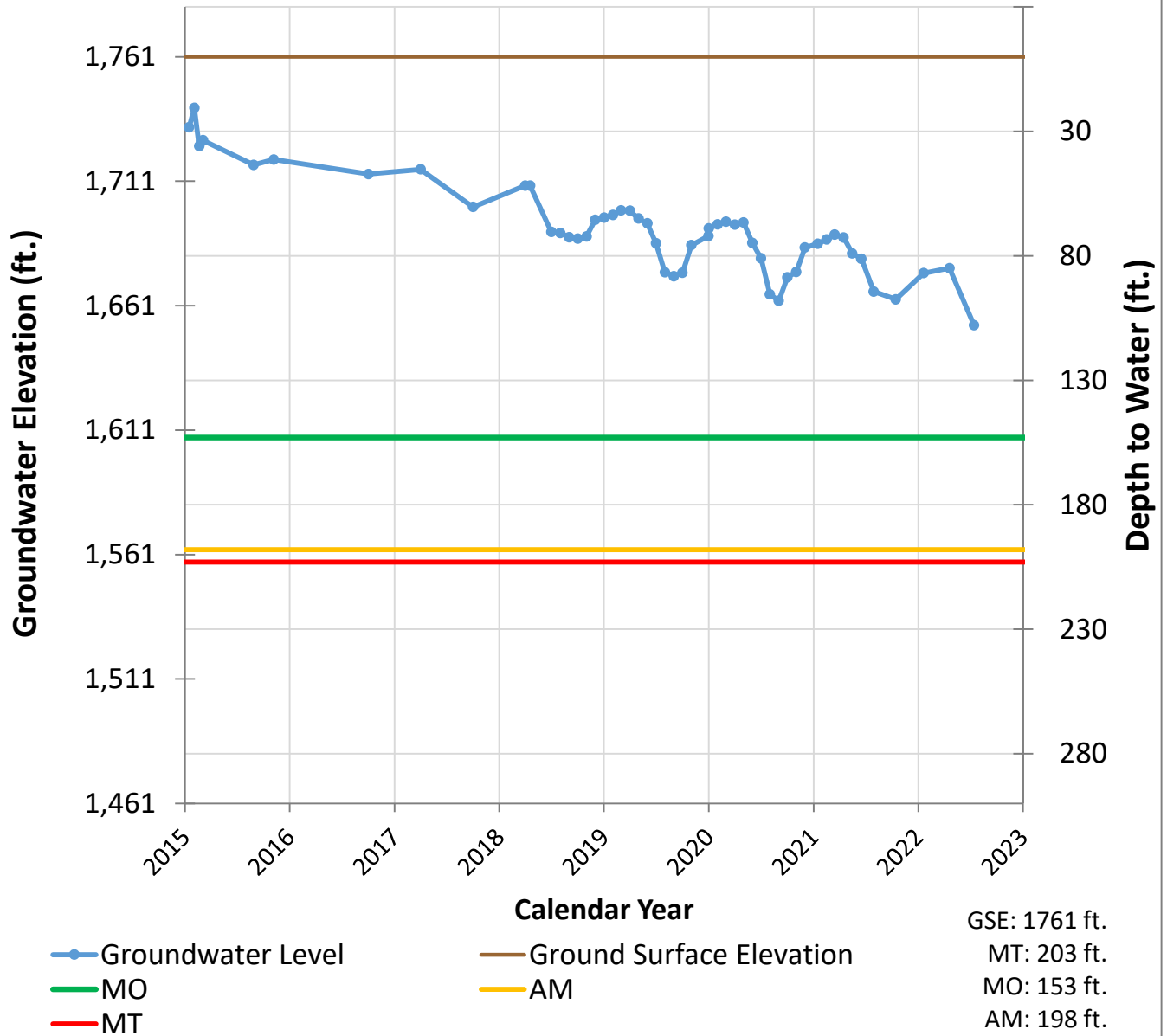
833 Hydrograph



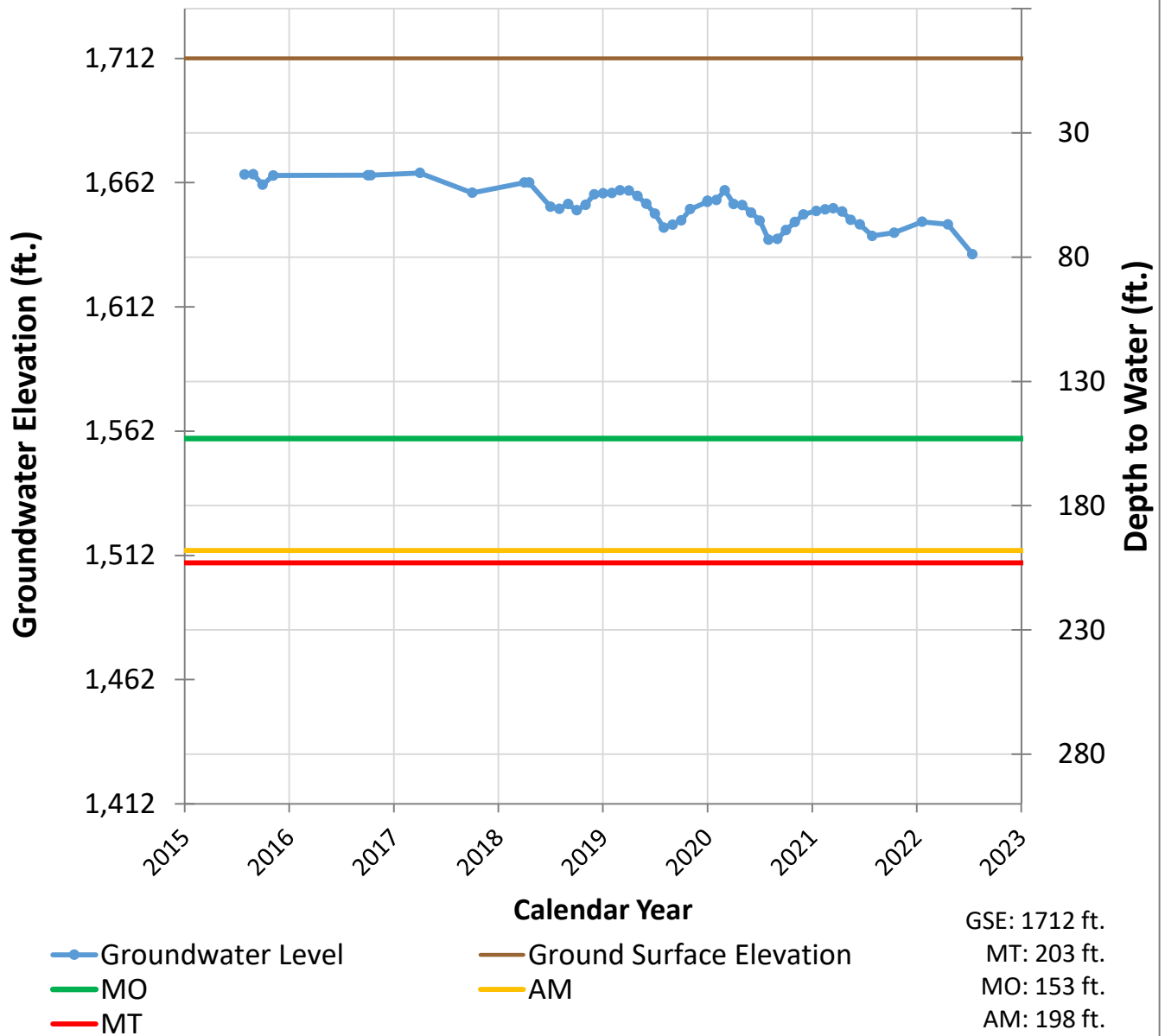
836 Hydrograph



841 Hydrograph



845 Hydrograph



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TO: Standing Advisory Committee
Agenda Item No. 9

FROM: Jim Beck / Brian Van Lienden / Alex Dominguez

DATE: March 23, 2023

SUBJECT: Discussion and Appropriate Action on Adaptive Management Analysis

Recommended Motion

SAC feedback requested.

Discussion

On December 12, 2022, the Cuyama Basin Groundwater Sustainability Agency Board provided direction for staff to continue the process to look at options that include adjusting the Central Management minimum thresholds and undesirable results criteria to ensure the GSA does not experience undesirable results for the next few years.

Woodard & Curran finished their analysis and draft potential options are provided as Attachment 1 for review and feedback by the Board.

Cuyama Basin Groundwater Sustainability Agency

9. Discussion and Appropriate Action on Adaptive Management Analysis

Van Lienden/Beck/Dominguez

March 23, 2023



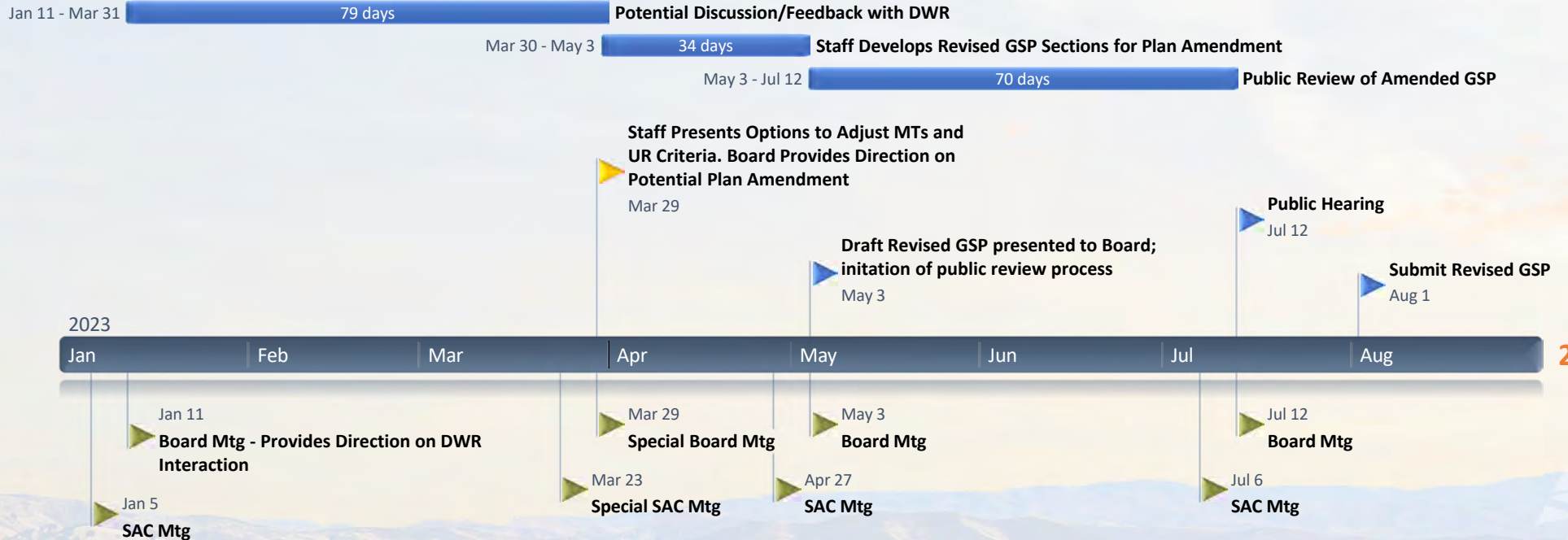
CBGSA Board Direction

Brian Van Lienden

- July 2022 Board meeting:
 - Directed staff to perform analysis for options 3 [Revise (Lower) Minimum Thresholds] and 4 [Revise Undesirable Results Trigger (30% for 2-years)]
 - Analysis Performed:
 - Performed well survey of all wells in Basin
 - Analyzed water level trends at representative monitoring wells with respect to historical hydrology and groundwater extraction
 - CBWRM analysis to estimate future groundwater levels as pumping reductions are implemented following the glidepath
 - GIS-based analysis to assess potential impacts to beneficial uses and users
- Dec 2022 Board Meeting:
 - Directed staff to continue process to look at options that include adjusting the CMA minimum thresholds and undesirable results criteria to make sure the GSA does not experience undesirable results for the next few years.

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY Cuyama Adaptive Management Schedule

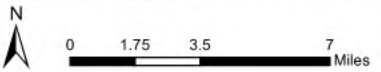
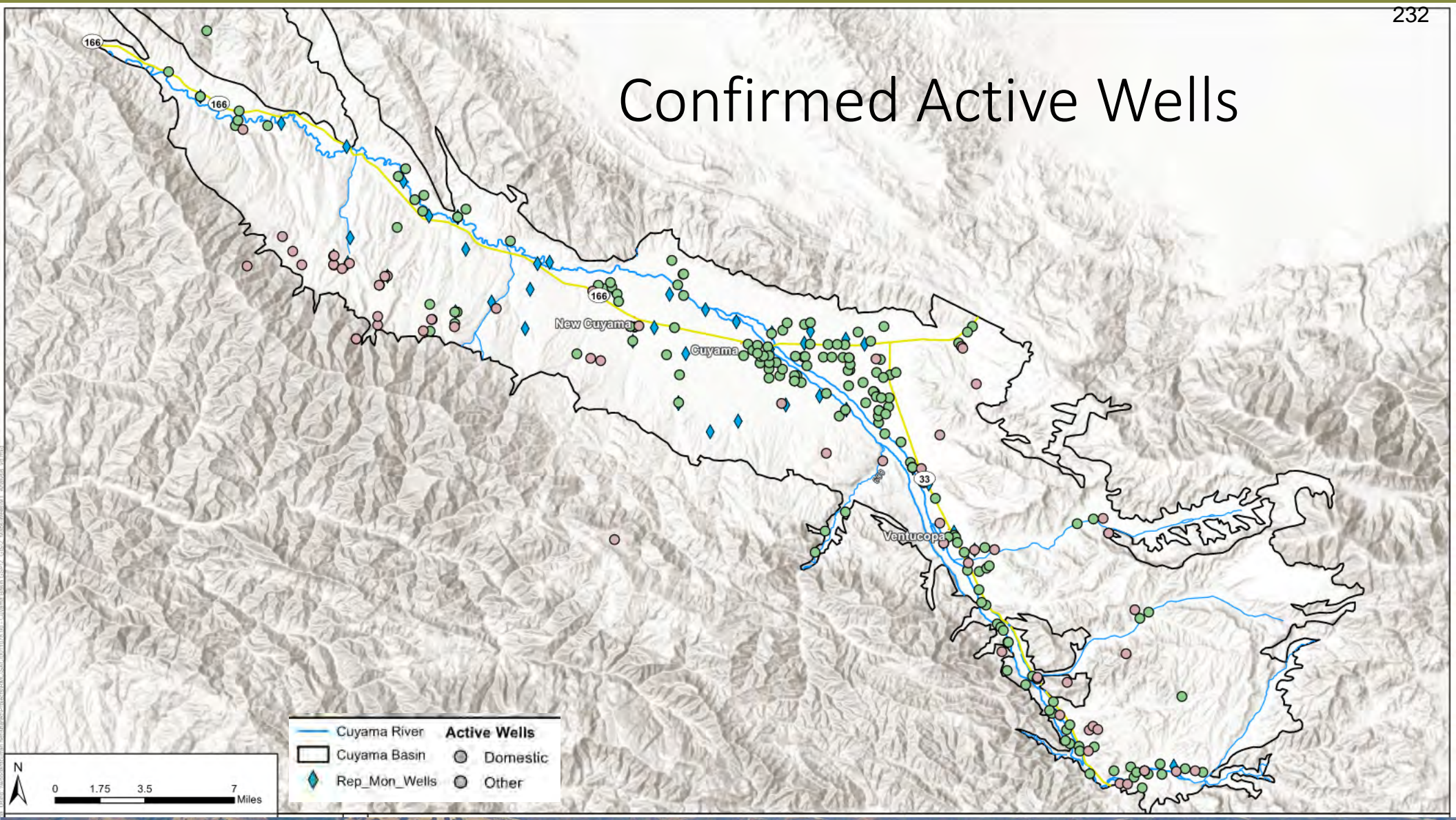
DRAFT



Development of Confirmed Active Well List

- To ensure accurate assessment of potential impacts to beneficial users (i.e. undesirable results), staff have done additional analysis to identify pumping wells in Opti that are “confirmed” active status. A pumping well is considered to be confirmed as active if it has been reported to the GSA as active via:
 - Information provided during development of GSP
 - Well metering program
 - Well survey
 - De minimis user reporting
 - Other information provided to GSA staff
- The confirmed active well list has been used in the evaluation of potential impacts due to changes in sustainability criteria

Confirmed Active Wells



Cuyama River	Active Wells
Cuyama Basin	Domestic
Rep_Mon_Wells	Other

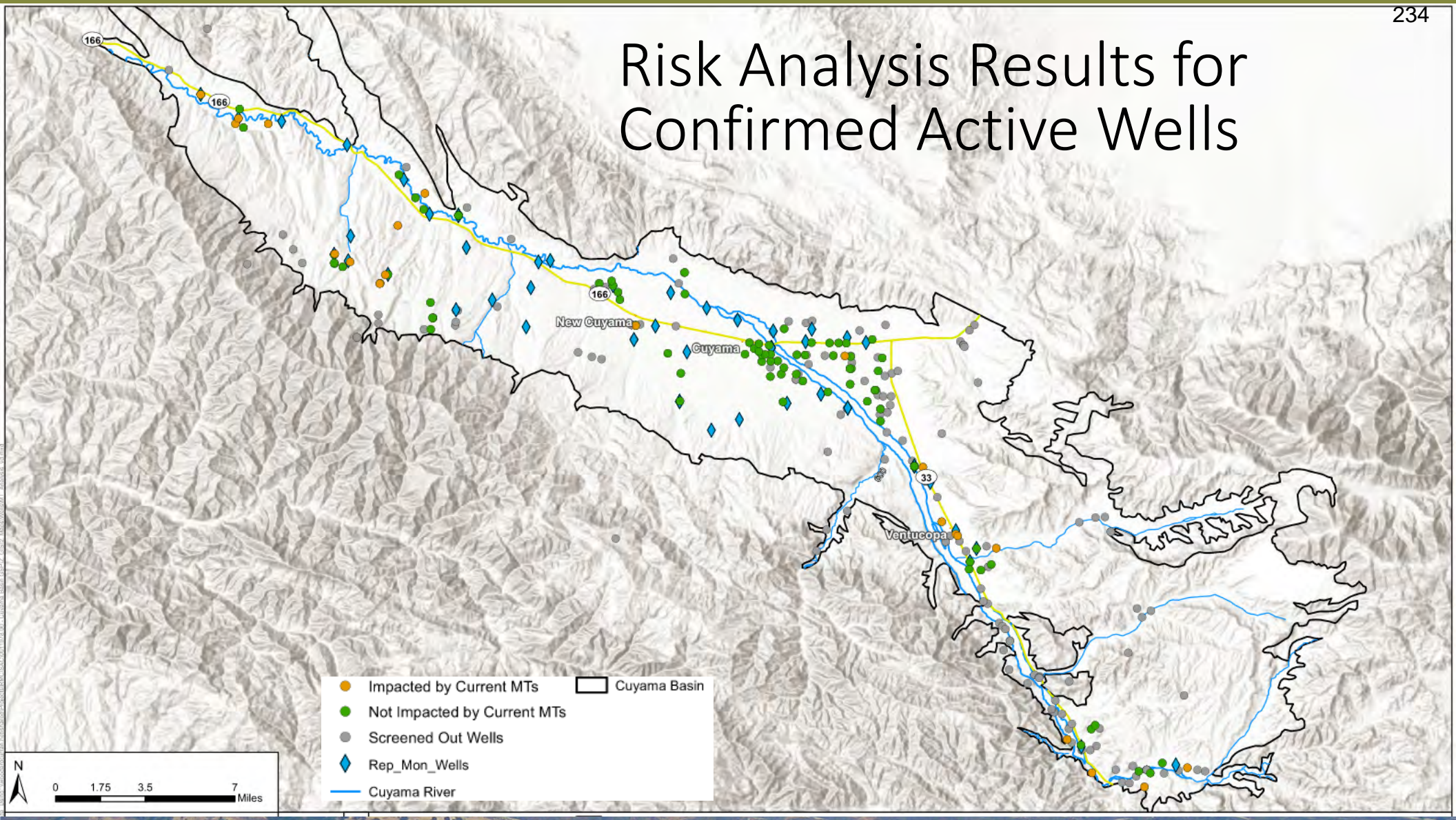
Risk Assessment for Confirmed Active Wells with Current Minimum Thresholds

- Analysis compares the well screen interval or 10' above the well depth to a spatially averaged raster of minimum thresholds
- Wells were screened out if they were spatially distant from representative wells or were already at risk in 2015

Threshold Region	Production Wells			Domestic Wells			Total Wells		
	Total	At Risk	% At Risk	Total	At Risk	% At Risk	Total	At Risk	% At Risk
Northwestern	10	5	50%	1	0	0%	11	5	45%
Western	8	4	50%	12	4	33%	15	5	33%
Central	54	2	4%	1	0	0%	55	2	4%
Eastern	9	2	22%	5	3	60%	13	5	38%
Southeastern	8	4	50%	2	0	0%	10	4	40%
Total	89	17	19%	21	7	33%	104	21	20%

*Some wells are both production and domestic, so summing production and domestic columns will not match what is in the total well column.

Risk Analysis Results for Confirmed Active Wells



Options for Board Consideration

1. Adjust Minimum Thresholds
2. Adjust Undesirable Results Definition

Note: either or both of these options could be considered

Option 1: Adjust Minimum Thresholds

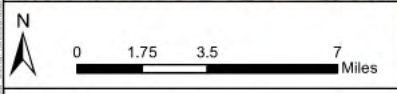
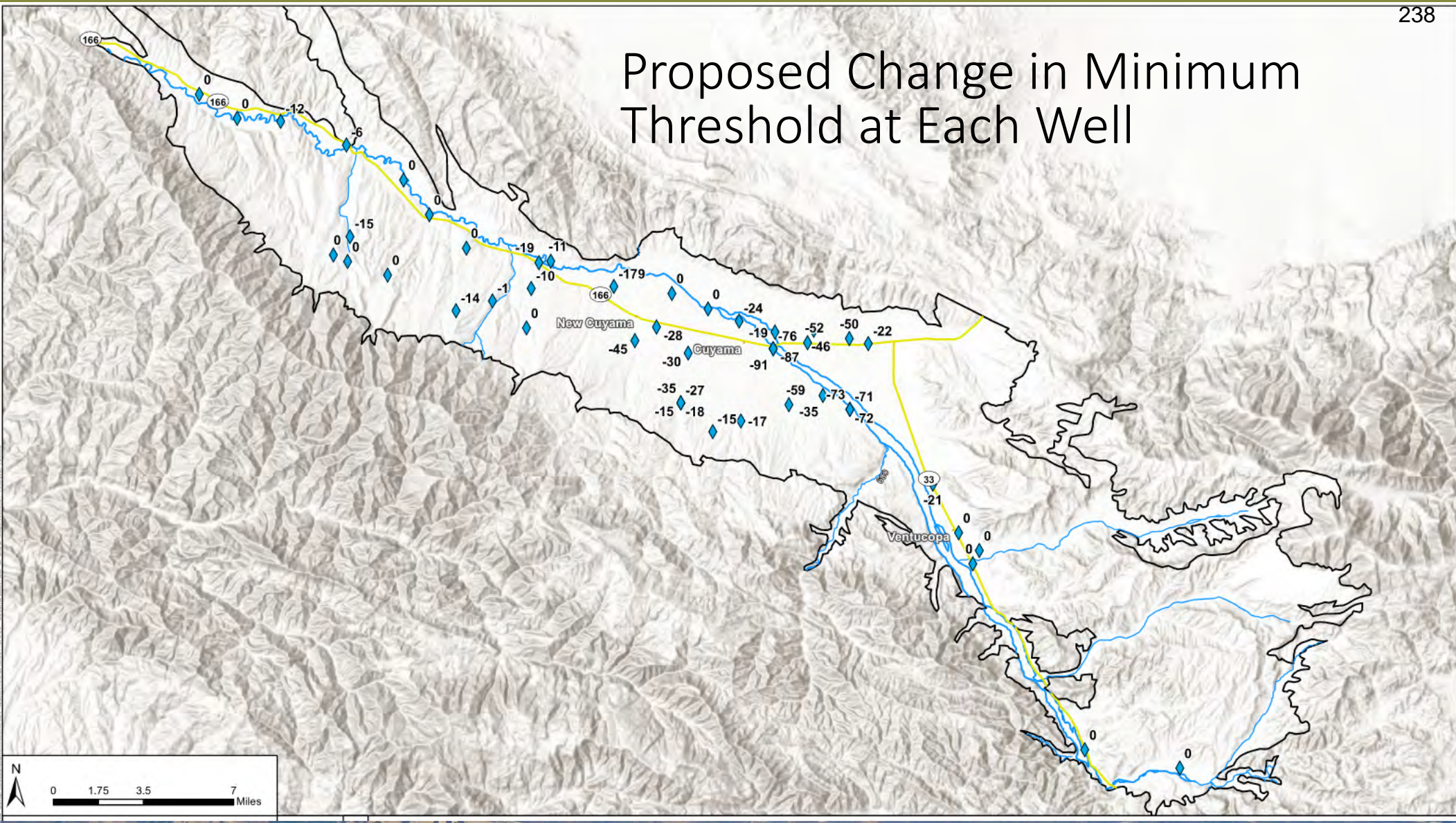
- Minimum thresholds would be adjusted as an interim measure, to be re-evaluated as part of the 2025 GSP Update
- Adjust minimum thresholds to more accurately reflect projected basin conditions between now and 2025 considering additional data and GSP actions:
 - Groundwater level trend from 2015-2022 at each well were projected forward to estimate a groundwater level in 2025
 - MTs for wells that were projected to be at least 10 feet above the MT were unchanged
 - Proposed MTs for wells that were projected to be below (or within 10 feet of) current MT were set at projected 2025 level minus 10 feet
- To ensure that undesirable results are avoided, wells from confirmed active list were evaluated to determine how many additional wells would be projected to be at risk of going dry due to change in MTs

Proposed Minimum Thresholds

	Projected DTW in 2025	Current Minimum Threshold	Projected Exceedance?	Proposed Minimum Threshold	Proposed Minimum Threshold Change
2	4.5	72	No	72	0
62	163.2	182	No	182	0
72	204.0	169	Yes	214	-45
74	274.2	256	Yes	284	-28
77	515.8	450	Yes	526	-76
85	198.2	233	No	233	0
89	21.7	64	No	64	0
91	686.2	625	Yes	696	-71
95	622.1	573	Yes	632	-59
96	339.9	333	Yes	350	-17
98	454.9	450	Yes	465	-15
99	328.3	311	Yes	338	-27
100	146.9	181	No	181	0
101	121.6	111	Yes	132	-21
102	404.0	235	Yes	414	-179
103	309.9	290	Yes	320	-30
106	144.9	154	No	155	-1
107	95.1	91	Yes	105	-14
112	87.2	87	Yes	97	-10
114	49.4	47	Yes	58	-11
117	164.7	160	Yes	175	-15
118	56.5	124	No	124	0
124	55.1	73	No	73	0
316	685.7	623	Yes	696	-73
317	685.2	623	Yes	695	-72

	Projected DTW in 2025	Current Minimum Threshold	Projected Exceedance?	Proposed Minimum Threshold	Proposed Minimum Threshold Change
322	331.7	307	Yes	342	-35
324	319.0	311	Yes	329	-18
325	305.2	300	Yes	315	-15
420	530.7	450	Yes	541	-91
421	522.9	446	Yes	533	-87
474	150.9	188	No	188	0
568	45.8	37	Yes	56	-19
571	125.2	144	No	144	0
573	72.0	118	No	118	0
604	453.5	526	No	526	0
608	449.6	436	Yes	460	-24
609	384.3	458	No	458	0
610	646.4	621	Yes	656	-35
612	472.5	463	Yes	482	-19
613	544.7	503	Yes	555	-52
615	536.3	500	Yes	546	-46
629	571.1	559	Yes	581	-22
633	587.0	547	Yes	597	-50
830	61.1	59	Yes	71	-12
832	41.3	45	No	51	-6
833	36.2	96	No	96	0
836	38.1	79	No	79	0
841	116.4	203	No	203	0
845	79.4	203	No	203	0

Proposed Change in Minimum Threshold at Each Well



Confirmed Active Well Risk Assessment: Change Relative to Current Minimum Thresholds

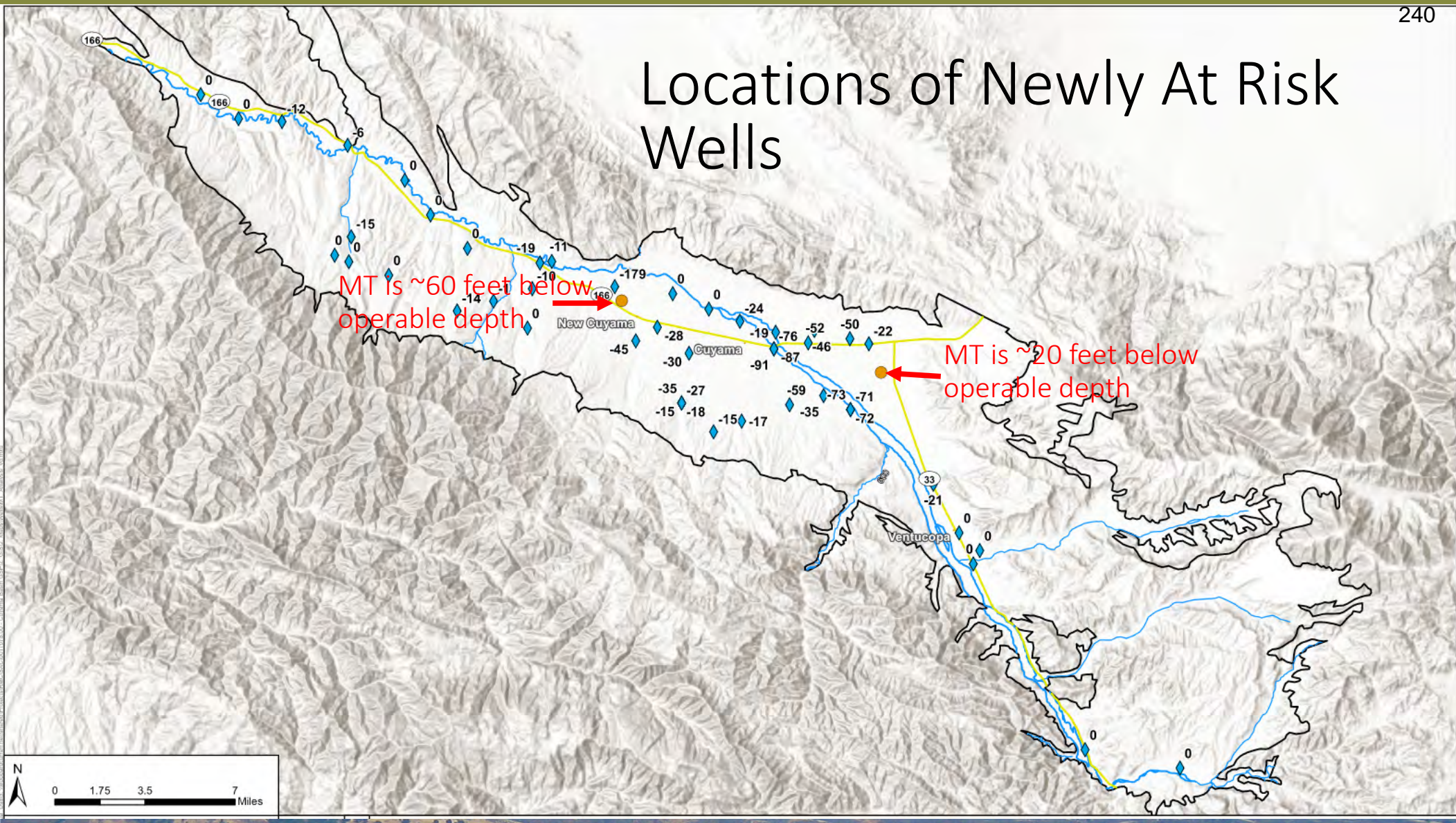
Threshold Region	Production Wells	Domestic Wells	Total Wells
Northwestern	0	0	0
Western	0	0	0
Central	-2	0	2
Eastern	0	0	0
Southeastern	0	0	0
Total	-2	0	2

Potentially 2 additional wells at risk

No Change in # of domestic wells at risk

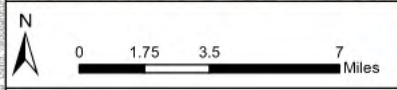
- Out of 104 confirmed active wells with perforation and/or depth information, 2 additional wells are at risk due to proposed changes in MTs
- None of the newly at risk wells are domestic wells

Locations of Newly At Risk Wells



MT is ~60 feet below operable depth

MT is ~20 feet below operable depth



Option 2: Adjust Undesirable Results Definition

- Current Undesirable Results definition: an undesirable result occurs when **30%** of wells exceed their MT for **two** consecutive years
- **Proposed option 2a:** Change the criteria to occurring when 30% of wells exceed their MT for **three** consecutive years
 - This would delay triggering undesirable results until July 2024, at which time the GSA will be considering options for the 2025 GSP Update
 - DWR has approved several GSPs that set undesirable results at three years
 - However, none of these are in critically overdrafted basins
- **Proposed option 2:** Change the criteria to occurring when **50%** of wells exceed their MT for two consecutive years
 - Undesirable results would not be triggered unless basin conditions worsen compared to today
 - There are no approved GSPs with such a high percentage triggering an UR

Board Direction on Next Steps

- Would the Board like staff to pursue one of the two options, or a combination?
- Is there an alternate option the Board would like to see?



TO: Standing Advisory Committee
Agenda Item No. 10

FROM: Jim Beck / Alex Dominguez

DATE: March 23, 2023

SUBJECT: Approve Landowner Agreement for Dedicated Monitoring Wells and Piezometers

Recommended Motion

Standing Advisory Committee feedback requested.

Discussion

As part of the grant-funded Groundwater Sustainability Plan implementation, the Cuyama Basin Groundwater Sustainability Agency (CBGSA) is working to install dedicated monitoring wells and piezometers in the basin. A Monitoring Well Construction & Access Agreement is needed between participating landowners and the CBGSA for installation and continued access for monitoring for these wells, and the draft Monitoring Well Construction & Access Agreement is provided as Attachment 1 for consideration of approval.

MONITORING WELL CONSTRUCTION & ACCESS AGREEMENT

THIS MONITORING WELL CONSTRUCTION & ACCESS AGREEMENT (**Agreement**) is made and entered into by and between CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY (**GSA**) and _____ (**Landowner**), both of whom may be referred to individually as a **Party** and collectively as **Parties**.

RECITALS

A. The GSA has adopted a Groundwater Sustainability Plan (**GSP**) to comply with the Sustainable Groundwater Management Act (**SGMA**). The GSA is responsible for implementing the GSP within its boundaries.

B. SGMA requires the long-term monitoring of groundwater levels and water quality. To comply with this requirement, the GSA may need authorization from landowners to construct and access groundwater monitoring wells within the GSA's boundaries to monitor groundwater elevations and water quality.

C. The GSA desires to construct, maintain, and monitor a groundwater monitoring well(s) on **Landowner's Land** (as described and depicted in **Exhibit A**, attached hereto and incorporated herein).

D. The Landowner agrees to grant the GSA access onto Landowner's Land, subject to the terms and conditions as set forth in this Agreement.

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual covenants and agreements stated herein, the Parties agree as follows:

AGREEMENT

1. Incorporation of Recitals. The foregoing recitals are incorporated herein as terms and conditions of this Agreement.

2. Right of Entry. The Landowner grants to the GSA and its employees, agents, consultants, and contractors a non-exclusive year-round license to enter onto the Landowner's Land to (i) construct, maintain, and repair a groundwater monitoring well(s); and (ii) obtain groundwater elevation and water quality data from the groundwater monitoring well(s). Unless otherwise agreed to by the Parties in writing, the Parties agree that the GSA's access and egress to the Landowner's Land is limited to the area(s) described in **Exhibit A** "Monitoring Well Locations" in compliance with any conditions listed under "Access Instructions." Landowner represents to the GSA that, to the best of Landowner's knowledge, Landowner possesses ownership interests in Landowner's Land sufficient to grant access to the GSA to conduct the construction and groundwater monitoring activities described herein.

3. Access and Control. Except as otherwise provided in this Agreement, Landowner retains the exclusive right of access to and control over the Landowner's Land. Nothing contained in this Agreement may be construed as affording the public a right of access to any portion of the

Landowner's Land or precluding Landowner's right to grant access to third parties across the Landowner's Land, provided that such access is not inconsistent with this Agreement. Notwithstanding the foregoing, the GSA may (i) lock the groundwater well to restrict entry and (ii) install bollards to protect the groundwater well.

4. Duration of Right. The Parties agree that this Agreement shall remain in effect until either of the following occurs: (a) termination of this Agreement by either Party, or (b) change in ownership of the Landowner's Land.

- a. **Termination by a Party.** The Parties agree that this Agreement may be terminated at any time, with or without cause, by either Party upon 60 days written notice to the other Party.
- b. **Change in Ownership of Landowner's Land.** The Parties agree that this Agreement shall terminate upon any change in ownership of the Landowner's Land. Following that termination, the GSA acknowledges that the GSA must enter into a new access agreement with the new owner(s) of the Landowner's Land.

5. Effect of Termination. Upon termination of this Agreement, the Landowner may elect to have the groundwater monitoring well(s):

- a. Removed, filled, and/or plugged, pursuant to Federal, State, and local law, by the GSA at its sole cost and expense within 90 days of termination of this Agreement. Upon this removal, the GSA shall work with the Landowner and take all actions reasonably necessary to repair any area(s) of the Landowner's Land that were damaged or otherwise altered as a result of the construction of the groundwater monitoring well(s) by the GSA to the condition that existed immediately prior to the damage or alteration caused by the GSA.
- b. Transferred to the Landowner, pursuant to a separate transfer agreement negotiated and executed by and between the GSA and the Landowner. If the GSA and the Landowner are unable to agree on a transfer agreement within 60 days of the termination of this Agreement (**Election Expiration Date**), the Landowner shall be deemed to elect to have the GSA proceed under section 5(a) of this Agreement. In that event, the 90-day period for the GSA to comply with section 5(a) shall commence as of the Election Expiration Date.

6. No Easement. This Agreement does not grant the GSA a possessory right, easement, or other real property interest with respect to the Landowner's Land.

7. Costs. All costs related to the construction and maintenance of the groundwater well(s) on Landowner's Land shall be funded by the GSA, except for any maintenance needed to repair any

damage to the groundwater well(s) caused by Landowner. Additionally, all groundwater elevation and water quality monitoring performed by the GSA under this Agreement shall be funded by the GSA.

8. Storage. The right of entry shall include permission for the GSA to store (i) those tools and equipment necessary to construct the groundwater monitoring well(s) and (ii) any and all other pieces of equipment necessary for the maintenance, repair, and monitoring of the groundwater monitoring well(s).

9. Maintenance of Landowner's Land. The Parties acknowledge that this Agreement grants the GSA a non-exclusive year-round license to access the Landowner's Land for the limited purpose of (i) constructing, maintaining, and repairing a groundwater monitoring well(s); and (ii) obtaining groundwater elevation and water quality data from the groundwater monitoring well. Accordingly, except as provided in paragraph 5(a) and 11 of this Agreement, the Parties agree that the GSA (including its employees, agents, consultants, and contractors) is under no obligation to maintain or otherwise repair the Landowner's Land.

10. Damage/Restoration. The GSA (including its employees, agents, consultants, and contractors) shall take all reasonable precautions to avoid damaging the Landowner's Land. If any damage is caused to the Landowner's Land by the GSA's exercise of its rights and obligations under this Agreement, the GSA shall notify the Landowner immediately. In addition, the GSA shall, at its sole cost and expense, work with the Landowner and take all action reasonably necessary to repair any damage caused by the GSA and restore the area(s) of the Landowner's Land to the condition that existed immediately prior to the damage caused by the GSA.

11. Schedule or Notice of Access. The GSA shall undertake reasonable efforts to notify the Landowner at least 24 hours in advance of accessing the Landowner's Land pursuant to the access rights granted under this Agreement.

12. Indemnity. The GSA shall defend, indemnify, and hold harmless the Landowner for any costs, claims, damages, losses or other liabilities arising out of the GSA's (including any of its employees, agents, consultants, and contractors) actions on the Landowner's Land under this Agreement, with the exception that the GSA shall not be responsible for defending, indemnifying, or holding harmless the Landowner with regard to costs, claims, damages, losses, or other liabilities arising out of the negligence or intentional misconduct of the Landowner.

13. Written Notices. Written notices between the Parties shall be sent via U.S. mail to the addresses listed below:

CUYAMA BASIN GSA
 [Address]
 [City,] CA [zip code]

[Landowner's Name]
 [Address]
 [City,] CA [zip code]

14. Entire Agreement. This Agreement contains the entire understanding of the Parties and supersedes all prior agreements and understandings among the Parties related to the subject matter of this Agreement.

15. Severability. If any provision of this Agreement is held to be unenforceable for any reason, it shall be adjusted, rather than voided, if possible, to achieve the intent of the Parties, and the balance of the Agreement shall remain in full force and effect.

16. Governing Law. This Agreement shall be interpreted and enforced pursuant to the laws of the state of California. The forum for any dispute arising under this Agreement shall be the courts of California, and the venue for such dispute shall be the courts in the County of Tulare, California.

17. Effective Date. This Agreement shall become effective as of the latest date of execution below.

18. Amendment. Except as otherwise provided herein, any amendment to this Agreement shall become effective upon execution of a written amendment signed by both parties.

19. Counterparts. This Agreement may be executed in separate counterparts and by electronic signature, each of which shall be deemed an original and all of which together shall constitute one and the same Agreement.

CUYAMA BASIN GSA

By _____

[NAME, TITLE]

Date: _____

[LANDOWNER]

By _____

[NAME, TITLE]

Date: _____

EXHIBIT A

Parcel (Referenced in the attached Agreement as “Landowner’s Land”)
Landowner Name, Contact Name
APN(s): XXX-XXX-XX

Monitoring Well Locations

[Insert directions to where, on Landowner’s Land, the monitoring well(s) subject to this Agreement will be located.]

Access Instructions

[Insert Landowner’s Land access instructions here. Examples include parking restrictions, gate codes, animals to be aware of, etc.]



TO: Standing Advisory Committee
Agenda Item No. 11

FROM: Jim Beck / Alex Dominguez

DATE: March 23, 2023

SUBJECT: Discuss and Take Appropriate Action on Strategy for Managing Pumping throughout the Basin

Recommended Motion

Standing Advisory Committee feedback requested.

Discussion

On September 7, 2022, the Cuyama Basin Groundwater Sustainability Agency directed staff to develop a strategy for managing pumping throughout the Basin. Draft options were provided on January 18, 2023, and the Board directed staff to refine these options as it relates to development to the 2025 GSP update and they are provided as Attachment 1 for Board review and feedback.

Cuyama Basin Groundwater Sustainability Agency

11. Discussion and Appropriate Action on Strategy for Managing Pumping throughout the Basin

Jim Beck / Alex Dominguez

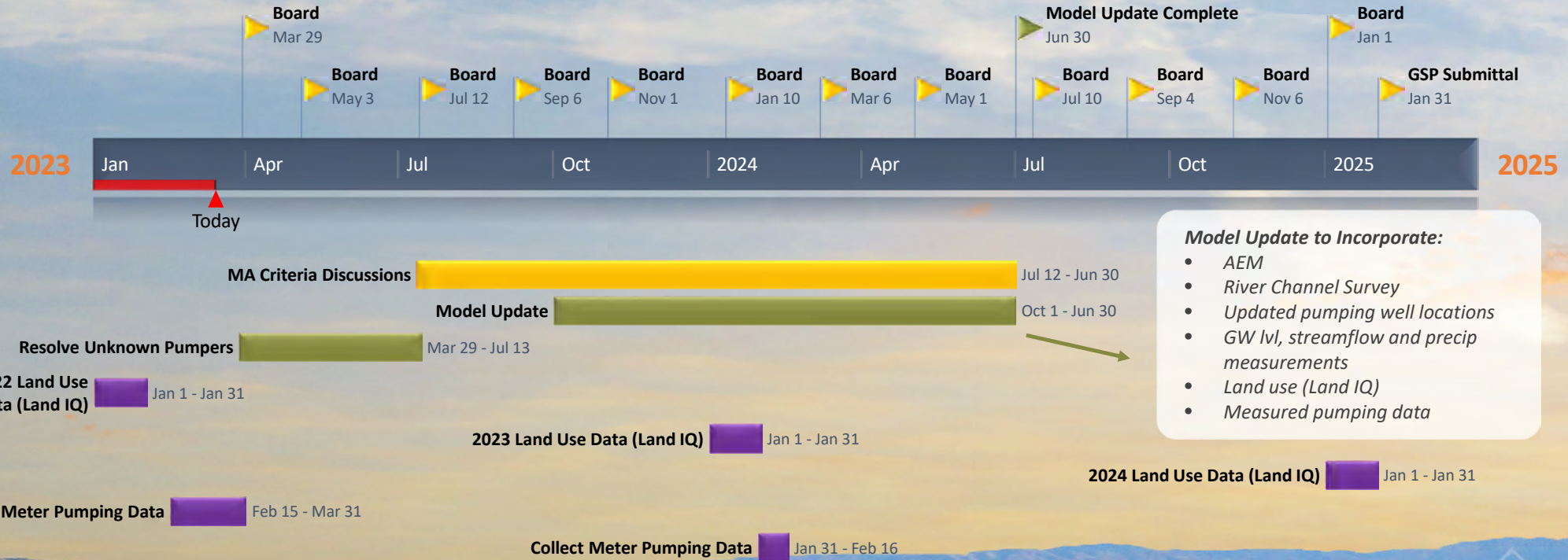
March 23, 2023



Background

- On May 4, 2022, the Board directed staff to begin discussions with an ad hoc to address the below two water management topics:
 1. Increased water use outside the Central Management Area
 2. Water market/trading discussions
- On September 7, 2022, the Board directed staff to develop a strategy with options to address increase water use outside the Central Management Area to be reviewed at the November 2, 2022, Board meeting
- On January 11, 2023, the Board discussed this item and a draft timeline of GSA efforts that may inform decisions related basin-wide pumping reductions during development of the 2025 GSP update

Draft Timeline for Addressing Data Gaps for the 2025 GSP Update



Model Update to Incorporate:

- AEM
- River Channel Survey
- Updated pumping well locations
- GW lvl, streamflow and precip measurements
- Land use (Land IQ)
- Measured pumping data

Next Steps

- Any questions on the draft timeline?
- **Are there any other activities/actions you would like the GSA to perform not on the timeline to address potential basin wide pumping reductions during development of the 2025 GSP?**



TO: Standing Advisory Committee
Agenda Item No. 12

FROM: Jim Beck / Brian Van Lienden

DATE: March 29, 2023

SUBJECT: Discuss and Take Appropriate Action on Strategy for Continuing Evaluation of Basin Faults

Recommended Motion

Standing Advisory Committee feedback requested.

Discussion

On January 18, 2023, draft options for evaluating two of the major faults in the basin were presented to the Board. The Board requested the options be refined and brought back to the Board on March 29, 2023. The revised list of options is provided as Attachment 1.

Cuyama Basin Groundwater Sustainability Agency

Discuss and Take Appropriate Action on Strategy for Continuing Evaluation of Basin Faults

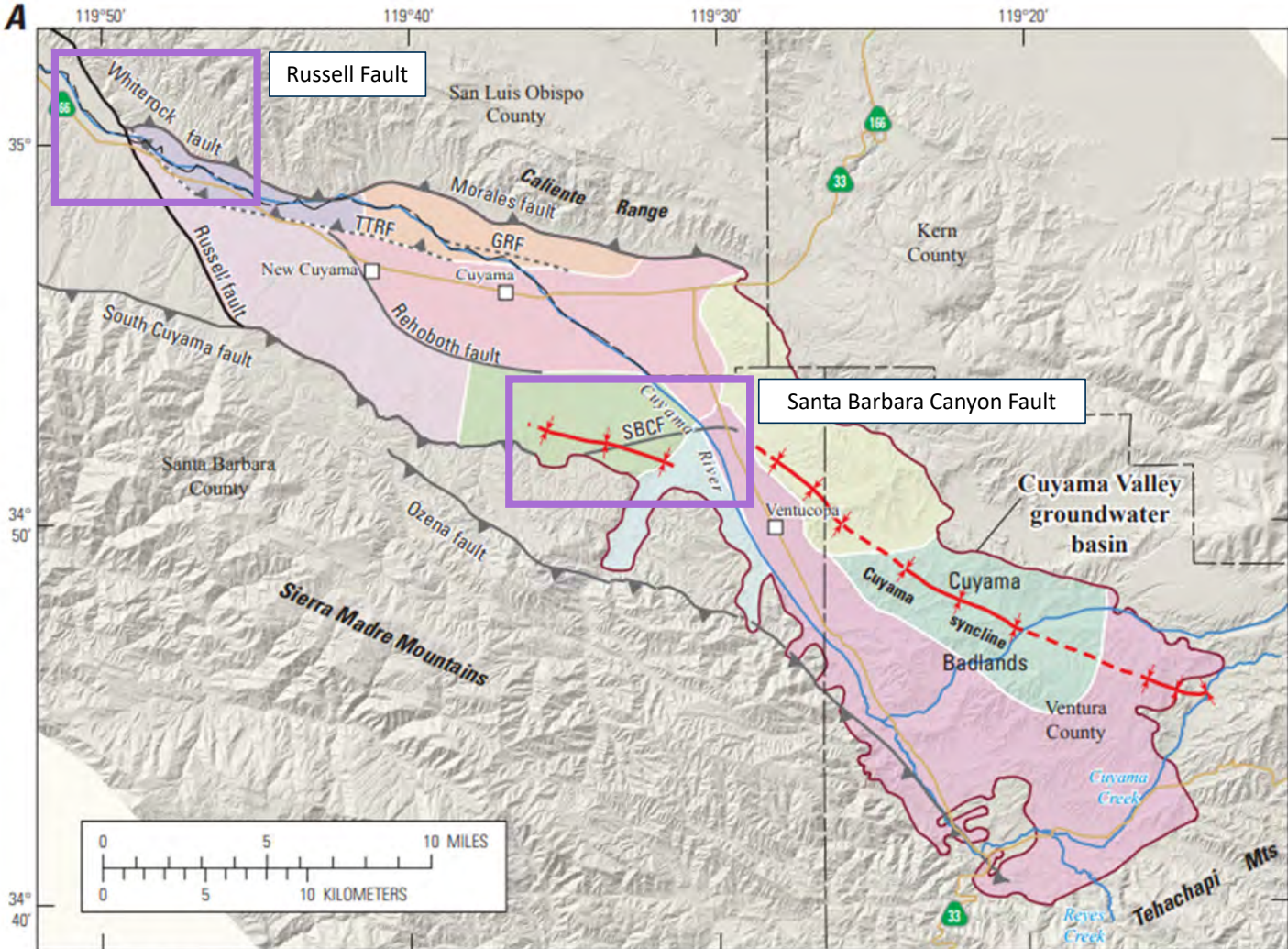
Beck/Van Lienden

March 23, 2023

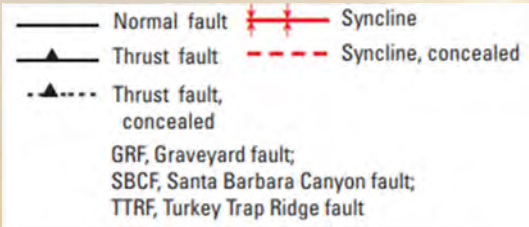


Streamlined Approach for Groundwater-Fault Interaction Investigation

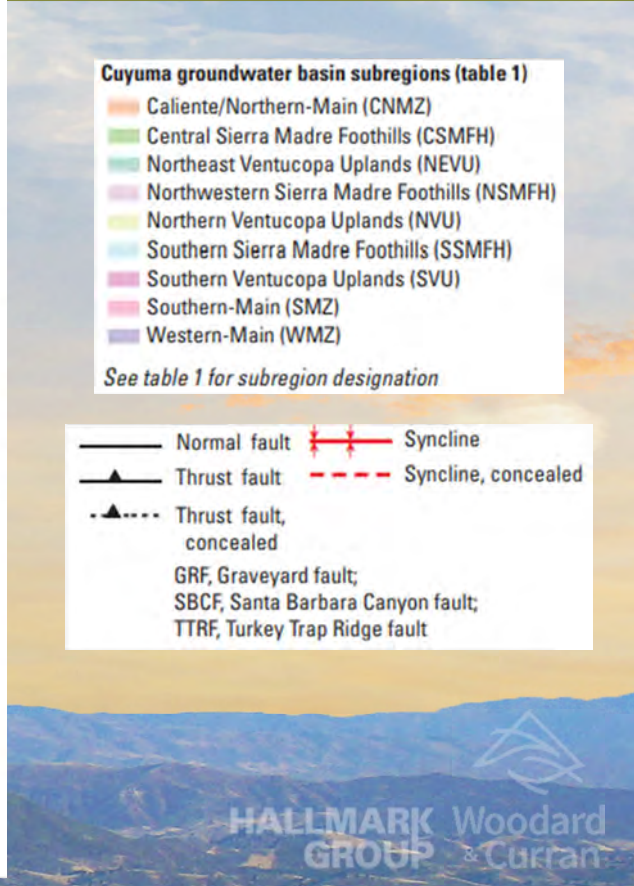
- Major Revisions from Previous Approach
 - Does not include direct measurement of flow across faults (i.e. no pumping well installation or aquifer testing)
 - Streamlined geophysical surveys
- Investigation Components Included in Streamlined Approach
 - Evaluate available groundwater data in investigation areas
 - Interpret AEM data and oil & gas geophysical logs, if available
 - Conduct surface geophysical surveys
 - Construct a new monitoring well near SBC Fault (funding covered by current grant agreement)
 - Sample groundwater and conduct geochemical analyses
 - Groundwater flow calculations and modelling



Groundwater hydrologic subregions and related geologic structures; B, simplified Cuyama major groundwater regions; and C, groups of landscape water-balance subregions for 1943–2010 in Cuyama Valley, California (USGS, 2015)



Shaded relief base created from 30-m digital elevation model from USGS National Elevation Dataset (NED); North America Vertical Datum 1983 (NAVD83). Hydrology sourced from 1:24,000-scale National Hydrography Dataset, 1974-2009. Place names sourced from USGS Geographic Names Information System, 1974-2009. Albers Projection, NAD83.

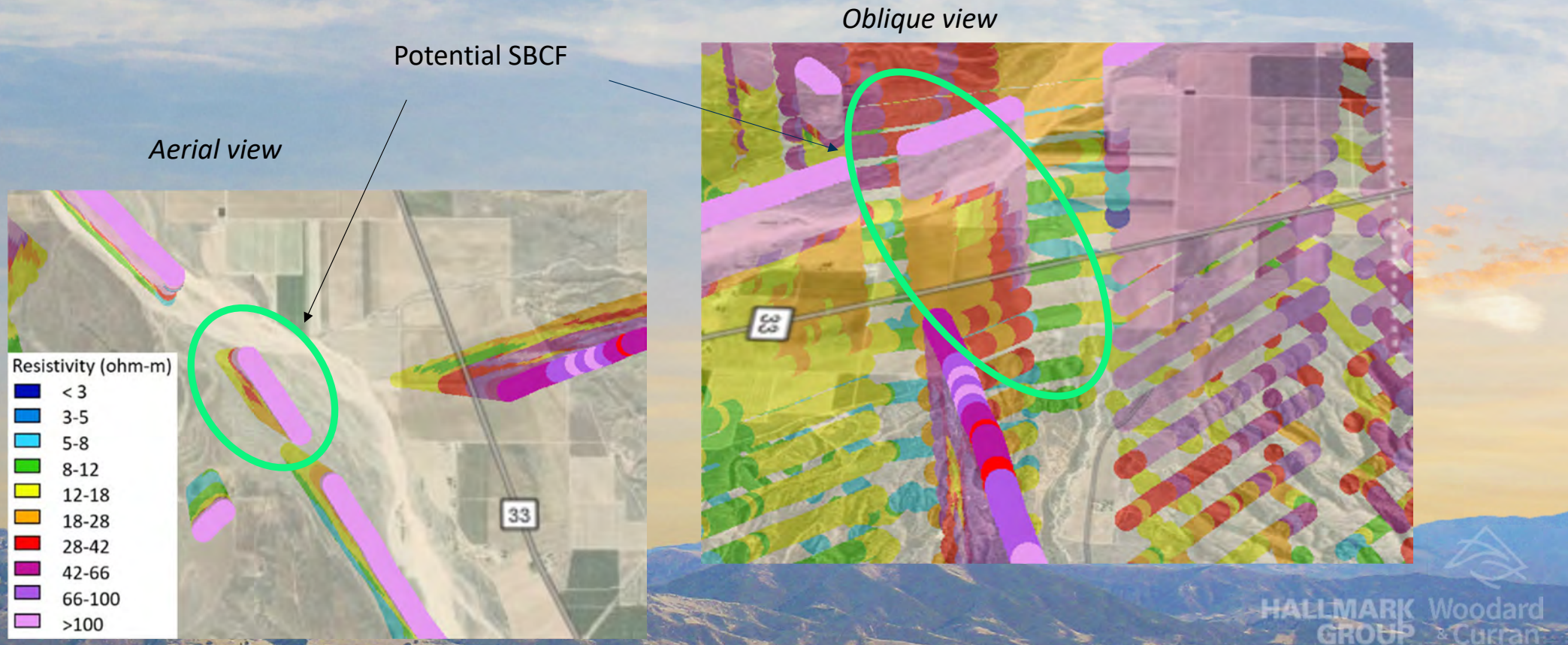


Evaluate Available Groundwater Data

Evaluate existing data pertaining to understanding groundwater flow across the faults:

- Groundwater depth, elevations and production
- Hydrostratigraphic cross-sections
- Groundwater quality (field parameters and lab data)

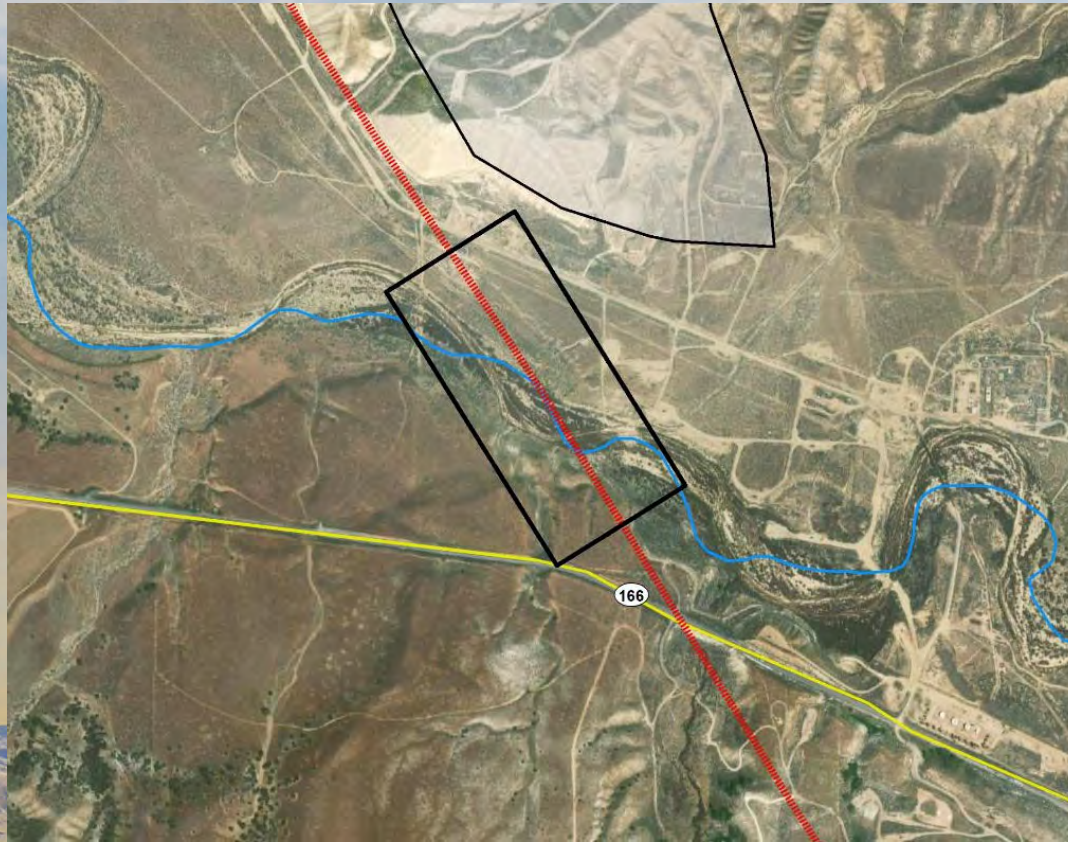
Airborne Electromagnetic (AEM) Data from DWR



Potential Oil & Gas Borehole Geophysical Logs

- W&C in communication with Edward Fetterman, E&B Natural Resources to request geophysical logs
- W&C will:
 - Obtain geophysical logs, if possible
 - Interpret seismic data near Russell Fault and SBC Fault

Russell Fault – Surface Geophysical Survey



Key:



Concealed/unknown
(USGS, 1970)

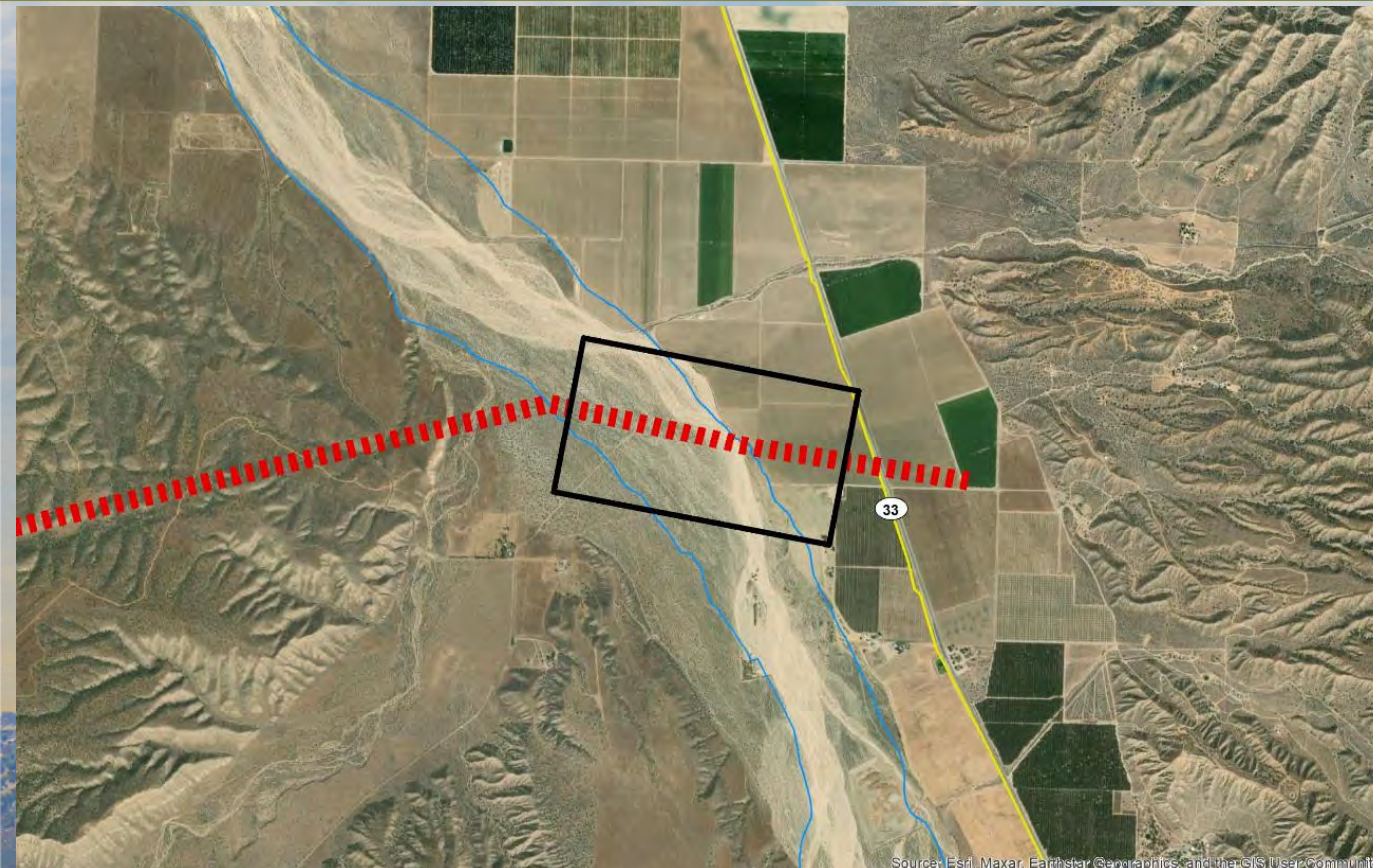


Preliminary geophysical
investigation area



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Miles

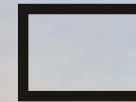
Santa Barbara Canyon Fault (SBCF) – Surface Geophysical Survey



Key:



Concealed/unknown
(USGS, 1970)



Preliminary geophysical
investigation area



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Miles

Surface Geophysical Survey

- DC Electrical Resistivity and Induced Polarization
- Investigation depth of 600 – 800 feet
- Reduced from six to two transects of 1,500 – 1,800 feet in length
- Roughly two days per transect

Wells Near Russell Fault



Key:



Concealed/unknown
(USGS, 1970)



Representative Monitoring Well

Note: Existing wells are not adequate for conducting an aquifer test. Geochemical testing is proposed for these wells.



N

0 0.1 0.2 0.4
Miles

Wells Near Santa Barbara Canyon Fault



Note: Existing wells are not adequate for conducting an aquifer test. Geochemical testing is proposed for these wells.

Groundwater Geochemistry Analysis

- Analysis to be performed:
 - Major cations (calcium, magnesium, potassium, sodium)
 - Major anions (bicarbonate, chloride, nitrate, sulfate)
 - Total dissolved solids
 - Trilinear and Stiff Diagrams
 - Stable and radioactive isotopes (hydrogen, oxygen, carbon)
- Will help characterize groundwater mixing across the fault

Groundwater Flow Estimation

Update parameters based on field investigations

- Groundwater gradient across the faults
- Groundwater quality across the faults
- Groundwater recharge and age across the faults
- Boundary conditions
- Estimates of transmissivity and storage coefficient

Use CBWRM to estimate flow across the faults

Benefits and Limitations of Streamlined Approach

- **Benefits**
 - Maximizes use of existing data
 - Includes lower cost approaches to acquire additional data
 - Improve understanding of location, depth and orientation of SBC and Russell Faults
 - Improved understanding of groundwater conditions in vicinity of SBC and Russell Faults
- **Limitations**
 - Does not directly measure hydraulic response across the fault (i.e., flow is not quantified)

Revised Draft Cost Estimate for Streamlined Approach

Tasks	Estimated Cost, SBC Fault		Estimated Cost, Russell Fault	
	Labor & Expenses	Subcontractors	Labor & Expenses	Subcontractors
1. Evaluate available groundwater data and oil & gas borehole geophysical data	\$14,000	\$0	\$11,000	\$0
2. Perform geophysical survey at SBC Fault and Russell Fault	\$16,000	\$55,000	\$13,000	\$55,000
3. Groundwater sampling and geochemical analysis	\$20,000	\$33,000	\$10,000	\$17,000
4. Groundwater flow and data analysis, including modeling	\$39,000	\$0	\$39,000	\$0
Subtotal	\$89,000	\$88,000	\$73,000	\$72,000
Total	\$177,000		\$145,000	
Estimated Cost – SBC and Russell Faults	\$322,000			

Board Direction on Next Steps

- How would the Board like to proceed with the streamlined approach?



TO: Standing Advisory Committee
Agenda Item No. 13a

FROM: Brian Van Lienden, Woodard & Curran

DATE: March 23, 2023

SUBJECT: Update on Groundwater Sustainability Plan Activities

Recommended Motion

None – information only.

Discussion

Cuyama Basin Groundwater Sustainability Agency (CBGSA) Groundwater Sustainability Plan (GSP) activities and consultant Woodard & Curran's (W&C) accomplishments are provided as Attachment 1.

Cuyama Basin Groundwater Sustainability Agency

13a. Update on Groundwater Sustainability Plan Activities

Brian Van Lienden

March 23, 2023



January-February Accomplishments

Brian Van Lienden

- ✓ Landowner outreach and development of bid documents for implementation of new monitoring wells and piezometers
- ✓ Developed groundwater conditions report for January 2023 monitoring period and submitted monitoring data to DWR
- ✓ Developed land use data for water and calendar year 2022
- ✓ Continued implementation of DWR grant agreement tasks, including development of grant invoice and progress report
- ✓ Developed Cuyama Basin draft Annual Report for consideration by CBGSA Board



TO: Standing Advisory Committee
Agenda Item No. 13b

FROM: Brian Van Lienden, Woodard & Curran

DATE: March 23, 2023

SUBJECT: 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

13b. Update on Monitoring Network Implementation

Brian Van Lienden

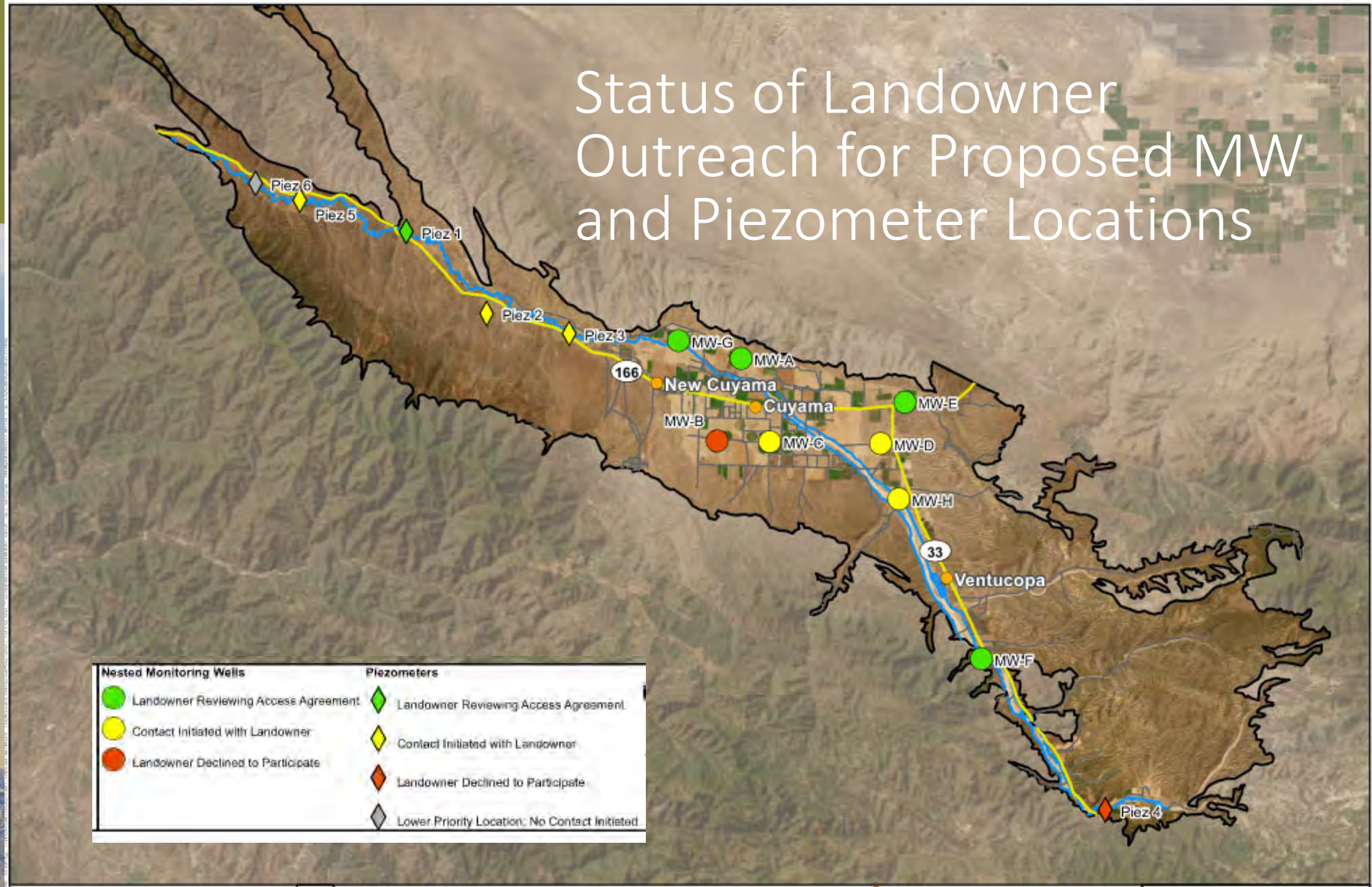
March 23, 2023



Update on Monitoring Well and Piezometer Installation

- Outreach was conducted with landowners of proposed monitoring well and piezometer sites during January and February 2023
 - Outreach included initial calls to discuss potential locations; participants in initial calls were provided with draft agreement documents for review
 - Landowners at five locations have indicated they will likely participate
 - Landowners at two locations have declined to participate
 - Outreach is ongoing with other landowners
- Bid documents for well drilling were sent out to selected contractors on March 13
 - Staff anticipates submitting recommendation of selected well drilling contractor to the Board for approval at the May Board Meeting

Status of Landowner Outreach for Proposed MW and Piezometer Locations



Update on Other Grant Tasks

- **CIMIS Station Installation**
 - Staff conducted a coordination and consultation call with DWR staff
 - DWR recommended three new stations:
 - Installing a new station in the Central basin to replace the existing station
 - A new station southeast of the Santa Barbara Canyon fault
 - A new station west of the Russell Fault
 - Staff is currently identifying potential locations and will begin outreach with landowners
- **River Channel Survey**
 - Staff has determined that doing a flight of the full river channel is feasible with the current grant budget; a contractor has been identified
 - We anticipate doing the flight in late summer when river flows have receded

Stream Gauge Locations

USGS DATA

1. Cuyama R NR Ventucopa

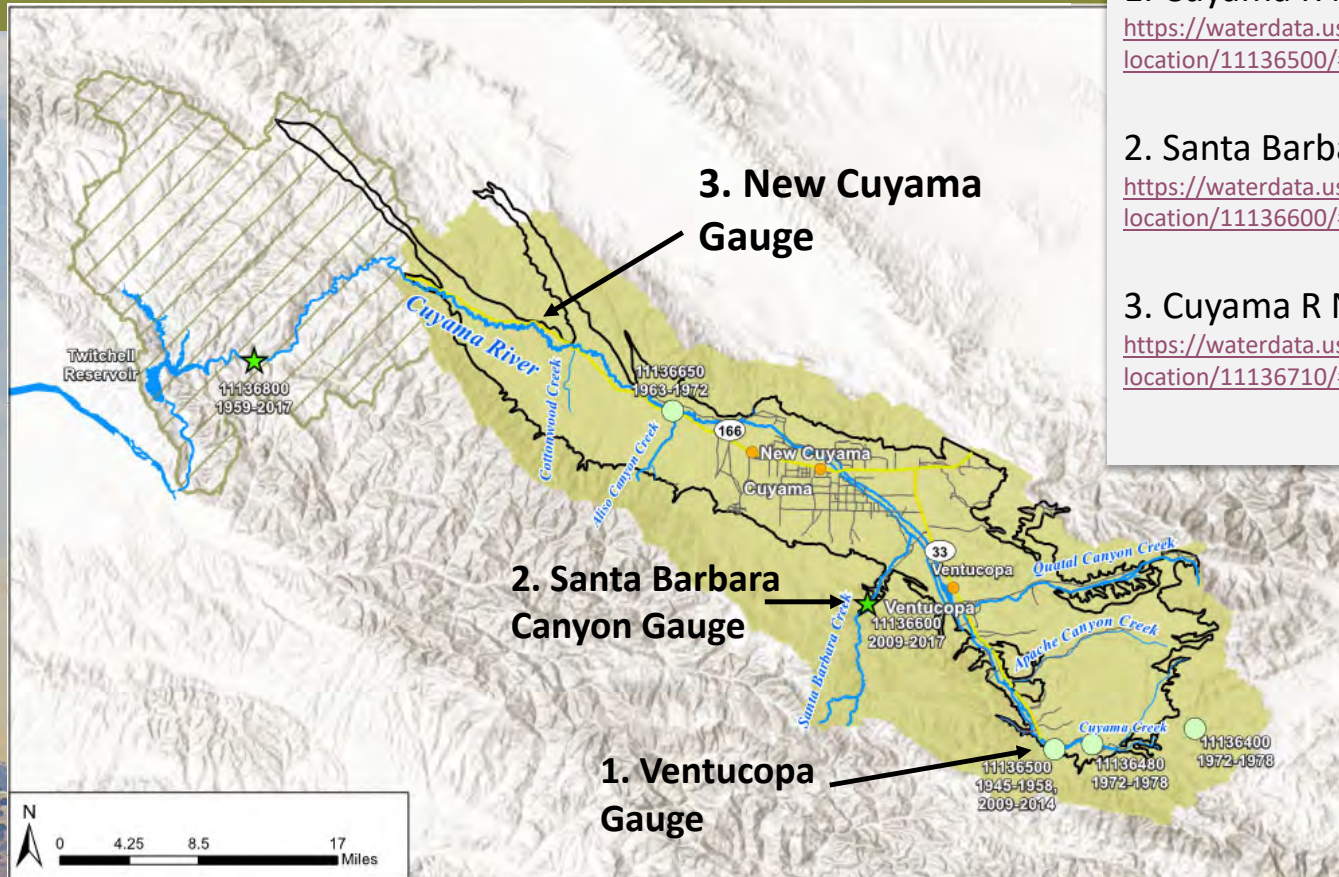
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2. Santa Barbara CYN C NR Ventucopa

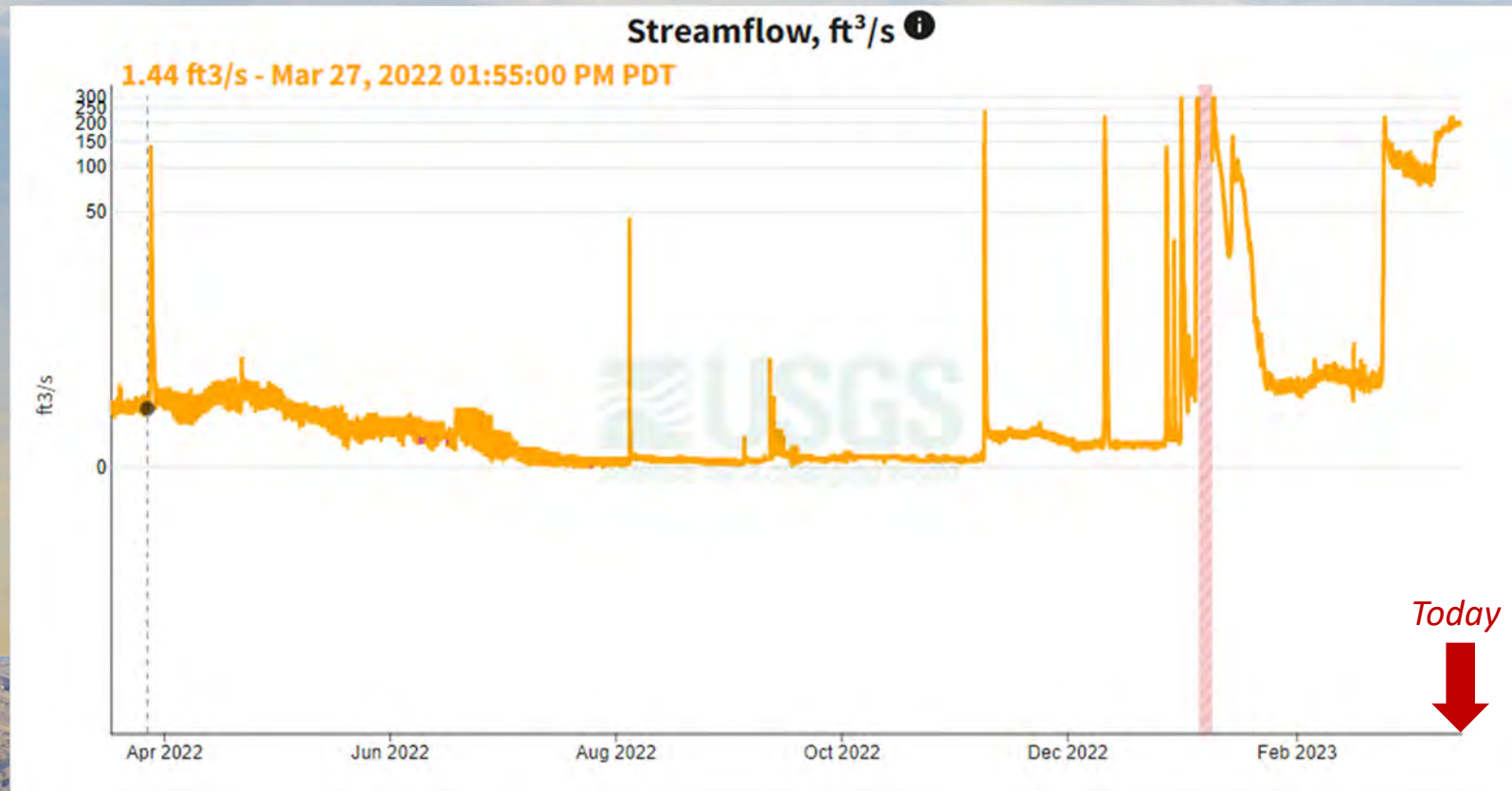
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3. Cuyama R NR New Cuyama (Spanish Ranch)

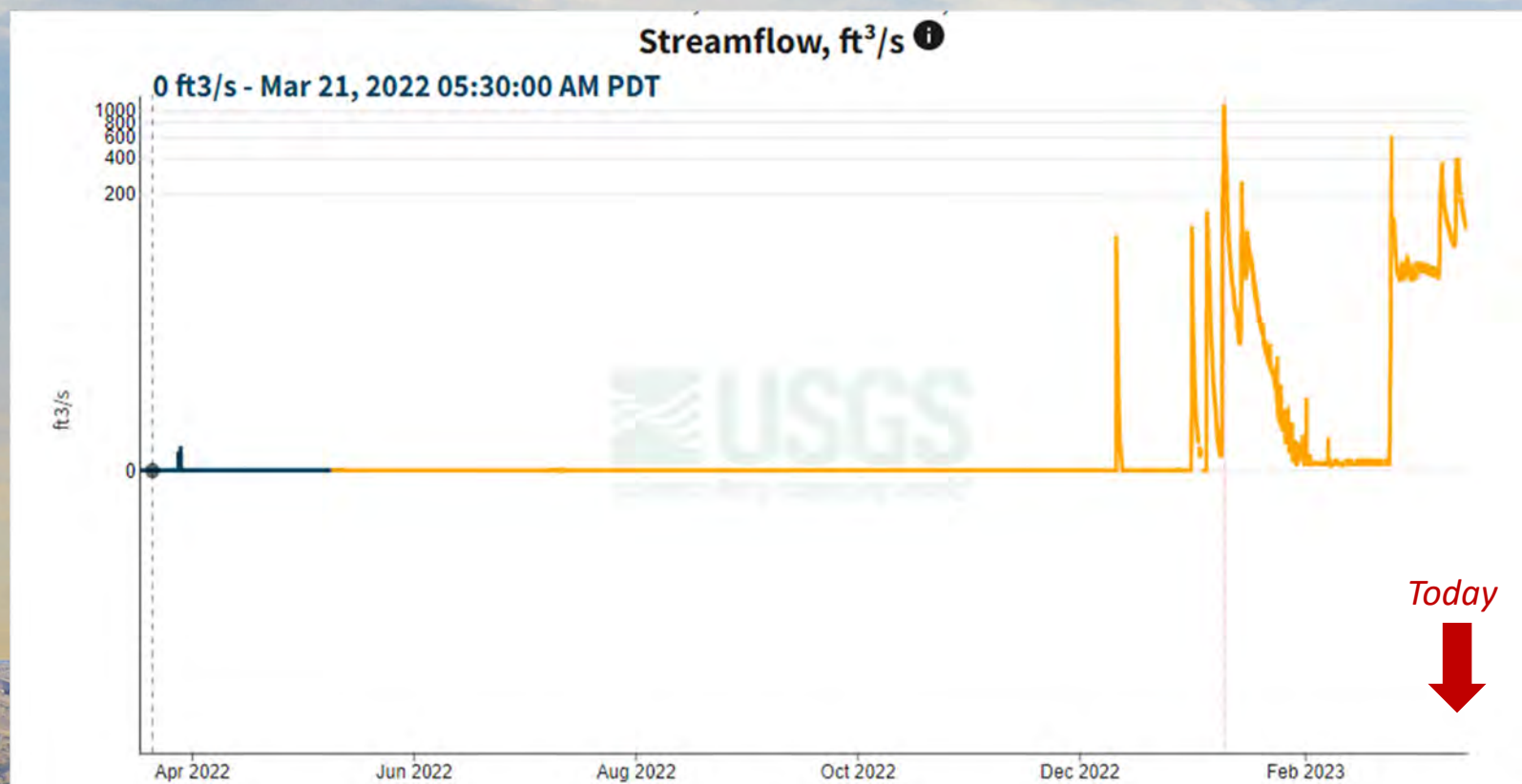
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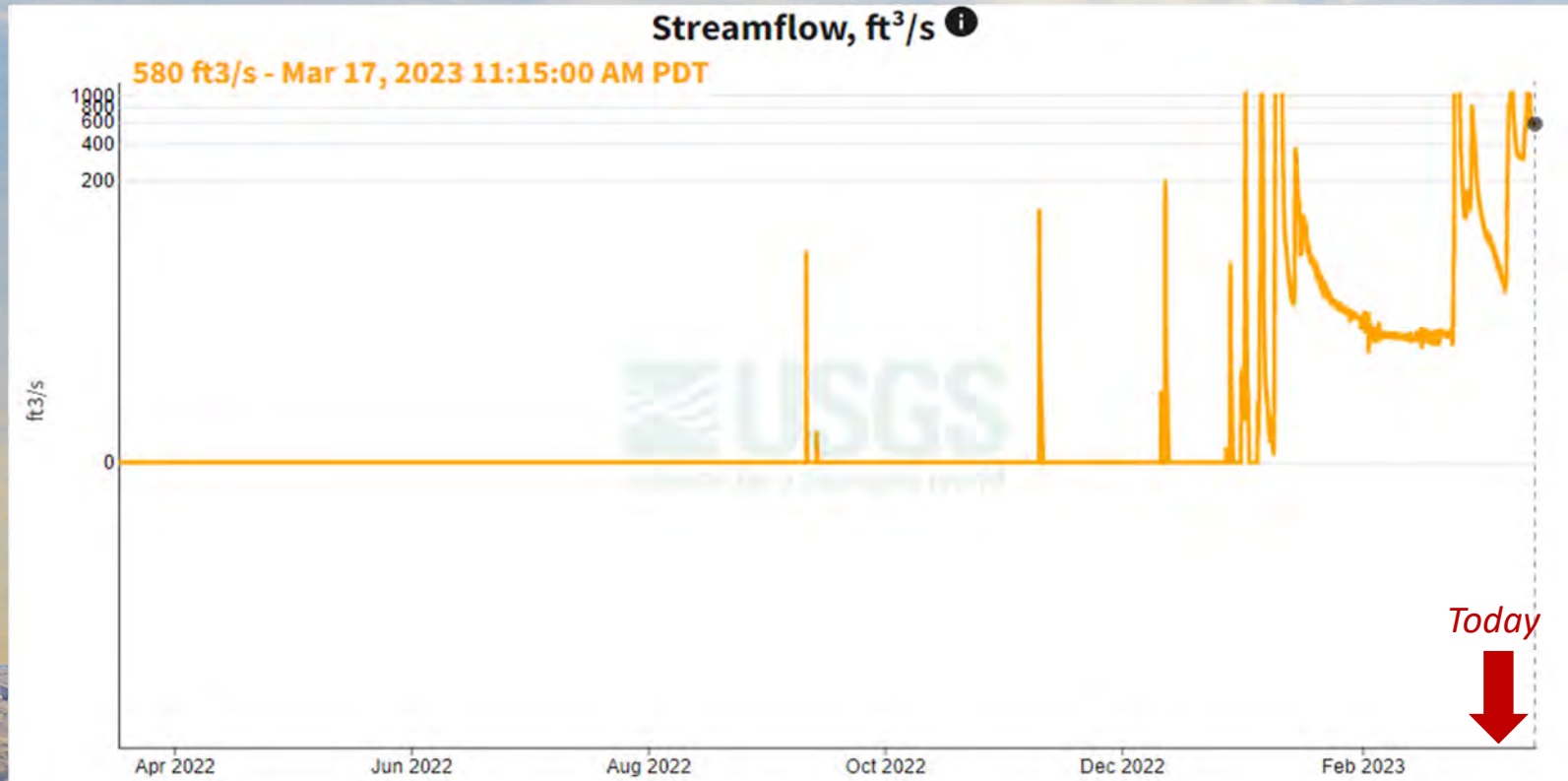
1. Cuyama R NR Ventucopa: Discharge Data



2. Santa Barbara CYN C NR Ventucopa: Discharge Data



3. Cuyama R NR New Cuyama (Spanish Ranch): Discharge Data



Schedule for Cuyama Basin Monitoring in 2023

Brian Van Lienden

- Quarterly groundwater levels monitoring:
 - January, April, July, October
- Annual water quality testing for TDS:
 - August

Update on DWR TSS Program

Brian Van Lienden

- DWR installed three new multi-completion monitoring wells in the Cuyama Basin in 2021
 - Staff is continuing to work with DWR to install transducers in these wells



TO: Standing Advisory Committee
Agenda Item No. 13c

FROM: Taylor Blakslee / Brian Van Lienden, Woodard & Curran

DATE: March 23, 2023

SUBJECT: Update on Effort to Address Well Data Gaps

Recommended Motion

None – information only.

Discussion

An update on efforts to address well data gaps is provided as Attachment 1.

13c. Update on Effort to Address Well Data Gaps

Blakslee/Van Lienden

March 23, 2023



Background

- Data on wells has been collected from multiple sources:
 - Initial data collection for GSP (USGS/DWR/counties/CCSD/local landowners)
 - County well permit databases
 - GSA metering program
 - Landowner survey (voluntary)
 - Groundwater extraction fee reporting (i.e. de minimis wells)
- Staff has reviewed the data to compile a confirmed active pumping well list
- Ad-hoc committee met on March 1 to discuss potential strategies to improve well data

Well Data Improvement Strategy

- Data Improvement Goals:
 - Improve accuracy of data on whether wells are active/inactive
 - Improve accuracy of dataset for active wells
 - Historic/inactive wells would not be included for cost effectiveness and efficiency
- Strategies to Improve Well Data
 - Stakeholder review of active well data
 - GSA to develop active well map for stakeholder review
 - Interactive map could be posted on website; potentially could be mailed out
 - Enact a GSA well registration program
 - Would ensure new wells are included in GSA's active well dataset



TO: Standing Advisory Committee
Agenda Item No. 13d

FROM: Brian Van Lienden, Woodard & Curran

DATE: March 23, 2023

SUBJECT: Update on January 2023 Groundwater Conditions Report

Recommended Motion

None – information only.

Discussion

An update on the groundwater levels representative monitoring network and select hydrographs is provided as Attachment 1 and the detailed January 2023 Groundwater Conditions Report is provided as Attachment 2.

Cuyama Basin Groundwater Sustainability Agency

13d. Update on Quarterly Groundwater Conditions Report

Van Lienden

March 23, 2023

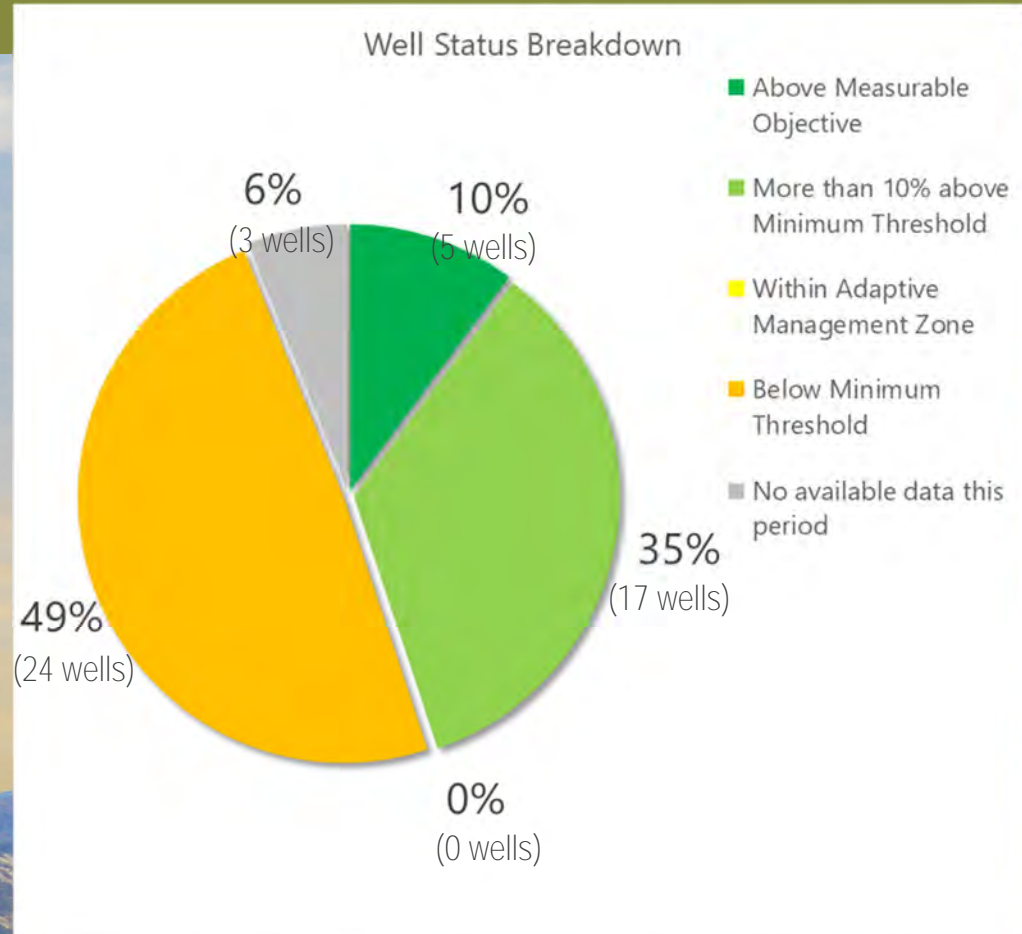
[Link to January Report](#)

Groundwater Levels Monitoring Network – Summary of Current Conditions

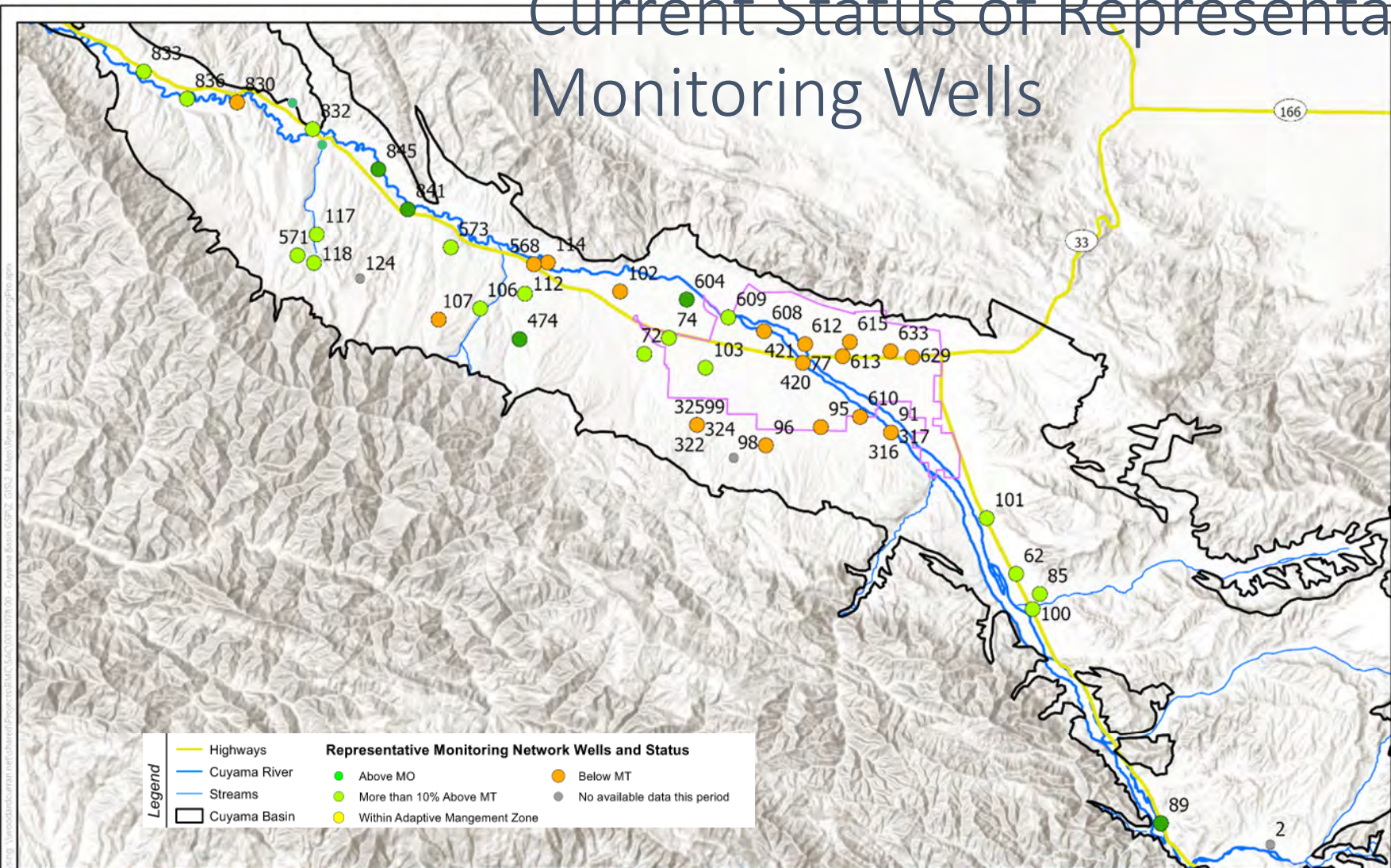
- Monitoring data from July 2022, October 2022, and January 2023 for representative wells is included in the Groundwater Conditions report
- 46 of 49 representative monitoring wells have levels data in at least one out of the previous 12 months
- 24 wells were below the minimum threshold based on latest measurement since January 2022

Summary of Groundwater Well Levels as Compared To Sustainability Criteria

- 24 wells are currently below minimum threshold (MT)
 - 30% of wells (i.e. 15 wells) below MT for 20 months
 - 8 of these were already below MT at time of GSP adoption
- Adaptive management analysis is currently under way as directed by Board in July & December

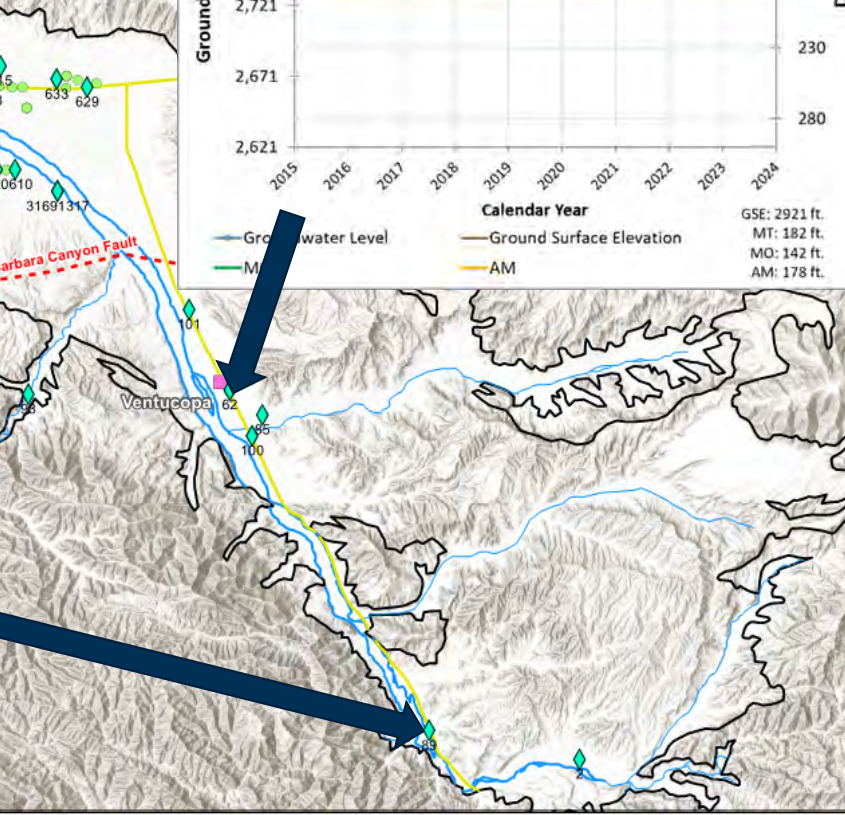
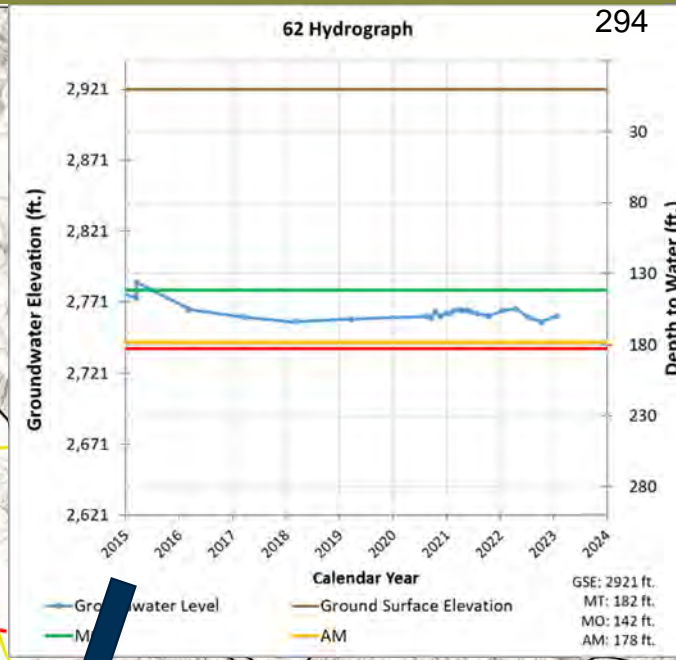
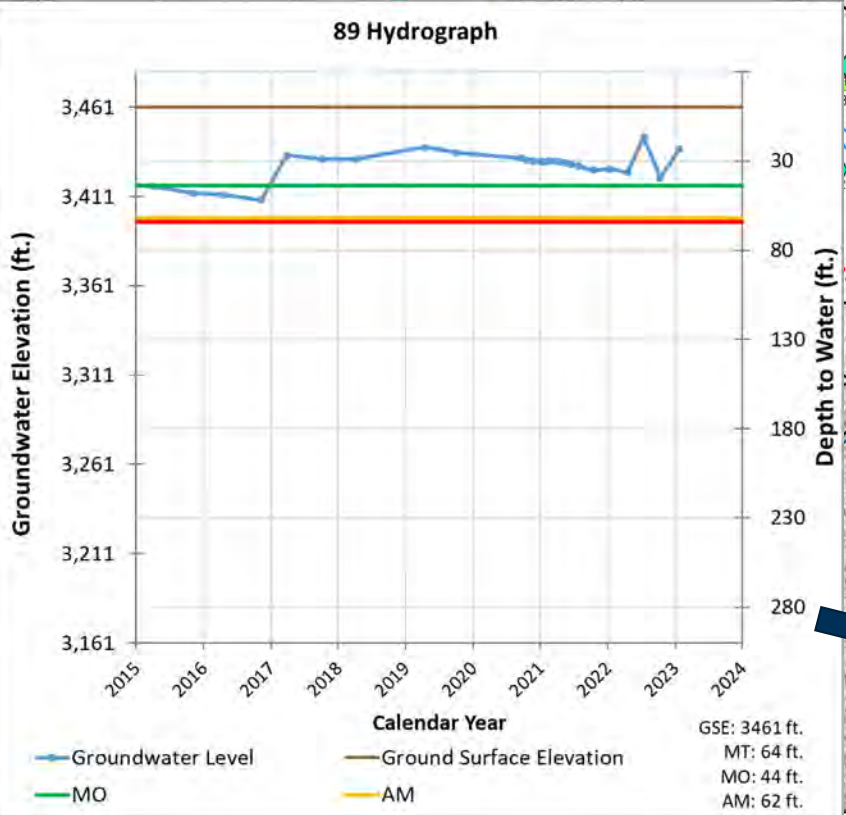
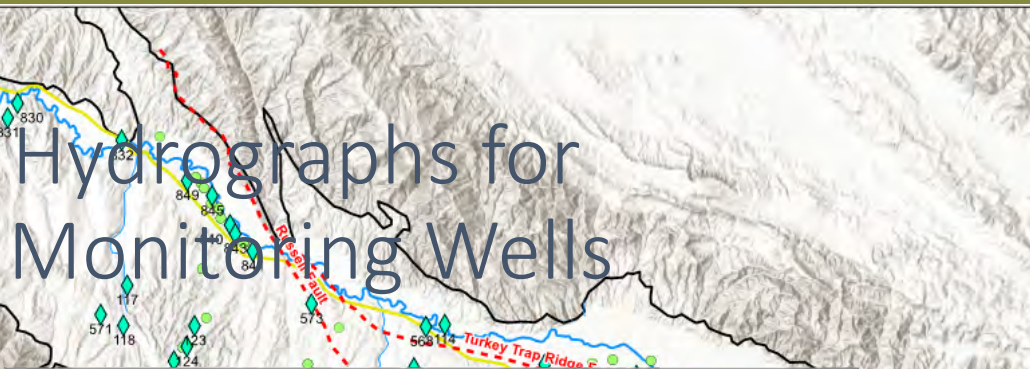


Current Status of Representative Monitoring Wells



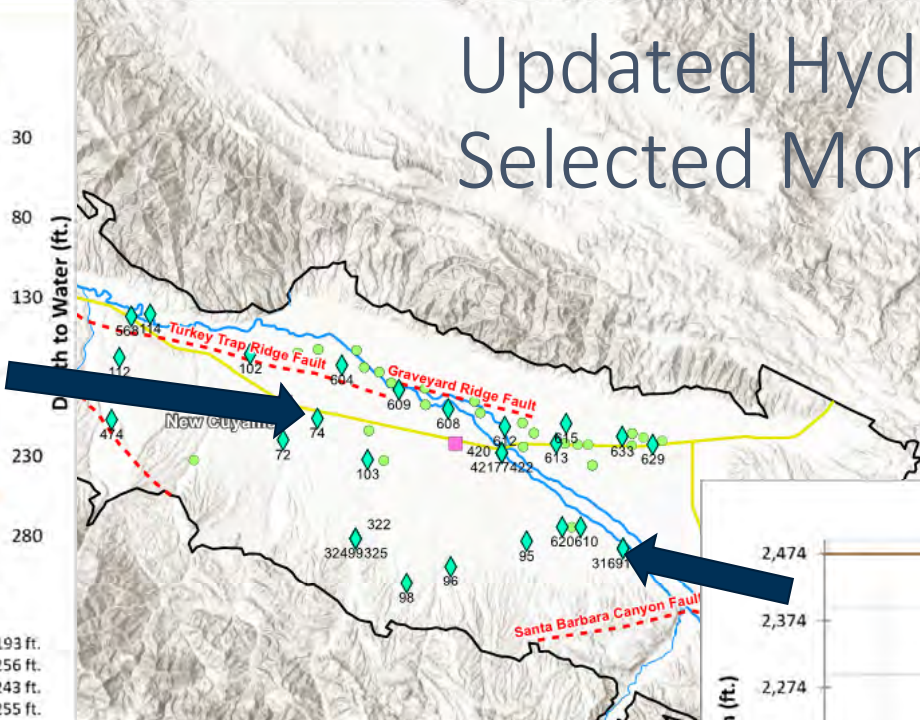
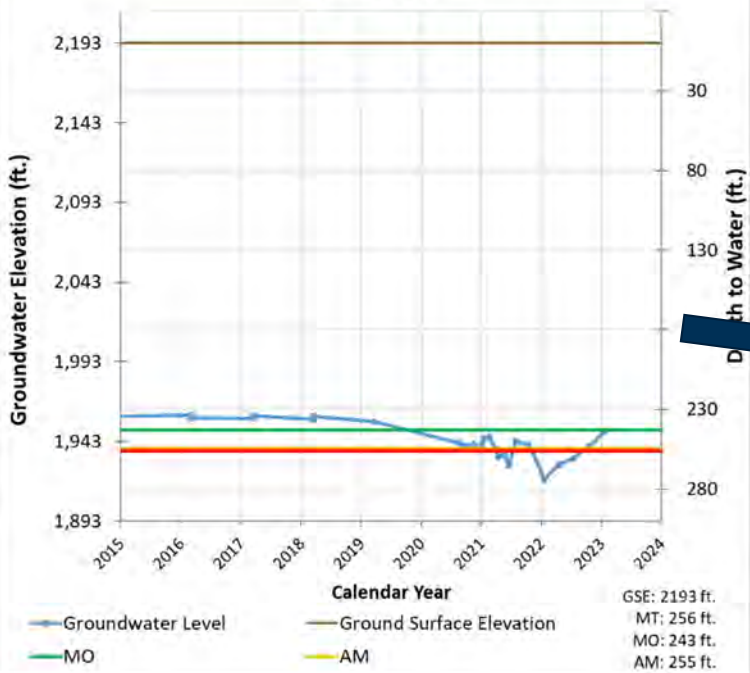
http://woodwardcurran.net/cubaref/Projects/BV/C/S/C/0011070109 - Cuyama Basin CSP#2 - 0532 - Mine/Regular Reporting/RegularReportingInfo.aspx

Updated Hydrographs for Selected Monitoring Wells

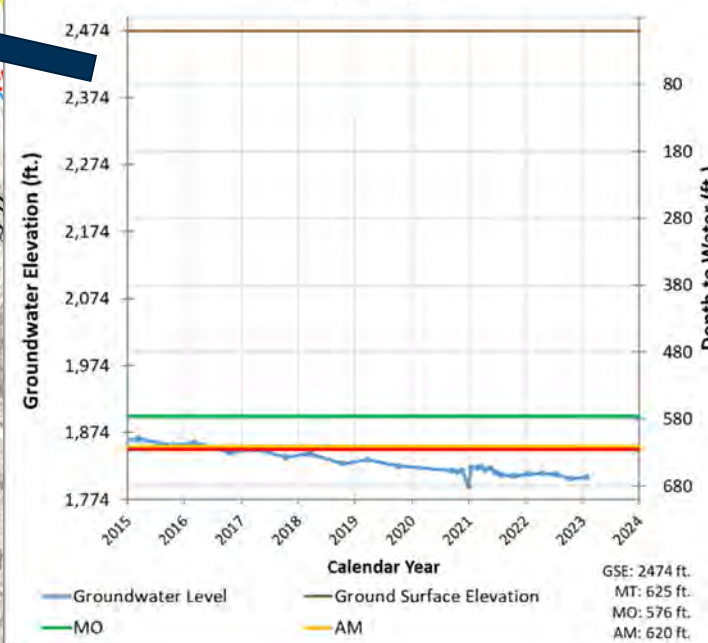


Updated Hydrographs for Selected Monitoring Wells

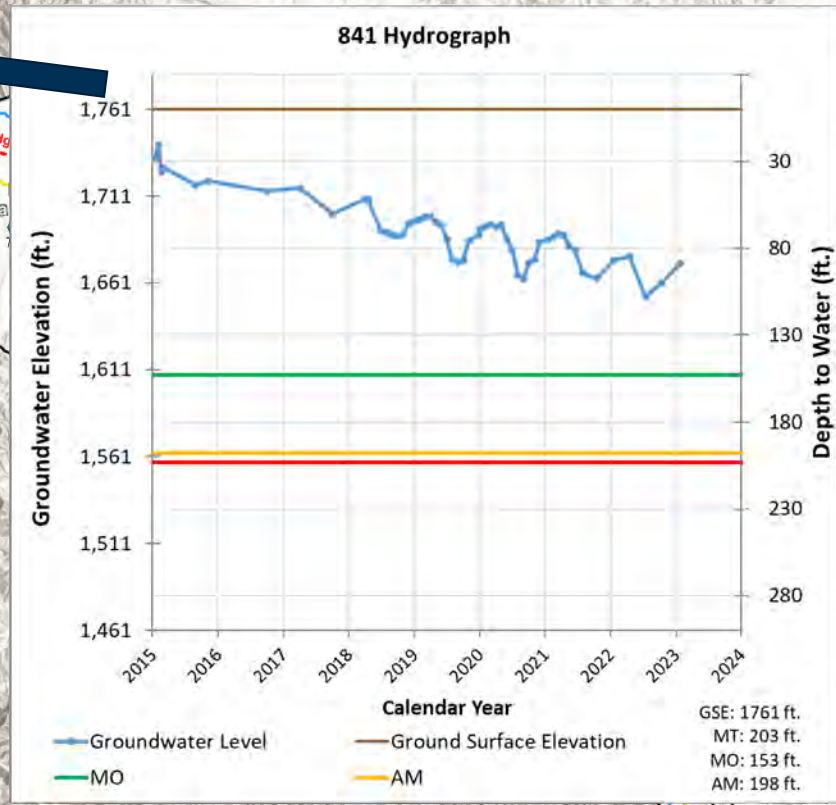
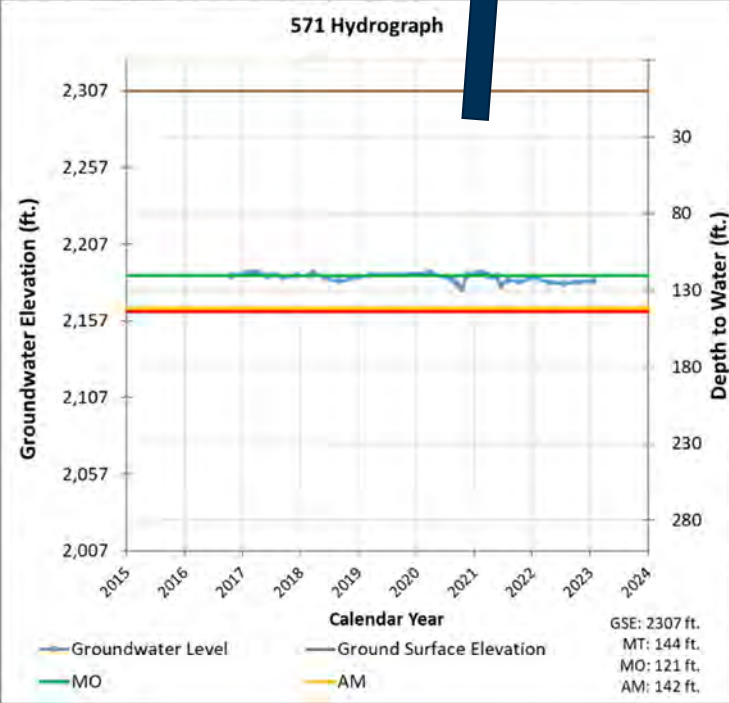
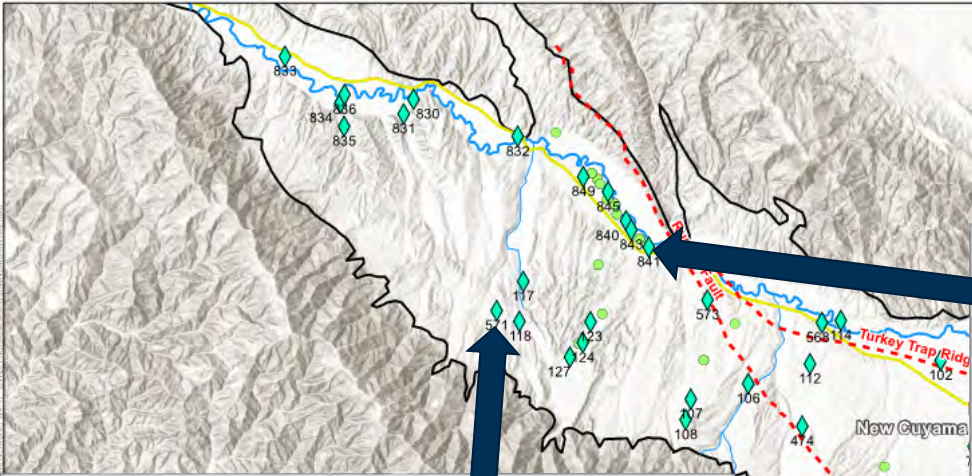
74 Hydrograph



91 Hydrograph



Updated Hydrographs for Selected Monitoring Wells



GSE: 1761 ft.
 MT: 203 ft.
 MO: 153 ft.
 AM: 198 ft.

— Groundwater Level — Ground Surface Elevation
 — MO — AM
 GSE: 2307 ft.
 MT: 144 ft.
 MO: 121 ft.
 AM: 142 ft.



**GROUNDWATER
CONDITIONS
REPORT –
CUYAMA VALLEY
GROUNDWATER
BASIN**

January 2023

801 T Street
Sacramento, CA
916.999.8700

woodardcurran.com

**Cuyama Basin
Groundwater
Sustainability Agency**

TABLE OF CONTENTS

SECTION	PAGE NO.
1. INTRODUCTION	1
2. SUMMARY STATISTICS	1
3. CURRENT CONDITIONS	2
4. HYDROGRAPHS	11
5. MONITORING NETWORK UPDATES	17

TABLES

Table 1: Recent Groundwater Levels for Representative Monitoring Network.....	3
Table 2: Well Status Related to Thresholds	6

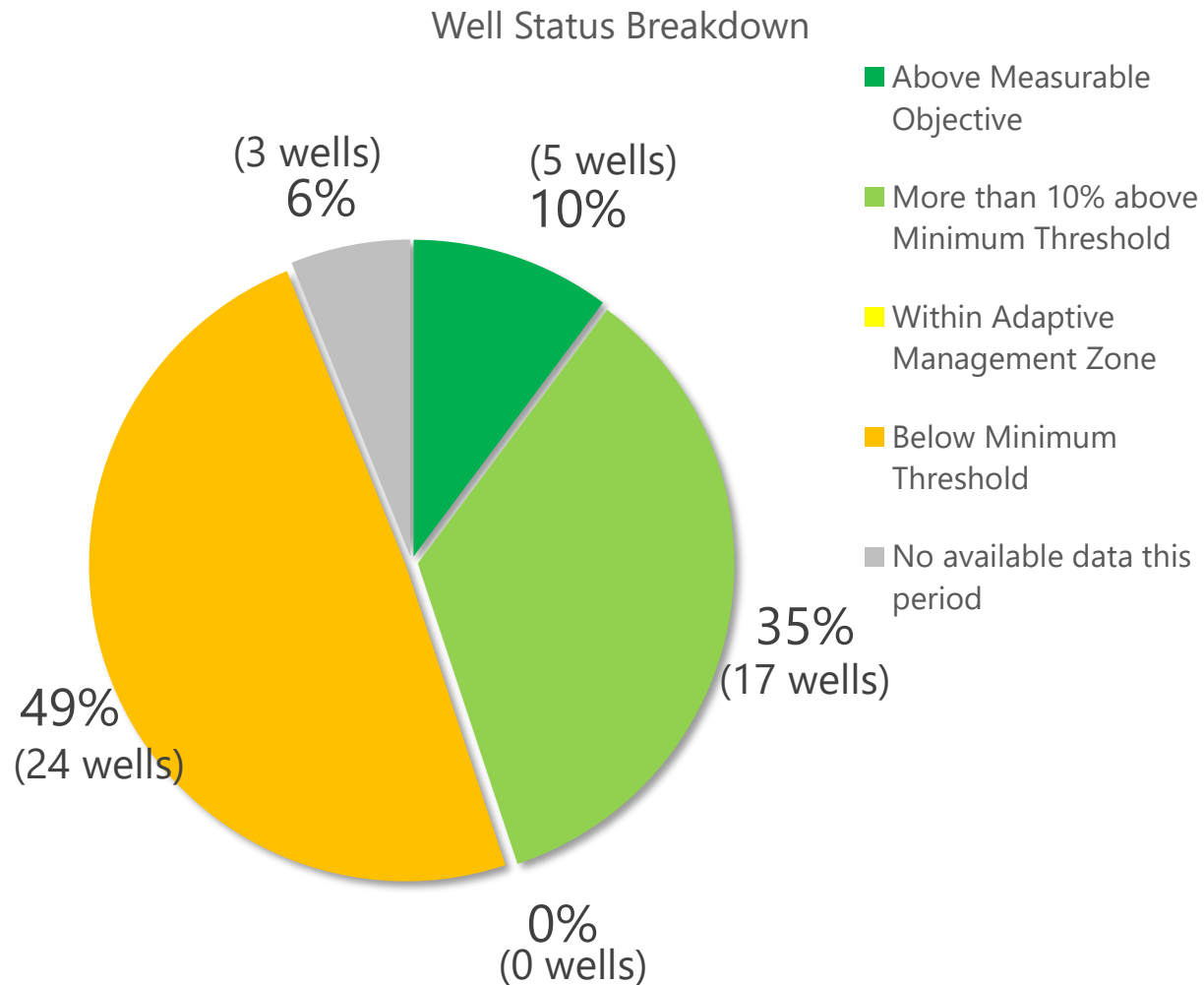
FIGURES

Figure 1: Groundwater Level Representative Wells and Status in January 2023	10
Figure 2: Southeast Region – Well 89	11
Figure 3: Eastern Region – Well 62	12
Figure 4: Central Region – Well 91	13
Figure 5: Central Region – Well 74.....	14
Figure 6: Western Region – Well 571	15
Figure 7: Northwestern Region – Well 841	16
Figure 8: Threshold Regions in the Cuyama Groundwater Basin.....	17

1. INTRODUCTION

This report is intended to provide an update on the current groundwater level conditions in the Cuyama Valley Groundwater Basin. This work is completed by the Cuyama Basin Groundwater Sustainability Agency (CBGSA), in compliance with the Sustainable Groundwater Management Act (SGMA).

2. SUMMARY STATISTICS



As outlined in the GSP, undesirable results for the chronic lowering of groundwater levels occurs, "when 30 percent of representative monitoring wells... fall below their minimum groundwater elevation threshold for two consecutive years." (Cuyama GSP, pg. 3-2). Currently, 30% of representative monitoring wells (i.e. 15 wells) have been below the minimum threshold for 20 or more consecutive months.

3. CURRENT CONDITIONS

Table 1 includes the most recent groundwater level measurements taken in the Cuyama Basin from representative wells included in the Cuyama GSP Groundwater Level Monitoring Network, as well as the previous two measurements. Table 2 includes all of the wells and their current status in relation to the thresholds applied to each well. This information is also shown on Figure 1.

All measurements 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	Jul-22	Oct-22	Jan-23	Last Year		Annual Elevation Change (ft)
		GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	Month/ Year	
72	Central	2010	2014	2036	2022	Jan-22	14
74	Central	1932	1939	1949	1919	Jan-22	30
77	Central	1772	1779	1808	1814	Jan-22	-6
91	Central	1812	1805	1807	1812	Jan-22	-5
95	Central	1841	1851	-	1848	Jan-22	-
96	Central	2270	2269	2270	2271	Jan-22	-1
98	Central	-	-	-	-	-	-
99	Central	2178	2158	2160	2222	Jan-22	-62
102	Central	-	1622	-	1622	Jan-22	-
103	Central	2014	2032	2041	1997	Jan-22	44
112	Central	2053	2053	-	2054	Jan-22	-
114	Central	1878	1877	-	-	-	-
316	Central	1811	1803	1806	1812	Jan-22	-6
317	Central	1813	-	-	1812	Jan-22	-
322	Central	2169	2156	2155	2220	Jan-22	-65
324	Central	2187	2178	2181	2218	Jan-22	-37
325	Central	2201	2200	2203	2220	Jan-22	-17
420	Central	1768	1725	1807	1803	Jan-22	4
421	Central	1789	1787	1806	1800	Jan-22	6
474	Central	2203	2203	2206	2204	Jan-22	2



Well	Region	Jul-22	Oct-22	Jan-23	Last Year		Annual Elevation Change (ft)
		GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	Month/Year	
568	Central	1852	1851	1828	1867	Jan-22	-39
604	Central	-	-	1655	1674	Jan-22	-19
608	Central	-	1782	-	1779	Jan-22	-
609	Central	1692	1707	1713	1789	Jan-22	-76
610	Central	1801	1808	1812	1814	Jan-22	-2
612	Central	-	1786	1792	1795	Jan-22	-3
613	Central	1792	1794	1798	1814	Jan-22	-16
615	Central	1795	1814	1816	1814	Jan-22	1
629	Central	-	1812	1819	1813	Jan-22	6
633	Central	-	1792	1805	1815	Jan-22	-10
62	Eastern	2760	2757	2761	2765	Jan-22	-4
85	Eastern	2846	2841	2845	2847	Jan-22	-1
100	Eastern	2849	2846	2850	2850	Jan-22	-1
101	Eastern	-	-	-	2635	Jan-22	-
841	Northwestern	1653	1661	1672	1674	Jan-22	-2
845	Northwestern	1633	1638	1644	1646	Jan-22	-2
2	Southeastern	-	-	-	-	-	-
89	Southeastern	3445	3422	3438	3427	Jan-22	11
106	Western	2183	2182	-	2183	Jan-22	-
107	Western	2392	2390	-	2370	Jan-22	-
117	Western	1945	1945	-	1947	Jan-22	-

Well	Region	Jul-22	Oct-22	Jan-23	Last Year		Annual Elevation Change (ft)
		GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	Month/ Year	
118	Western	2210	2212	2212	2211	Jan-22	2
124	Western	-	-	-	-	-	-
571	Western	2181	2182	2183	2185	Jan-22	-2
573	Western	2012	2012	-	2013	Jan-22	-
830	Far-West Northwestern	1509	1508	1510	-	-	-
832	Far-West Northwestern	1590	1588	1589	1590	Jan-22	-1
833	Far-West Northwestern	1423	-	-	1432	Jan-22	-
836	Far-West Northwestern	1447	1447	1450	1448	Jan-22	2



Table 2: Well Status Related to Thresholds

Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Date						
72	Central	135	1/23/2023	169	165	124	790	More than 10% above Minimum Threshold	No
74	Central	244	1/23/2023	256	255	243		More than 10% above Minimum Threshold	No
77	Central	478	1/23/2023	450	445	400	980	Below Minimum Threshold (29 months)	No
91	Central	667	1/24/2023	625	620	576	980	Below Minimum Threshold (29 months)	No
95	Central	-	-	573	570	538	805	No available data this period (below MT in Oct 2022, 29 months)	No
96	Central	336	1/24/2023	333	332	325	500	Below Minimum Threshold (26 months)	No
98	Central	-	-	450	449	439	750	No available data this period (no available data in past 18 months)	No
99	Central	353	1/24/2023	311	310	300	750	Below Minimum Threshold (7 months)	No
102	Central	-	-	235	231	197		No available data this period (below MT in Apr 2022, 25 months)	No
103	Central	248	1/24/2023	290	285	235	1030	More than 10% above Minimum Threshold	No
112	Central	-	-	87	87	85	441	No available data this period (>10% above MT in Oct 2022)	No
114	Central	-	-	47	47	45	58	No available data this period (below MT in Oct 2022, 10 months)	No
316	Central	668	1/24/2023	623	618	574	830	Below Minimum Threshold (29 months)	No



Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Date						
317	Central	-	-	623	618	573	700	No available data this period (below MT in Jul 2022, 29 months)	No
322	Central	358	1/24/2023	307	306	298	850	Below Minimum Threshold (7 months)	No
324	Central	331	1/24/2023	311	310	299	560	Below Minimum Threshold (7 months)	No
325	Central	310	1/24/2023	300	299	292	380	Below Minimum Threshold (7 months)	No
420	Central	479	1/23/2023	450	445	400	780	Below Minimum Threshold (29 months)	No
421	Central	480	1/23/2023	446	441	398	620	Below Minimum Threshold (29 months)	No
474	Central	163	1/24/2023	188	186	169	213	Above Measurable Objective	No
568	Central	76	1/23/2023	37	37	36	188	Below Minimum Threshold (20 months)	No
604	Central	469	1/23/2023	526	522	487	924	Above Measurable Objective	No
608	Central	-	1/23/2023	436	433	407	745	No available data this period (below MT in Oct 2022, 4 months)	No
609	Central	454	1/23/2023	458	454	421	970	More than 10% above Minimum Threshold	No
610	Central	630	1/24/2023	621	618	591	780	Below Minimum Threshold (21 months)	No
612	Central	474	1/23/2023	463	461	440	1070	Below Minimum Threshold (13 months)	No
613	Central	533	1/23/2023	503	500	475	830	Below Minimum Threshold (27 months)	No
615	Central	512	1/23/2023	500	497	468	865	Below Minimum Threshold (26 months)	No
629	Central	560	1/23/2023	559	556	527	1000	Below Minimum Threshold (22 months)	No



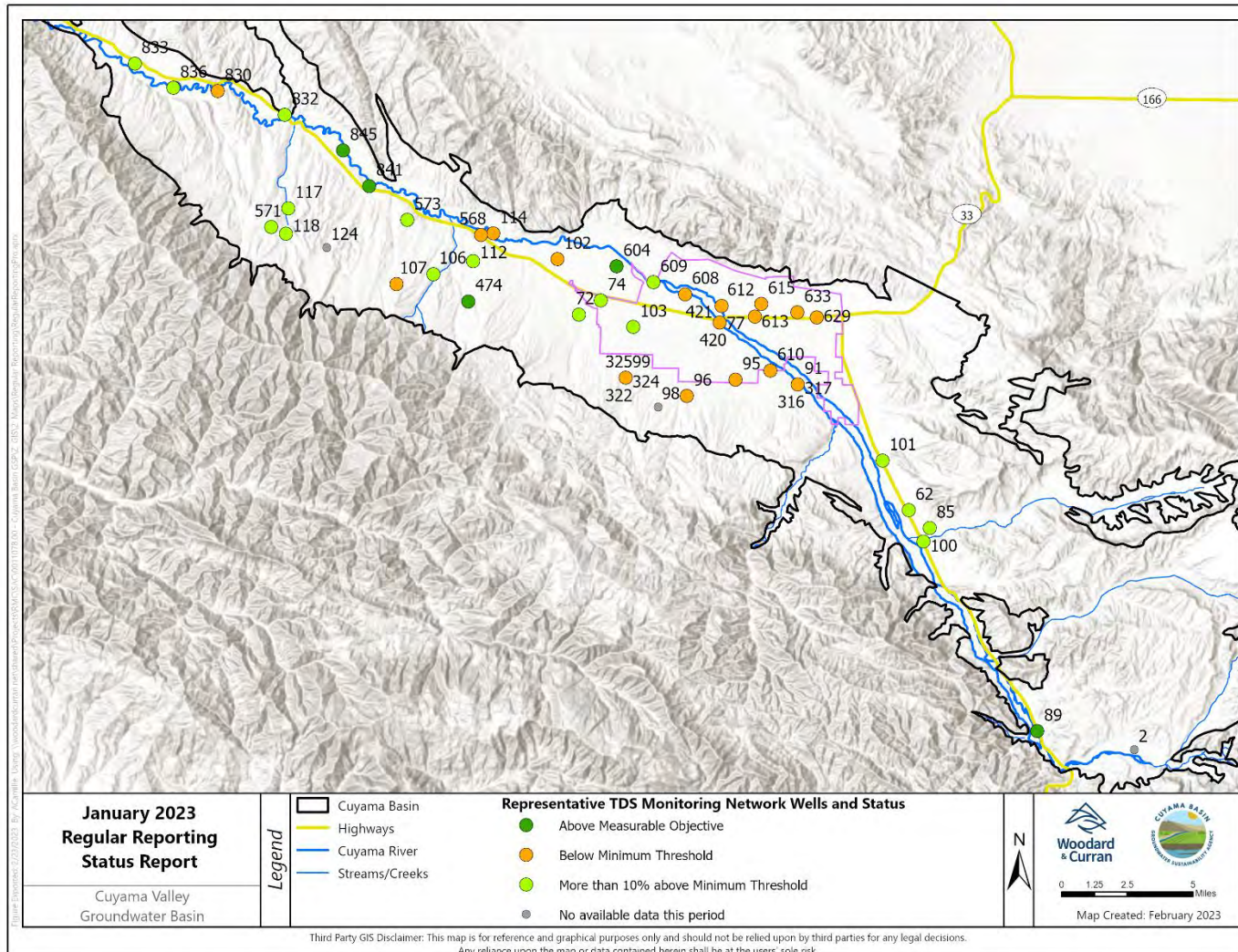
Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Date						
633	Central	559	1/23/2023	547	542	493	1000	Below Minimum Threshold (22 months)	No
62	Eastern	160	1/23/2023	182	178	142	212	More than 10% above Minimum Threshold	No
85	Eastern	202	1/23/2023	233	225	147	233	More than 10% above Minimum Threshold	No
100	Eastern	154	1/23/2023	181	175	125	284	More than 10% above Minimum Threshold	No
101	Eastern	-	1/23/2023	111	108	81	200	No available data this period (>10% above MT in Jan 2022)	No
841	Northwestern	89	1/23/2023	203	198	153	600	Above Measurable Objective	No
845	Northwestern	68	1/23/2023	203	198	153	380	Above Measurable Objective	No
2	Southeastern	-	-	72	70	55	73	No available data this period (no available data in past 12 months)	No
89	Southeastern	24	1/23/2023	64	62	44	125	Above Measurable Objective	No
106	Western	-	1/24/2023	154	153	141	228	No available data this period (>10% above MT in Oct 2022)	No
107	Western	-	-	91	89	72	200	No available data this period (below MT in Oct 2022, 4 months)	No
117	Western	-	1/24/2023	160	159	151	212	No available data this period (>10% above MT in Oct 2022)	No
118	Western	58	1/24/2023	124	117	57	500	More than 10% above Minimum Threshold	No
124	Western	-	-	73	71	57	161	No available data this period (no available data in past 12 months)	No
571	Western	124	1/24/2023	144	142	121	280	More than 10% above Minimum Threshold	No
573	Western	-	-	118	113	68	404	No available data this period (>10% above MT in Oct 2022)	No



Well	Region	Current Month		Minimum Threshold	Within 10% Minimum Threshold	Measurable Objective	Well Depth	Status	GSA Action Required?
		GWL (DTW)	Date						
830	Far-West Northwestern	61	1/24/2023	59	59	56	77	Below Minimum Threshold (19 months)	No
832	Far-West Northwestern	41	1/24/2023	45	44	30	132	More than 10% above Minimum Threshold	No
833	Far-West Northwestern	-	1/24/2023	96	89	24	504	No available data this period (> 10% above MT in Jul 2022)	No
836	Far-West Northwestern	36	1/24/2023	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 in January 2023



4. HYDROGRAPHS

The following hydrographs provide an overview of conditions in each of the six areas threshold regions identified in the GSP.

Figure 2: Southeast Region – Well 89

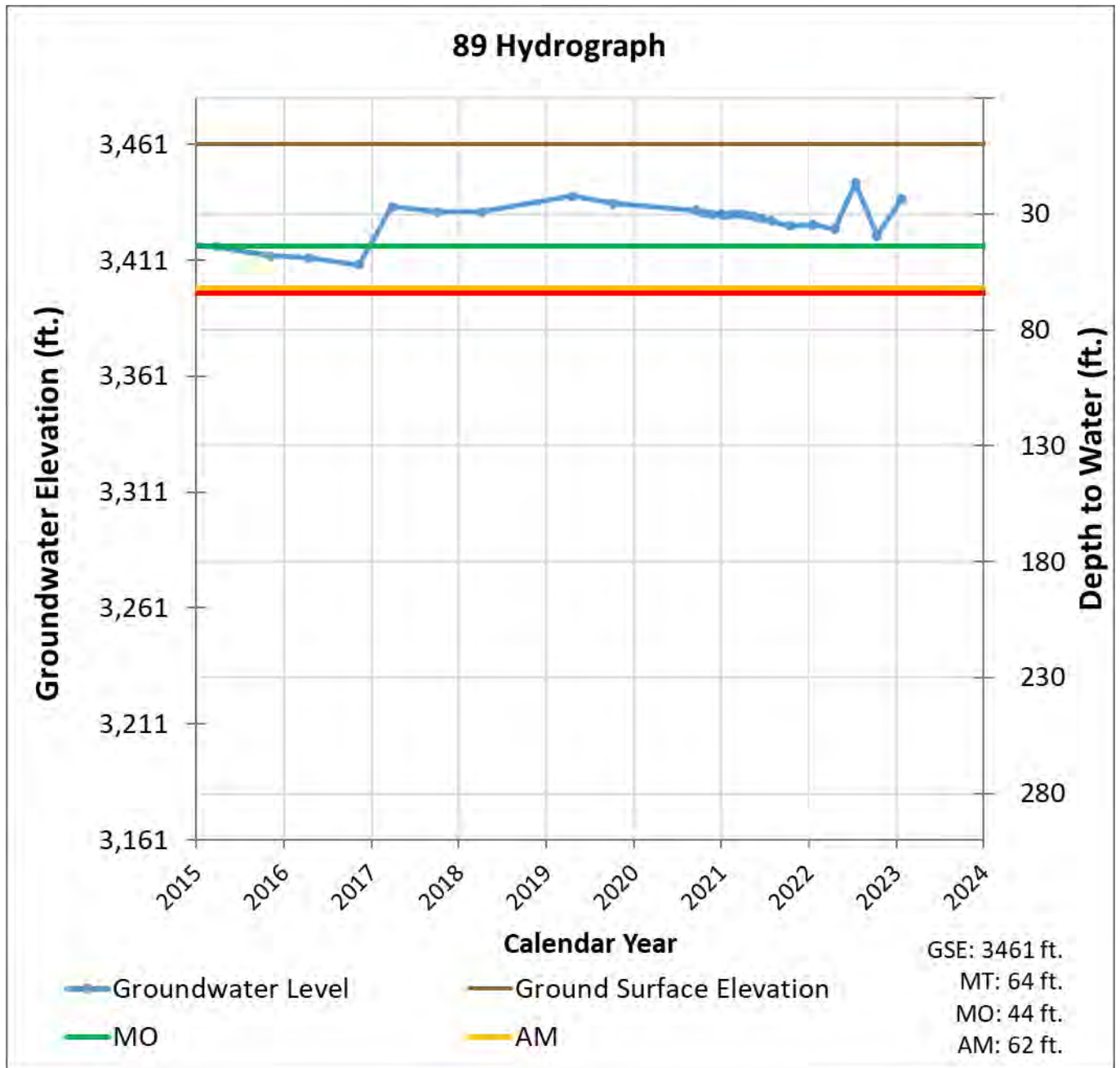


Figure 3: Eastern Region – Well 62

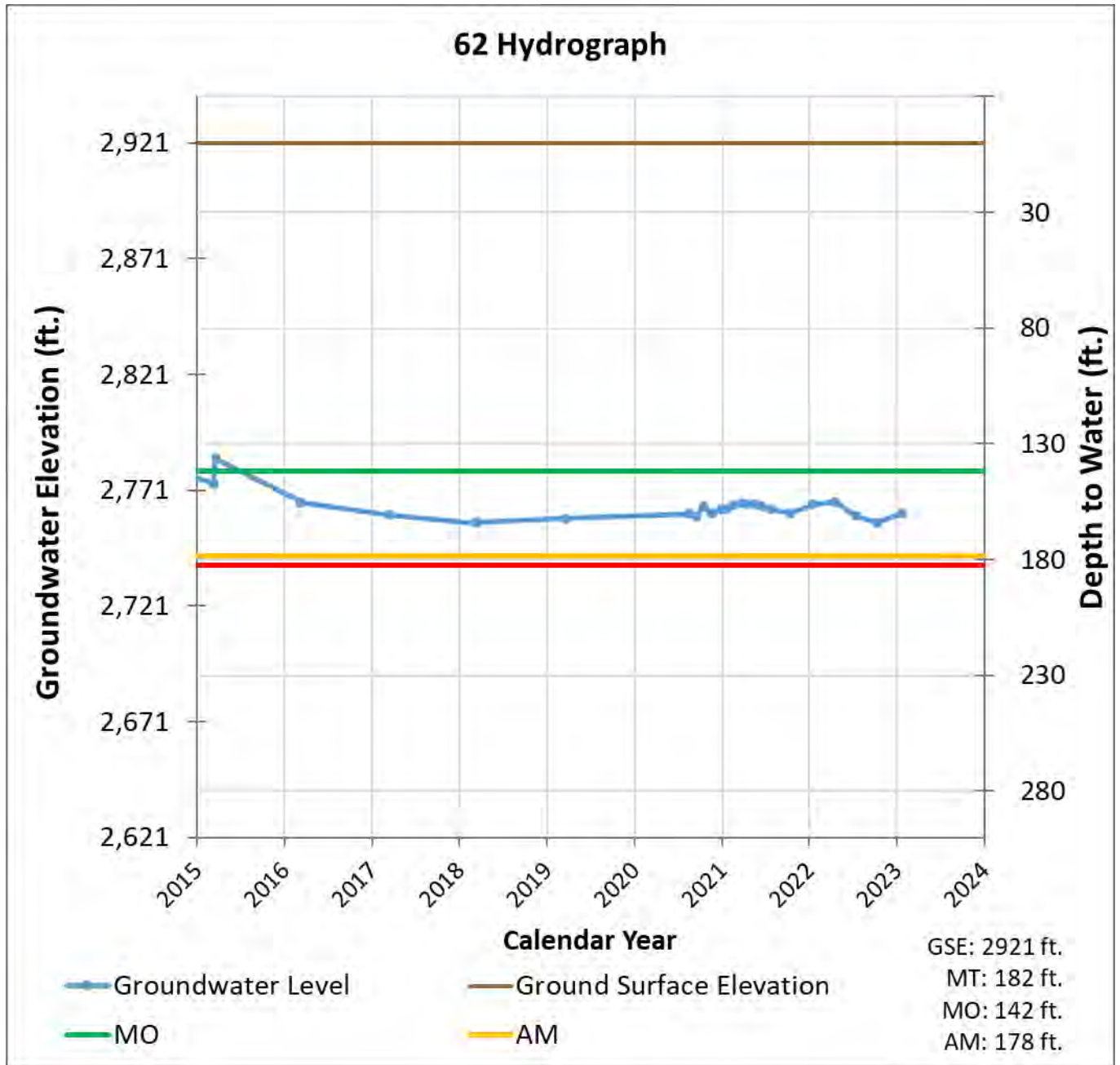


Figure 4: Central Region – Well 91

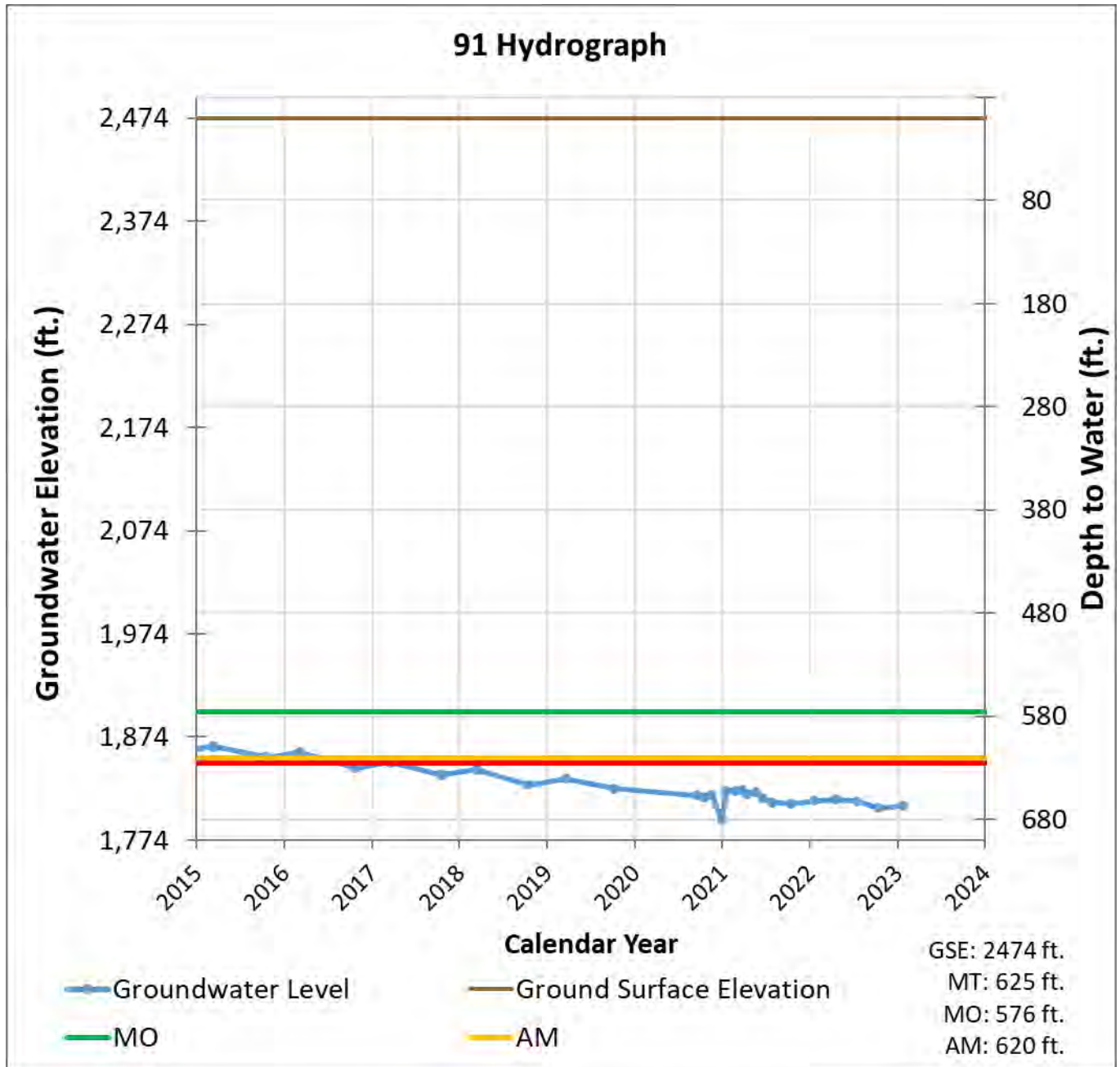


Figure 5: Central Region – Well 74

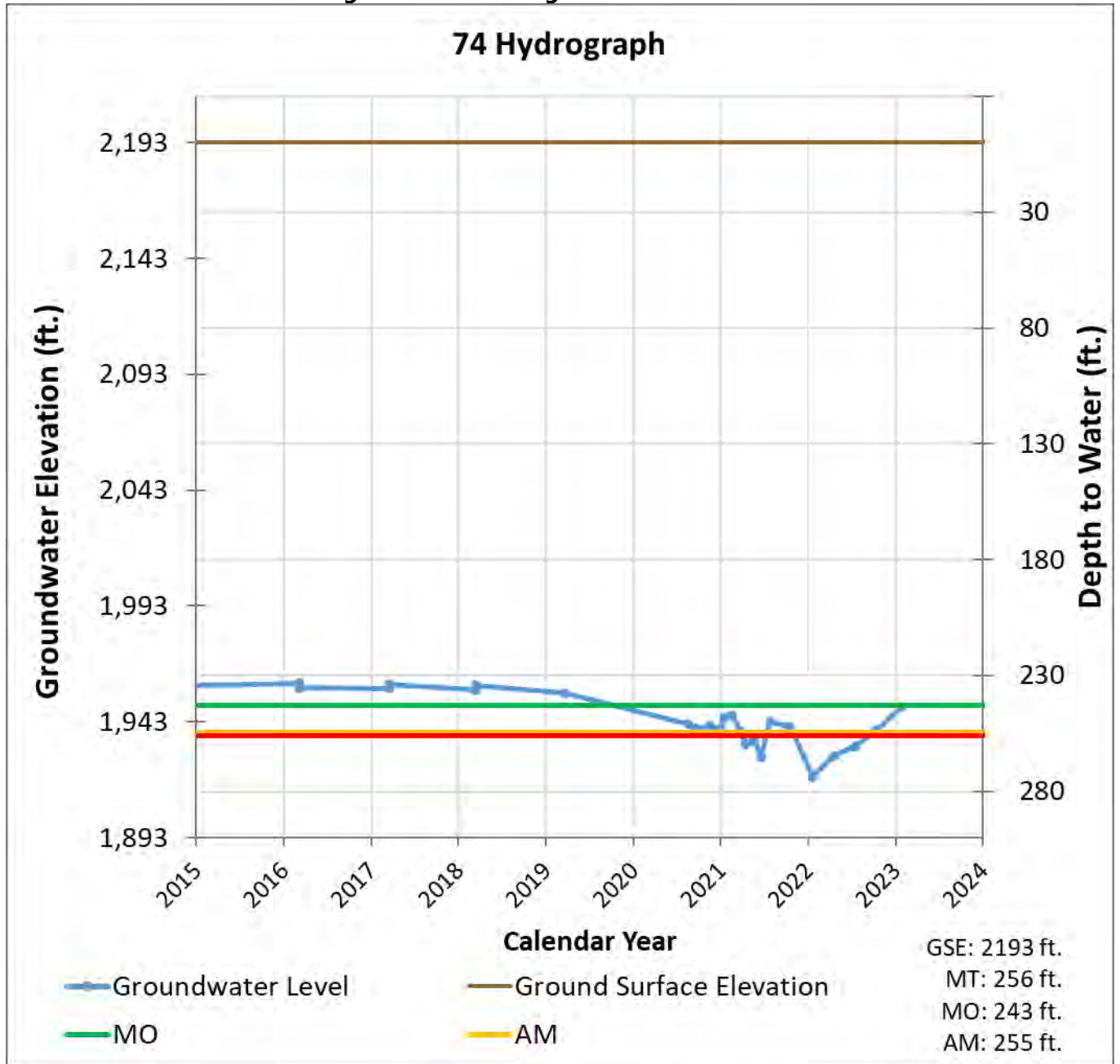


Figure 6: Western Region – Well 571

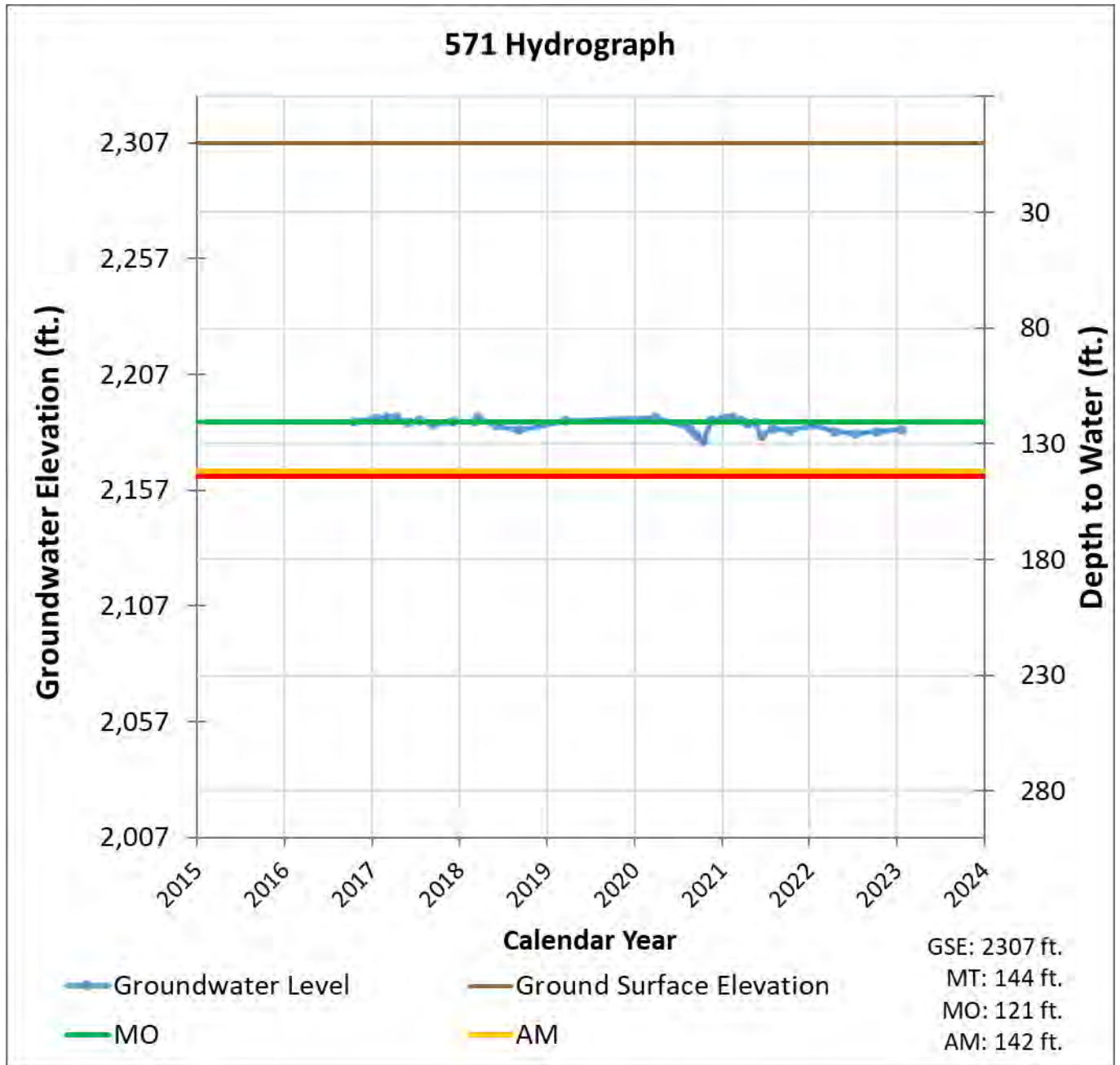
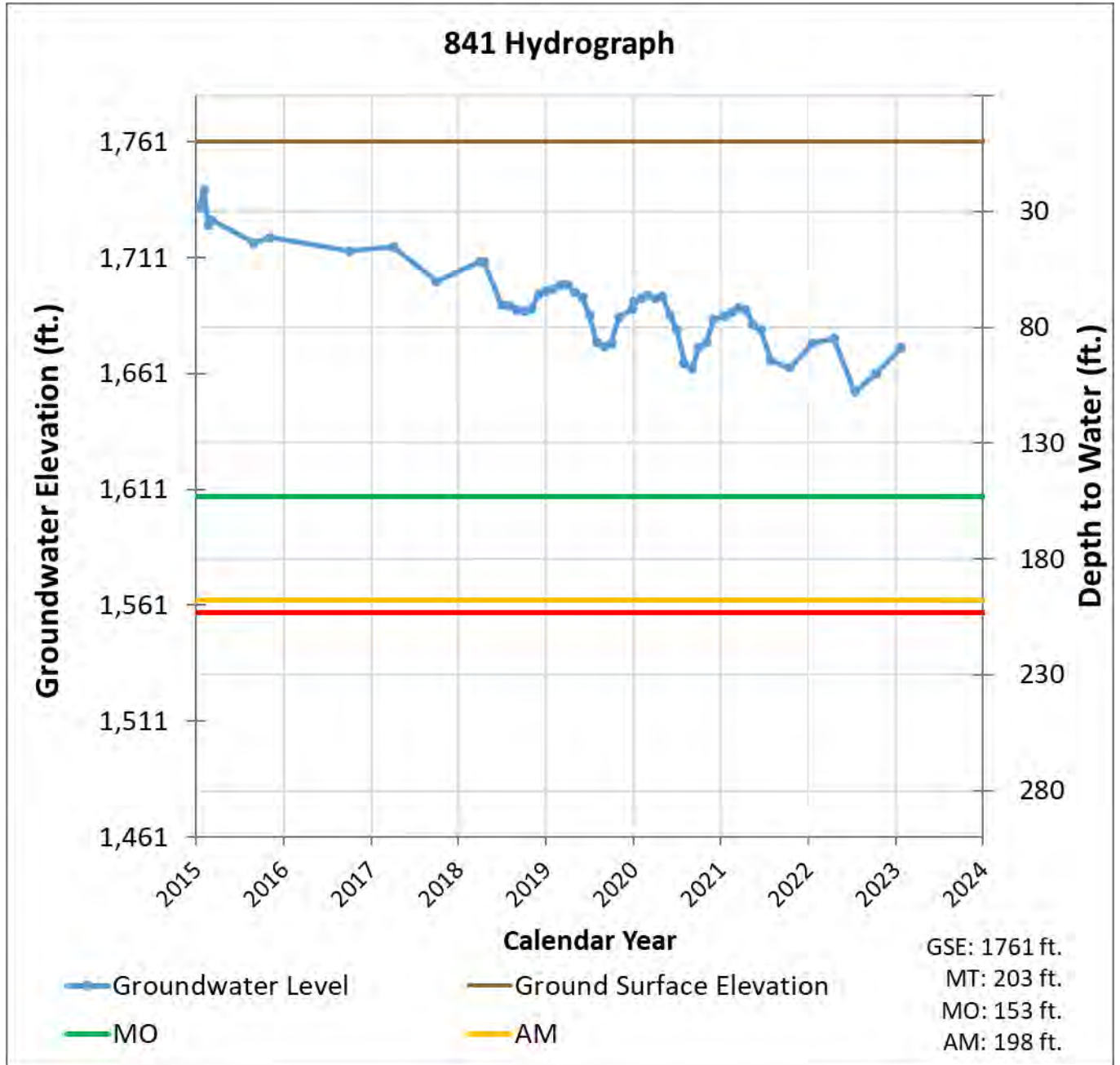


Figure 7: Northwestern Region – Well 841



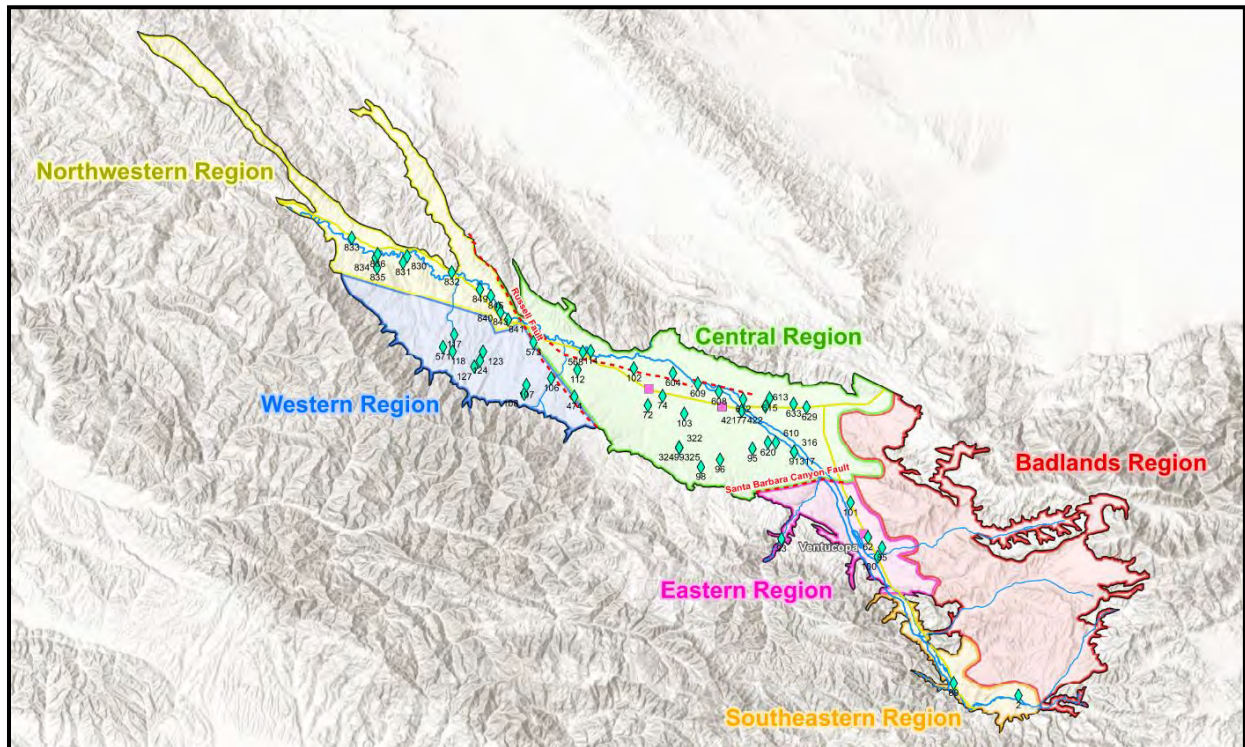


Figure 8: Threshold Regions in the Cuyama Groundwater Basin

5. MONITORING NETWORK UPDATES

As shown in Table 2, there are 15 wells with no measurement during the current monitoring period. These “no measurement codes” can have different causes as described below.

- Access agreements have not been established with the landowner:
 - Wells 2, 98, 124
- Transducer data was not able to be downloaded:
 - Wells 102, 317
- Measurement was not possible at the time when the field technician went to take measurements:
 - Wells 95, 101, 106, 107, 112, 114, 117, 573, 608, 833



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TO: Standing Advisory Committee
Agenda Item No. 14c

FROM: Jim Beck, Executive Director

DATE: March 23, 2023

SUBJECT: Board of Directors Agenda Review

Recommended Motion

None – informational only.

Discussion

The Cuyama Basin Groundwater Sustainability Agency Board of Directors agenda for the March 29, 2023, Board of Directors meeting is provided as Attachment 1.



CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

SPECIAL BOARD OF DIRECTORS MEETING

Board of Directors

Derek Yurosek Chair, Cuyama Basin Water District
Vacant – Vice Chair, Cuyama Community Services District
Cory Bantilan Secretary, Santa Barbara County Water Agency
Matt Vickery Treasurer, Cuyama Basin Water District
Byron Albano Cuyama Basin Water District
Jimmy Paulding County of San Luis Obispo

Zack Scrivner County of Kern
Arne Anselm County of Ventura
Rick Burnes Cuyama Basin Water District
Das Williams Santa Barbara County Water Agency
Jane Wooster Cuyama Basin Water District

AGENDA

March 29, 2023

Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Board of Directors to be held on Wednesday, March 29, 2023, at 2:00 PM at the **Cuyama Valley Family Resource Center 4689 CA-166, New Cuyama, CA 93254**. Participate via computer at: <https://rb.gy/xurmbw> or by going to Microsoft Teams, downloading the free application, then entering Meeting ID: 213 386 334 351 Passcode: Bhenh4 or enter or telephonically at (469) 480-3918 Phone Conference ID: 154 694 090#.

The order in which agenda items are discussed may be changed to accommodate scheduling or other needs of the Board or Committee, the public, or meeting participants. Members of the public are encouraged to arrive at the commencement of the meeting to ensure that they are present for discussion of all items in which they are interested.

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

1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. Introduction of New Director
5. Election of Officers
6. Standing Advisory Committee Meeting Report
7. Update on DWR's GSP Determination

CONSENT AGENDA

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

8. Approval of Minutes – January 11, 2023
9. Approval of Payment of Bills for December and January 2023
10. Approval of Financial Report for December and January 2023

ACTION ITEMS

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

11. Discuss and Take Appropriate Action on Variance Findings
12. Approve Annual Report
13. Consider Fee Equity – *Verbal*
14. Review of Budget Components
15. Approve Landowner Agreement for Dedicated Monitoring Wells and Piezometers
16. Discussion and Appropriate Action on Adaptive Management Analysis
17. Discuss and Take Appropriate Action on Strategy for Managing Pumping throughout the Basin
18. Discuss and Take Appropriate Action on Strategy for Continuing Evaluation of Basin Faults

REPORT ITEMS

19. Administrative Updates
 - a) Report of the Executive Director
 - b) Report of the General Counsel
20. Technical Updates
 - a) Update on Groundwater Sustainability Plan Activities
 - b) Update on Monitoring Network Implementation
 - c) Update on Effort to Address Well Data Gaps
 - d) Update on January 2023 Groundwater Conditions Report
21. Report of the Ad Hoc Committee
22. Directors' Forum
23. Public comment for Items Not on the Agenda
24. Correspondence

CLOSED SESSION

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