



CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY STANDING ADVISORY COMMITTEE

Committee Members

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

AGENDA

January 7, 2021

Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Standing Advisory Committee to be held on Thursday, January 7, 2021 at 4:00 PM. ***Due to COVID-19 pandemic restrictions and resulting suspension of certain components of the Brown Act per Executive Order Nos. N-25-20 and N-29-20, this meeting will be a remote-only meeting.*** To hear the session live call (646) 749-3122, 203-153-453 or logon to <https://global.gotomeeting.com/join/203153453> to view meeting materials.

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. Public comments should be emailed to Taylor Blakslee at tblakslee@hgcpm.com by close of business on Wednesday, January 6 to assist in facilitating this remote meeting, but they may also be provided at the meeting.

1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. Update on SAC Membership
5. Approval of Minutes
6. Groundwater Sustainability Plan
 - a. Consider Modifications to the Groundwater Level Monitoring Network
 - b. Adopt Process for Accepting Groundwater Level Transducer Data from Landowners
 - c. Update on Model Refinement Plan
 - d. Update on Monitoring Network Implementation
 - e. Update on Latest/Monthly Groundwater Conditions Report
 - f. Update on Prop 68 Implementation Grant Application
7. Groundwater Sustainability Agency
 - a. Report of the Executive Director
 - b. Coordination between the GSA and Counties
 - c. Board of Directors Agenda Review
 - d. Report of the General Counsel

8. Items for Upcoming Sessions

9. Committee Forum

10. 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.

11. Correspondence

- a. Resignation Letter from Committee Member Furstenfeld
- b. GSP Comment Letter from the Central Coast Water Quality Control Board

12. Adjourn

Cuyama Basin Groundwater Sustainability Agency Standing Advisory Committee Meeting

October 29, 2020

Draft Meetings Minutes

PRESENT:

Kelly, Brenton – Chair
DeBranch, Brad – Vice Chair
Draucker, Louise
Furstenfeld, Jake
Haslett, Joe
Post, Mike

ABSENT:

Jaffe, Roberta

1. Call to Order

Cuyama Basin Groundwater Sustainability Agency (CBGSA) Standing Advisory Committee (SAC) Vice Chair Brad DeBranch called the meeting to order at 4:07 p.m. Executive Director Jim Beck provided direction on the meeting protocols to facilitate a remote-only meeting.

2. Roll Call

Hallmark Group Project Coordinator 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 provided an update on the effort to replace two vacancies on the SAC; however, efforts have been slowed by the COVID-19 pandemic.

5. Approval of Minutes

Chair Kelly opened the floor for comments on the August 13, 2020 CBGSA SAC meeting minutes.

MOTION

Committee Member Post made a motion to adopt the August 13, 2020 CBGSA SAC meeting minutes. The motion was seconded by Committee Member Draucker, a roll call vote was made, and the motion passed.

AYES: Committee Members DeBranch, Draucker, Haslett, Kelly, Post
NOES: None
ABSTAIN: None
ABSENT: Furstenfeld, Jaffe

6. Groundwater Sustainability Plan

Woodard& Curran's Technical Project Manager Brian Van Lienden provided an update on the Groundwater Sustainability Plan (GSP) activities which are included in the SAC packet.

a. Discussion of Options to Study Data Gaps

Mr. Van Lienden presented options to address data gaps in the Cuyama Basin and are summarized in the packet.

The SAC generally provided feedback to estimate the cost for each option before making a formal recommendation. Staff let the SAC know the options will come back to the SAC and Board with costs before a final decision is needed. Chair Kelly let staff know he supported dedicated monitoring wells in the basin.

b. Update on Model Refinement Plan

Brian Van Lienden provided an update on the model refinement plan update components which are summarized in the SAC packet.

c. Direction on Requiring Meters for Extractors in the Cuyama Basin

Mr. Blakslee provided a background on the Board's direction to consider requiring meters in the Cuyama Basin at the November 2020 Board meeting. Mr. Blakslee and Mr. Van Lienden provided a report on the potential implementation of a meter program and asked the SAC for their feedback on requiring meters by December 31, 2021.

MOTION

Committee Member Post made a motion to require non-de minimis groundwater users in Cuyama Basin to install a water measuring device (flow meter) on all groundwater extraction wells no later than Dec. 31, 2021. The motion was seconded by Committee Member Draucker.

Committee Member Haslet let the Board know he would be a no vote for the motion since he felt it was not appropriate to require meters on small landowners that did not cause the problem. Chair Kelly asked Committee Member Post if he was willing to amend his motion and Committee member Post amended his motion to the following:

Amended Motion

Require non-de minimis groundwater users in the Cuyama Basin to install a water measuring device (flow meter) on groundwater extraction wells in the Central Basin Management Area by January 1, 2022 and the rest of the basin by January 1, 2023.

AYES: Draucker, Kelly, Post

NOES: DeBranch, Haslett

ABSTAIN: None

ABSENT: Furstenfeld, Jaffe

d. Update on Monitoring Network Implementation

Mr. Van Lienden provided an update on the three California Department of California Water Resources (DWR) Technical Support Services (TSS) dedicated monitoring wells to be drilled in the basin. He let the SAC know that staff continues to work with DWR on the final locations and landowner agreements and permits needed for this program. He also updated the SAC that the

transducer installation in ten wells is making progress and staff is performing field validation to determine suitability of proposed wells. Lastly, staff provided an update on the stream gauge installation process.

Committee Member Post had to leave the meeting at 6 p.m. and Chair Kelly thanked Committee Member Post for his time and commitment to the SAC since Committee Member Post informed the SAC that he would be resigning by the end of 2020.

Committee Member Post left at 6:00 p.m.

e. Update on Groundwater Levels Monitoring Network

Mr. Van Lienden provided an update on the groundwater level monitoring network and levels for September and October 2020 which are included in the Board packet. Chair Kelly asked why there was an information data gap in the Northwestern region and Mr. Van Lienden let the SAC know that some wells have been determined that they are not suitable for monitoring and the subconsultant is still working with landowners on permission for others.

Staff reported that they received a few stakeholder requests to include a toggle option in the Data Management System (DMS) to show just the representative wells. Mr. Van Lienden reported that it would cost \$4,500 to perform this change to the DMS, and the SAC provided feedback that this was too expensive and recommended staff does not perform this work.

f. Approval of Groundwater Quality Monitoring Network Consultant

Mr. Blakslee provided an update on the staff recommendation to hire a groundwater quality monitoring network consultant to perform annual sampling in 60 wells. Committee Member Haslett requested staff review wording as salt is not the same as total dissolved solids (TDS).

Motion

Chair Kelly asked if a Committee Member would make a motion, however, no motion was made. Chair Kelly asked if there was a reason why no one would make a motion and no feedback was provided.

g. Update on Groundwater Dependent Ecosystems Monitoring Plan

Brian Van Lienden provided an update on the groundwater dependent ecosystems monitoring plan which is included in the SAC packet.

h. Direction on Prop 68 Implementation Grant Opportunity

Brian Van Lienden provided an overview on Prop 68 implementation grant opportunity which is provided in the SAC packet. Mr. Blakslee did cautiously advise the SAC that DWR indicated that funding for meters will likely not be supported and staff will work with the ad hoc to determine what components to move the money to.

UC Santa Barbara Professor Casey Walsh provided the following comment using the meeting presentation chat option regarding the Prop 68 application: "Before I go I want to make a public comment about the Prop 68 funding discussion in this presentation (pp 88-90): there was discussion and agreement in the GSA that a priority was to secure supply for the townsites through improved wells: Ventucopa especially. The slides that consider Prop 68 projects don't consider this. Townsite

water supply should be a priority for Prop 68 funding if possible. It seems to me that it would fit in the description of "eligible project types"." Mr. Van Lienden reported that the townsites could be considered for this prop funding. Committee Member Draucker requested water supply improvement funding for all the different cities/communities in Cuyama if possible.

i. Update on Indirect Economic Report

Brian Van Lienden provided an update on the indirect economic report and reported that a draft report will be presented in January 2021 to the Board.

j. Update on 2020 Annual Report

Brian Van Lienden provided an update on annual report timeline and the components of the report.

7. Groundwater Sustainability Agency

a. Report of the Executive Director

Mr. Beck reminded the SAC that there will be an election of officers at the first meeting in January 2021. He also reported that staff is coordinating with DWR on fall groundwater level measurements.

b. Board of Directors Agenda Review

Mr. Beck provided an overview of the November 4, 2020 CBGSA Board of Directors meeting agenda which is provided in the SAC packet.

c. Report of the General Counsel

Nothing to report.

d. Adopt the 2021 Meeting Schedule

Mr. Blakslee presented the draft 2021 meeting schedule and announced the January dates were pushed back a week due to the Holidays. The SAC was in general agreement with these meeting dates.

e. Update on Newsletter

Mr. Blakslee reported that the seventh edition of the newsletter is being finalized and will be distributed mid-November 2020.

8. Items for Upcoming Sessions

Nothing to report.

9. Committee Forum

Nothing to report.

a. Coordination between the GSA and Counties

Chair Kelly reported that Committee Member Jaffe was unable to attend the SAC meeting due to a personal matter and requested that this item be moved to the next scheduled SAC meeting and be moved from the Committee Forum section to the Groundwater Sustainability Agency section.

10. Public comment for items not on the Agenda

Nothing to report.

11. Correspondence

a. Standing Advisory Committee Resignation Letter form Mike Post

Chair Kelly informed the SAC that a resignation letter had been received from Committee Member Mike Post. Committee Member Haslett asked if Committee Member Post gave a reason for his resignation and Chair Kelly replied that it was mostly for personal reasons.

12. Adjourn

Chair Kelly adjourned the meeting at 7:04 p.m.

Minutes approved by the Standing Advisory Committee of the Cuyama Basin Groundwater Sustainability Agency the 7th day of January 2021.

STANDING ADVISORY COMMITTEE OF THE
CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Chair: _____

ATTEST:

Vice Chair: _____



TO: Standing Advisory Committee
Agenda Item No. 7

FROM: Brian Van Lienden, Woodard & Curran

DATE: January 7, 2021

SUBJECT: Groundwater Sustainability Plan

Issue

Update on Woodard & Curran's accomplishments for Nov-Dec 2020.

Recommended Motion

None – information only.

Discussion

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

Cuyama Basin Groundwater Sustainability Agency

7 - Groundwater Sustainability Plan

January 7, 2021



November-December Accomplishments

- ✓ Performed field validation/data collection for groundwater levels monitoring
- ✓ Developed options for reductions in groundwater levels monitoring network
- ✓ Developed prioritization for Cuyama Basin model updates following discussion with Ad-hoc committee and Technical Forum
- ✓ Developed proposal for the SGM Prop 68 Implementation Grant and submitted to DWR
- ✓ Completed an indirect and induced economics analysis



TO: Standing Advisory Committee
Agenda Item No. 7a

FROM: Brian Van Lienden, Woodard & Curran

DATE: January 7, 2021

SUBJECT: Consider Modifications to the Groundwater Level Monitoring Network

Issue

Consider Modifications to the Groundwater Level Monitoring Network.

Recommended Motion

Reduce the groundwater levels monitoring network to ___ wells.

Discussion

Background and options for reducing the groundwater levels monitoring network is provided as Attachment 1.

Cuyama Basin Groundwater Sustainability Agency

7a – Consider Modifications to
Groundwater Level Monitoring Network

January 7, 2021

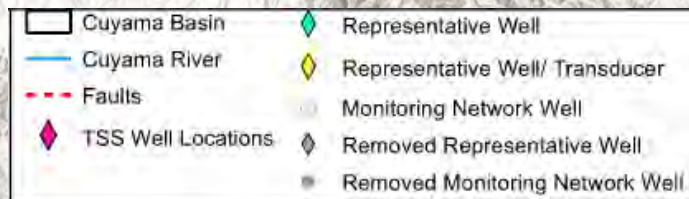


Consider Modifications to the Groundwater Levels Monitoring Network ¹³

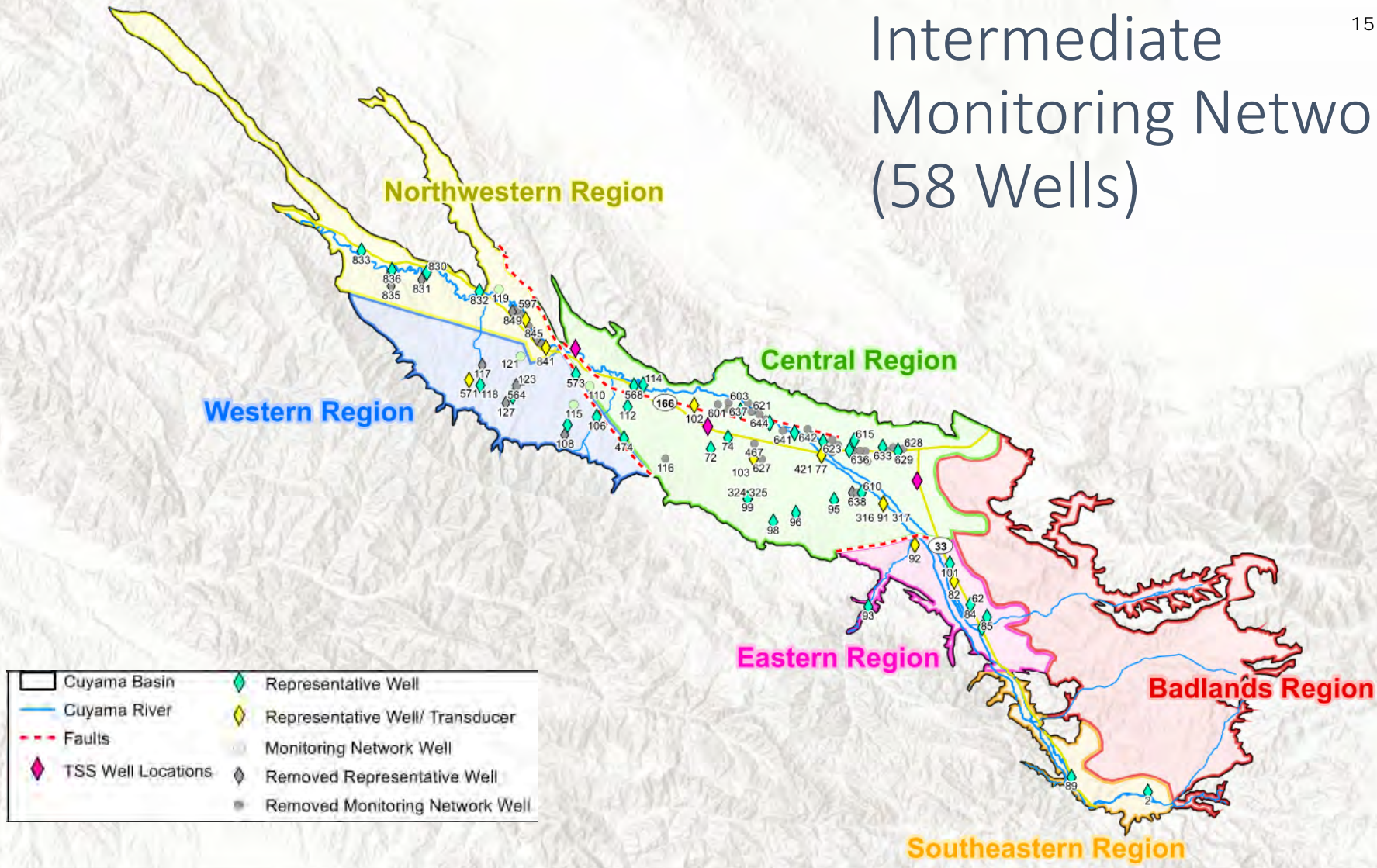
- GSP Monitoring Network includes 101 wells (including 61 representative wells)
- Minimum number required by DWR can range from 9 to 38 depending on the guidance/assumption used
- Three options have been developed for consideration:
 - Current network (101 wells)
 - Remove duplicative wells (58 wells)
 - Conservative DWR requirement (25 wells)

	Cuyama Basin Area		Heath (1976)		Sophocleaous (1983)		Hopkins (1994)	
	Acres	Square Miles	Suggested Well Density per 100 square miles	Final Recommended Density	Suggested Well Density per 100 square miles	Final Recommended Density	Suggested Well Density per 100 square miles	Final Recommended Density
Total Basin	241,695	378	10	38	6	24	4	15
Total excluding Badlands and Fingers	151,367	237	10	25	6	15	4	9

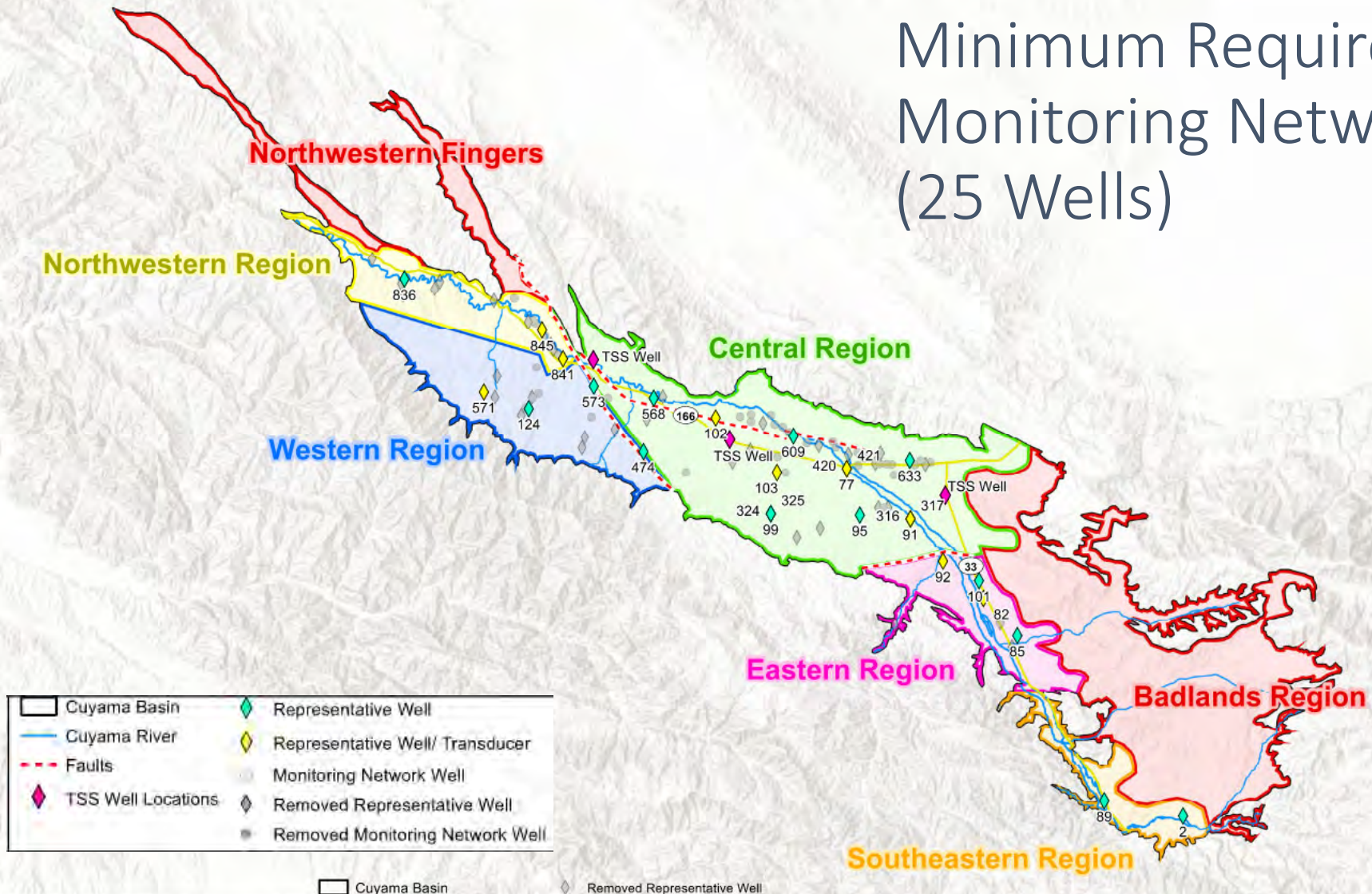
Current Monitoring Network (101 Wells)¹⁴



Intermediate Monitoring Network (58 Wells)



Minimum Required¹⁶ Monitoring Network (25 Wells)





TO: Standing Advisory Committee
Agenda Item No. 7b

FROM: Taylor Blakslee, CBGSA

DATE: January 7, 2021

SUBJECT: Adopt Process for Accepting Groundwater Level Transducer Data from Landowners

Issue

Discuss Adoption Process for Accepting Groundwater Level Transducer Data from Landowners.

Recommended Motion

Adopt option ___ as outlined in agenda item No. 7b.

Discussion

Provost & Pritchard was hired to collect monthly groundwater levels. In the process of collecting levels, several well owners have opted to provide their transducer data for operational reasons. Since this data is being provided directly to staff/consultants the SAC and Board needs to decide on the process for accepting this data. Two options are outlined for consideration in Attachment 1.

Cuyama Basin Groundwater Sustainability Agency

7b – Adopt Process for Accepting Groundwater
Level Transducer Data from Landowners

January 7, 2021



Adopt Process for Accepting Groundwater Level Transducer Data from Landowners

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- Background

- Received transducer data from several landowners that already have transducers installed resulting in P&P not manually measuring these wells.

- Options:

1. Accept transducer data with appropriate quality control (to be developed with ad hoc if necessary).
2. Remove well from monitoring network

- Long-term Plan

- CBGSA seeking funding for transducers and dedicated monitoring wells to replace production wells for monitoring purposes.



TO: Standing Advisory Committee
Agenda Item No. 7c

FROM: Brian Van Lienden, Woodard & Curran

DATE: January 7, 2021

SUBJECT: Update on Model Refinement Plan

Issue

Update on Model Refinement Plan.

Recommended Motion

None – information only.

Discussion

An update regarding the model refinement plan is provided as Attachment 1.

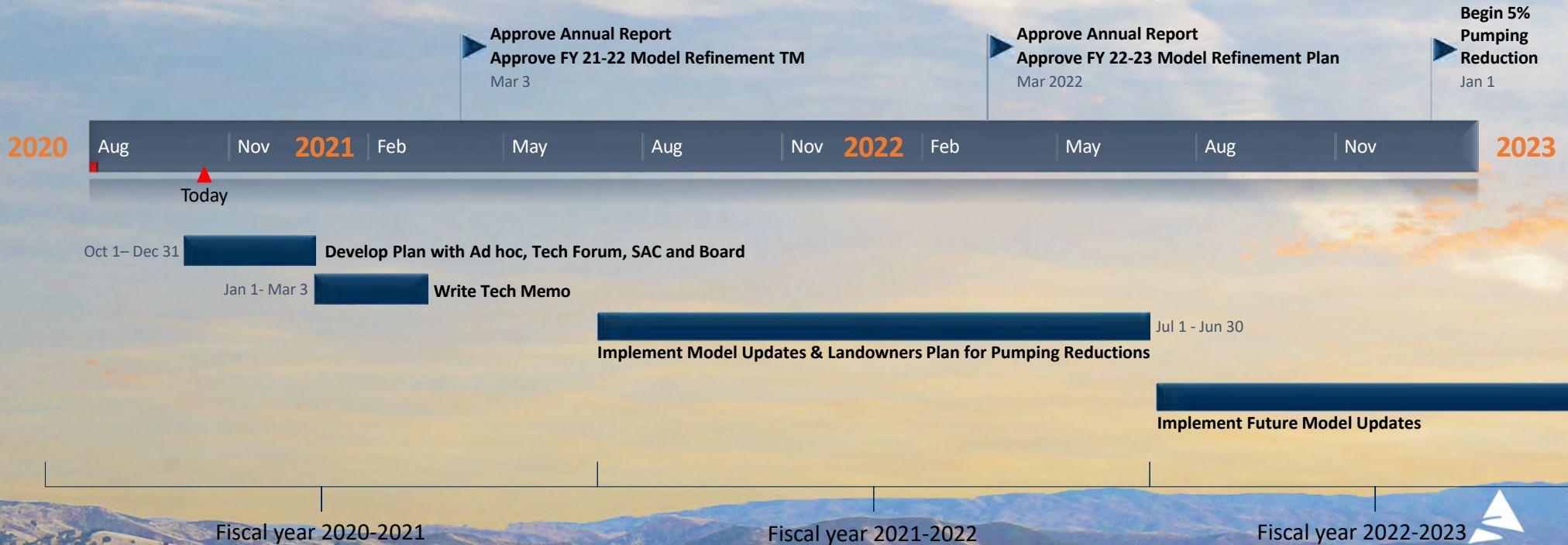
Cuyama Basin Groundwater Sustainability Agency

7c – Update on Model Refinement Plan

January 7, 2021



Model Refinement Schedule



Prioritization of Model Refinement Activities

- High Priority
 - These are included in DWR implementation grant proposal
 - Updated Land Use and Water Use Estimates
 - Develop updated land use and Crop ET estimates for 2018-2020 period
 - Improve existing CIMIS station and develop new CIMIS station(s)
 - Improve Hydrogeological Characterization:
 - Perform 3-4 long-term aquifer tests
 - Enhancement of surface water and non-irrigated land surface representation
 - Install new piezometers in vicinity of the streambed to better understand changes in groundwater levels in vicinity of streambed during high flow events
 - Incorporate Monitoring Network Data into Model Re-calibration
 - Perform Sustainability Scenarios

Prioritization of Model Refinement Activities

- **Medium Priority**
 - Not included in DWR implementation grant proposal but recommended for future development
 - Develop a Decision Support Platform, which would provide information on the state of the basin on a quarterly basis based on the foundational information from the model, and monthly data on groundwater pumping and hydrologic conditions.
- **Low Priority/Not Recommended**
 - Drilling of boreholes
 - Additional surveying to improve representation of surface water system
 - Perform investigations on native vegetation evapotranspiration and runoff conditions in ungauged watersheds

Next Steps on Model Refinement Strategy

- Outreach and coordination
 - Additional meeting(s) with Ad-hoc Committee and Technical Forum members (if needed)
- Development of a technical memorandum outlining the refinement strategy (to be completed by March 2021)
 - Will describe cost estimates, prioritization and schedule
- Tech Memo will be used as basis for FY 2021-22 CBGSA budgeting



TO: Standing Advisory Committee
Agenda Item No. 7d

FROM: Brian Van Lienden, Woodard & Curran

DATE: January 7, 2021

SUBJECT: Update on Monitoring Network Implementation

Issue

Discuss update on Monitoring Network Implementation.

Recommended Motion

None – information only.

Discussion

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

Cuyama Basin Groundwater Sustainability Agency

Update on Monitoring Network Implementation

January 7, 2021

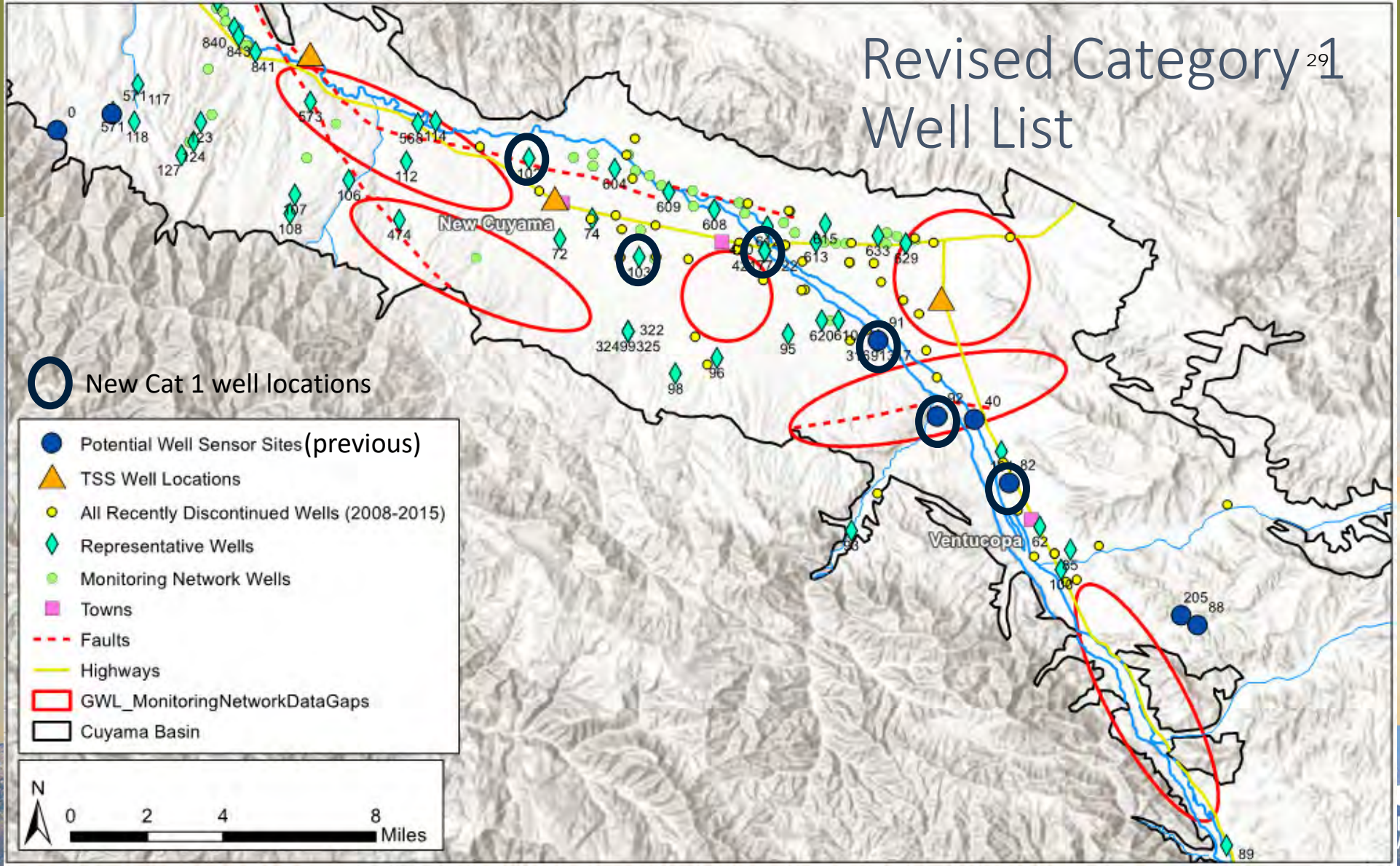


Groundwater Levels Monitoring Network Status Update – DWR TSS and Category 1

28

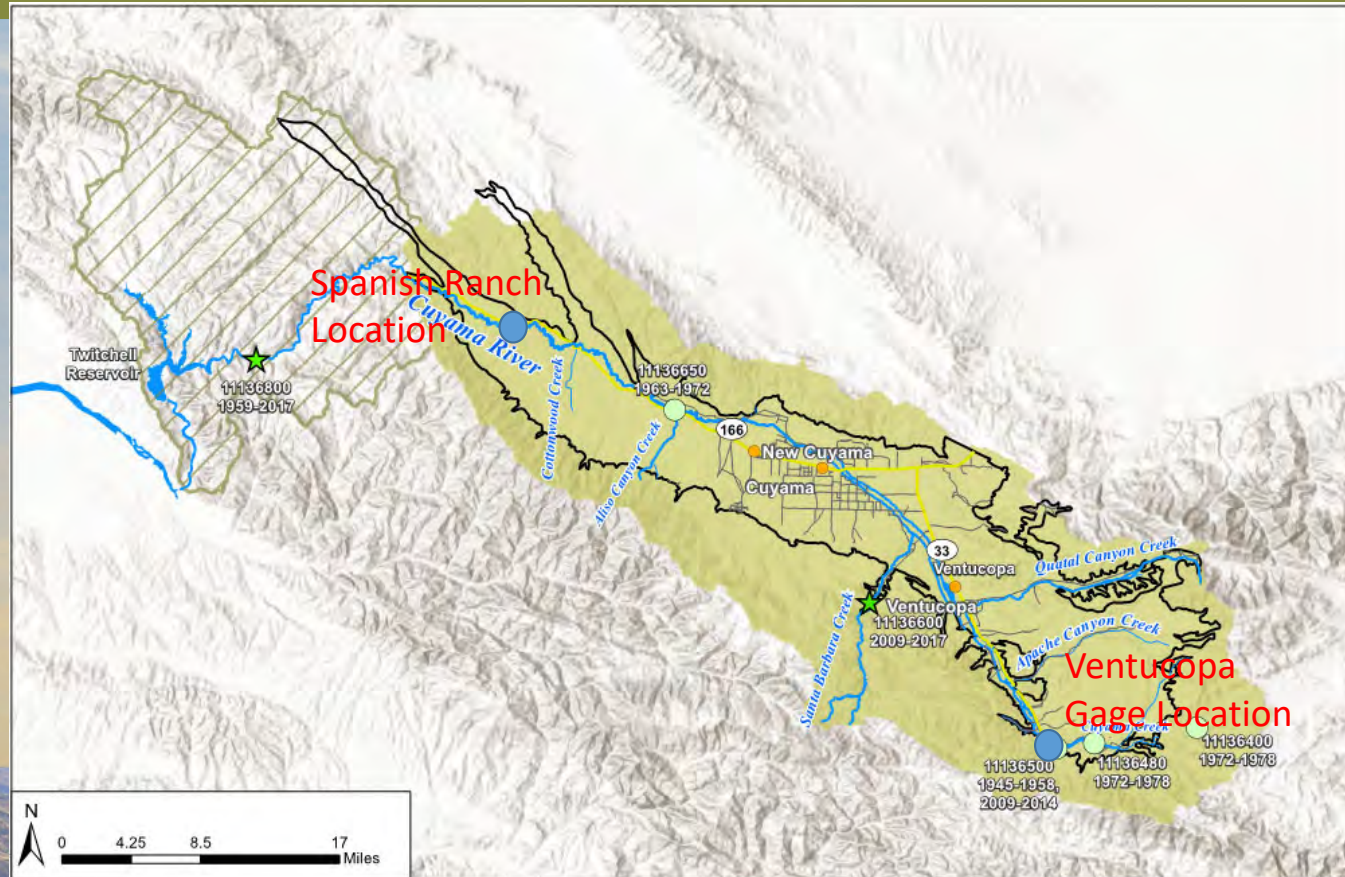
- Installation of new wells by DWR Technical Support Services
 - Currently working with DWR and landowners to finalize permits and agreements
 - Installation is scheduled to start in February and to be completed by July
- Installation of transducers with DWR Category 1 grant funding
 - Well owners have been contacted and we are currently working on procuring transducers and landowner agreements
 - Installation is expected during the January-February period

Revised Category²⁹ Well List



Stream Gage Implementation – FY 2020-21

- 2 new streamflow gages will be installed by USGS using Category 1 grant funding from DWR:
 - Upstream of Ventucopa
 - Spanish Ranch
- Gage installation at both locations anticipated by end of February





TO: Standing Advisory Committee
Agenda Item No. 7e

FROM: Brian Van Lienden, Woodard & Curran

DATE: January 7, 2021

SUBJECT: Update on Monthly Groundwater Conditions Report

Issue

Update on Monthly Groundwater Conditions Report.

Recommended Motion

None – information only.

Discussion

December 2020 levels are being finalized and will be provided once received.

An update regarding the groundwater levels monitoring network and select hydrographs is provided as Attachment 1. The detailed groundwater levels monitoring report including data for all monitoring wells is provided as Attachment 2.

Cuyama Basin Groundwater Sustainability Agency

7e – Update on Groundwater Conditions Report

January 7, 2021

Groundwater Levels Monitoring Network Implementation – Status Update

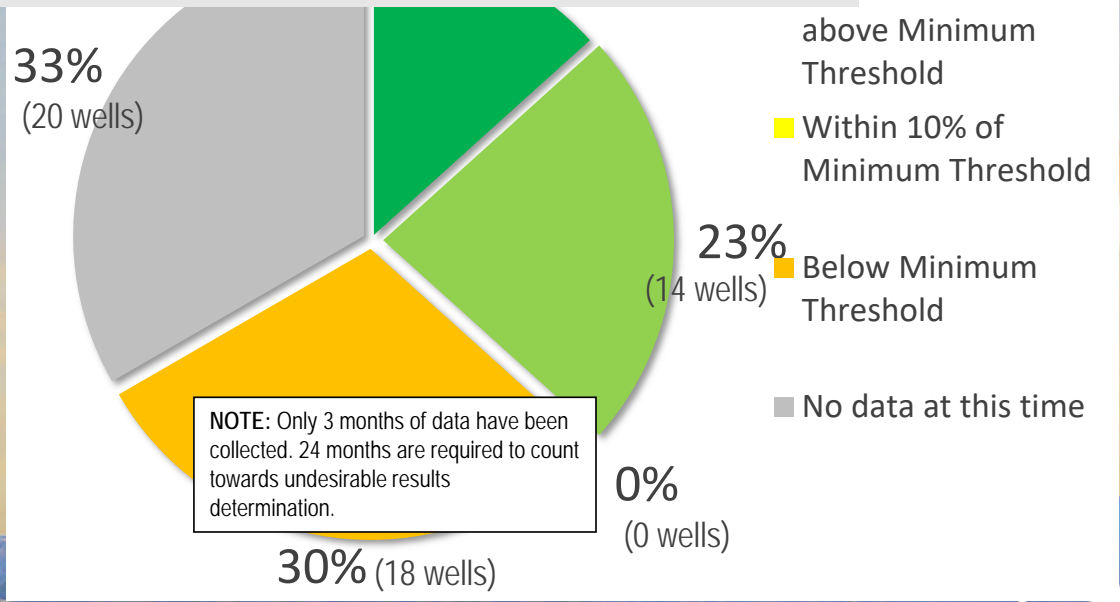
33

- Monitoring data from Oct-Dec for representative wells is included in Board packet monitoring summary report
- XX of 60 representative monitoring wells have levels data in December
- Status of remaining representative wells:
 - To be updated when December monitoring is complete

Summary of Groundwater Well Levels as Compared To Sustainability Criteria

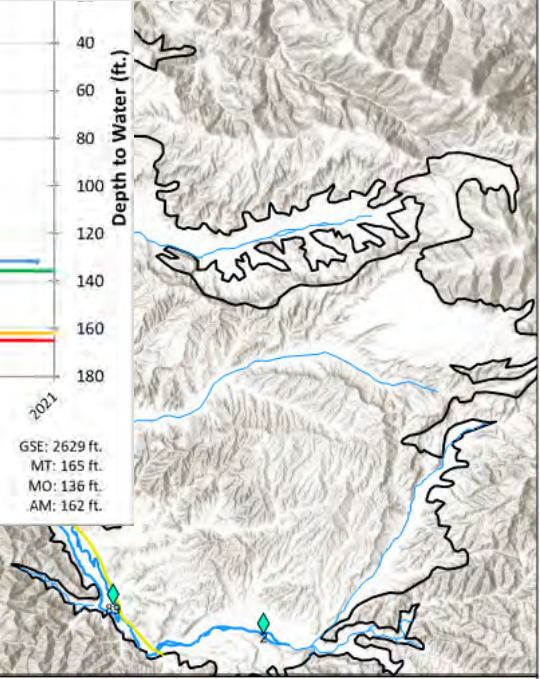
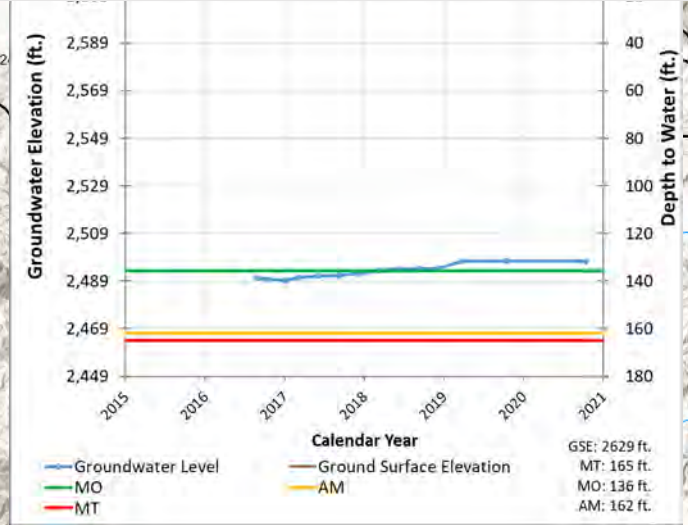
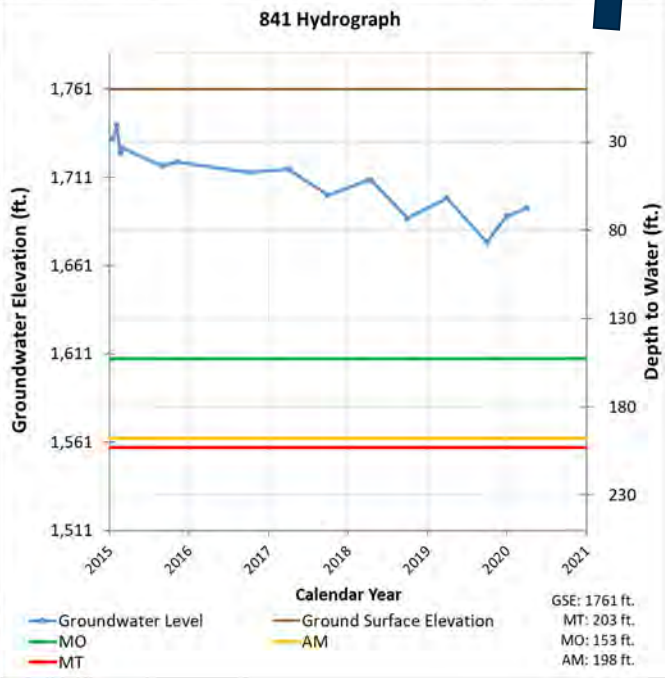
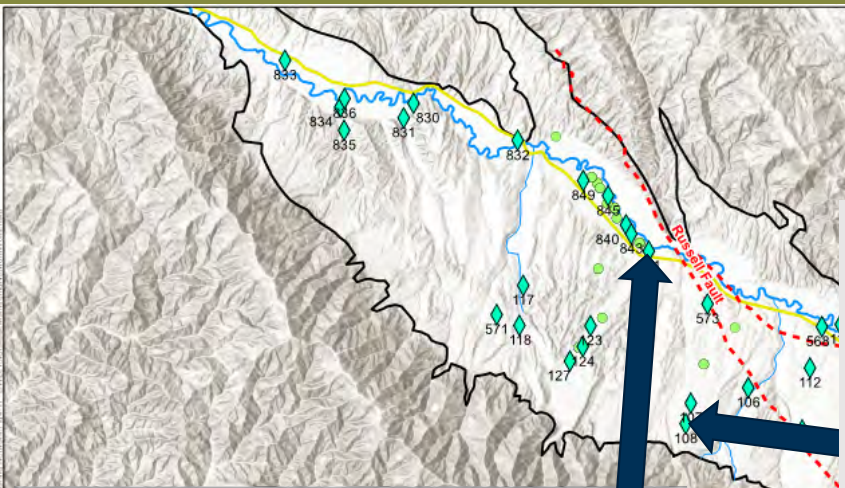
To be updated when December monitoring data is available.

- 18 wells are currently below minimum threshold (MT)
 - 8 of these were already below MT at time of GSP adoption
- Adaptive management recommendation:
 - Continue monitoring to see how many wells recover in the Spring
 - Develop response options if needed

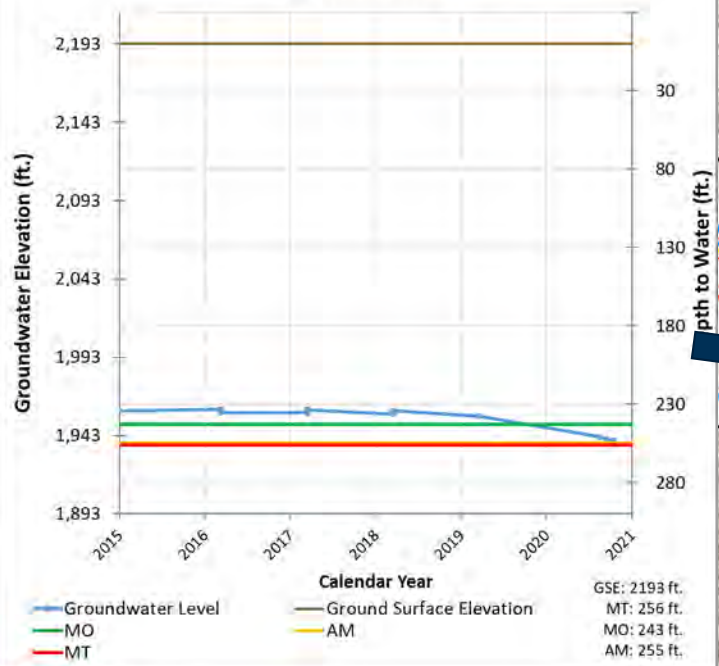


Updated Hydrographs for Selected Monitoring Wells

To be updated when December monitoring data is available.

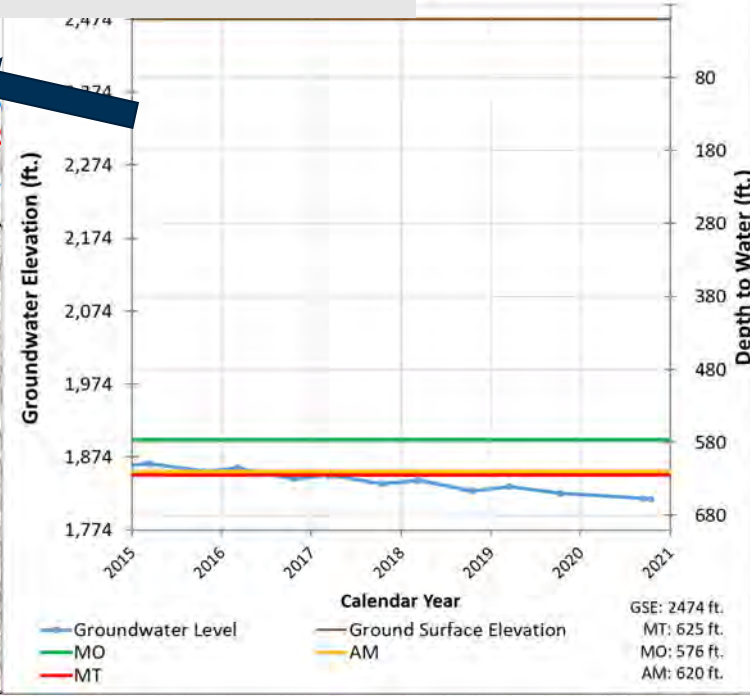


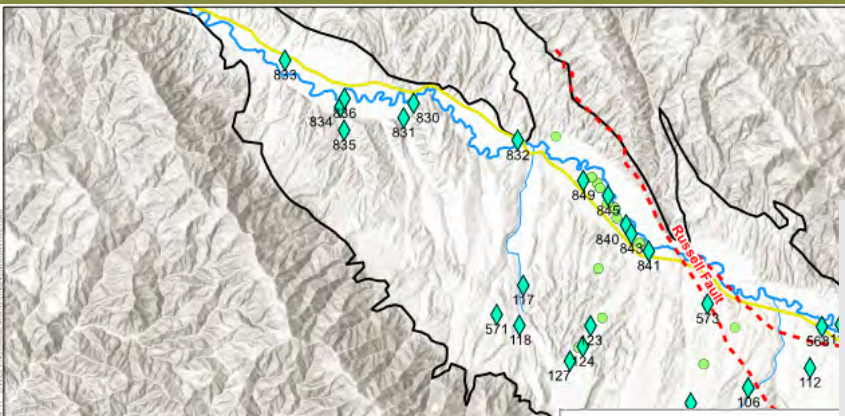
74 Hydrograph



Updated Hydrographs for Selected Monitoring Wells

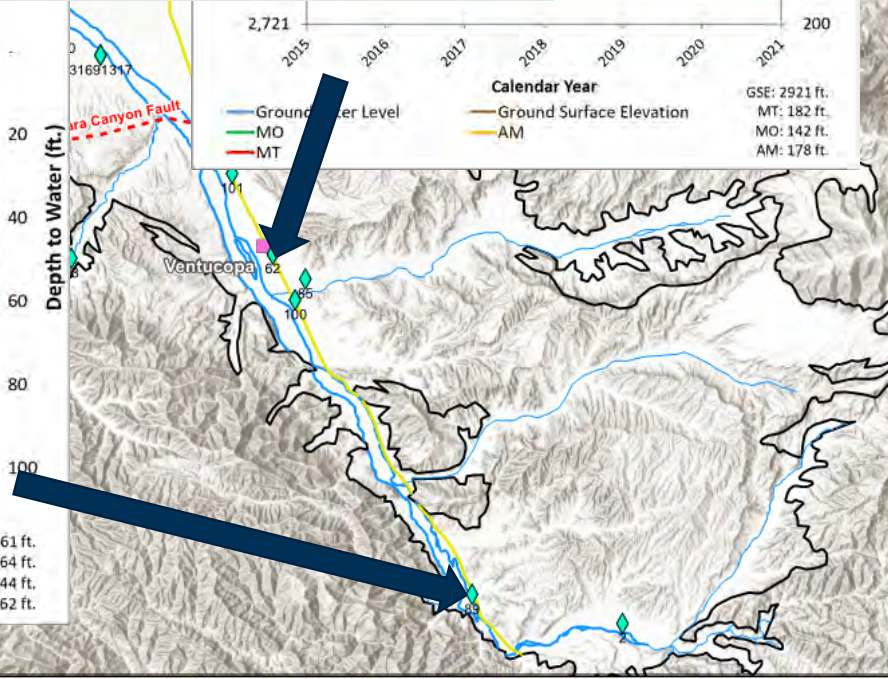
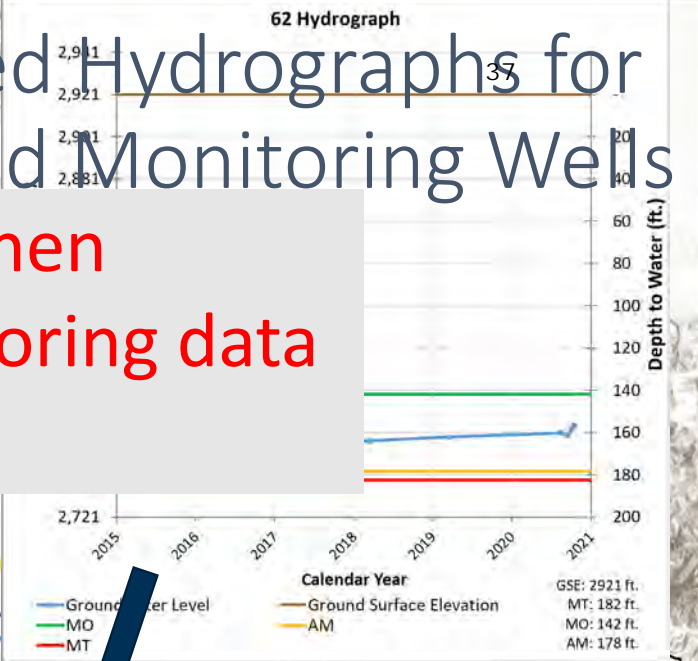
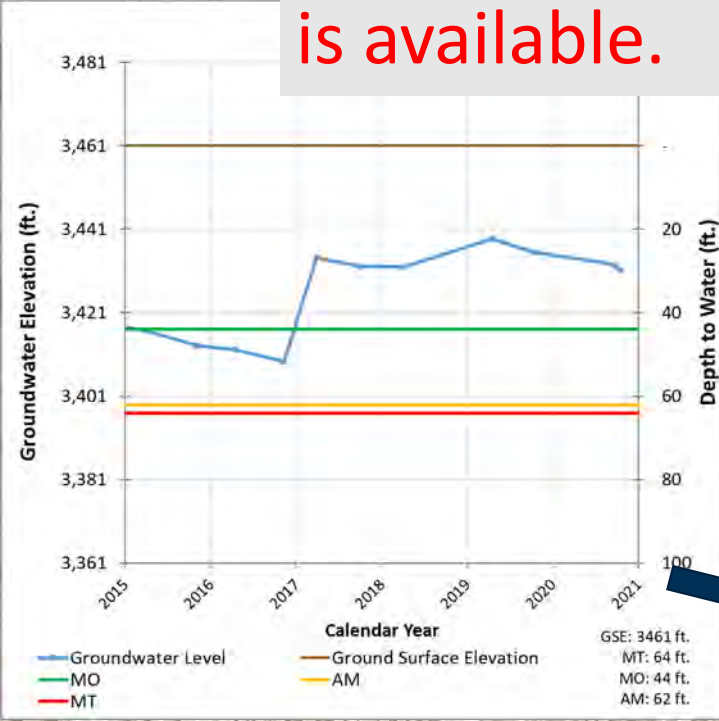
To be updated when December monitoring data is available.





Updated Hydrographs for Selected Monitoring Wells

To be updated when December monitoring data is available.





TO: Standing Advisory Committee
Agenda Item No. 7f

FROM: Brian Van Lienden, Woodard & Curran

DATE: January 7, 2021

SUBJECT: Update on Prop 68 Implementation Grant Application

Issue

Discuss an update on Prop 68 Implementation Grant Application.

Recommended Motion

None – information only.

Discussion

An update on the Prop 68 Implementation Grant Application is provided as Attachment 1.

Cuyama Basin Groundwater Sustainability Agency

7f – Update on Prop 68 Implementation Grant Application

January 7, 2021



Overview of Prop 68 SGM Implementation Grant Opportunities ⁴⁰

- Round 1:
 - \$26 million
 - Critically overdrafted basins only
- Round 2:
 - \$62 million
 - Open to all medium and high priority basins
- Range of grant awards:
 - \$2-5 million

TABLE 2 – SCHEDULE FOR SGM IMPLEMENTATION – ROUNDS 1 AND 2 GRANT SOLICITATION

Milestone or Activity	Tentative Schedule ²
Round 1 Schedule	
Final 2020 PSP posted to public	December 2020
Round 1 Grant Solicitation Opens	December 2020
Application Workshop	January 2021
Round 1 Grant Solicitation Closes	January 2021
Public Review of Draft Funding List	March 2021
Final Awards	May 2021
Round 2 Schedule	
Round 2 Grant Solicitation Opens	Spring 2022
Public Review of Draft Funding List	Summer 2022
Final Awards	Fall 2022

² Dates are subject to change and will be determined based on number of comments received for the draft document, number of applications received, amount of funds requested, and number of grant awards given.

Status of Cuyama Basin Grant Proposal

- A grant proposal was submitted to DWR on January 8 requesting \$5 million
- Activities included in the grant proposal
 - Grant administration
 - Capital improvements and field investigations
 - Dedicated monitoring wells
 - Piezometers
 - New weather stations and enhancement of existing weather stations
 - Aquifer tests
 - Model and data enhancements
 - Development of land use data for 2018-2020
 - DMS enhancements
 - Re-calibration of Cuyama Basin numerical model with new data
 - Perform sustainability scenarios to improve understanding of potential pumping reduction scenarios
 - Water supply project implementation:
 - Precipitation enhancement feasibility study
 - Flood/stormwater capture water rights analysis

From: **Jake Furstenfeld** <>
Date: Tue, Dec 1, 2020, 7:57 AM
To: Brenton Kelly <>

Good morning Brenton. I spoke to Robbie a while back about resigning due to my new work schedule. I still am unable to attend anything due to my work. I think it would be in the interest of both the GSA and mine to resign from the SAC. I appreciate everyone who has put in the time and continues to do so. I appreciate being able to be a part of the board and the process.

Best wishes
Jacob Furstenfeld



GAVIN NEWSOM
GOVERNOR



JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

December 8, 2020

Craig Altare
Supervising Engineering Geologist
Sustainable Groundwater Management Office
Department of Water Resources
craig.altare@water.ca.gov

CUYAMA VALLEY GROUNDWATER SUSTAINABILITY PLAN, GROUNDWATER BASIN NO. 3-013

Provided for your consideration are comments submitted on behalf of the State Water Resources Control Board (State Water Board) by the State Water Board's Groundwater Management Program in support of the Department of Water Resources' (DWR) review of the Groundwater Sustainability Plan (GSP) for the Cuyama Valley Groundwater Basin (basin). The State Water Board recognizes that DWR will determine the adequacy of the GSP, and these comments are intended to support DWR's review by providing the State Water Board's additional expertise and regulatory experience with regard to GSPs. In preparing comments, the Groundwater Management Program has consulted the State Water Board's Division of Water Rights and Division of Drinking Water as well as the appropriate Regional Water Quality Control Board to seek local information and programmatic concerns.

The State Water Board's comments on the GSP relate to the following areas:

- Groundwater Quality
- Depletions of Interconnected Surface Water
- Projects and Management Actions
- Engagement

Groundwater Quality

1. The GSP should include nitrate and arsenic sustainable management criteria (SMC). In general, in deciding which water quality constituents to consider when setting SMC, a Groundwater Sustainability Agency (GSA) should consider the best available water quality information for the basin, including data used to develop the hydrogeologic conceptual model, geochemistry of geological formations (for the potential of mobilization of natural constituents), and groundwater uses in the vicinity of the representative monitoring sites and the

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

basin as a whole when determining which constituents to evaluate for minimum thresholds (MTs). Different constituents may cause undesirable degradation of water quality in different areas based on the purposes for which groundwater is beneficially used. Not all water quality impacts to groundwater must be addressed in the GSP but significant and unreasonable water quality degradation due to groundwater conditions occurring throughout the basin, and that were not present prior to January 1, 2015, must be addressed in the GSP's MTs. Both groundwater extraction and the implementation of projects to achieve sustainability may cause impacts from migration of contaminant plumes, changes in the concentration of contaminants due to reduction in the volume of water stored in the basin, or release of harmful naturally occurring constituents. A GSA should particularly consider whether any groundwater quality constituents in the basin may impact the state's policy of protecting the right of every human being to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes (Water Code §106.3).

- a. Nitrate Maximum Contaminant Level (MCL) exceedances in domestic wells have occurred over wide areas within the basin, while arsenic MCL exceedances have been found near the New Cuyama area and have impacted Cuyama Community Service District's (CCSD's) public supply well. Figures A-1 and A-2 in the Appendix show the locations of detections and MCL exceedances for nitrate and arsenic, respectively.
- b. Projects and management actions under the Cuyama Basin GSA's authority have the potential to influence groundwater concentrations and distributions of arsenic or nitrate. Groundwater extraction or the implementation of projects to achieve sustainability may cause impacts from migration of contaminant plumes, changes in the concentration of contaminants due to reduction in the volume of water stored in the basin, or release of harmful naturally occurring constituents. For example, some studies have indicated groundwater pumping can exacerbate arsenic-release to groundwater (see studies referenced in the Central Coast Regional Water Quality Control Board's [Central Coast Water Board's] March 15, 2019, and May 15, 2020, comment letters on the draft and final GSP).
- c. The GSP states that arsenic near New Cuyama has only been detected at one of the CCSD's inactive wells or at depths greater than 700 feet and outside of range of drinking water pumping, and that uncertainty about the actual depth of arsenic contamination makes setting SMC infeasible (GSP Section 2.2.10, p. 2-121); however, staff from the State Water Board's Division of Drinking Water note that arsenic necessitates expensive treatment at the CCSD's sole public drinking water supply well, which is approximately 800 feet deep. In addition, the State Water Board's Groundwater Ambient Monitoring and Assessment Program's Groundwater Information System shows records of arsenic MCL

exceedances in drinking water wells perforated in both shallower (e.g., top of perforation at a depth of 340 feet) and deeper groundwater.

- d. The GSP reasons that the GSA cannot set SMC for arsenic because concentrations are localized and vary from well to well; however, SGMA does not preclude a GSA from addressing localized water quality issues that may be exacerbated by pumping or management actions. In addition, arsenic detections in drinking water wells range in concentration between 1 microgram per liter and the MCL of 10 micrograms per liter over wide areas of the basin, making the issue relatively widespread (see Figure A-2).
2. In conclusion, staff recommend that the GSP include SMC and monitoring for nitrate and arsenic, and that the GSA coordinate with the Central Coast Water Board in setting MTs and developing a plan for addressing water quality degradation caused by continued pumping or other actions under the GSA's authority. The GSP's definition of an undesirable result for water quality degradation is not clearly linked to consideration of beneficial users of water and is not specific to each of the threshold regions for managing water levels. The GSP defines the undesirable result as "when 30 percent of the representative monitoring points (i.e., 20 of 64 sites) exceed the MT for a constituent for two consecutive years" (Section 3.6.4, p. 3-4). The six threshold regions each have unique characteristics in hydrogeology, land use and water use practices, and existing conditions of water level and water quality. For example, agricultural practices and groundwater pumping are extensive in the Eastern and Central threshold regions, moderate in the Western threshold region, and beginning to develop in recent years in the Northeastern threshold region. The areas with agriculture are more prone to water quality issues (e.g., see Figures A-1 and A-2 for nitrate and arsenic). Defining the undesirable result as 30 percent of wells exceeding the MT across the six threshold regions could dilute signals of local impacts and, when evaluated, cause water quality degradation in areas of concern to appear less notable. Staff recommend the GSA develop specific water quality SMC for each threshold region and more clearly tie whatever threshold the GSA uses to beneficial users, especially for the threshold regions with agricultural land and groundwater pumping. The GSA should reach out to beneficial users in each threshold region for input in the development of these SMC.
3. The GSP identifies locations with water quality data gaps (i.e., total dissolved solids) and possible temporal data gaps due to different monitoring schedules by management entities (Section 4.8.8, p. 4-58), but provides no detail on how to address the data gaps. Staff recommend the GSP further consider spatial data gaps for nitrate and arsenic and include plans to address both spatial and temporal data gaps for all constituents with SMC.

Depletions of Interconnected Surface Water

4. The GSP does not identify interconnected and disconnected stream reaches when defining SMC for depletions of interconnected surface water (ISW). SGMA requires identification of interconnected surface water systems within the basin (23 CCR §354.16(f)) and monitoring of surface water and groundwater, where interconnected surface water conditions exist, to characterize the spatial and temporal exchanges between surface water and groundwater (23 CCR §354.34(c)(6)). Moreover, MTs for depletions of ISW must be supported by the location, quantity, and timing of depletions of ISW. The GSP identifies gaining and losing reaches based on a numerical model with limited stream gage data, but falls short of identifying (possible) ISW; gaining reaches would be, by definition, interconnected, but losing reaches may be connected or disconnected, depending on local groundwater conditions. This makes it difficult to evaluate where pumping may exacerbate depletions and whether representative monitoring wells (RMWs) selected for ISW are representative of depletions in the basin. Low groundwater levels near some stream reaches indicate probable disconnection since before 2015 (e.g., the majority of the Cuyama River in the Central threshold region, based on the depth-to-water contour maps), but other losing reaches may be interconnected, so additional supporting data is needed to assess which reaches are interconnected. Staff recommend that the GSP more specifically describe interconnected or possibly interconnected stream reaches with available data (e.g., modeling results, field measurements of groundwater levels near streams) and, based on that data, develop a plan to address remaining data gaps related to the location, timing and volume of depletions due to groundwater pumping.
5. The GSP uses the groundwater elevation thresholds developed to manage for declining groundwater levels as a proxy to also manage for depletion of ISW; however, the GSP does not draw a direct link between the SMC for declining groundwater levels and undesirable results related to depletions of ISW. Moreover, the GSP defines an undesirable result related to ISW as water levels at 30 percent of *all* water level RMWs falling below MTs, rather than a subset of wells near streams, which would likely be more representative of ISW conditions. As a result, substantial stream depletions could occur under the GSP during its implementation without triggering any management action. It's not clear to Board staff how the GSA can manage for depletions of ISW using this undesirable result definition and monitoring network. Staff recommend the GSA develop MTs supported by the location, quantity, and timing of depletions of interconnected surface water (23 CCR §354.28(c)(6)(A)) and a monitoring network specifically for ISW. The GSA should reach out to surface water users and the California Department of Fish and Wildlife for input in the development of these SMC.
6. The GSP proposes three stream gages to fill data gaps in ISW (Section 4-10, p. 4-66), but lacks details on where the gages will be located. Staff recommend the GSA identify the gage locations soon (possibly in the next annual report), and incorporate considerations of each stream reach's potential for increased depletions due to groundwater pumping and the associated impacts to beneficial

uses and users. For example, new agricultural development in the Northwestern threshold region has the potential to increase stream depletions and cause harm to groundwater-dependent ecosystems and surface water users.

7. The GSP's approach to identifying potential groundwater-dependent ecosystems in the basin relies on the presence of surface water and aerial imagery and is not scientifically sound, as described in comment letters from the Nature Conservancy and the California Department of Fish and Wildlife to DWR on the final GSP. Staff recommend the GSP reassess potential presence of these ecosystems with consideration of depth-to-groundwater data and further investigate related data gaps.

Projects and Management Actions

8. The feasibility of Project 1, Flood and Stormwater Capture, and Project 3, Water Supply Transfers/Exchanges, is difficult to assess. Project 1 proposes to recharge flood and stormwater using 300 acres of spreading basins to capture up to 4,400 AFY of stormwater (averaged over 10 years). Project 3 proposes to purchase transferred water and exchange it with water rights holders downstream of Lake Twitchell to allow for additional stormwater and floodwater capture in the Cuyama Basin. The GSP should further detail whether the projects may be conducted under existing water rights (identifying the specific water rights) and/or whether they may require new water rights or changes to existing rights. The need to obtain a new or modified water right for a project has implications for project feasibility within GSP implementation timelines. To provide more context for the feasibility of the projects that may require a new or modified water right, the GSP should discuss the timing for obtaining those approvals and describe any known uncertainties involved (e.g., water availability in the source stream, whether the source is on the inventory of fully appropriated streams, or potential protests from downstream water users).
9. Staff recognize that the GSP proposes Management Action 2, Pumping Allocations in Central Basin Management Area, in which the amount of the pumping reduction will depend on the volume of recharge resulting from the proposed supply enhancement projects. Such a demand management effort is expected to be an adequate contingency measure in the case that Projects 1 or 3 are unsuccessful in increasing groundwater supply in the basin.

Engagement

10. The GSP states that no California Native American Tribes are present in the basin; however, the GSP does not describe the GSA's process for identifying or reaching out to Tribes with potential interests in groundwater management in the basin. Without this information, it is difficult to discern whether the GSA appropriately considered the interests of California Native American Tribes in developing the GSP (Water Code, §10723.2(h)). The GSP should elaborate on the GSA's tribal engagement effort. If the GSA has not already done so, the GSA should consult with the Native American Heritage Commission (NAHC) to obtain

Craig Altare

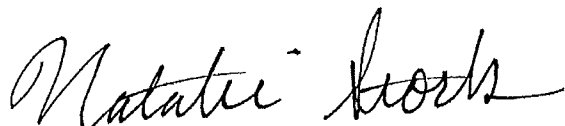
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information about Tribes that have current and ancestral ties in the basin. To request this information, the GSA can email the NAHC at nahc@nahc.ca.gov.

If you any have questions regarding these comments, please do not hesitate to contact State Water Board Groundwater Management Program staff by email at SGMA@waterboards.ca.gov or by phone at 916-322-6508.

Sincerely,

A handwritten signature in black ink that reads "Natalie Stork". The signature is written in a cursive, flowing style.

Natalie Stork
Chief, Groundwater Management Program
Office of Research, Planning, and Performance

Enclosure: Appendix – Detections and MCL Exceedances of Select Contaminants in Drinking Water Wells

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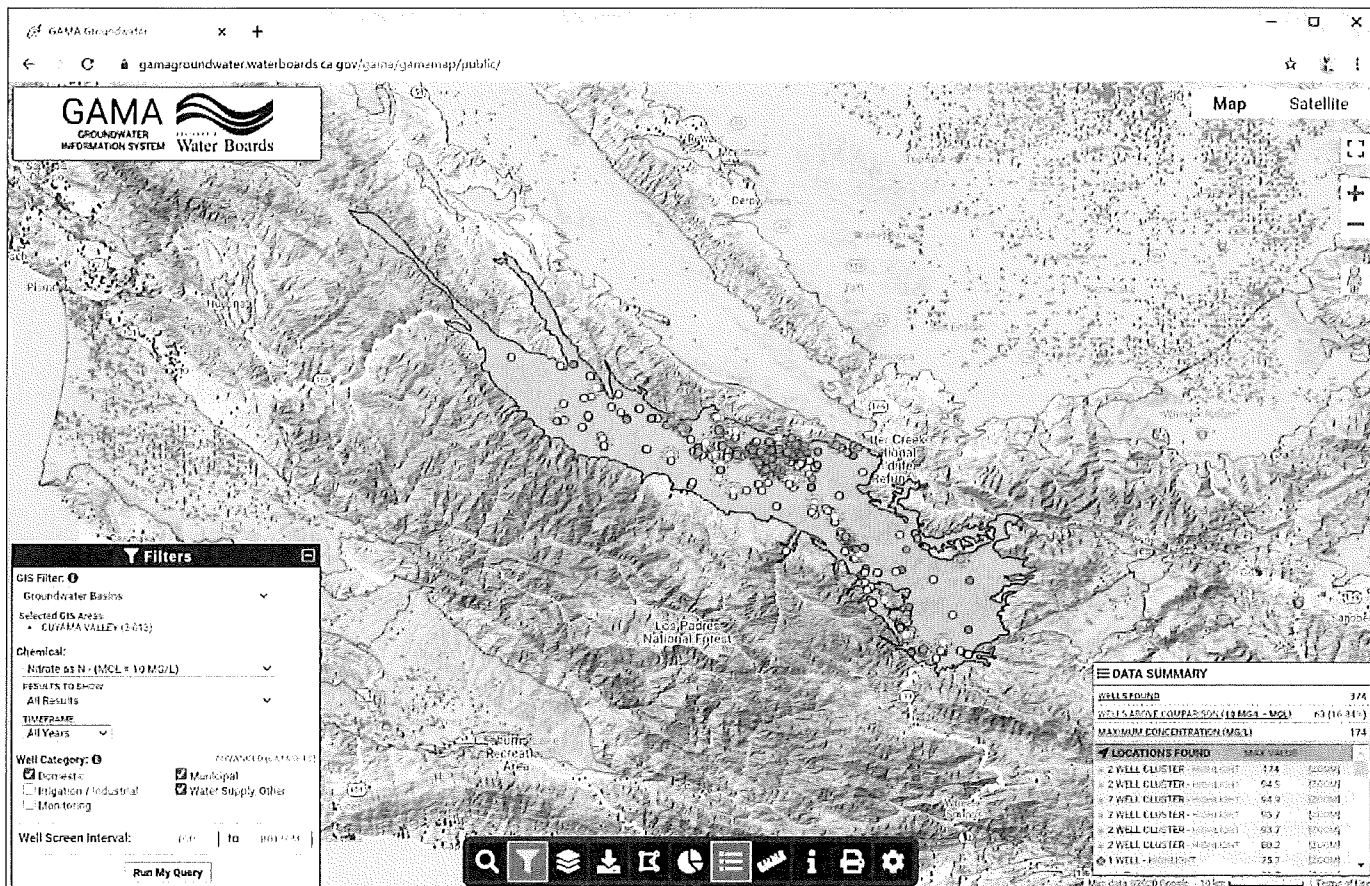


Figure A-1: Nitrate Detections (yellow and green) and MCL Exceedances (red) in Drinking Water Wells.

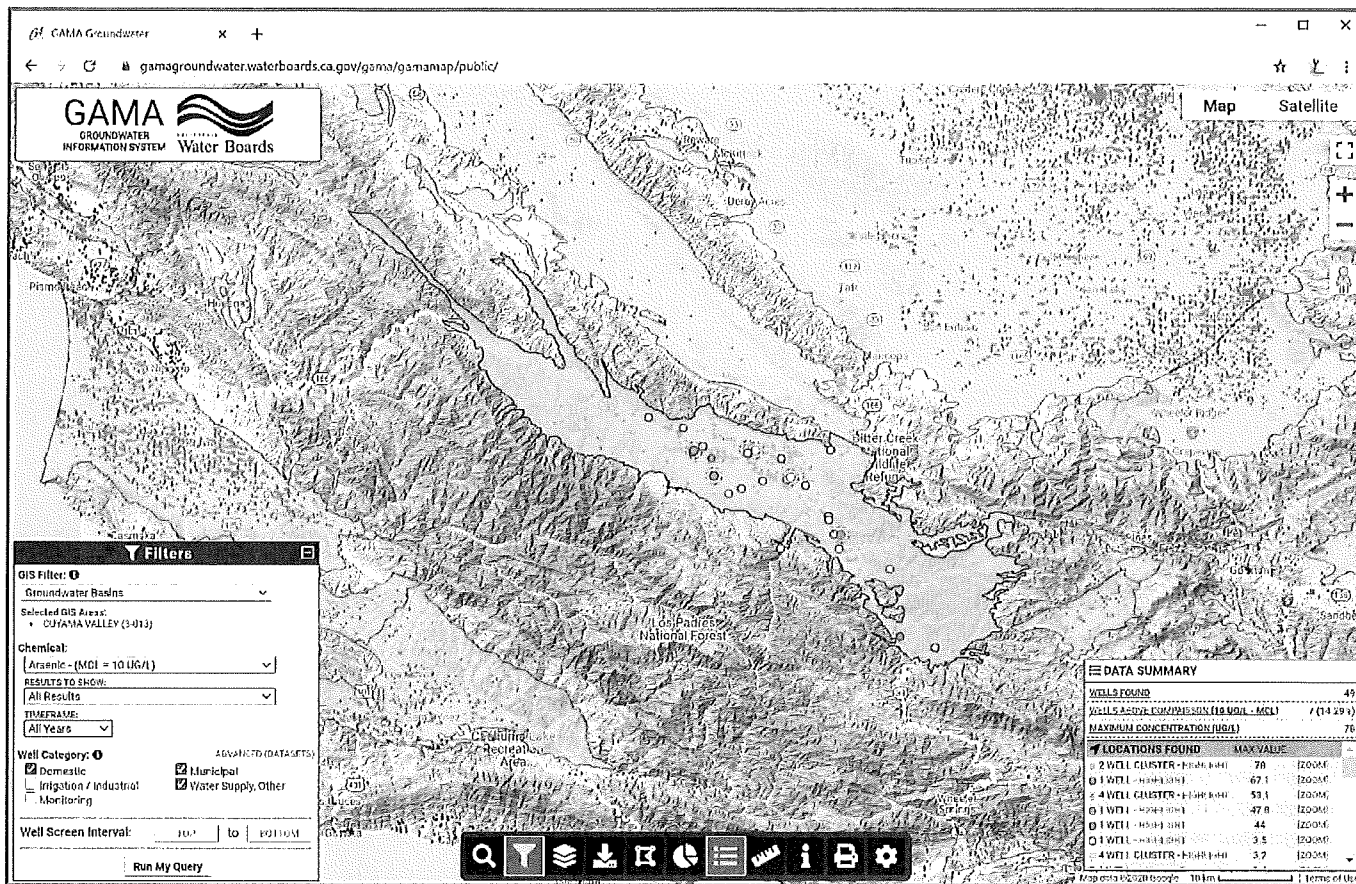


Figure A-2: Arsenic Detections (yellow and green) and MCL Exceedances (red) in Drinking Water Wells.