



# SPECIAL JOINT MEETING OF CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY SPECIAL BOARD OF DIRECTORS AND STANDING ADVISORY COMMITTEE

## Board of Directors

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

**Paul Chounet** Cuyama Community Services District  
**George Cappello** Cuyama Basin Water District  
**Byron Albano** Cuyama Basin Water District  
**Jane Wooster** Cuyama Basin Water District  
**Tom Bracken** Cuyama Basin Water District

## Standing Advisory Committee

**Roberta Jaffe** Chairperson  
**Brenton Kelly** Vice Chairperson  
**Brad DeBranch**  
**Louise Draucker**

**Jake Furstenfeld**  
**Joe Haslett**  
**Mike Post**  
**Hilda Leticia Valenzuela**

## AGENDA

May 1, 2019

Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Board of Directors to be held on Wednesday, May 1, 2019 at 3:00 PM, at the Cuyama Valley Family Resource Center, 4689 CA-166, New Cuyama, CA 93254. To hear the session live call (888) 222-0475, code: 6375195#.

### Teleconference Locations:

Cuyama Valley Family  
Resource Center  
4689 CA-166  
New Cuyama, CA 93254

4941 Nipomo Drive  
Carpinteria, CA 93013

3170 Crucero Road  
Lompoc, CA 93436

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. Agenda backup information and any public records provided to the Board after the posting of the agenda for this meeting will be available for public review at 4689 CA-166, New Cuyama, CA 93254. 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. Approval of Minutes

- a. April 3, 2019
5. Report of the Standing Advisory Committee
6. Technical Forum Update
  - a. Discussion on Numerical Model
7. Groundwater Sustainability Plan
  - a. Groundwater Sustainability Plan Update
  - b. Discussion on GSP Public Draft
  - c. Fiscal Year 2019-20 Budget Adoption
  - d. Stakeholder Engagement Update
    - i. Review of Public Draft Comment Period
8. Groundwater Sustainability Agency
  - a. Report of the Executive Director
  - b. Progress & Next Steps
  - c. Report of the General Counsel
9. Financial Report
  - a. Financial Management Overview
  - b. Financial Report
  - c. Review and Approval of Out-of-Scope Activities
  - d. Payment of Bills
10. Reports of the Ad Hoc Committees
11. Directors' Forum
12. Public comment for items not on the Agenda

*At this time, the public may address the Board on any item not appearing on the agenda that is within the subject matter jurisdiction of the Board. Persons wishing to address the Board should fill out a comment card and submit it to the Board Chair prior to the meeting.*
13. Correspondence
14. Public Workshops (6:30 pm) – New Cuyama High School Cafeteria, 4500 CA-166, New Cuyama, CA 93254
15. Adjourn (8:30 pm)

# Cuyama Basin Groundwater Sustainability Agency

## Acronyms List

ARMA	Autoregression Moving Average
BOD	Board of Directors
CA	California
CASGEM	California Sustainable Groundwater Elevation Monitoring
CB	Cuyama Basin
CBGSA	Cuyama Basin Groundwater Sustainability Agency
CBWD	Cuyama Basin Water District
CCSD	Cuyama Community Services District
CDEC	California Data Exchange Center
CVCA	Cuyama Valley Community Association
CVRD	Cuyama Valley Recreation District
DMS	Data Management System
DWR	California Department of Water Resources
EKI	EKI Environment & Water, Inc.
ET	Evapotranspiration
FRC	Cuyama Valley Family Resource Center
FY	Fiscal Year
GAMA	Groundwater Ambient Monitoring and Assessment Program
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
HG	Hallmark Group (Executive Director)
ITRC	Irrigation Training & Research Center
IWFM	Integrated Water Flow Model
JPA	Joint Exercise Powers Agreement
Kern	County of Kern
NOAA	National Oceanic and Atmospheric Administration
NWIS	National Water Information System
PRISM	Parameter-elevation Regressions on Independent Slopes Model
SAC	Standing Advisory Committee
Santa Barbara	County of Santa Barbara
SBCWA	Santa Barbara County Water Agency
SGMA	Sustainable Groundwater Management Act
SLO	San Luis Obispo County
SWCRB	State Water Resources Control Board
TAF	Thousand Acre Feet
TO	Task Order
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
Ventura	County of Ventura
W&C	Woodard & Curran (GSP Development Consultant)
WMA	Water Management Area
WY	Water Year

# Cuyama Basin Groundwater Sustainability Agency Board of Directors Meeting

April 3, 2019

## Draft Meeting Minutes

Cuyama Valley Family Resource Center, 4689 CA-166, New Cuyama, CA 93254  
New Cuyama High School Cafeteria, 4500 CA-166, New Cuyama, CA 93254

### PRESENT:

Klinchuch, Matt – *Alternate for Chair Derek Yurosek*  
Compton, Lynn – Vice Chair  
Albano, Byron  
Anselm, Arne – *Alternate for Glenn Shephard*  
Bantilan, Cory  
Bracken, Tom  
Cappello, George  
Chounet, Paul  
Christensen, Alan – *Alternate for Zack Scrivner*  
Williams, Das  
Wooster, Jane  
Beck, Jim – Executive Director  
Hughes, Joe – Legal Counsel

### ABSENT:

None

#### 1. Call to order

Vice Chair Lynn Compton called the meeting to order at 4:00 p.m.

#### 2. Roll call

Hallmark Group Project Coordinator Taylor Blakslee called roll (shown above) and informed Vice Chair Compton that there was a quorum of the Board and SAC.

Vice Chair Compton informed the attendees that Chair Derek Yurosek could not attend today's meeting and asked that stakeholders utilize the public speaker cards for comments and questions.

#### 3. Pledge of Allegiance

The pledge of allegiance was led by Vice Chair Compton.

#### 4. Approval of Minutes

Vice Chair Compton opened the floor for comments on the March 6, 2019 Cuyama Basin Groundwater Sustainability Agency (CBGSA) Board meeting minutes.

Director Cory Bantilan commented that the minutes incorrectly included a fourth bullet point in the motion he made regarding pumping allocation which stated, “no restrictions for users outside the management areas.”

Director George Cappello commented that the minutes incorrectly captured his statement on page 4 and corrected it to say, “the plan is to make the basin sustainable.”

Director Jane Wooster commented that the minutes incorrectly captured her statement on page 4 and corrected it to say “Brodiaea.”

#### **MOTION**

Director Bantilan made a motion to adopt the March 6, 2019 CBGSA Board meeting minutes with the incorporation of the suggested edits. The motion was seconded by Director Williams and passed unanimously.

AYES: Directors Albano, Anselm, Bantilan, Bracken, Cappello, Chounet, Compton, Klinchuch, Williams, Wooster  
 NOES: None  
 ABSTAIN: None  
 ABSENT: Director Scrivner

#### **5. Report of the Standing Advisory Committee**

CBGSA SAC Chair Roberta Jaffe provided a report on the March 28, 2019 SAC meeting, which is provided in the Board packet.

Director Paul Chounet clarified that the Cuyama Community Services District (CCSD) is pumping at 150 acre-feet (AF) per year and would like to discuss this in more detail.

#### **6. Technical Forum Update**

GSP consultant Woodard & Curran’s (W&C) Senior Water Resources Engineer Lyndel Melton provided an overview of the March 25, 2019 technical forum call. A summary of the issues discussed is provided in the Board packet. Mr. Melton said several members are requesting model files and W&C will work with them on this.

#### **7. Groundwater Sustainability Plan**

##### **a. Groundwater Sustainability Plan Update**

Mr. Melton provided an update on the Groundwater Sustainability Plan (GSP) development, which is included in the Board packet.

##### **b. Discussion on Placeholder Section**

Mr. Melton reported that the Placeholder Section was distributed on March 25, 2019, and the comment deadline was April 1, 2019.

##### **c. Direction on Eastern Region Sustainability Thresholds**

Mr. Melton reported that Item No. 7c’s title is wrong and should say “Southeastern Region.” Director Albano noted that we incorrectly termed the measurable objective as the minimum threshold but fixed that verbiage in the memorandum.

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*Alternate Director Alan Christensen arrived at 4:15 pm*  
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**d. Review of Options for Management Area Governance**

CBGSA Executive Director Jim Beck provided an update on the need for direction for W&C to include Board guidance on management area governance in the GSP.

He provided a recap of what the Board provided direction on to establish management areas and the Board direction on pumping allocation in management areas.

He outlined two options for administration of management areas: (1) the GSA is responsible for management areas, and (2) the GSA delegates administration of management areas to entities such as the Cuyama Basin Water District (CBWD) and CCSD.

He said the first issue to resolve is how pumping in the CCSD is handled. Mr. Beck said if the number is 150 AF per year, that would be important to document, but the philosophy is more important. He suggested the CCSD be included as a separate management area and pumping be set at historic usage with some allowance for future growth. He said the modeling assumed the population in Cuyama was flat for the next 50 years. He said since they provide a vital water supply to the community it may make sense to make them their own area. Mr. Beck said the SAC recommended 100 AF per year plus a 20% growth factor over the 20-year implementation period. This recommendation was based on the thought that the historical pumping level of 2015 was 100 AF.

Director Bryon Albano asked how many people CCSD serves. Director Paul Chounet said the CCSD does not track population, but tracks the number of connections. He said there are approximately 220 active connections. He reported that the CCSD has a parcel on Highway 166 that LAFCO added and there are approximately 30 lots that have not been connected yet. He reported that the CCSD also has a number of other commercial lots. To service lots that are not yet connected would represent 30% growth and they are in a contract to supply water. Director Chounet said it makes him nervous to cap the CCSD at a 20% growth factor and anticipates litigation if the CBGSA holds to this. He said in the 1980s the CCSD was using 300 AF per year and have already reduced usage by about half.

Mr. Beck said these are very good points, but asked Director Chounet what the CCSD's committed use is. Director Chounet said there is a commitment to 60 connections that are not active. Mr. Beck said this would total approximately 210 AF per year that is committed, which would be approximately 252 with the 20% growth factor.

Director Jane Wooster asked if their wells cannot pump that water, where does that leave the GSA. Mr. Beck said if the CCSD wells fail, that is a CCSD issue.

Director Wooster asked if we are assuming that the CCSD will get water from outside of their district in order to meet this requirement. Mr. Beck said he was assuming that we were making a provision that when the CCSD pumps they will have the ability to pump up to 252 AF from the central basin, and when we are assigning reductions, we do not assign a reduction to CCSD based on pumping.

Director Wooster said we will not prevent pumping for a certain amount, but we are not guaranteeing they can pump that water. Mr. Beck confirmed and said that the GSA is responsible for not violating thresholds.

Director Albano asked if we take the CCSD out of the management area, why are we putting them in a special category. Mr. Beck said you do not have to. Mr. Beck asked Mr. Melton if they are not a de minimis user, we will need to identify their projected usage in our plan. Mr. Melton said he believes that we are covered but needs to do some additional research.

Vice Chair Compton requested feedback from the Board on including or not including the CCSD in a management area.

### **MOTION**

Director Chounet made a motion to not include the Cuyama Community Services District in a Management Area. The motion was seconded by Director Tom Bracken and passed unanimously.

AYES:	Directors Albano, Anselm, Bantilan, Bracken, Cappello, Chounet, Christensen, Compton, Klinchuch, Williams, Wooster
NOES:	None
ABSTAIN:	None
ABSENT:	None

The next issue was a discussion of areas to delegate. Mr. Beck said potential areas to delegate include management actions, pumping reductions, water supply projects, and well head metering (if appropriate). Mr. Beck said under this case they would still need to comply with the plan adopted by the CBGSA.

Vice Chair Compton asked if the cost was the same, and Mr. Beck said he believes the cost is de minimis whether managed internally or externally.

Mr. Beck described the advantages and disadvantages of delegation and non-delegation which is summarized in the Board packet. For non-delegation, you would not need additional agreements but would still need to develop guidelines with a subgroup of landowners.

Mr. Beck said we do not have a recommendation since this is really a policy decision for the Board. Vice Chair Compton asked how other districts are doing it, and Mr. Beck said he has seen it done both ways. Director George Cappello said the Kern Groundwater Authority (KGA) is set up that the local districts are producing information that gets sent up to the KGA. Mr. Melton said the San Luis & Delta-Mendota Water Authority does it both ways which fosters many different interactions and it is working.

Director Albano asked if the management area is within the CBWD, and the CBGSA delegates administrative duties to the CBWD, is there is any assurance for folks that are not in the management area but are in the CBWD regarding payment. Mr. Beck said if the CBWD were to become the administrator there would be an agreement of what they would be handling and the reporting of that. He said the CBWD would need to develop an internal funding structure

within the management area.

Director Das Williams asked if the CBGSA would be responsible if there is litigation over the pumping. Mr. Beck said yes, and the CBGSA would want indemnification to cover this risk.

Director Williams asked what level we would delegate; just a number of reductions expected in a specific year, or would the allocation come back to the Board for approval. Mr. Beck said his expectation is the CBGSA would agree on a glide path and that would be passed on to the management area that dictates pumping reduction requirements which would be reported in regular intervals.

Director Wooster asked if the suggestion was to create a glide path passed on information that is not cut and dry, and then the CBWD would be responsible for managing that glide path and pass indemnification on to the CBGSA. Mr. Beck said yes, but he is assuming the CBGSA will adopt a glide path.

Director Wooster said you do not know how much you have to cut because you do not have a starting point. Mr. Beck said he does not disagree, but his assumption is that we have to come to an agreement on direction on the glide path.

Director Cappello said he thinks these are two issues and it might make sense to separate them out. Vice Chair Compton requested that the Board received public comments before continuing.

SAC Vice Chair Brenton Kelly read the below statement which opposed the delegation of governance to any entity other than the CBGSA.

**To: CBGSA Board of Directors Meeting, April 3, 2019**  
**Public Comment From: Brenton Kelly, Resident of the Ventucopa Uplands Re:**  
**Agenda Item #7d, Review of Options for Management Area Governance.**

To the GSA Directors,

*Over the past 50 years there have been more than ten published reports focusing on the Hydrologic Budget of the Cuyama Valley Groundwater Basin made by the United States Geological Survey (USGS), United States Department of Agriculture (USDA), California Department of Water Resources (CDWR), Santa Barbara County Water Agency (SBCWA) and UC Santa Barbara Bren School (UCSB). And we now have this one by Woodard and Curran (W&C) for the CBGSA.*

*All these investigations and published reports indicate a severe "overdraft", with a collective average of 28, 100 AF/Y, or nearly half the estimated annual pumpage. The 1951 USGS estimated the safe yield in the Central Basin to be around 13,000 AF/Y. The 1977 SBCWA report suggested 42 years ago, that the Cuyama Groundwater Basin was in overdraft of 38 TAF/Y.*

*The current water budget from W&C indicates that we are losing up to 27 TAF with climate change each year, or potentially 125+TAF every five years. This historic loss in groundwater storage is due to the actions of growers in the central portion of the basin who were aware of the overdraft, and their contribution to it, yet chose to continue this destructive rate of pumping, not just for a few years, but for decades. Through wet years and*



*through drought years. None of this is new or surprising. It is credit to (W&C) that we can now see it all over again in the current Model.*

*Furthermore, the 2014 USGS study concluded, "large regions have depressed water levels and large unsaturated zones in the Recent and Older alluvium aquifers. These conditions have led to an unsustainable water resource with reduced replenishment, 'overdraft,' poor water quality, and land subsidence. Similarly, reducing pumpage to an amount comparable to average recharge still may not provide a sustainable resource under current agricultural practices and land use." That was 5 years and 125 TAF ago.*

*Not only have we known this for a long time already, but we have also known why this has continued to happen for so long. Because there was no regulation to ensure the sustainable use of groundwater, and until SGMA was written and this GSA was formed, there has been no political will to make these difficult decisions.*

*Farmers are the greatest innovators and problem-solvers when faced with changes and clear hard limits. Their ingenuity will find the means and markets to make their land yield. But it is pure wishful thinking to expect creative problem-solving from those interests most responsible for the overdraft and least responsible in exercising voluntary self-restraint or even recognizing groundwater as a basin wide responsibility. As such, delegating responsibility for management, or governance of the central basin to the very entities driven by the same interests that put the basin into overdraft is a set up for failure and an irresponsibility delegation of the duties entrusted in this GSA by SGMA.*

***Two more points:***

- *In order to finance the monitoring, reporting and administrative requirements that the GSA cannot delegate, it must pass a tax measure much like what would be required by the delegated entity. Streamline the bureaucratic duplicity in order that stakeholders' taxes are well stewarded along with the groundwater.*
- *Further, this policy of delegating management of any Management Area to an entity outside the GSA does not take into account the very real potential for one or more new Management Areas being created as a result of a drop of 2 AFN in monitoring wells in other parts of the basin, that are located outside the purview of the Cuyama Basin Water District.*

*I urge the GSA to learn from our history, a history that is fully documented in multiple studies and on view in the current water budget. I am opposed to delegating management or governance of any management area to any entity other than the GSA.*

*Thank you,  
Brenton  
Kelly*

Cuyama Valley Family Resource Center's Executive Director Lynn Carlisle asked who enforces the glide path, when the State Water Board would step in, and how this process works. Mr. Beck said the responsibility of the minimum thresholds and measurable objective always stays with the CBGSA. Therefore, whether you are inside or outside of a management area, or not meeting a minimum threshold or measurable objective, the CBGSA will require action. The CBGSA will determine how these areas are managed.

Mr. Melton said the CBGSA will submit annual reports to the State Water Board, and through this, the State will be aware if something is wrong and will step in.

Vice Chair Compton asked for Board input.

Director Chounet said he did not have any input to include. Director Albano said it is possible that being in a management area of a water district in Ventura county a future management area may step in and attempt to pay for actions using property taxes and he would like to know how he can be assured, as a property owner, that he is not being ripped apart by those different entities. He also asked what if the CBGSA decided that they need to access a fee because of a management area. Mr. Beck said the CBGSA does not have unilateral authority to set fees.

Director Albano said he thought the CBGSA was powered to set fees and make restrictions for pumping. Mr. Beck said legal counsel Joe Hughes will be here next month to discuss this more in detail.

Director Williams said he believes the Board needs to decide what to and what not to delegate. Mr. Beck said all the reporting would come to the CBGSA in the annual report, which is the responsibility of the CBGSA.

Director Williams asked what level of delegation we need to determine at today's Board meeting. Mr. Beck said the Board does not need to identify a definitive list of delegation today.

Director Wooster asked if after the GSP is developed and given to the CBWD for management, and the plan does not work, is this the responsibility of the CBGSA and not the water district? Mr. Beck said the Board will adopt the GSP, but we will be providing annual updates, so we can take action to avoid this.

Director Cappello said for those that have heartburn if with this being delegated to the CBWD, there will be public meetings and no information will be hidden from you. He said you will know what levels they are managing to and it will be transparent.

Director Bantilan said he is fine with the delegation, but the devil is in the details and asked if the CBWD even wants to take this on. Director Cappello said yes, as a district they agreed to try to handle administration of the CBWD for the first year or so.

Director Albano said it is not clear to him that he would not need to pay fees for an area he is not in. Director Cappello said neither the CBWD nor the CBGSA has the authority to impose fees, you must go through a Prop 218 election.

Director Arne Anselm said the CBGSA has responsibility for the basin and the administration portion would be performed by management areas. The management areas would then be reporting back to the CBGSA on how they are getting the administrative duties done. Mr. Beck confirmed this. Director Anselm said with that understanding he is in support of delegating administration to the management areas.

SAC Chair Robbie Jaffe asked that if a motion is developed today to please include provisions for a feedback loop on reporting to the CBGSA.

Director Chounet said if the CBGSA is the administrator and institutes a Prop 218, there are more checks and balances in that process. He said if it is administrated by the CBWD, then they control the administrative responsibilities, and this could cloud the Prop 218 process and not protect the minority landowners.

Landowner Sue Blackshear said she agrees with Director Chounet, and as a citizen, would prefer administration remain with CBGSA.

Director Alan Christensen said there are different methods for the assessment of fees and we need to hear more from legal counsel on how they could be structured.

Director Williams said he thinks pumping fees is a better policy than charging per acre because there are more incentives to use less water.

Mr. Beck said the Board needs to determine if they want to delegate administrative responsibility and cost to the management area that is operated by a third party in the GSP.

#### **MOTION**

Director Cappello made a motion to delegate administrative responsibility and cost to the management area that is operated by the Cuyama Basin Water District. The motion was seconded by Director Tom Bracken and the motion did not pass with a 60% vote (a 75% approval is need for a supermajority vote).

AYES: Directors Anselm, Bracken, Cappello, Christensen, Compton, Klinchuch, Wooster  
 NOES: Directors Albano, Bantilan, Chounet, Williams  
 ABSTAIN: None  
 ABSENT: None

Director Chounet asked if you can modify the plan to delegate responsibility down the road. Mr. Beck said that you could do this. He said for budgeting purposes, they will not include development of management area agreement costs and if the Board wants to pursue this down the road, they will have to add this to the budget.

Director Williams said he thinks this approach is very vague and would like more details added to the plan. Mr. Beck said he and Mr. Melton suggested including in the plan that the CBGSA will administer the management areas but will discuss alternative obligation opportunities with the CBWD.

Director Williams suggested adding an ad hoc of two Board members and two non-Board members to meet with staff to work out these details. Mr. Beck said we are running out of time, are already over-budget, and will not be doing additional work without Board approval. Mr. Beck said they will stick with the above wording in the plan.

#### **e. Update on Sustainability and Climate Change Modeling**

Mr. Melton reported the modeling results of climate change show a slight bump in average precipitation of roughly 1.4% and increased temperature causing an estimated 5.3% increase in evapotranspiration (ET) rates.

Mr. Beck asked Mr. Melton to explain clearly the difference between the 25,000 AF per year overdraft and the 38,000 annual pumping reduction needed to achieve sustainability. Mr. Melton said the difference accounts for how much water needs to be pumped to meet crops requirements, with the factors being ET and irrigation efficiency.

Landowner Steve Gliessman said he is really excited to see the climate change piece in, however, he commented that we are dealing with pretty variable data that scientists are consistently having to update their information and we need to deal with multiple scenarios. He commented that he would like to see more options.

Ms. Carlisle asked if the 27,000 AF per year is the sustainable yield. Mr. Melton and Mr. Beck said yes, but this is a rough estimate under current operating conditions. Ms. Carlisle asked if we will start seeing that terminology in documentation. Mr. Melton said he is unsure of how this terminology will be incorporated because sustainable yield is a function of how we are currently using the basin. Ms. Carlisle asked if there will be a future update for the central tendency. Mr. Melton said the model will need to be updated over time.

Director Williams said he believes very much in climate change, but for the purpose of the substantive work, the climate change does not matter much since the 55% reduction will not be the most challenging, but the initial 1% reduction will be the most challenging.

**f. Direction on Implementation Plan Interim Milestones (i.e. Glide Path)**

Mr. Melton provided an overview of the GSP implementation timeline that included language for management area development and administration. Mr. Melton said on the glide path there are two fundamental questions, 1) how much to reduce and 2) the pathway to get there. Mr. Melton said they are recommending no planned pumping allocations until more data is acquired.

Mr. Beck reminded the Board that the first five years are the most critical, and after that there will be more data.

Director Williams said the first couple percent are the most important and 2021 is a very reachable number for the initial reduction. He commented that we would want to have room for doing reductions, and recommended 2 years of reductions, then halting reductions for 2 years for evaluation. Director Williams stated that this will allow for a truth test of the model versus actual data and will provide a chance to develop new pumping allocations.

Mr. Beck asked Mr. Melton to explain the cumulative storage. Mr. Melton said the model shows there is roughly 18 million AF in the Cuyama Basin based on geologic formations and hydrology. He said the estimated change in storage for the blue line in the glide path model of 260,000 AF represents roughly 1.4% of the total estimated basin storage.

Mr. Beck said the Board needs to decide when it begins implementing reductions and what reductions it wants to implement in the first five years.

SAC Chair Jaffe said she really appreciates the team putting together the change in storage in the glide path tool.

Ms. Carlisle asked for clarification regarding the 100,000 AF of lost groundwater storage between the glide paths options. Mr. Beck said these are examples and staff are not recommending these glide paths. Ms. Carlisle recalled that we discussed what undesirable results were and how we were using pumping as a proxy for groundwater storage. Mr. Beck said that is the storage component of this.

Ms. Carlisle asked if there is a big gap in the glide path, then is the pumping not equal and would there be undesirable results. Mr. Beck said the undesirable results can occur in a localized area. He said the basin can be balance, but localized areas can be in violation of thresholds, so you need to look at both tools when evaluating sustainability. Mr. Beck said we are not trying to back into an acceptable storage number.

Ms. Blackshear asked if they CBGSA can focus on the first 5 years. Mr. Beck said staff's recommendation is to focus on the first 5 years for today.

Vice Chair Compton requested feedback from the Board on the initial year for reductions.

<b>Director</b>	<b>Preferred Year for Initial Reduction</b>
<b>Albano</b>	2024
<b>Anselm</b>	2021
<b>Bantilan</b>	
<b>Bracken</b>	2024
<b>Cappello</b>	2024
<b>Chounet</b>	2021
<b>Christensen</b>	2024
<b>Compton</b>	2021-22
<b>Klinchuch</b>	2023-24
<b>Williams</b>	2021
<b>Wooster</b>	2023-24

Mr. Blakslee reported that four (4) Board members voted for 2021-2022, and six (6) for 2023-2024.

Mr. Beck provided his thoughts on the bookends. He said if we start working on the reductions on February 1, 2020, he does not believe we can get it done in that amount of time. Mr. Melton and Mr. Beck believe that 2022 is a very ambitious goal for starting.

Director Anselm asked if we are talking water year. Mr. Beck said he is assuming 2020 means February 1, 2020. He assumes other dates mean starting at the first of the year.

Director Christensen asked if Director Williams was saying an adjudication can occur and what would be the practical effect. Director Williams said the sooner we get going the sooner we will know what process we will have (adjudication, etc.).

Director Cappello said from an agriculture perspective you are not the one being cut and having to deal with the financial issue. He said W&C is saying it would be pushing it to get it to 2022.

Director Chounet said regardless of when we start or the amount of data we have, we know we will need to reduce pumping.

Vice Chair Compton restated that it is unrealistic to go before 2022 and suggested starting in the later part of 2022 or early part of 2023.

Director Wooster said this plan has been presented as what we need to do, and like the weather, we really do not know is going to happen. She suggested that we monitor and gather more data to gain a greater understanding before we reduce pumping.

Mr. Beck asked if a cut of 10% in the first 5 years is acceptable.

Director Bantilan said there is not a lot of water that will become available and what is the reason for waiting to reduce pumping. Director Wooster said we do not know about regional variability.

Director Williams suggested reducing 3.3% per year for the first few years.

Director Albano said he believes if we cut that soon, we will not have it figured out right.

Director Cappello commented that they might need 2-3 years to readjust contracts on sales and inform customers that we will not be growing for them. He said they are dealing with a financial and viability issue.

Mr. Beck said by end of 2023 you would experience a 5% reduction. He suggested maintaining the idea of compliance until end of 2023 and having farmers submit their plan for reduction in the beginning of 2023.

Director Cappello said different farmers have different water needs during the year, and Director Wooster commented that your crop schedule can change because of the weather.

Director Albano said each entity will have a number of pumping reduction and this has to be in place by the end of 2022 if we cut in 2023.

Mr. Beck said we have until January 31, 2020 to figure out how were going to reduce. If the plan is in place in 2020, we have all of 2020 and 2021 to figure out a pumping allocation plan that would be submitted in January 2022. Director Cappello said if we set the date to January 2022 or 2023, in that calendar year, you have to reduce 5%. By end of year (2023), landowners turn in ET values to show that they did it. If they did not, CBGSA decides what to do with landowners that did not comply. He said sometimes the weather is bad, and you have to chop a crop off which changes planting and therefore, farmers need a full calendar year to know what they are allotted. Mr. Melton said he agrees with the sentiment.

#### **MOTION**

Director Williams made a motion to conceptually approve a glide path the begins with a pumping allocation plan in 2022, with 5% of actual reductions verified in 2023, and 5% of actual reductions verified in 2024. The motion was seconded by Director Albano and the motion passed with 100% vote.

AYES: Directors Albano, Anselm, Bantilan, Bracken, Cappello, Chounet, Christensen, Compton, Klinchuch, Williams, Wooster  
 NOES: None  
 ABSTAIN: None  
 ABSENT: None

**MOTION**

Director Wooster made a motion to straight-line the glide path from 2024 to 2040 (equals 5.625% per year). The motion was seconded by Director Albano and the motion did not pass with a 66.67% vote.

AYES: Directors Albano, Anselm, Bracken, Cappello, Christensen, Compton, Klinchuch, Wooster  
 NOES: Directors Bantilan, Chounet, Williams  
 ABSTAIN: None  
 ABSENT: None

**MOTION**

Director Williams made a motion to straight-line the glide path from 2024 to 2038 (equals 6.5% per year). The motion was seconded by Director Chounet and the motion passed with a 100% vote.

AYES: Directors Albano, Anselm, Bantilan, Bracken, Cappello, Chounet, Christensen, Compton, Klinchuch, Williams, Wooster  
 NOES: None  
 ABSTAIN: None  
 ABSENT: None

**i. Direction on Implementation Financing Plan**

Mr. Melton said we will estimate the management area activities costs in the implementation plan since the Board took action to keep delegation of the management areas with the CBGSA for the time being.

Director Wooster suggested not having the dollar amounts of the assessments in the plan. Director Williams said his preference is to just put pumping fees but understands if we are not there yet. Director Albano said he is fine with the one million dollar budget for these first couple years, as long as the budget decreases with the reduction in water.

Director Cappello also suggested leaving the numbers out and preferred to have a full array of options in the plan.

The Board provided direction on including the following financing options in the plan: fees paid by pumpers, assessments by acre, and/or a hybrid approach. At Director Wooster's suggestion Vice Chair Compton requested that grazing is included as an example under de minimis use.

**g. Stakeholder Engagement Update**

GSP outreach consultant the Catalyst Group's Charles Gardiner provided an update on stakeholder engagement which is provided in the Board packet.

**i. Review of Public Draft Comment Period**

Mr. Gardiner said the public draft GSP 30-day review period will be set when the document is released.

**8. Groundwater Sustainability Agency**

**a. Notice of Standing Advisory Committee Resignation**

Mr. Beck reported that Claudia Alvarado informed the SAC that unfortunately, she will no longer be able to participate in the SAC and resigned from the Committee. He said that the SAC is recommending a replacement. Directors Chounet, Williams, and Cappello volunteered to meet as the ad hoc.

Ms. Carlisle requested that the following letter be placed in the minutes and addressed to the Board Directors of the CBGSA:

*I am writing today to address the issue of the composition of the Standing Advisory Committee and its representation of the residents of the Cuyama Valley.*

*With the resignation of Claudia Alvarado due to personal and family commitments, the Standing Advisory Committee is now left with a vacant seat on the Committee. As you may remember, at the February 7, 2018 meeting of the Groundwater Sustainability Agency, numerous members of the Cuyama Valley community spoke in favor of adding two seats to the then 7-member committee and designating those two seats to be held by members of the local Hispanic community. The intention was to provide more equitable representation of the demographics of the Cuyama Valley. At the March 7, 2018 meeting of the Groundwater Sustainability Agency, the Board unanimously voted to add two seats to the Standing Advisory Committee and designate them to be filled by members of the Hispanic community.*

*According to the 2010 U.S. census, approximately 50% of valley residents are Hispanic and, as such, are "beneficial users" of groundwater. The needs and concerns of the Hispanic community should be equally considered in the Sustainable Groundwater Management Act implementation process, and while two seats out of nine does not constitute equal representation, it's a start.*

*Including input from members of the Hispanic community will serve to strengthen the creation of the Groundwater Sustainability Plan, and the implementation of the Groundwater Sustainability Plan in future years. It is clear that the Groundwater Sustainability Agency and the Standing Advisory Committee have become, and will be, important entities in the Cuyama Valley for years to come. Ensuring equitable representation by all members of the Cuyama community will ensure that the spirit and letter of the Sustainable Groundwater Management Act legislation are fulfilled with regard to Section 10723.2 of the Act: "Consideration of All Interests of All Beneficial Uses and Users of Groundwater."*



*The Cuyama Valley Family Resource Center is respectfully requesting that the Standing Advisory Committee recommend to the Groundwater Sustainability Agency that the vacant seat be filled as soon as possible by a member of the Hispanic Community.*

*Thank you.*

The Board provided direction to begin the process of filling the SAC position and Mr. Beck said, since this is an out-of-scope activity, we will estimate the cost of administering this for the Board's approval at next month's meeting.

**b. Report of the Executive Director**

Mr. Beck reported that he, W&C's Senior Water Resources Engineer Lyndel Melton, Mr. Van Lienden and Mr. Blakslee developed the draft Fiscal Year 2019-20 budget, and met and discussed the budget with the Budget Ad hoc on March 28, 2019 and on April 1, 2019.

Mr. Beck reported that we will not be doing additional out-of-scope meetings going forward. He said we are in a bad spot with the budget and we are trying to make it up. He reported that at the May 1, 2019 Board meeting they will be presenting the Fiscal Year 2019-20 budget and cashflow.

Mr. Beck reported that DWR regional representative Anita Regmi will be attending the May 1, 2019 CBGSA Board and workshop meetings.

**c. Progress & Next Steps**

Mr. Beck provided an update on the near-term GSP schedule and accomplishments and next steps, which are summarized in the Board packet.

**d. Report of the General Counsel**

Nothing to report.

**9. Financial Report**

**a. Financial Management Overview**

Mr. Blakslee provided an overview of the CBGSA's financial activities.

**b. Financial Report**

Mr. Blakslee provided an overview of the February 2019 financial report and is included in the Board packet.

**c. Direction on Annual Audit**

Mr. Blakslee recommended soliciting one-year and two-year audit bids from the following Bakersfield firms: Daniells Phillips Vaughan & Bock, Brown Armstrong, and Barbich Hooper King Dill Hoffman. This to ensure it is cost effective to proceed with a two-year audit.

Santa Barbara County Water Agency's Water Resources Program Manager Matt Young said he just heard from his auditor-controller and they are requesting a one-year audit.

**MOTION**

A motion was made by Director Albano and seconded by Director Wooster to solicit audit proposals from firms for one- and two-year periods. The motion passed unanimously.

- AYES: Directors Albano, Anselm, Bantilan, Bracken, Cappello, Chounet, Christensen, Compton, Klinchuch, Williams, Wooster
- NOES: None
- ABSTAIN: None
- ABSENT: None

**d. Payment of Bills**

Mr. Blakslee reported on the payment of bills for the month of February 2019.

**MOTION**

A motion was made by Director Anselm and seconded by Director Bantilan to approve payment of the bills through the month of February 2019 in the amount of \$93,694.98 pending receipt of funds. The motion passed unanimously.

- AYES: Directors Albano, Anselm, Bantilan, Bracken, Cappello, Chounet, Christensen, Compton, Klinchuch, Williams, Wooster
- NOES: None
- ABSTAIN: None
- ABSENT: None

**10. Reports of the Ad Hoc Committees**

Nothing to report.

**11. Directors' Forum**

Nothing to report.

**12. Public comment for items not on the Agenda**

**13. Adjourn**

Vice Chair Compton adjourned the CBGSA Board at 7:26 p.m.

Minutes approved by the Board of Directors of the Cuyama Basin Groundwater Sustainability Agency the 1st day of May 2019.

BOARD OF DIRECTORS OF THE  
CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Chair: \_\_\_\_\_

ATTEST:

Secretary: \_\_\_\_\_

DRAFT



TO: Board of Directors  
Agenda Item No. 5

FROM: Roberta Jaffe, Standing Advisory Committee Chair

DATE: May 1, 2019

SUBJECT: Report of the Standing Advisory Committee

**Issue**

Report on the Standing Advisory Committee meeting.

**Recommended Motion**

None – information only.

**Discussion**

Provided as Attachment 1 is a report on the April 25, 2019 Standing Advisory Committee (SAC) from SAC Chair Roberta Jaffe and Vice Chair Brenton Kelly.

The purpose of this report is to provide the Cuyama Basin Groundwater Sustainability Agency Board of Directors with SAC input on the various Groundwater Sustainability Plan (GSP) components and issues that will better equip the Board when making decisions on GSP-related issues.

**Standing Advisory Committee Report****Meeting: April 25, 2019**

Submitted to the GSA Board April 29, 2019

By Roberta Jaffe, SAC Chair

Brenton Kelly SAC Vice-Chair

8 of 8 SAC members were present (1 over telephone). There were approximately 8 people in the audience including GSA Director Jane Wooster. GSA Board Chair Yurosek and DWR regional representative Anita Regemi joined us via phone.

**There were 4 main areas of discussion:**

1. Public review and adoption process
2. Overview of each chapter of public draft
3. Review of The Technical Forums concerns regarding the numerical model
4. May 1<sup>st</sup> workshop and public outreach

**Recommendations to the GSA Board:**

There were no specific recommendations voted on at the meeting.

**Key Discussions:****Pubic review and adoption process:**

There will be 3 periods for comment on the GSP: (1) current 30 day review of public draft which ends May 22; (2) 90 day official SGMA comment period between Notice of Intent to Adopt and Public Hearing; (3) 60 day comment period once the GSP is submitted to DWR. General Counsel Joe Hughes clarified questions regarding the second comment period. During this time, the 4 counties have the first 30 days to comment on the GSP, however they do not need to bring it to the County Board of Supervisors meetings for a vote. DWR will have a 2 year review process of the plan which will include technical and legal reviews.

**Overview of Public Draft:**

Brian Van Lienden of Woodard and Curran presented a brief overview of each chapter of the public draft. Some of the questions/comments asked by SAC members and the audience included:

- Executive Summary: concern was expressed that the Summary makes it appear that the whole Basin is in overdraft rather than a specific region.
- Chapter 3, Undesirable Results: concern was discussed that 30% of the representative wells in the whole Basin would need to be below the Minimum Threshold (MT) to trigger an Undesirable Result. This level was not discussed or approved by either the SAC or GSA Board. Concerns included that there are not enough Representative Monitoring wells in all the overdrafted Management Areas to trigger the 30% threshold of an Undesirable Result.
- Chapter 5, Minimum Thresholds, Measurable Objectives Interim Milestones: Concerns were discussed that interim milestones were not considered in the context of the glide slope or pathway to sustainability. On the part of Woodard & Curran there was an assumption that milestones would be equivalent to the MTs. Members of the SAC wondered if this is the milestone the GSA wants or whether we should be aiming for Measurable Objectives.

- General: A request was made that a list of important decisions that were made by Woodard and Curran that were not reviewed by the GSA Board, such as identifying the Undesirable Results and Interim Milestones, could be provided to the Board.

**Numerical Model:**

Both EKI's response to the model and Woodard and Curran's explanation were briefly discussed. Explanation was given of how EKI's response will be reviewed and how Woodard and Curran took an average to reach their model inputb. Comments included how the numbers Woodard and Curran used were in line with those of multiple past groundwater studies of the Basin.

**May 1<sup>st</sup> Workshop and Public Outreach**

The importance of the May 1<sup>st</sup> workshop and general community outreach during the comment period was emphasized. Requests were made that the workshop be focused on the key points as laid out in the Executive Summary and minimize graphs and technical information. It was also suggested that DWR representatives who will be present at the workshop, be given an opportunity to take questions from the workshop participants. In general there was concern about how to make the public draft document available to Cuyama Valley residents especially those without online access. Printed copy of the Executive Summary in both English and Spanish will be available. Ray Shady of Grapevine Capital (Northfork Vineyards) offered to print a copy of the full public draft to have available for public review and Hallmark will also provide thumb drives. The Family Resource Center will coordinate efforts to inform and make these documents accessible to Cuyama Valley residents.

**Summary:**

With this meeting it was clear that we have entered a new phase in the GSP process. The public draft is released including several chapters that have not been previewed and we are in a period of final public draft review and comment. Also much of the discussion brought out questions about the implementation process as we move toward developing a work plan with details for implementation. Clarifications were addressed regarding the comment process by General Counsel Hughes. An overview of the Public Draft was given by Woodard and Curran staff Brian Van Lienden. Soliciting and engaging community input was emphasized during the three comment periods.



TO: Board of Directors  
Agenda Item No. 6

FROM: Brian Van Lienden, Woodard & Curran (W&C)

DATE: May 1, 2019

SUBJECT: Technical Forum Update

**Issue**

Update on the Technical Forum.

**Recommended Motion**

None – information only.

**Discussion**

At the request of Cuyama Valley landowners, Cuyama Basin Groundwater Sustainability Agency Groundwater Sustainability Plan (GSP) consultant Woodard & Curran (W&C) has been meeting monthly with technical consultants representing landowners to discuss W&C's approach and to provide input where appropriate.

A summary of the topics discussed at the April 22, 2019 technical forum meeting is provided as Attachment 1, and the next forum date is May 24, 2019.

## MEETING MEMORANDUM

PROJECT: Cuyama Basin Groundwater Sustainability Plan Development

MEETING DATE:  
4/22/2019

MEETING: Technical Forum Conference Call

ATTENDEES: Matt Young (Santa Barbara County Water Agency)  
 Matt Naftaly (Dudek)  
 Neil Currie (Cleath-Harris Geologists)  
 John Fio (EKI)  
 Jeff Shaw (EKI)  
 Dennis Gibbs (Santa Barbara Pistachio Company)  
 Brian Van Lienden (Woodard & Curran)  
 Sercan Ceyhan (Woodard & Curran)  
 Micah Eggleton (Woodard & Curran)

### 1. AGENDA

- Document comments on GSP numerical modeling
- Discuss potential additional issues for Technical Forum

### 2. DISCUSSION ITEMS

The following table summarizes comments raised before and during the conference call.

These items will be addressed as part of updating the GSP Public Draft.

Item No.	Comment	Commenter
1	There could be significant improvements in the model geometry in the western Basin that better reflects the geology.	Neil Currie
2	In their analysis in the vicinity of the CCSD, they have not been able to confirm the presence of a fault or the model hydraulic conductivities used in the model.	Matt Naftaly
3	Model data files for the GSP current and future conditions analyses would be helpful for our analysis	Matt Naftaly
4	The GSP should include an analysis of the sensitivity to different parameters related to development of the water budget. Change in storage and overdraft estimates should be presented with a range of uncertainty.	Jeff Shaw
5	The term deep percolation is misleading because the tritium analysis previously performed did not support the occurrence of deep percolation – it should be termed infiltration or recharge. Also, infiltration or deep percolation numbers should be broken out by zone.	Dennis Gibbs



6	There have been 6 previously published studies of the Cuyama Basin – the range of overdraft estimated in those studies could be a measure of uncertainty.	Dennis Gibbs
7	There would be benefit in having another Technical Forum call to discuss technical questions regarding the Public Draft	Dennis Gibbs, Jeff Shaw
8	During GSP implementation, it may be beneficial for the Technical Forum to provide input on potential monitoring sites.	Dennis Gibbs, Jeff Shaw

# Cuyama Basin Groundwater Sustainability Agency

## Technical Forum Update

May 1, 2019



# April 22<sup>nd</sup> Technical Forum Discussion

- Documented comments on GSP Numerical Modeling
- Discussed additional potential issues for discussion by Technical Forum
- No additional Technical Forum meetings are scheduled

# Technical Forum Members

- Catherine Martin, San Luis Obispo County
- Matt Young, Santa Barbara County Water Agency
- Matt Scrudato, Santa Barbara County Water Agency
- Matt Klinchuch, Cuyama Basin Water District
- Jeff Shaw, EKI
- Anona Dutton, EKI
- John Fio, EKI
- Dennis Gibbs, Santa Barbara Pistachio Company
- Neil Currie, Cleath-Harris Geologists
- Matt Naftaly, Dudek



TO: Board of Directors  
Agenda Item No. 6a

FROM: Brian Van Lienden, Woodard & Curran (W&C)

DATE: May 1, 2019

SUBJECT: Discussion on Numerical Model

**Issue**

Discussion on the numerical model.

**Recommended Motion**

None – information only.

**Discussion**

Woodard & Curran (W&C) understands there is a measure of uncertainty with the numerical model and have documented that uncertainty in the Groundwater Sustainability Plan (GSP).

On Friday, April 19, 2019, Cuyama Basin Water District's (CBWD) consultant EKI provided a letter to W&C that expresses thoughts on how they think uncertainty should be characterized in the GSP.

In response to EKI's memo, W&C will augment its documentation on model uncertainty and will include stakeholder comments on this in the GSP.

A memo from W&C on the model uncertainty is provided as Attachment 1, and a memo from EKI regarding model uncertainty is provided as Attachment 2.

## MEMORANDUM

TO: Cuyama Basin GSA Board of Directors and Standing Advisory Committee

CC: Jim Beck, Taylor Blakslee

FROM: Lyndel Melton

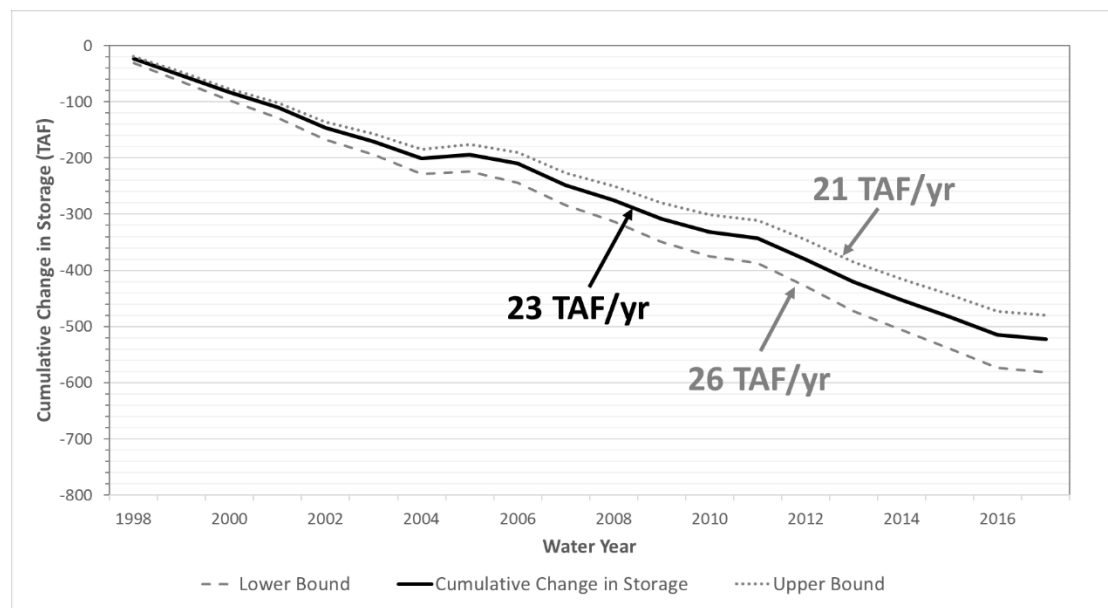
DATE: April 24, 2019

RE: Numerical Model Uncertainty

Woodard & Curran is in receipt of comments from EKI addressing uncertainty in the numerical model and implications upon the predicted basin overdraft. A copy of the memorandum from EKI is attached. In addition, we have requested all parties to the Technical Forum provide any comments they may have on the numerical model so that we may address not only EKI's comments, but all Technical Forum comments. Once we have received any additional comments, we will summarize those comments and will prepare an addendum that addresses the comments received and our response to those comments. This addendum to the GSP will be provided to the Board of Director, the Standing Advisory Committee, and the public for review and comment.

The Draft GSP includes acknowledgement of uncertainty in the numerical modeling. References to uncertainty in the numerical model are included in the Executive Summary, the Draft GSP, and in Appendix C, CBWRM Model Documentation. The figure below, which is included in Appendix C to the Draft GSP, shows the results of our internal evaluation of areas of uncertainty associated with the historical annual change in storage represented in the numerical model. This evaluation was prepared prior to receiving the EKI memorandum, and their memorandum was prepared without having seen our evaluation of uncertainty. We intend to review our evaluation of model uncertainty once we have received any additional comments on the numerical model.

Historical Annual Change in Storage



19 April 2019

## MEMORANDUM

To: Matt Klinchuch, Cuyama Basin Water District (CBWD)  
Derek Yurosek, CBWD

From: Jeff Shaw, EKI  
John Fio, EKI  
Dave Leighton, EKI

Subject: **Model Uncertainty and Predicted Basin Overdraft  
Cuyama Basin Groundwater Flow Model**  
(EKI B70069.00)

Based on EKI's partial review of the Cuyama Basin Integrated Water Resources Model (CBIWRM, or "the model"), there are a few key points to articulate regarding the use of modeling results to prepare the Groundwater Sustainability Plan for the Cuyama Basin.

**Uncertainty addressed by SGMA.** SGMA regulations define uncertainty, in part, as the lack of understanding of the basin setting that significantly affects an Agency's ability to develop sustainable management criteria and appropriate projects and management actions (23-CCR §351 (ai)). SGMA regulations state that an Agency shall take into account the level of uncertainty associated with the basing setting when developing projects and management actions (23-CCR §354.44 (d)).

**Uncertainty of Model Predictions.** Transient numerical models like the CBIWRM are based substantially on historical data and employ physical or empirical relationships to project future changes. Models approximate real-world conditions, and therefore by definition include error (model uncertainty). Moreover, datasets available to construct the model include gaps and errors that also contribute to model uncertainty.

**Sensitivity of Model Predictions to Changes in Inputs.** Some model input is more "sensitive" than others, meaning that a small change in the modeled value results in a relatively large change in model-calculated output. Model sensitivity is relevant when the range in model-calculated output based on the range of uncertainty in model input is great enough to change the decisions made based on the model results.

**Uncertainty in Predicted Changes in Groundwater Storage.** Predictions of future overdraft by the model have so far been presented as averages of annual values, or as time-series of cumulative groundwater storage losses. Model results have been presented as single numbers or definitive time-series plots without depiction or consideration of the effects of uncertainty that demonstrably exists within the model. Decisions based on those results, as presented, will not have been equipped to consider the range of possible outcomes, i.e., how wrong they might be.

For example, our preliminary model review identifies how uncertainty in a single model input (horizontal conductivity of the Morales Formation) contributes to substantial uncertainty in predicted groundwater storage loss as calculated by the model.

- The model's representation of water-transmitting properties (horizontal hydraulic conductivity, or "Kh") appears to be inconsistent with USGS field-based data in some units. Figure 1 uses statistical box plots to compare the range in reported measured Kh values for the major formations represented by the three model layers to values used in the model. 52% to 71% of the measured Kh values fall within the range delineated by the blue boxes in Figure 1. The red brackets to the left of each boxplot indicate the range in modeled horizontal hydraulic conductivity for the corresponding formations and model layers.
- Figure 1 shows that the range in Kh values for the Younger Alluvium (Model Layer 1) and Older Alluvium (Model Layer 2) generally is consistent with the range in measured values of Kh (i.e., substantial overlap exists between the measured values represented by the box plots, and the modeled ranges represented by the red brackets).
- In contrast, the modeled Kh of the Morales Formation (Model Layer 3) is 10 to 100 times lower than measured Kh values (the modeled range represented by the red bracket is smaller and much lower than the range in actual values represented by the box plot).
- When the Kh values specified in the model for Model Layer 3 (Morales Formation) are increased by factors of 10 and 100 to make the model inputs more in agreement with field-measured data, the model results indicate that model-calculated storage loss within the Cuyama Basin Water District decreases by 25% to 50% (see Figure 2). The Cuyama Basin Water District represents 34% of the basin area, thus, this uncertainty in predicted storage loss is highly significant. We noted during our review that incorporation of the more-realistic Kh values into the model does not adversely affect model calibration (comparisons between measured and model-calculated water levels) at locations observed within Cuyama Basin Water District (Figure 3).

**Recommendations.** EKI recommends that the GSA Board refrain from making decisions related to Projects and Management Actions or pumping allocations based solely on the future overdraft conditions projected by the CBWIRM, as currently presented. It is important to remember that models do not make decisions. Rather, planners and managers make decisions based on model results, and those decisions include other relevant information. While the model is a potentially useful tool for projecting changes in basin conditions in response to proposed management actions, decisions based on model results must consider model uncertainty (how wrong the modeled projections might be).

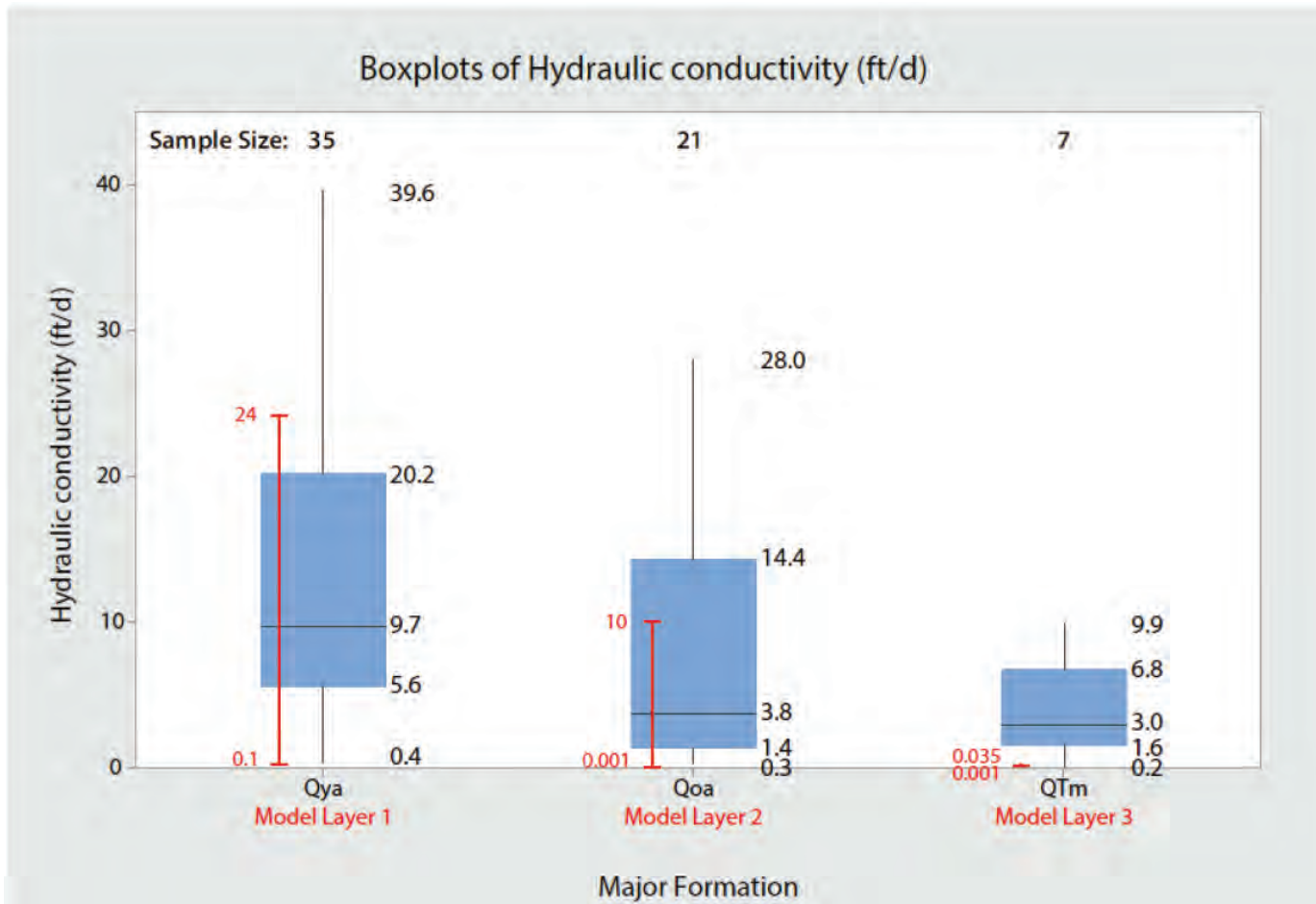
As noted above, SGMA regulations state that an Agency shall take into account uncertainty associated with the basin setting when developing projects and management actions (23-CCR §354.44 (d)).



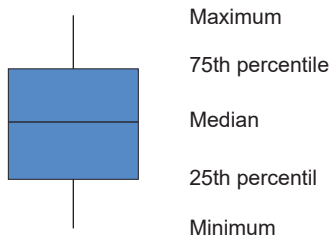
Accordingly, the uncertainty in model-projected conditions must be considered when developing projects and management actions.

The information provided by the CBWIRM should be provided to the GSA Board in a clear graphical form that acknowledges model uncertainty. At a minimum, the following is needed to support the Cuyama GSA Board decision-making process.

1. Identify the most sensitive model input parameters and compare the modeled values to measured values, when available. The lack of measured values for model input, if any, is itself indicative of model uncertainty.
2. Expand current graphics to present the range of uncertainty in projected groundwater levels, changes in storage, and other water budget components owing to uncertainty in the most sensitive model input parameters, to allow decisionmakers to understand the range of outcomes that are predicted by the model, rather than just one realization or scenario.
3. Evaluate the effect of uncertainty in model-projected water levels in wells on sustainable management criteria such as minimum thresholds.



**Legend**



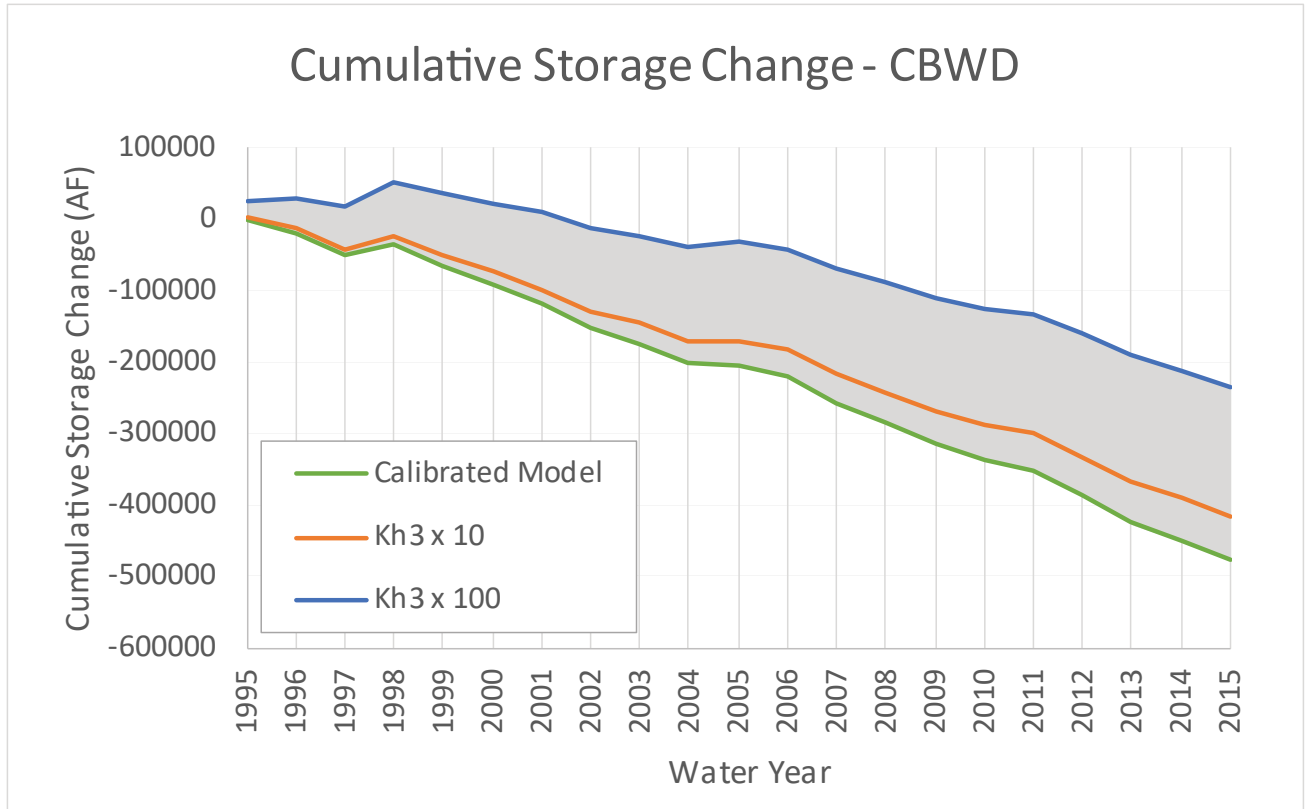
**Notes**

Major Formations  
 Qya - Younger alluvium  
 Qoa - Older alluvium  
 QTm - Morales Formation

**Sources**

Measured values from Everett, et. al., 2013, Geology, Water-Quality, Hydrology, and Geomechanics of the Cuyama Valley Groundwater Basin, California, 2008-12, U.S. Geological Survey Scientific Investigations Report 2013-5108.  
 Modeled values extracted from the Cuyama Integrated Water Resource Model.

**DRAFT Comparison of Published Horizontal Hydraulic Conductivity Values with those use in the Cuyama Basin Integrated Water Model**



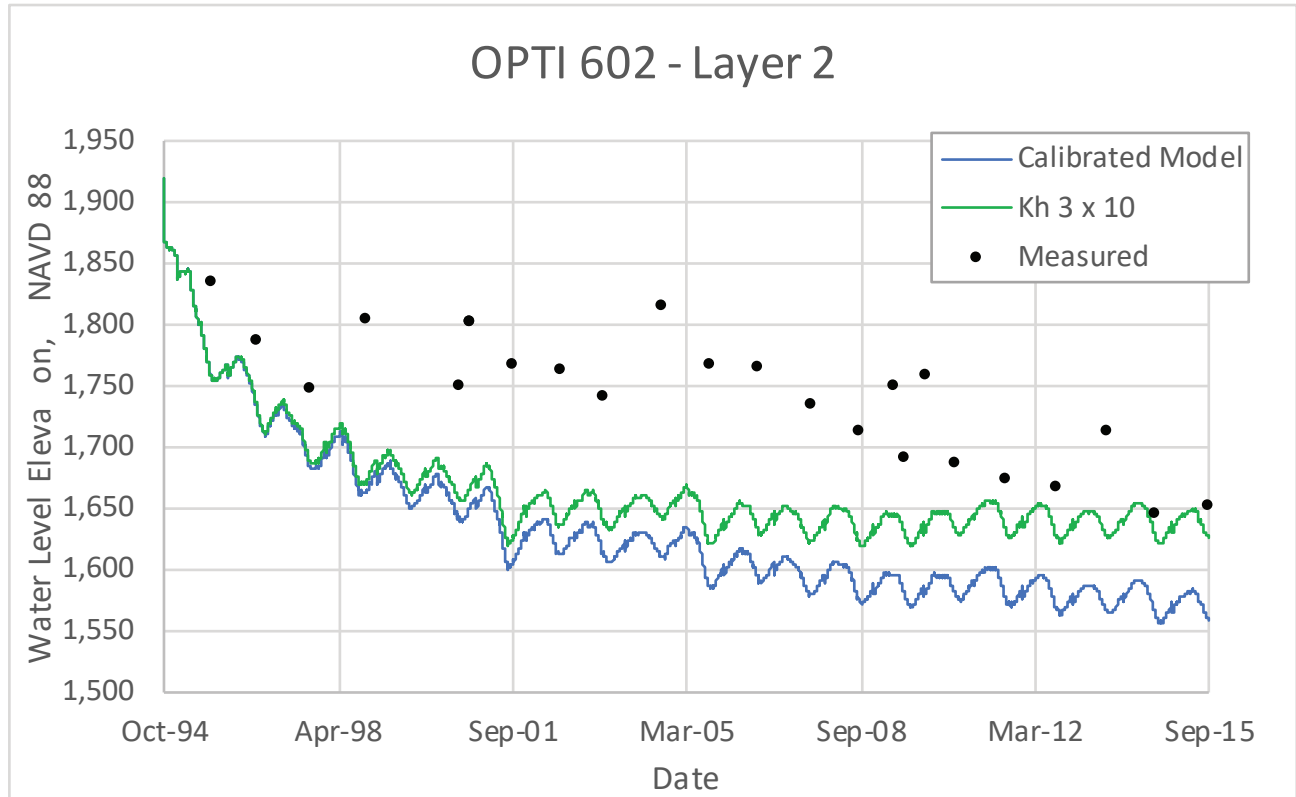
**DRAFT**

**Sensitivity of Cumulative Storage Change to Changes in Model Layer 3 Horizontal Hydraulic Conductivity**

Cuyama Basin Water District  
 Cuyama Valley, CA  
 April 2019  
 EKI B70069.00



**Figure 2**



**DRAFT**

**Sensitivity of Water Level Elevation to Changes in Model Layer 3 Horizontal Hydraulic Conductivity**

Cuyama Basin Water District  
Cuyama Valley, CA  
April 2019  
EKI B70069.00



**Figure 3**



TO: Board of Directors  
Agenda Item No. 7a

FROM: Brian Van Lienden, Woodard & Curran (W&C)

DATE: May 1, 2019

SUBJECT: Groundwater Sustainability Plan Update

**Issue**

Update on the Cuyama Basin Groundwater Sustainability Agency Groundwater Sustainability Plan.

**Recommended Motion**

None – information only.

**Discussion**

Cuyama Basin Groundwater Sustainability Agency Groundwater Sustainability Plan (GSP) consultant Woodard & Curran's GSP update is provided as Attachment 1.

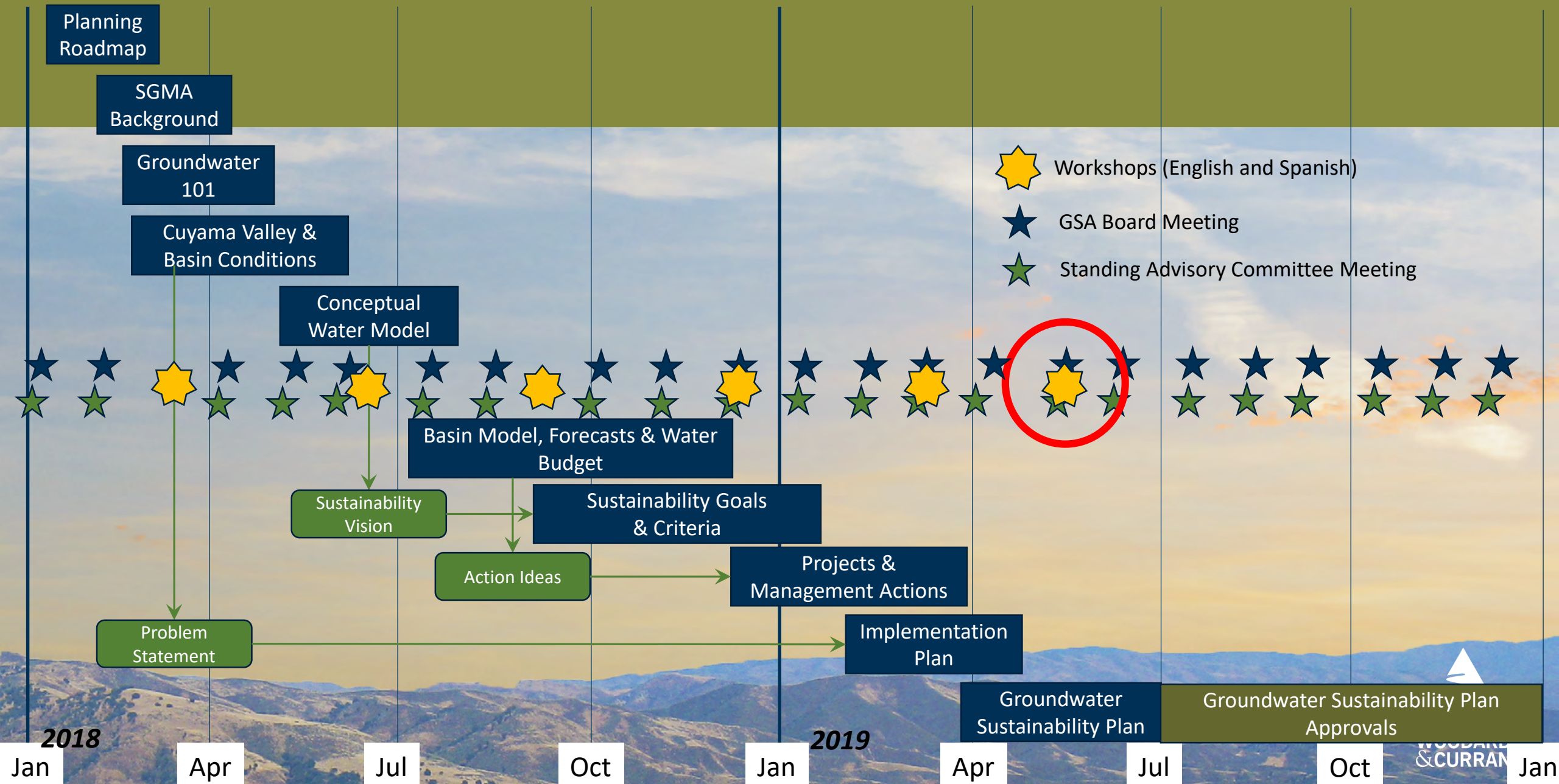
Cuyama Basin Groundwater Sustainability Agency

Groundwater Sustainability Plan Update

May 1, 2019



# Cuyama Basin Groundwater Sustainability Plan – Planning Roadmap <sup>38</sup>

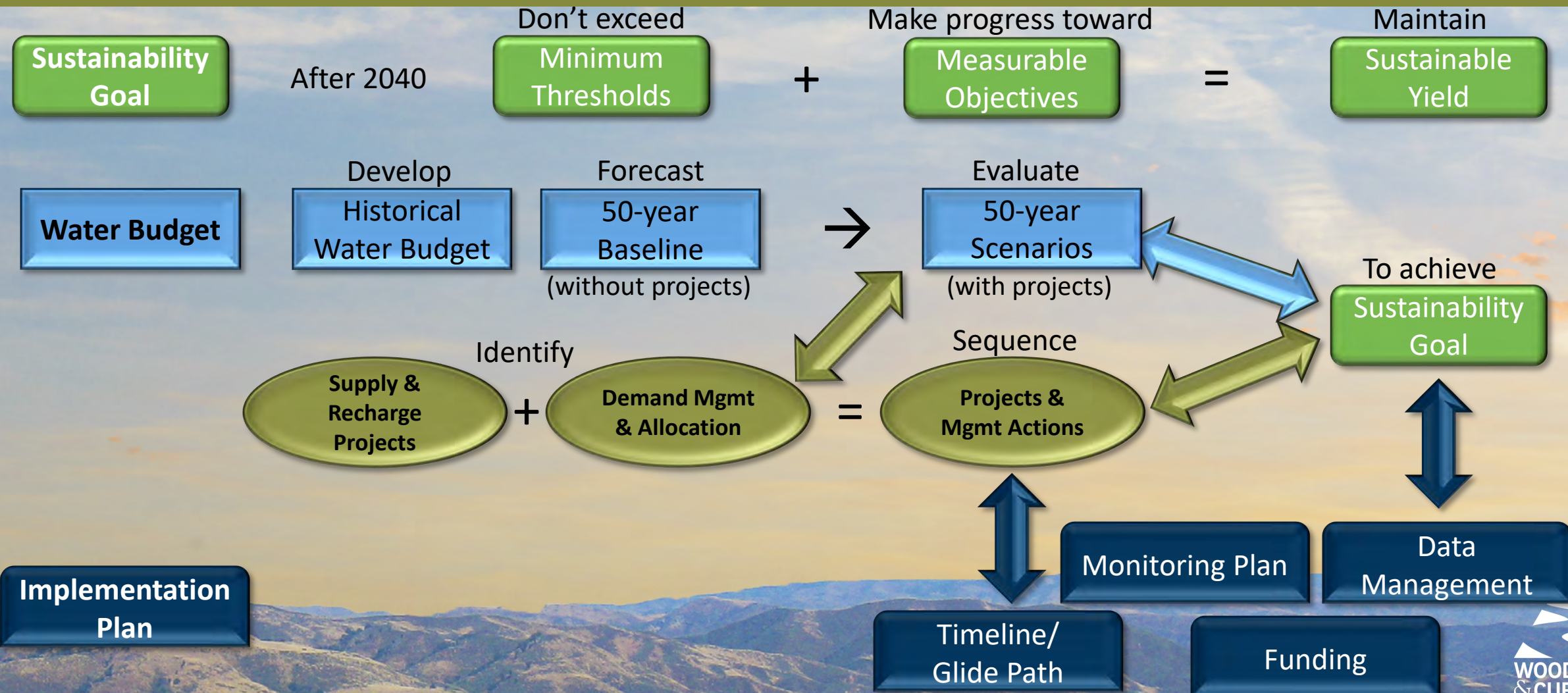


# April GSP Accomplishments

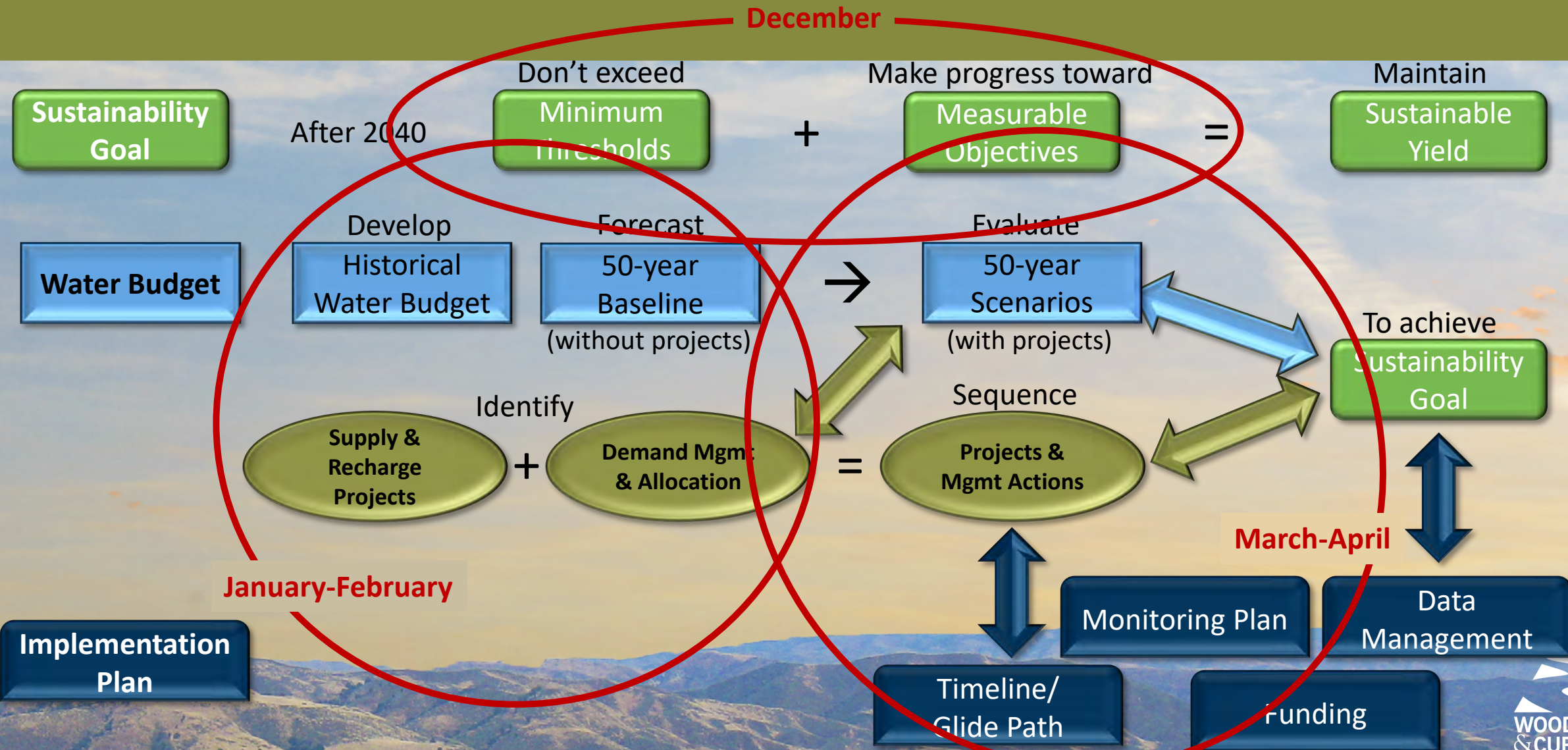
- ✓ Developed draft Projects & Actions and Implementation Plan GSP sections
- ✓ Developed draft Executive Summary
- ✓ Updated Water Budget and Sustainability Threshold GSP sections in response to stakeholder comments
- ✓ Submitted GSP Public Draft, including all sections, for review
- ✓ Submitted initial invoice to DWR for payment on SGMA grant



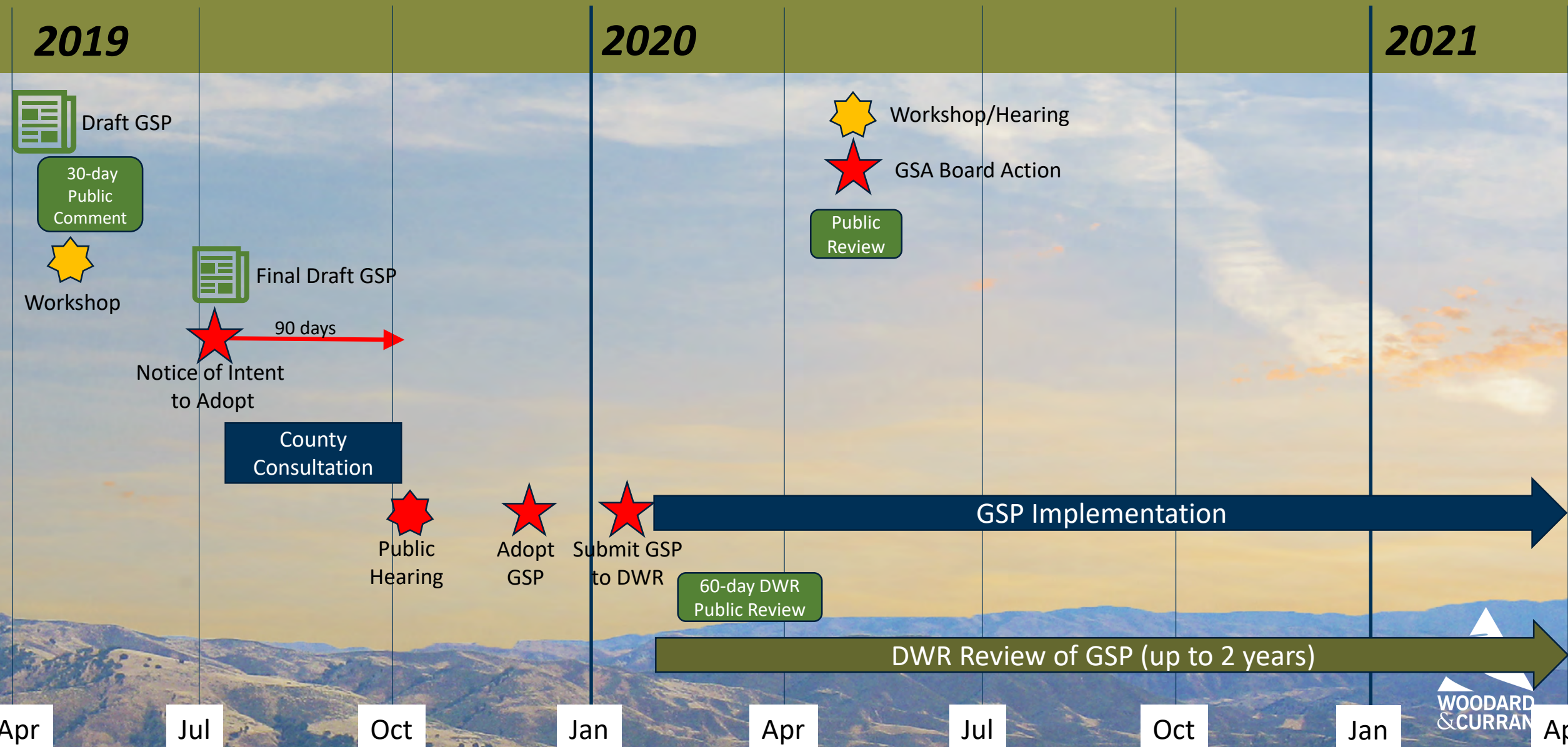
# GSP Discussion Approach & Terminology



# GSP Discussion Approach & Terminology



# GSP Public Review and Adoption Process





TO: Board of Directors  
Agenda Item No. 7b

FROM: Brian Van Lienden, Woodard & Curran (W&C)

DATE: May 1, 2019

SUBJECT: Discussion on GSP Public Draft

**Issue**

Discussion on the Groundwater Sustainability Plan public draft.

**Recommended Motion**

None – information only.

**Discussion**

An overview on the Groundwater Sustainability Plan (GSP) public draft is provided as Attachment 1. The draft GSP Executive Summary is provided as Attachment 2. The comment and response matrices for the Sustainability Thresholds section, Water Budget section, and Placeholder section are provided as Attachment 3.

# Cuyama Basin Groundwater Sustainability Agency

## Discussion on GSP Public Draft

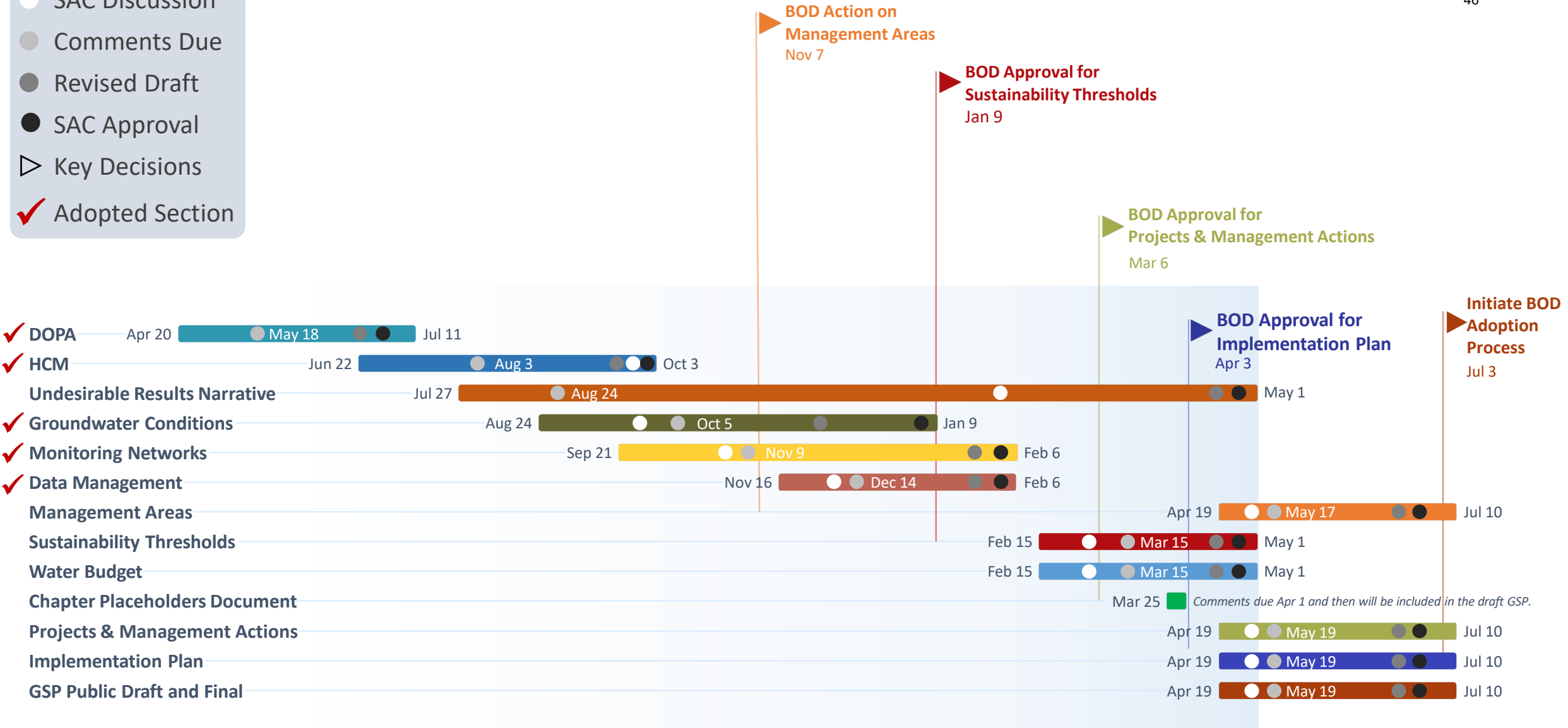
May 1, 2019



# GSP Sections

1. Introduction
  - 1.1 Intro & Agency Information
  - 1.2 Plan Area
  - 1.3 Notice and Communication
2. Basin Settings
  - 2.1 HCM
  - 2.2 GW Conditions
  - 2.3 Water Budget
  - Appendix:* Numerical GW Model Documentation
3. Undesirable Results
  - 3.1 Sustainability Goal
  - 3.2 Undesirable results statements
  - 3.2 ID Current Occurrence
4. Monitoring Networks
  - 4.1 Existing Monitoring Used
  - 4.2 GSP Monitoring Networks
5. Sustainability Thresholds
  - 5.1 Threshold Regions
  - 5.2 Minimum Thresholds, Measurable Objectives, Margin of Operational Flexibility, Interim Milestones
6. Data Management System
  - Appendix:* DMS User Guide
7. Projects & Management Actions
8. Implementation Plan

- SAC Discussion
- Comments Due
- Revised Draft
- SAC Approval
- ▷ Key Decisions
- ✓ Adopted Section



2018

2019

Apr Jun Aug Oct Dec Feb Apr Jun

Today

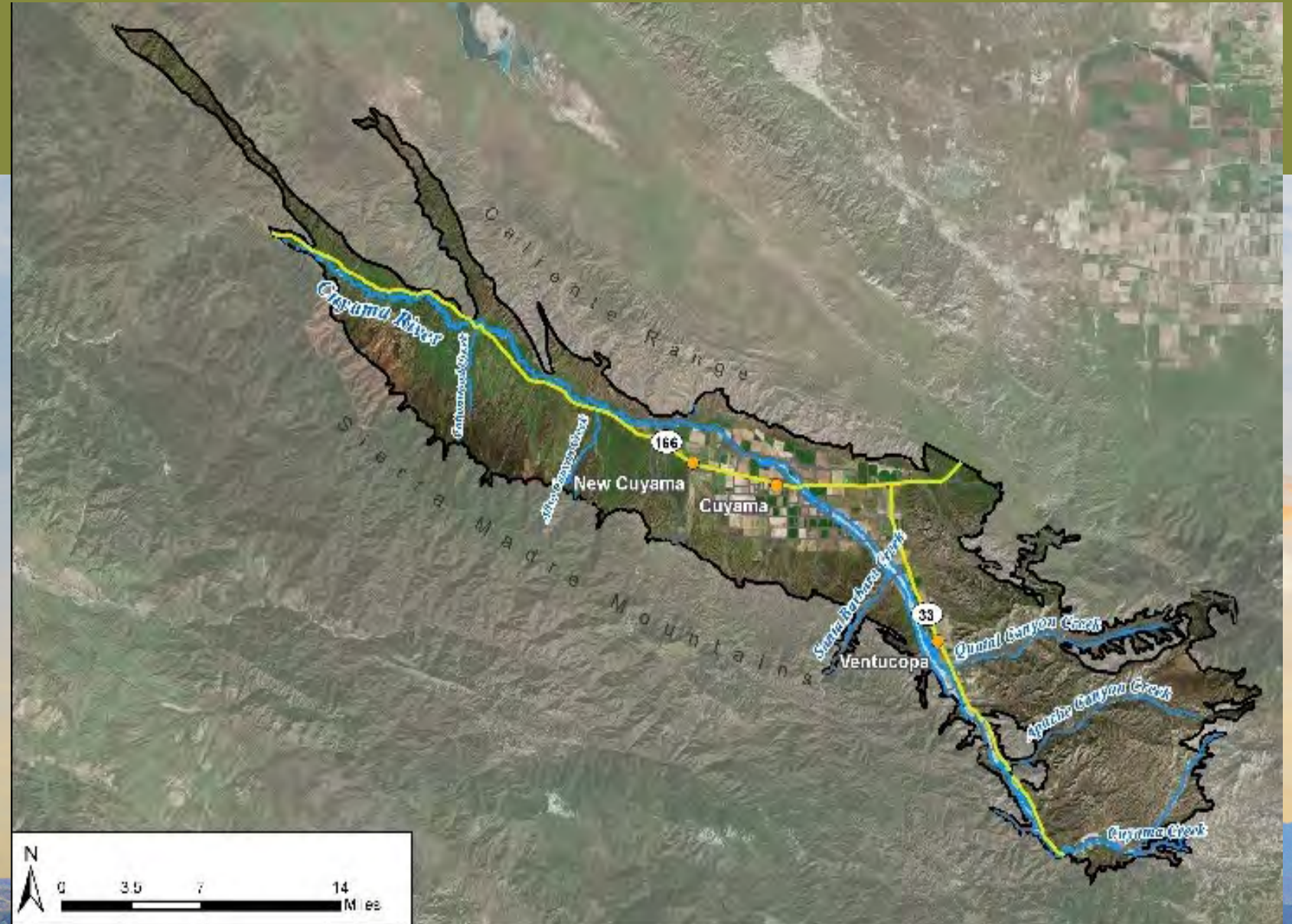
# Chapter 1: Agency Information, Plan Area, and Communication

- Introduction and Agency Information
  - Contact info; management structure; legal authority
- Plan Area
  - Plan Area definition & setting; existing monitoring & management programs
  - Approved by CBGSA Board in July 2018
- Notice and Communication
  - Beneficial users & uses; list of public meetings; summary of comments received; GSA decision-making process; opportunities for public engagement



# Plan Area

- Plan Area definition and setting
- Existing monitoring and management programs

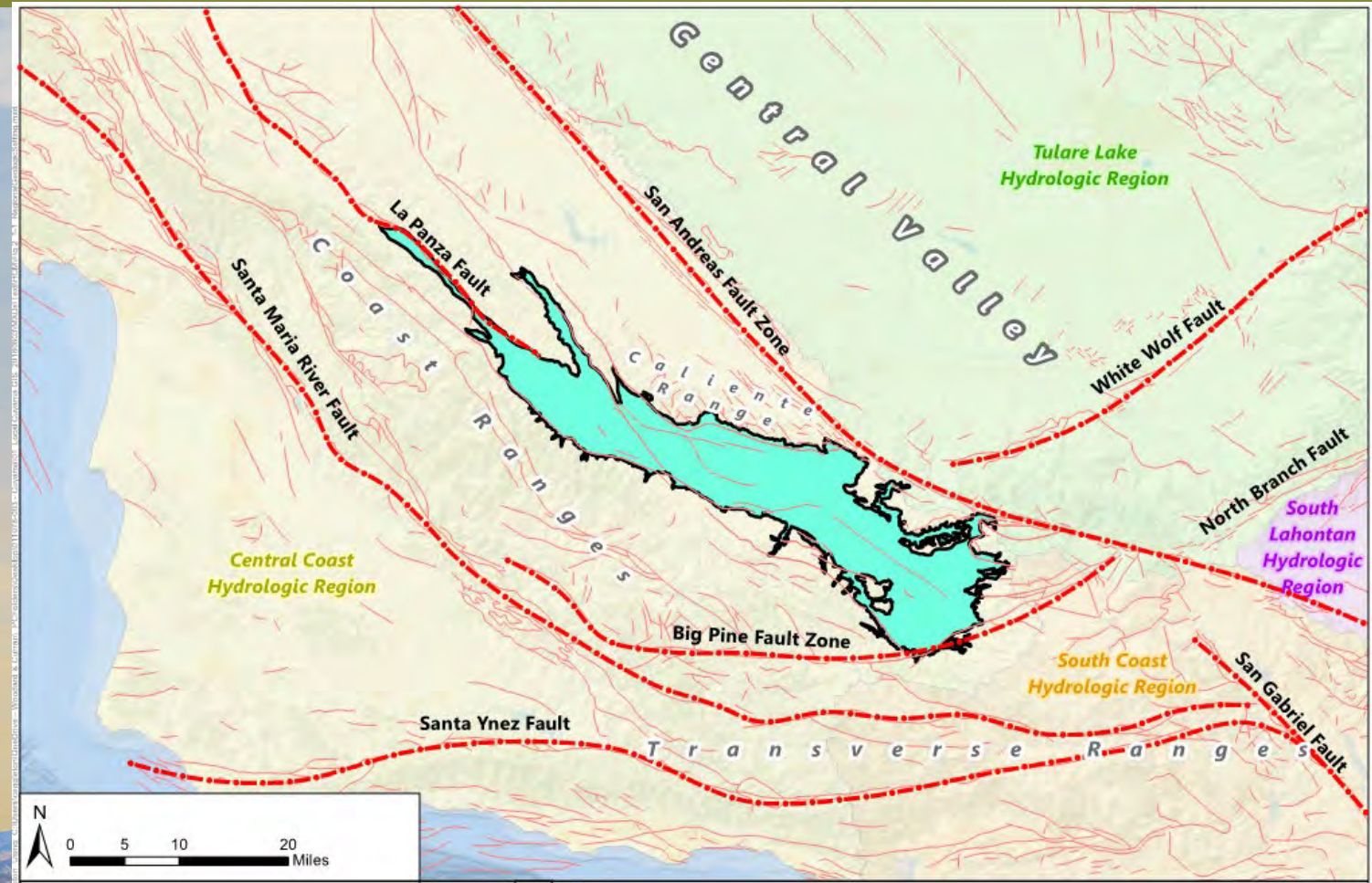


# Chapter 2: Basin Settings

- Hydrogeological Conceptual Model (HCM)
  - Approved by CBGSA Board in October 2018
- Groundwater Conditions
  - Approved by CBGSA Board in January 2019
- Water Budget
  - April 2019 draft reflects comments received on February 2019 draft

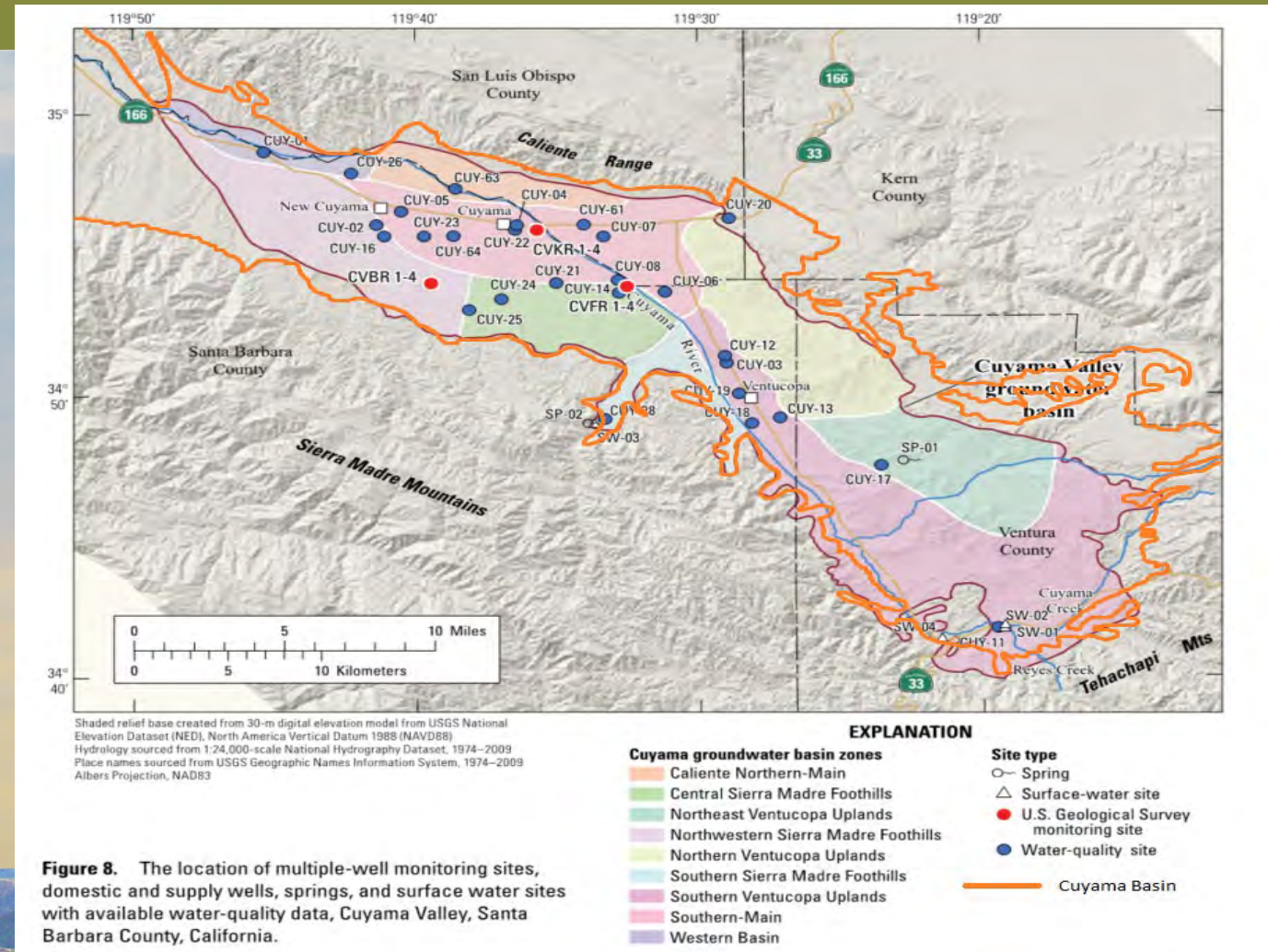
# Hydrogeological Conceptual Model (HCM)

- Regional geology
- Faults and structural features
- Basin boundaries
- Principal aquifers and aquitards
- Topography, surface water and recharge



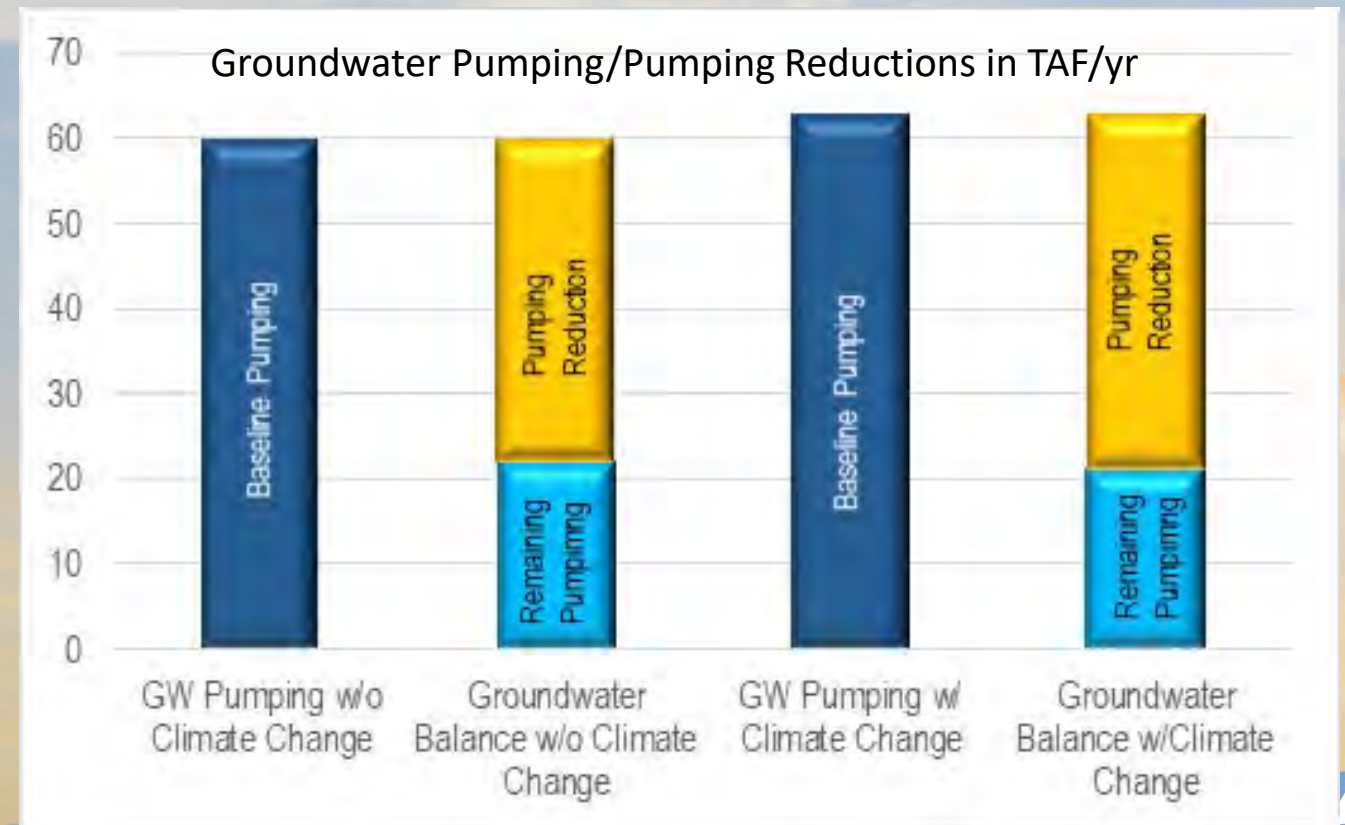
# Groundwater Conditions

- Groundwater trends
- Change in groundwater storage
- Land subsidence;
- Groundwater quality;
- Interconnected surface water system
- Groundwater dependent ecosystems (GDEs)



# Water Budget

- Historical water budget
  - 23 TAF/year overdraft  
(Range of uncertainty:  
21-26 TAF/year)
- Current and projected water budgets
  - 26-27 TAF/year overdraft
- Sustainable yield estimates
  - 20-21 TAF per year without water supply projects

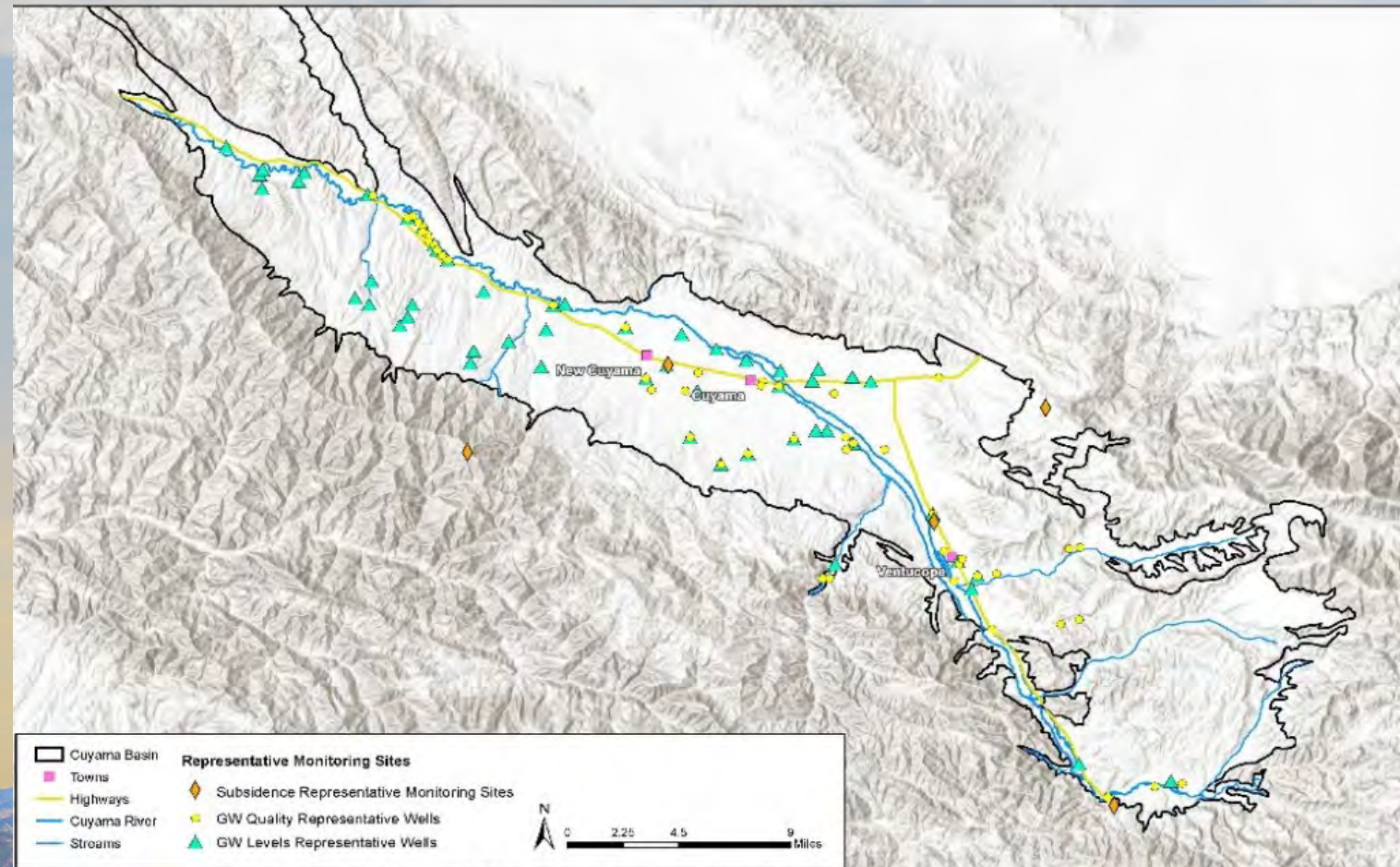


# Chapter 3: Undesirable Results

- Sustainability Goal
- Undesirable Results Statements
  - Includes statements for each sustainability indicator
- Evaluation of the Presence of Undesirable Results
  - Evaluates undesirable results present under current conditions as compared to Minimum Thresholds defined in Chapter 5

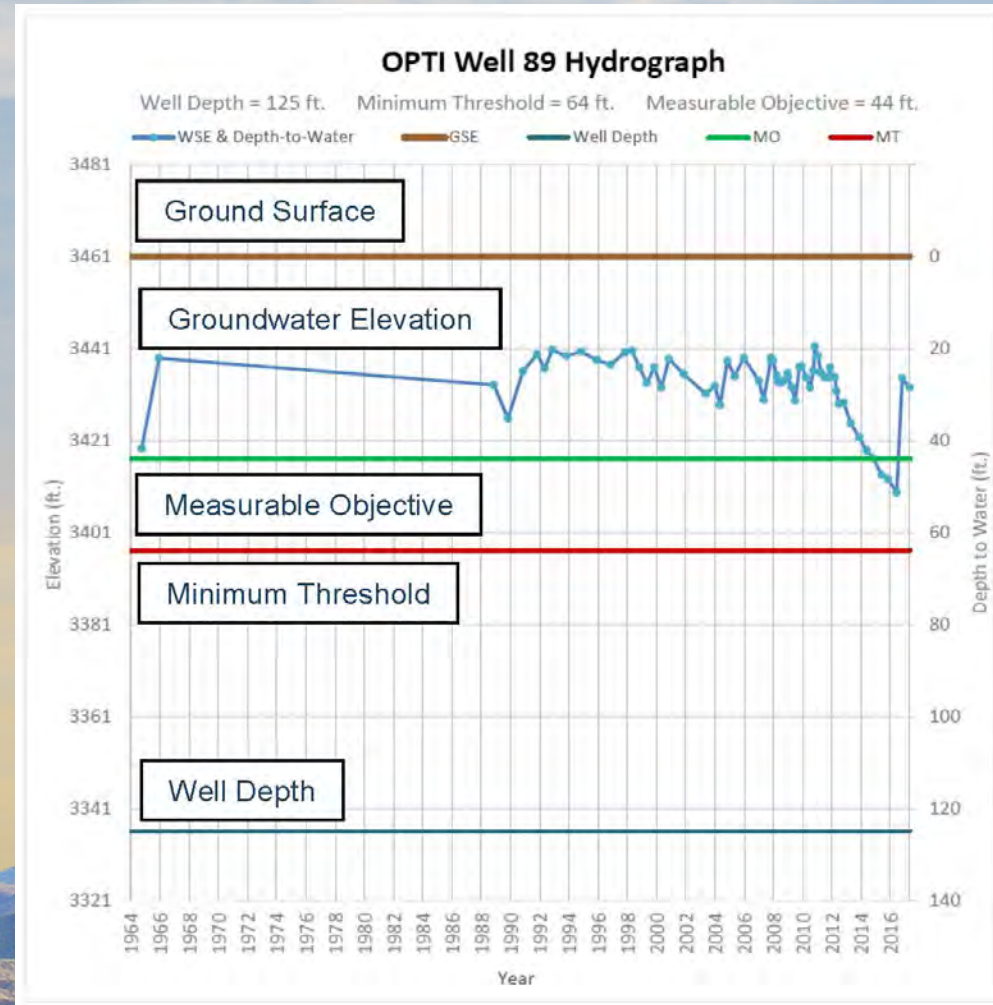
# Chapter 4: Monitoring Networks

- Existing Monitoring Used
- GSP Monitoring Networks
  - Groundwater levels
  - Groundwater storage
  - Degraded groundwater quality
  - Land Subsidence
  - Depletions of interconnected surface water
- Approved by CBGSA Board in February 2019



# Chapter 5: Minimum Thresholds, Measurable Objectives, and Interim Milestones

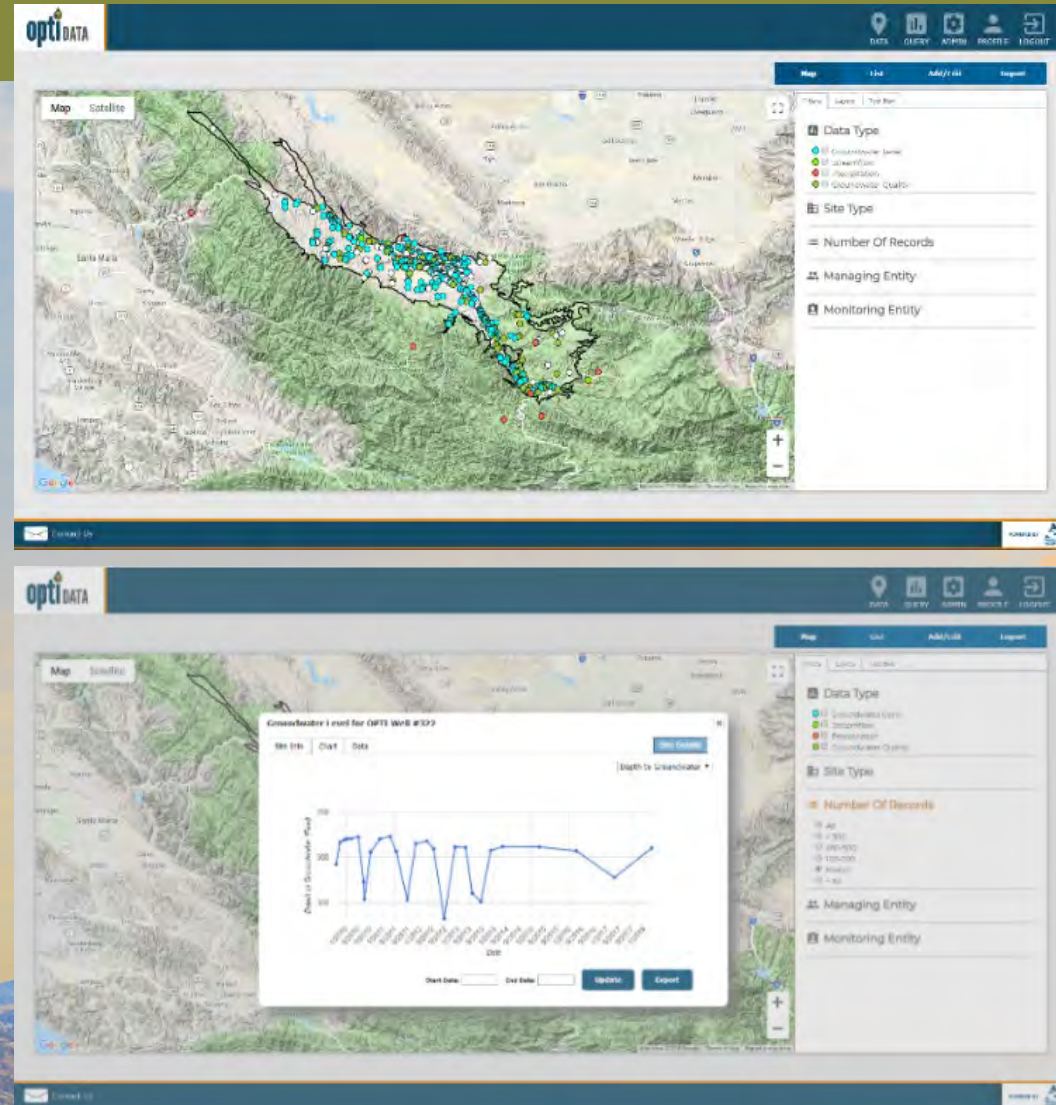
- Threshold Regions
- Sustainability Thresholds:
  - Groundwater levels
  - Groundwater storage
  - Degraded groundwater quality
  - Land Subsidence
  - Depletions of interconnected surface water
- April 2019 draft reflects comments received on February 2019 draft





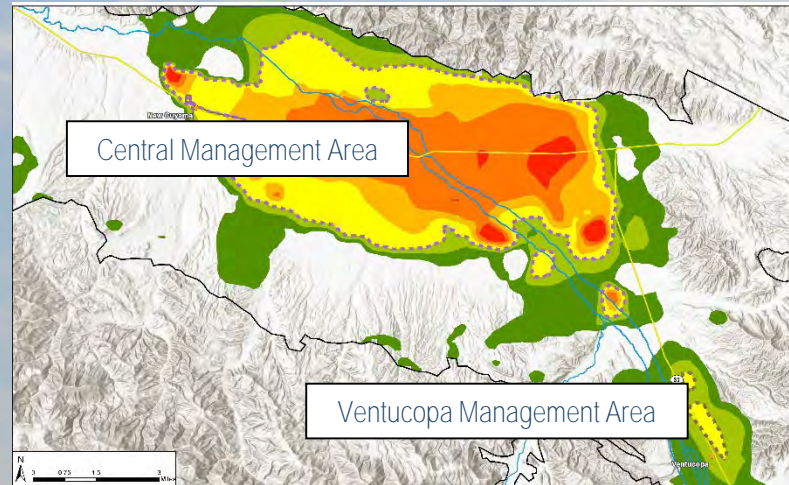
# Chapter 6: Data Management System

- Overview
- Functionality
- Data Included
- Approved by CBGSA Board in February 2019



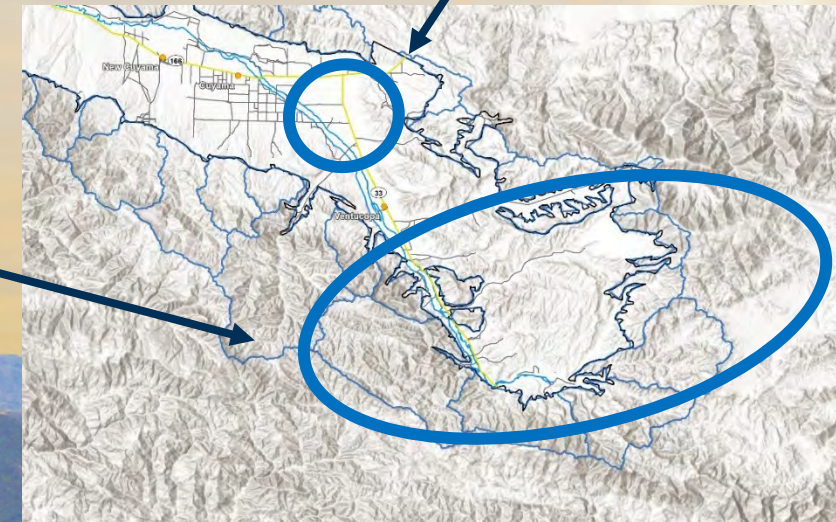
# Chapter 7: Projects and Management Actions

- Management Areas
- Projects
  - Flood/stormwater capture
  - Precipitation enhancement
  - New wells for local communities
- Management Actions
  - Basin-wide economic analysis
  - Pumping allocations in Central Basin management area



*Target Area for Stormwater Capture*

*Target Area for Precipitation Enhancement*



# Chapter 8: Implementation Plan

- Schedule
- Costs and funding sources
- Annual reports
- Five-year reevaluation reports

2020	2025	2030	2035	2040
Set up and Initiate Monitoring and Pumping Allocation Programs	Project Implementation and GSP Evaluation/Update	Project Implementation and GSP Evaluation/Update	Project Implementation and GSP Evaluation/Update	Achieve Groundwater Basin Sustainability
<ul style="list-style-type: none"> <li>• Establish monitoring network and initiate monitoring and reporting</li> <li>• Evaluate/refine thresholds and monitoring network</li> <li>• Install new wells</li> <li>• Develop pumping monitoring program*</li> <li>• Set up and initiate pumping allocation program*</li> <li>• Project analysis and feasibility</li> <li>• Public outreach</li> </ul>	<ul style="list-style-type: none"> <li>• <b>GSA conducts 5-year evaluation/update</b></li> <li>• Monitoring and reporting continues</li> <li>• Evaluate/refine thresholds and monitoring network</li> <li>• Refine water budget</li> <li>• Pumping monitoring program continues*</li> <li>• Continue implementation of pumping allocation program*</li> <li>• Plan/design/construct small to medium sized projects*</li> <li>• Outreach continues</li> </ul>	<ul style="list-style-type: none"> <li>• <b>GSA conducts 5-year evaluation/update</b></li> <li>• Monitoring and reporting continues</li> <li>• Evaluate/refine thresholds and monitoring network</li> <li>• Refine water budget</li> <li>• Pumping monitoring program continues*</li> <li>• Continue implementation of pumping allocation program*</li> <li>• Plan/design/construct larger projects*</li> <li>• Outreach continues</li> </ul>	<ul style="list-style-type: none"> <li>• <b>GSA conducts 5-year evaluation/update</b></li> <li>• Monitoring and reporting continues</li> <li>• Evaluate/refine thresholds and monitoring network</li> <li>• Refine water budget</li> <li>• Pumping monitoring program continues*</li> <li>• Pumping allocation program fully implemented*</li> <li>• Project implementation completed*</li> <li>• Outreach continues</li> </ul>	

## Implementation Plan Schedule of Activities

\* Represents Management Area activities

## EXECUTIVE SUMMARY

### 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 preparation of a Groundwater Sustainability Plan (GSP) to address measures necessary to attain sustainable conditions in the 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 2017, in response to SGMA, the Cuyama Basin Groundwater Sustainability Agency (CBGSA) was formed. 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.

#### Critical Dates for the Cuyama Basin

- 2020 By January 31: submit GSP to DWR
- 2025 Review and update GSP
- 2030 Review and update GSP
- 2035 Review and update GSP
- 2040 Achieve sustainability for the Basin

The Draft Cuyama Basin GSP has been prepared and is now available for public review and comment. SGMA requires the CBGSA develop a GSP that achieves groundwater sustainability in the Basin by 2040. Although SGMA references 2015 as a basis for groundwater planning, SGMA does not require a GSP to address undesirable results that occurred before 2015. The Draft GSP outlines the need for significant reduction in pumping in the central portion of the Basin and has identified two projects for potential development that could help offset the projected reductions in pumping. Although current analysis indicates groundwater pumping reductions on the order of 50 to 67 percent may be required to achieve sustainability, additional efforts are required to confirm the level of pumping reduction required to achieve sustainability. These efforts include collecting additional data and a review of the Basin model, along with other efforts as outlined in the Draft GSP.

### Plan Area

The CBGSA's jurisdictional area is defined by DWR's 2013 Bulletin 118, and in the 2016 Interim Update. The Basin generally underlies the Cuyama Valley, as shown in Figure ES-1.

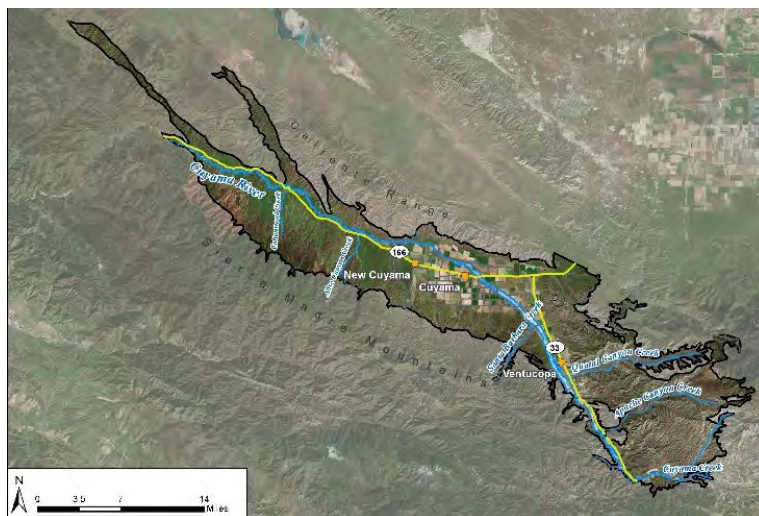


Figure ES-1: GSP Plan Area

### Outreach Efforts

A stakeholder engagement strategy was developed to ensure that the interests of all beneficial users of groundwater in the Basin were considered. The strategy incorporated monthly CBGSA Standing Advisory Committee (SAC) meetings, monthly CBGSA Board meetings, quarterly community workshops, and information distribution to all property owners and residents in the Basin. Figure ES-2 shows attendees at one of the community workshops conducted during development of the GSP.



**Figure ES 2 - Community Workshops**

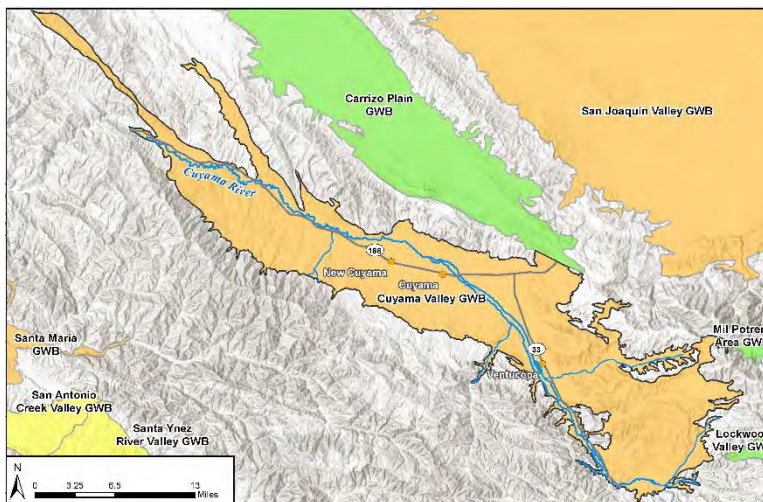
The SAC was established to encourage active involvement from diverse social, cultural, and economic elements of the population in the Basin. The SAC members represent large and small landowners and growers from

different geographic locations in the Basin, longtime residents including Hispanic community members, and a manager of an environmentally-centric non-profit organization. The community workshops were conducted in both English and Spanish, creating an opportunity for local individuals to engage in the GSP development process.

Public Meeting	Number
Cuyama Basin GSA Board Meetings	20
Cuyama Basin GSA Standing Advisory Committee Meetings	18
Joint Meetings of Cuyama Basin GSA Board and Standing Advisory Committee	7
Community Workshops	5

### Basin Setting

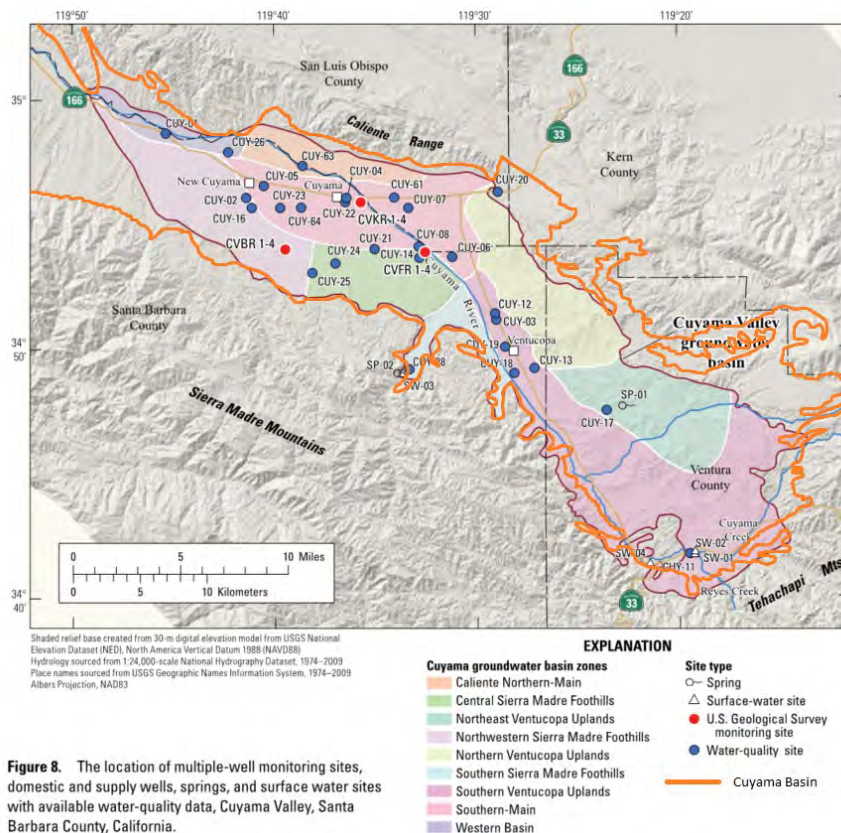
The Basin is located at the southeastern end of the California Coast Ranges, near the San Andreas and Santa Maria River fault zones and bounded on the north and south by faults. These faults create several constraints on groundwater flow through the Basin. Groundwater flows from the eastern portions of the Basin toward the western most portion of the Basin. Surface water flows in the same direction, with the major surface stream being the Cuyama River. Multiple smaller streams flow into the Cuyama River, and the Cuyama River flows to the west and eventually joins with the Santa Maria River. The location of the Basin is shown in Figure ES-3.



**Figure ES-3: Basin Setting**

## Existing Groundwater Conditions

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. The change in groundwater levels varies across the Basin, with the greatest declines occurring in the central portion of the Basin where the greatest concentration of irrigated agriculture is practiced. The western and eastern portions of the Basin have experienced significantly less change in groundwater levels. However, additional irrigated agricultural acreage has been developed recently in the western portion of the Basin, warranting additional levels of monitoring to determine if there are any impacts to long-term groundwater levels and sustainability.



**Figure 8.** The location of multiple-well monitoring sites, domestic and supply wells, springs, and surface water sites with available water-quality data, Cuyama Valley, Santa Barbara County, California.

### Figure ES-4: USGS Water Quality Sampling Locations

(mg/L) along portions of the Basin's southern boundary. These values exceed the California recommended maximum contaminant level (MCL) of 500 mg/L. Concentrations of boron at up to 15 mg/L have been observed along the southern Basin boundary, with concentrations of chloride at levels up to 1,000 mg/L in the same area.

Along the southern boundary, the groundwater quality reflects recharge from springs and runoff from the Sierra Madre Mountains. TDS concentrations in this part of the Basin range from 400 to 700 mg/L. Along the eastern edge of the Basin, near the Caliente Range, groundwater quality declines as concentrations of sodium, chloride, TDS, and boron increase. Concentrations of boron range up to 15 mg/L, concentrations of chloride increase up to 1,000 mg/L, and TDS concentrations range from 3,000 to 6,000 mg/L.

Groundwater quality in the Basin is variable, particularly along the periphery. Water quality in the Basin has historically had high levels of total dissolved solids (TDS) and sulfates. The United States Geological Survey (USGS) has conducted several water quality studies; areas where USGS has evaluated groundwater quality are shown in Figure ES-4. High concentrations of other constituents, such as nitrate, arsenic, sodium, boron, and hexavalent chromium are generally localized and not wide-spread. Groundwater ranges from hard to very hard and is predominantly of the calcium-magnesium-sulfate type. Average TDS concentrations across the Basin are as high as 1,500 to 6,000 milligrams per liter

## Undesirable Results

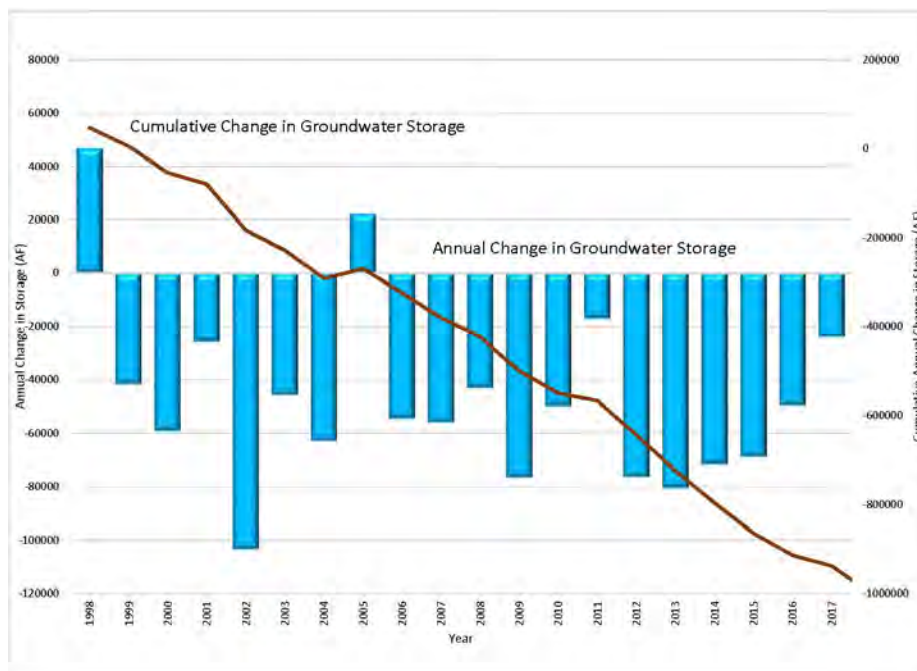
Undesirable results are defined as those conditions that cause significant and unreasonable reduction in the long-term viability of domestic, agricultural, municipal, or environmental uses of the Basin's groundwater. SGMA identifies six defined areas for classification of undesirable results, as shown in the adjacent callout. The one undesirable result that does not impact the Basin is seawater intrusion. Water quality in the Basin is generally not good due to high TDS and other constituents, and there is some limited subsidence in the Basin, but the major areas of undesirable results are associated with the following:

- Chronic lowering of groundwater levels
- Significant and unreasonable reduction in groundwater storage
- Depletions of interconnected surface water

Figure ES-5 is a graph showing the annual and cumulative long-term reduction in groundwater storage in the Basin. This reduction in groundwater storage coincides with the lowering of groundwater levels.

The lowering of groundwater levels has corresponded with degradation of groundwater quality, and particularly levels of TDS. Additionally, lowering of groundwater levels has contributed to some minor but measurable

levels of subsidence in the central portion of the Basin, and has contributed to depletions in interconnections of surface and groundwater systems.



**Figure ES-5: Annual and Cumulative Changes in Groundwater Storage**

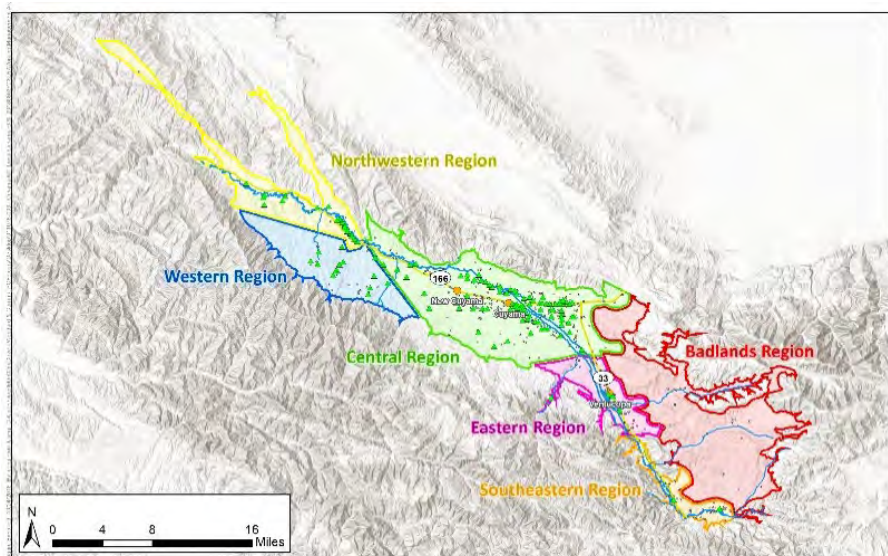
### Categories of Undesirable Results

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon
- Significant and unreasonable reduction of groundwater storage
- Significant and unreasonable seawater intrusion
- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies
- Significant and unreasonable land subsidence that substantially interferes with surface land uses
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water

## Sustainability

SGMA introduces several terms to measure sustainability, including:

- **Sustainability Goals** – These goals are the culmination of conditions resulting in an absence of undesirable results within 20 years.
- **Undesirable Results** – Undesirable results are the significant and unreasonable occurrence of conditions that adversely affect groundwater use in the Basin.
- **Sustainability Indicators** – Sustainability indicators refer to any of the adverse effects caused by groundwater conditions occurring throughout the Basin that, when significant and unreasonable, cause undesirable results, including the following:
  - Lowering groundwater levels
  - Reduction of groundwater storage
  - Seawater intrusion
  - Degraded water quality
  - Land subsidence
  - Depletion of interconnected surface water
- **Minimum Thresholds** – Minimum thresholds are a numeric value for each sustainability indicator, and are used to define when undesirable results occur, if minimum thresholds are exceeded in a percentage of sites in the Basin’s monitoring network.
- **Measurable Objectives** – Measurable objectives are a specific set of quantifiable goals for the maintenance or improvement of groundwater conditions. They will be included in the adopted GSP, and will help the CBGSA achieve their sustainability goal for the Basin.



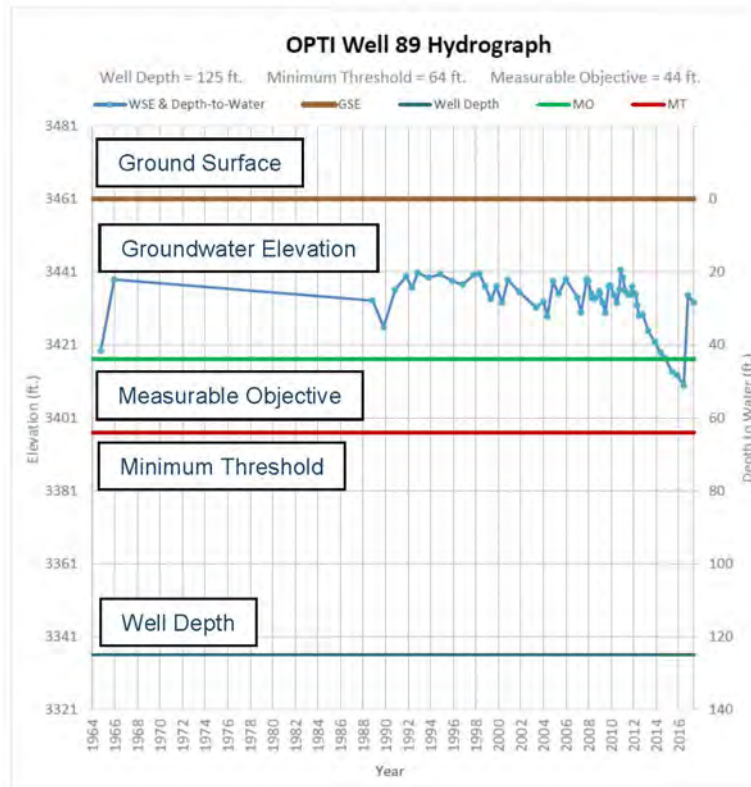
**Figure ES-6: Threshold Regions**

The method prescribed by SGMA to measure undesirable results involves setting minimum thresholds and measurable objectives for a series of representative wells. Geologic conditions and land use vary across the Basin. These varying conditions also cause groundwater conditions to vary across the Basin. The CBGSA Board of Directors concluded that one set of minimum thresholds for the entire Basin may not provide the appropriate degree of refinement needed to effectively manage Basin-wide

sustainability. As a result, threshold regions were created to establish the appropriate sustainability criteria for each area of the Basin. The threshold regions are shown in Figure ES-6.



Representative wells were identified to provide a basis for measuring groundwater conditions throughout the Basin without having to measure each well, which would be cost prohibitive. Representative wells were selected based on availability and their history of recorded groundwater levels, and their potential to effectively represent the groundwater conditions surrounding the identified well, and consent of the well owner to utilize the identified well for monitoring purposes.



**Figure ES-7: Sample Relationship Between Minimum Threshold and Measurable Objective**

buffer above the minimum threshold. The opposite approach was taken in the southeastern region where the measurable objective was established based on 2015 groundwater levels and the minimum threshold was determined by providing a 5-year drought buffer below the established measurable objective.

A table summarizing minimum thresholds and measurable objectives is included in the GSP. Graphs showing the minimum threshold and measurable objective for each of the representative wells are contained in an appendix to the GSP.

A total of 61 representative wells have been identified for measurement of groundwater levels in the Basin, and 64 representative wells have been identified for groundwater quality monitoring. There are five selected ground surface subsidence monitoring stations. Using groundwater level data as the basis for measuring change in groundwater storage, these representative wells and subsidence monitoring stations provide the basis for measuring the five potential undesirable results across the Basin.

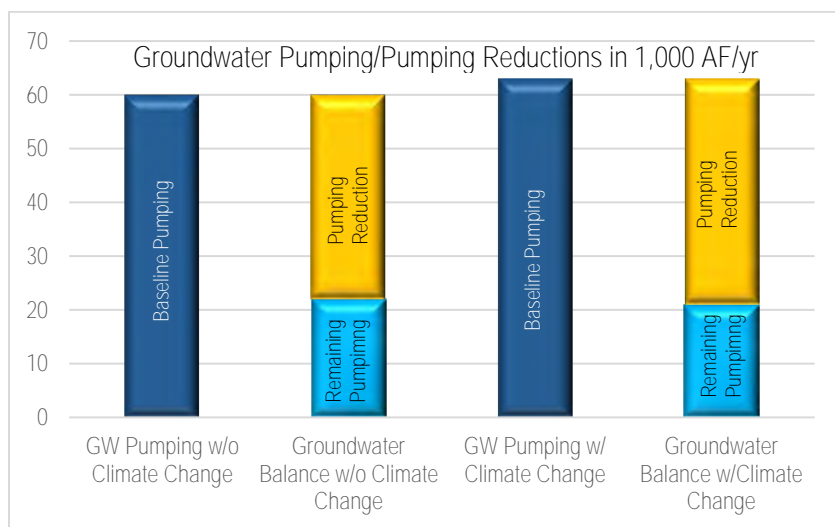
Minimum thresholds and measurable objectives were developed for each of the identified representative wells. Figure ES-7 shows a typical relationship of the minimum thresholds, measurable objectives, and other data for a sample well.

Thresholds were developed with reference to 2015 groundwater levels. In general, measurable objectives were established based on providing a 5-year drought

## Water Budgets

The Basin has been in an overdraft condition for many years. Overdraft conditions in the Basin were first documented in the 1950s. Since then, groundwater pumping has increased in response to increased levels of agricultural production, leading to increased levels of groundwater overdraft.

The groundwater evaluations conducted as a part of GSP development have provided estimates of the historical, current and future groundwater budget conditions.



**Figure ES-8: Basin-Wide Groundwater Pumping and Reductions Required to Achieve Sustainability**

These analyses show that at current groundwater pumping levels, the average annual overdraft is estimated to be approximately 26,000 acre-feet, and the reduction in groundwater pumping required to achieve sustainability is approximately 40,000 acre-feet per year. Future groundwater conditions in the Basin will continue to show decreased groundwater levels based on projections of current land and water uses. Since there are no projected changes in land use or population in the Basin, the projected annual decline in groundwater storage is estimated to be the same as under current conditions.

The projected Basin water budget was also evaluated under climate change conditions. Under the intermediate climate change scenario prescribed by DWR, the annual groundwater overdraft is projected to increase to approximately 27,000 acre-feet, requiring an approximate 42,000 acre-feet per year reduction in groundwater pumping to achieve sustainability. These changes are shown in Figure ES-8.

The current analysis was prepared using the best available information and through development of a new groundwater modeling tool. Although the Basin has been studied for many years, the available data are not as robust in areas outside the center of the Basin as compared to many other basins, thus leading to some level of uncertainty in the analyses. A data collection program has been designed to augment existing information, and is included in the GSP. It is anticipated that as additional information becomes available, the new model can be updated, and more refined estimates of annual pumping and overdraft can be developed.

Analysis of the Basin as a whole shows that much of the Basin is in hydrologic balance. Existing and projected groundwater levels in the western portions of the Basin, along with the Southeastern Region, show those areas to be sustainable under current and projected conditions. However, the Central Threshold Region shows an annual water budget of approximately minus 25,000 acre-feet per year.



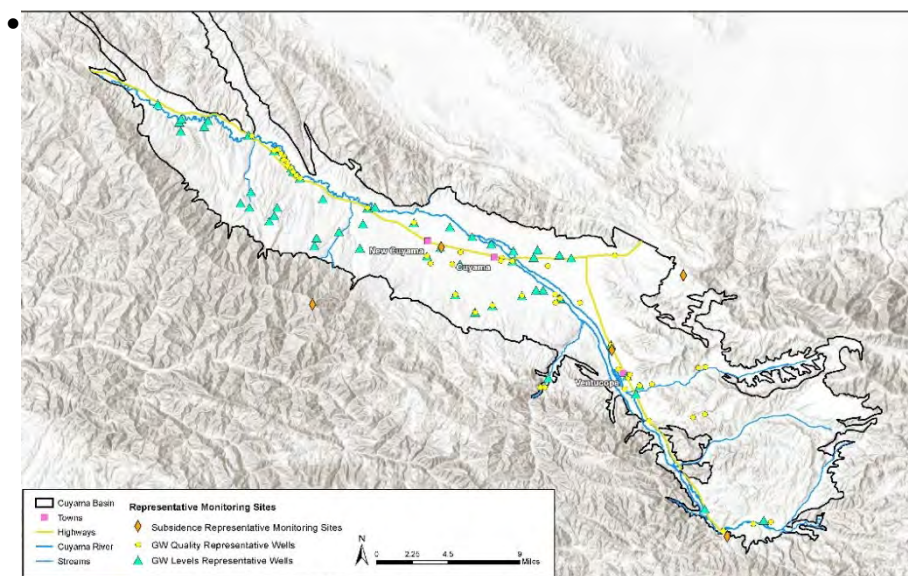
## Monitoring Networks

The Draft GSP outlines the monitoring networks for the five sustainability indicators that apply to the Basin. The objective of these monitoring networks is to monitor conditions across the Basin and to detect trends toward undesirable results. Specifically, the monitoring network was developed to do the following:

### Five Sustainability Indicators Applicable to the Cuyama Groundwater Basin

- Chronic lowering of groundwater levels
- Reduction in groundwater storage
- Degraded water quality
- Land subsidence
- Depletions of interconnected surface water

- Monitor impacts to the beneficial uses or users of groundwater
- Monitor changes in groundwater conditions relative to measurable objectives and minimum thresholds
- Demonstrate progress toward achieving measurable objectives described in the GSP



**Figure ES-9: Groundwater Monitoring Wells**

The monitoring networks were designed by evaluating data sources provided by DWR, including the California Statewide Groundwater Elevation Monitoring (CASGEM) Program, the USGS, participating counties, and private landowners. The monitoring network consists of wells that are already being used for monitoring in the Basin. Additional wells are being added, and there is the potential for installing new dedicated monitoring wells through DWR’s Technical Support Services program.

Summary of Existing Monitoring Wells	
Number of CASGEM wells	6
Number of voluntary wells	107
Total number of DWR and CASGEM wells	222
Earliest measurement year	1946
Longest period of record	68 years
Median period of record	12

Most wells in the monitoring network are measured on either a semi-annual or annual schedule. Historical measurements have been entered into the Basin Data Management System (DMS), and future data will also be stored in the Basin DMS.

A summary of the existing monitoring wells is shown in the adjacent table.

## Data Management System

The Basin DMS was built on a flexible, open software platform that uses familiar Google maps and charting tools for analysis and visualization. The Basin DMS serves as a data-sharing portal that enables use of the same data and tools for visualization and analysis. These tools support sustainable groundwater management and create transparent reporting about collected data and analysis results.

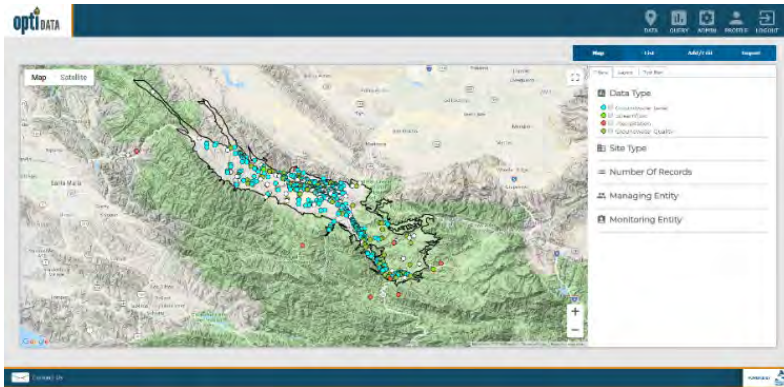


Figure ES-10: Opti DMS Screenshot



Figure ES-11: Typical DMS Data Display

The Basin DMS is web-based; the public can easily access this portal using common web browsers such as Google Chrome, Firefox, and Microsoft Edge. The Basin DMS is currently populated with available historical data. Additional data will be entered into the system as it is collected.

The Basin DMS portal provides easy access and the ability to query information stored in the system. Groundwater data can be plotted for any of the available data points, providing a pictorial view of historical and current data.

The DMS can be accessed <https://opti.woodardcurran.com/cuyama/login.php>.

## Projects and Management Actions

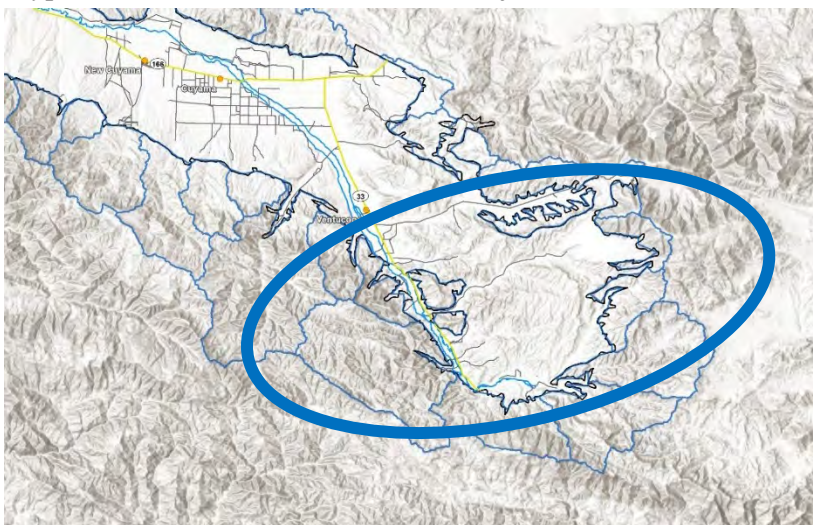
Achieving sustainability in the Basin requires implementation of management actions and, if demonstrated to be feasible, projects that will increase water supply. One management action, which is reductions in groundwater pumping, is required to achieve sustainability irrespective of the feasibility of any other water supply projects. The exact amount of required reduction in groundwater pumping will be reevaluated after additional data are collected and analyzed. Based on current information, groundwater pumping in the Basin may have to be reduced by as much as 50 to 67 percent. Additional evaluations of pumping reductions required to achieve sustainability are planned over the next several years. These additional evaluations may lead to modification of levels of pumping reduction associated with the attainment of reliability.

Additional management actions included in the Draft GSP include the following:

- Monitoring and recording of groundwater levels, groundwater quality, and subsidence data
- Maintaining and updating the Basin DMS with newly collected data
- Monitoring of groundwater use through use of satellite imagery
- Annual monitoring of progress toward sustainability
- Annual reporting of Basin conditions to DWR as required by SGMA

Several alternative projects to potentially increase water supply availability in the Basin were identified and considered. The initial set of alternatives were reviewed with the Basin SAC and the CBGSA Board of Directors, resulting in two potential water supply projects included in the Draft GSP. These projects require further analysis and permitting to determine feasibility and cost effectiveness. These projects are described below.

The first project is rainfall enhancement through what is commonly referred to a cloud seeding. Cloud seeding is a type of weather modification with the objective to increase the amount of precipitation that would fall in the



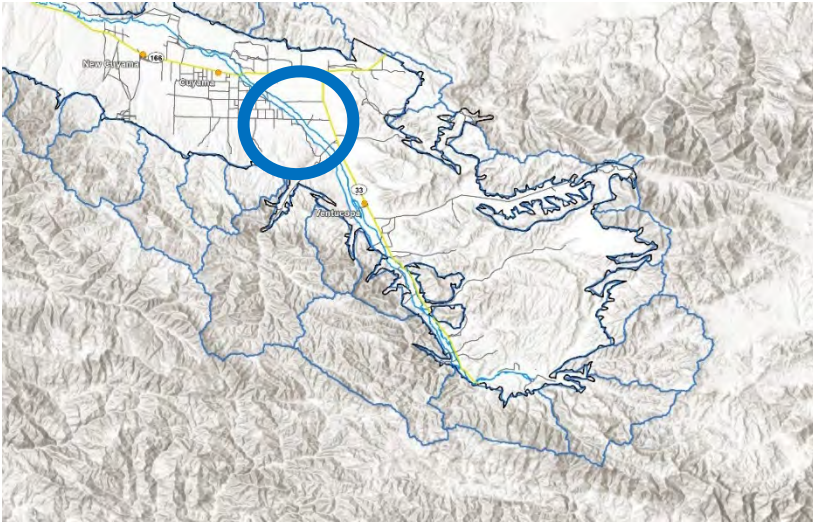
**Figure ES-12: Target Area for Potential Rainfall Enhancement**

Basin watershed. The concept is to introduce silver iodide, or similar substance, into the clouds to induce greater rainfall. Cloud seeding has been used in numerous areas throughout California and other western states. Preliminary estimates suggest up to approximately 5,000 acre-feet per year of additional water supply could be added to the Basin. The target area for rainfall enhancement is shown in Figure ES-12.

The next step toward implementation of this water supply project is to refine the analysis to better determine the potential increase in precipitation that could be

achieved, and to refine the estimated cost of implementation. The project would require completion of an environmental document consistent with the requirements of the California Environmental Quality Act (CEQA).

The second potential project is capture of high stormwater flows in the Cuyama River, and diversion into recharge basins that would be sited in the Central Area of the Basin. The captured stormwater flows would



**Figure ES-13: General Location of Potential Recharge Basins**

this potential project is to evaluate each of these areas of uncertainty and to develop more refined estimates of potential water supply benefit and cost.

The Draft GSP also includes projects specific to the domestic water systems in Ventucopa, Cuyama, and New Cuyama. These projects include installing new wells to secure reliability of water supply to residents of these communities. Implementation of these community well projects would be the responsibility of each of the three communities, as the projects address reliability of available supply for each community.

percolate into the groundwater basin resulting in increased recharge of groundwater. The potential stormwater recharge project has several challenges associated with it, including ensuring water rights availability, managing sediment that will be present in any diverted stormwater flows, and obtaining lands for construction of the recharge basins. Preliminary estimates suggest that up to 4,000 acre-feet per year of additional water supply could be added to the Basin. The general location of the potential recharge basins are shown in Figure ES-13.

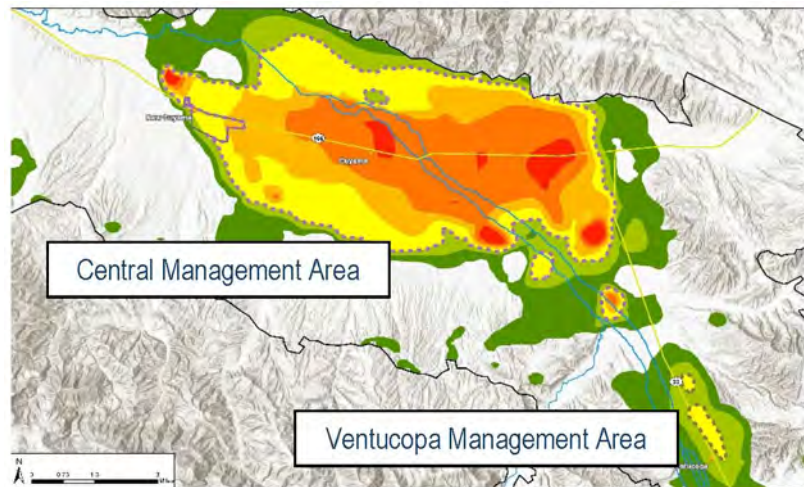
The next step toward implementation of

## GSP Implementation

Achieving sustainability in the Basin requires implementation of management actions and, if demonstrated to be feasible, projects that will increase water supply. One management action, which is reductions in groundwater pumping, is required to achieve sustainability irrespective of the feasibility of any other water supply projects. Implementing project and management actions can best be achieved through development of Basin Management Areas to focus necessary activities on the areas of the Basin with projected long-term overdraft.

Two Management Areas have been established in the Basin to aid in administering projects and management actions, as shown in Figure ES-14. The Central and Ventucopa Management Areas were identified based on projected groundwater levels decreasing at a rate of 2 feet or more per year over the next 20 years.

Figure ES-15 depicts the general boundaries of the proposed Management Areas. The highlighted colors show the projected annual change in groundwater levels, with clear and green indicating no change to less than 2 feet of projected annual decline in groundwater levels, and the yellow, orange and red areas indicating areas of increasing projections of annual declines in groundwater levels, ranging from more than 2 feet per year up to more than 4 feet per year.



**Figure ES-14: Location of Central and Ventucopa Management Areas**

Overdraft conditions in the Central Management Area requires reductions in groundwater pumping. The exact amount of required reduction in groundwater pumping will be reevaluated after additional data are collected and analyzed. However, based on current information, total Basin-wide groundwater pumping may have to be reduced by as much as 50 to 67 percent, with the major proportion or reduction required in the Central Management Area.

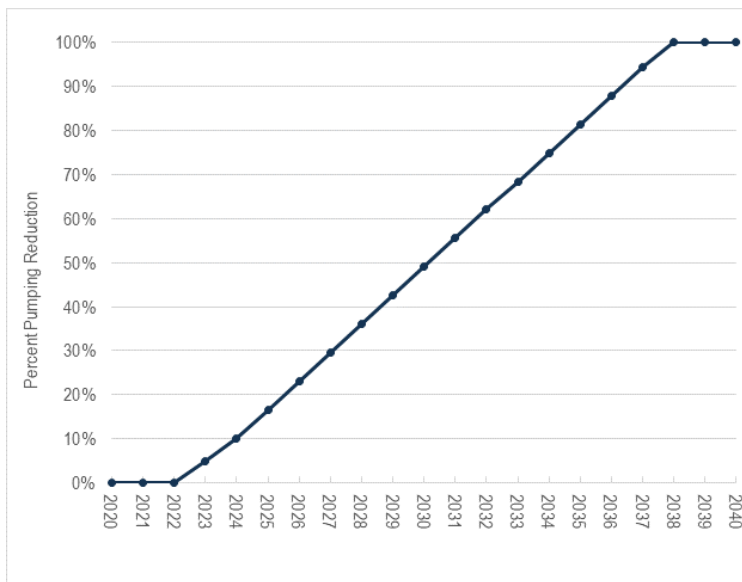
Both Management Areas will be administered by the CBGSA. However, the CBGSA may elect to delegate administrative responsibility to another party such as the Cuyama Basin Water District, since all wells supplying the affected lands are within the Cuyama Basin Water District boundary.



Implementing the GSP will require numerous management activities that will be undertaken by the CBGSA, including the following:

- Preparing annual reports summarizing the conditions of the Basin and progress towards sustainability and submitting them to DWR
- Monitoring groundwater conditions for all five sustainability indicators twice each year
- Entering updated groundwater data into the Basin DMS
- Monitoring basin-wide groundwater use using satellite imagery
- Updating the GSP once every five years

The CBGSA Board adopted a preliminary schedule for reduction of groundwater pumping in the Central Management Area.



**Figure ES-15: Schedule for Proposed Reductions in Groundwater Pumping**

monitoring, incorporate new monitoring wells, and further evaluate groundwater conditions in the area over the next two to five years. Once additional data are obtained and evaluated, the need for any reductions in pumping will be determined.

Evaluation and possible implementation of the two identified projects will also be initiated between 2020 and 2025. Further evaluation of the two projects is necessary to determine technical, economic, and institutional feasibility. A critical aspect of feasibility for the stormwater diversion project will be confirmation of water rights availability. Downstream water right holders will have to be maintained whole for the project to be feasible, requiring a more in-depth analysis of water flows and availability. As a result, the first step in determining feasibility will be to evaluate the potential for obtaining a right for diversion from the Cuyama River.

For the Central Management Area, pumping reductions are scheduled to begin in 2023 with full implementation by 2040, as shown in Figure ES-15. This approach provides adequate time to put into place methods necessary to monitor groundwater use and reductions. The specific methods for monitoring and reporting will be developed beginning in 2021, with the target of methods being in place by the end of 2022 to allow effective monitoring to begin in 2023. In 2023, monitoring will demonstrate achievement of the proposed levels of pumping reduction by the end of that year.

Pumping reductions are not currently recommended for the Ventucopa Area. The recommendation is to undertake additional

Figure ES-16 presents the overall schedule of activities over the next 20 years

2020	2025	2030	2035	2040
<b>Set up and Initiate Monitoring and Pumping Allocation Programs</b> <ul style="list-style-type: none"> <li>Establish monitoring network and initiate monitoring and reporting</li> <li>Evaluate/refine thresholds and monitoring network</li> <li>Install new wells</li> <li>Develop pumping monitoring program*</li> <li>Set up and initiate pumping allocation program*</li> <li>Project analysis and feasibility</li> <li>Public outreach</li> </ul>	<b>Project Implementation and GSP Evaluation/Update</b> <ul style="list-style-type: none"> <li><b>GSA conducts 5-year evaluation/update</b></li> <li>Monitoring and reporting continues</li> <li>Evaluate/refine thresholds and monitoring network</li> <li>Refine water budget</li> <li>Pumping monitoring program continues*</li> <li>Continue implementation of pumping allocation program*</li> <li>Plan/design/construct small to medium sized projects*</li> <li>Outreach continues</li> </ul>	<b>Project Implementation and GSP Evaluation/Update</b> <ul style="list-style-type: none"> <li><b>GSA conducts 5-year evaluation/update</b></li> <li>Monitoring and reporting continues</li> <li>Evaluate/refine thresholds and monitoring network</li> <li>Refine water budget</li> <li>Pumping monitoring program continues*</li> <li>Continue implementation of pumping allocation program*</li> <li>Plan/design/construct larger projects*</li> <li>Outreach continues</li> </ul>	<b>Achieve Groundwater Basin Sustainability</b> <ul style="list-style-type: none"> <li><b>GSA conducts 5-year evaluation/update</b></li> <li>Monitoring and reporting continues</li> <li>Evaluate/refine thresholds and monitoring network</li> <li>Refine water budget</li> <li>Pumping monitoring program continues*</li> <li>Pumping allocation program fully implemented*</li> <li>Project implementation completed*</li> <li>Outreach continues</li> </ul>	

**Figure ES-16: Implementation Plan Schedule of Activities**

\* Represents Management Area activities

## Funding

Implementation of the GSP requires funding sources. To the degree they become available, outside grants will be sought to assist in reducing cost of implementation to residents and landowners of the Basin. However, there will be a need to collect funds to support implementation.

The areas associated with GSA-wide management and GSP implementation will be borne by the landowners across the Basin. These costs include:

- GSA administration
- Groundwater level monitoring and reporting
- Groundwater quality monitoring and reporting
- Ground surface subsidence monitoring and reporting
- Water use estimation
- Data management
- Stakeholder engagement
- Annual report preparation and submittal to DWR
- Developing and implementing a funding mechanism
- Grant applications
- GSP updates (every five years)

For budgetary purposes, the estimated initial cost of these activities is on the order \$800,000 to \$1.2 million per year. The CBGSA Board of Directors will evaluate options for securing the needed funding. Options for funding include fees based on groundwater pumping, acreage, or combinations of these, and pursuit of any available grant funds.

Activities associated with the two Management Areas will be borne by the landowners and water users within the two Management Areas.

For the Ventucopa Management Area, the costs include monitoring of groundwater level data and evaluation of the need for additional or new representative wells and potential need for pumping allocations. The estimated initial cost of these activities is on the order \$40,000 to \$80,000 per year.

For the Central Management Area, costs include the following:

- Developing and implementing a system for pumping allocations, tracking, and management
- Developing and implementing a funding mechanism
- Evaluation and implementing water supply projects

The estimated initial cost of these activities is on the order \$200,000 to \$500,000 per year, plus costs associated with evaluating and implementing either of the two potential water supply projects. Depending on feasibility, the annual costs of the rainfall enhancement project would be on the order of \$150,000 per year. The stormwater water capture project cost could be on the order of \$3 to \$4 million per year to amortize the capital cost of the project and to provide funds for annual operations and maintenance.

The CBGSA Board of Directors will evaluate options for securing the needed funding. Similar to the funding options for the GSA-wide activities, options for funding include fees based on groundwater pumping, acreage, or combinations of these, and pursuit of any available grant funds. The CBGSA Board of Directors will evaluate options for securing the needed funding.

Funding for new community wells or well improvements is the responsibility of the three Basin communities. There are potential opportunities for grant funds, depending on timing and state and federal grant funding availability.

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Comment #	Commenter	Commenter Organization	Section	Section Paragraph #	Paragraph's Sentence #	Sentence Starts with, "...	Comment	Response to Comment
1	Matt Klinchuch	CBWD	5.1 Useful Terms			Sustainability Goals – The culmination	The definitions are almost verbatim from the regs but could use some translation for a general audience, esp Sustainability Goals	To make sure that we are consistent with the Regulations, we have kept the definitions as is.
2	Matt Klinchuch	CBWD	5.2.1 Threshold Regions...Southeastern Threshold			The northern boundary of this region is the narrows at the Cuyama river,	"and the eastern boundary" - You mean western boundary?	Although correct, the intention was to say the "eastern" because to the west of the boundary of the Basin and to the west is the Badlands Management Area. The intention was to distinguish the boundary between the two management areas.
3	Matt Klinchuch	CBWD	5.2.1 Threshold Regions...Eastern Threshold			The Eastern Threshold Region lies just east of the central part of the	...lies just southeast?	Text has been updated
4	Matt Klinchuch	CBWD	5.2.1 Threshold Regions...Eastern Threshold			Hydrographs in this region indicate that groundwater	Mention other aspects of Eastern Region: More variability in water levels? Locally important shallow production wells?	Text has been updated to provide more clarity to distinguish this region from the Central Region by discussing differences in water level. Also mentioned in this section is the Santa Barbara Canyon Fault, which is discussed in more detail in the HCM.
5	Matt Klinchuch	CBWD	5.2.1 Threshold Regions...Western Threshold			The eastern boundary is defined by the Russell Fault,	Brief explanation of which land uses are differentiated	Text has been updated
6	Matt Klinchuch	CBWD	5.2.1 Threshold Regions...Northwestern Threshold			The southeastern border was drawn to differentiate between the	Suggest "southern border" or border with the western region"; also, which land uses differentiated?	Text has been updated
7	Matt Klinchuch	CBWD	Figure 5-1: Cuyama GW Basin Level			Map	Suggest text callout labels on the map to make it easier to tell which region is which	The figure has been updated
8	Matt Klinchuch	CBWD	Figure 5-1: Cuyama GW Basin Level			Map	Change Legend to say "Representative well with OPTI well ID number"	The figure is clear enough without this change.
9	Matt Klinchuch	CBWD	5.2.2 Minimum Thresholds...Southeastern Threshold			Placeholder for IM calculation	Show and reference example hydrograph (use real one) with example of trend and MT & MO calculation	Since the document has been changed to make all IMs equal to MTs, this is not needed
10	Matt Klinchuch	CBWD	5.2.2 Minimum Thresholds...Southeastern Threshold			Levels will be measured using	An embedded table to summarize monitoring frequency would be useful	Monitoring frequency is discussed in the Monitoring Networks chapter
11	Matt Klinchuch	CBWD	5.2.2 Minimum Thresholds...Eastern Threshold			The MT for this region intends to protect	Suggest combined hydrograph with multiple wells to illustrate trend	Hydrographs with thresholds are provided in an appendix
12	Matt Klinchuch	CBWD	5.2.2 Minimum Thresholds...Eastern Threshold			This 20% of the range was then added below	State period of historical range used (1995-2014, or entire range of data?)	Updated text for clarity
13	Matt Klinchuch	CBWD	5.2.2 Minimum Thresholds...Eastern Threshold			The MT values calculated by the two methods were then compared, and	Update method of setting MT & MO per 3/6/2019 GSA Board Meeting	Text has been updated. Board provided final approval for update to MTs and MOs at the 4/5/2019 meeting
14	Matt Klinchuch	CBWD	5.2.2 Minimum Thresholds...Central Threshold			If no measurement was taken during this 4-month period	State period used to evaluate range	Updated text for clarity
15	Matt Klinchuch	CBWD	5.2.2 Minimum Thresholds...Western Threshold			The MT was calculated by taking the difference between the total well depth and the value closest to mid-February, 2018	2018 or 2015? Explain reason for change in assumed baseline	Updated text for clarity
16	Matt Klinchuch	CBWD	5.2.2 Minimum Thresholds...Northwestern Threshold			This value was then set as the MT.	In other words, an allowable loss of 15% of the estimated saturated thickness of the aquifer was proposed.	This is correct.
17	Matt Klinchuch	CBWD	Table 5-1 - Representative Monitoring			2030 IM	IM???	IM = Interim Milestone
18	Matt Klinchuch	CBWD	Table 5-1 - Representative Monitoring	OPTI well 77, Final MO 400			How do the MT's agree across the Basin? Table shows significant difference in parameter ranges in different Threshold Regions. Are we going to have some agreement across the Basin or will it bust? The Central Region has a range of 600 feet, Western 130 feet, and Eastern 70 feet.	Thresholds have been calculated to be protective of certain areas of the Basin and the conditions within those portions of the Basin while also considering beneficial uses of GW. In other regions, they have been calculated to achieve sustainability over the planning horizon. While threshold levels may differ across regions, these thresholds will 1) help move the Basin
19	Matt Klinchuch	CBWD	Table 5-1 - Representative Monitoring	OPTI well 324, Final MT 311			Suggest using a contour or symbolic post map to illustrate overall basin MTs and MOs. May show some discontinuities that you will want to address in the text.	Spatial density of wells may not be sufficient to provide a map that is accurate to represent the MOs across the entire basin. When more data is available, this may be an option.

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Comment #	Commenter	Commenter Organization	Section	Section Paragraph #	Paragraph's Sentence #	Sentence Starts with, "...	Comment	Response to Comment
20	Matt Klinchuch	CBWD	5.3 Reduction in Groundwater	2	1	Reduction of groundwater storage is not a concern for the Basin	I kinda thought this was the main concern, actually. Might want to re-word this a little. Maybe something like "Separate monitoring of groundwater storage changes apart from groundwater levels is not proposed..."	Text has been updated for clarity
21	Matt Klinchuch	CBWD	5.3 Reduction in Groundwater	3	1	Second, because the primary aquifer in the Basin is not confined	Storage also is linear with water levels in confined systems, you just have a much smaller storage coefficient.	Comment noted. No change needed.
22	Matt Klinchuch	CBWD	5.5 Degraded Water Quality	3	1	Because the undesirable result for degraded water quality	Suggest clarifying this. Maybe "Because undesirable water quality results are defined under SGMA only as those chemical constituents which are influenced by SGMA-related groundwater management activities, not all chemicals of concern in Cuyama Basin groundwater will be monitored or regulated by the GSA. Total dissolved solids (TDS) will..."	Text has been updated for clarity
23	Matt Klinchuch	CBWD	Table 5-2: MOs	Table		MO column	Suggest making a symbolic post map, color "heat map" or contours to illustrate the basin as a whole, or maybe by threshold region, even though you aren't using those for WQ. Still people have gotten used to them and now think along those lines.	Spatial density of wells may not be sufficient to provide a map that is accurate to represent the MOs across the entire basin. When more data is available, this may be an option.
24	Matt Klinchuch	CBWD	5.6.3 Minimum Thresholds	1	1	Because current subsidence rates are not believed to be significant and	P521 is outside the basin. VCST is in the basin.	Updated text for clarity
25	Matt Klinchuch	CBWD	5.6.3 Minimum Thresholds	2	2	Thus, the MO for subsidence is set for zero	Isn't CUHS subsidence ~11 inches? More than zero...	Text has been updated for clarity. Although approximately 295 mm of subsidence has occurred in the last 14.5 years (estimated by taking -5mm around mid 2002 to -300 around Jan 2017), the rate of subsidence has been about 0.8 inches per year.
26	Matt Klinchuch	CBWD	5.7 Depletions of Interconnected	2	2	In January 1, 2015 surface flows infiltrated into the groundwater	Are you talking about a single 1-day flood event? This sentence is unclear if you are describing general conditions or a specific event.	Updated the text for clarity
27	Matt Klinchuch	CBWD	5.7 Depletions of Interconnected	2		Conditions have not changed since January 1, 2015	How does this correspond to the water budget showing significant surface water outflows?	Updated the text for clarity
28	Brenton Kelly	Quail Springs	General Comment				No explanation is offered for the absence of Interim Milestones. How and when will these be calculated? Placeholders for these important sustainability goals represent a critical gap in this chapter and need some explanation as to the timing and process for their completion.	The updated draft sets all IMs for water levels and water qualities to equal MTs
29	Brenton Kelly	Quail Springs	General Comment				Minimum Thresholds for the Eastern Region are being reconsidered and adjusted by the GSA and are not accurately reflected in this draft for review.	Text has been updated. Board provided final approval for update to MTs and MOs at the 4/5/2019 meeting
30	Brenton Kelly	Quail Springs	General Comment				The sustainability criteria of subsidence, loss of storage, water quality and the depletion of interconnected surface waters are underemphasized to the point of misrepresenting the undesirable results that are currently being experienced by beneficial users and uses other than agriculture in the basin.	Comment noted. No change needed.
31	Brenton Kelly	Quail Springs	General Comment				There is a dismissive approach to addressing the undesirable results of the Sustainability Criteria and to the setting of MTs. All the available data indicates conditions of overdraft in the basin but many MTs allow for continued declines in groundwater elevations and groundwater quality. The perspective towards sustainability appears to be coming from the viewpoint of the commercial agricultural beneficial user and dismissive of the needs of others, such as domestic and environmental users. Many water quality issues are avoided, such as arsenic and nitrates and domestic supply needs. Subsidence is dismissed and increasingly tolerated. Interconnected surface waters and GDEs are assumed to be irrelevant without the responsibility for protection. This is unacceptable to this stakeholder and I would hope and expect that the DWR would agree	Comment noted. No change needed.
32	Brenton Kelly	Quail Springs	5.2 Chronic Lowering				Of the six Threshold Regions that were defined for specific MT/MO/IMs, only two specifically note protection of environmental uses: Southeastern Threshold Region, and Eastern Threshold Region. However, W&C has defined likely GDEs in the Northwestern region and parts of the Central region. Without the associated maps and GDE report, it was unclear if these wells with MTs and MOs are protective of these likely GDEs. Most MTs/MOs in these wells (Table 5-1) are really deep; a few wells have MTs < 100ft and MOs <50 ft. It would be important for be able see where those wells overlay with the potential GDEs (both original NC dataset potential GDEs and the W&C likely GDEs). How is it demonstrated that the lowering of groundwater levels with these thresholds won't adversely impact these beneficial uses?	Well locations relative to GDEs can be assessed when Monitoring Network data gaps are addressed during the GSP implementation phase.
33	Brenton Kelly	Quail Springs	5.2.1 Threshold Regions				This subsection does not discuss the strategies used to calculate the MOs, MTs, and Milestones for each Threshold Region, as stated in the text, but only describe the characteristics and location of the regions. Strategies are presented in subsection 5.2.2.	Text has been updated for clarity
34	Brenton Kelly	Quail Springs	5.2.2 Minimum Thresholds...Southeastern Threshold				The MT is intended to be "protective of domestic, private, public, and environmental uses", yet for one of the only two monitoring wells in this region the MT is set only one foot above the bottom of the well (Opti well #2). How is that being protective?	MT is set at levels determined and approved by the GSA Board. If levels drop below MTs, the Board can take action in the future.
35	Brenton Kelly	Quail Springs	5.2.2 Minimum Thresholds...Eastern Threshold				It has been noted that these rationales do not work well for this region and that the monitoring wells are not representative of the wells in this region. The rationales for this region need to be reconsidered by the GSA and then this subsection rewritten before review.	Text has been updated. Board provided final approval for update to MTs and MOs at the 4/5/2019 meeting
36	Brenton Kelly	Quail Springs	5.2.2 Minimum Thresholds...Western Threshold				This sentence makes no sense; "This would allow users in this Threshold Region to utilize their groundwater supply without increasing the risk of running a dry well beyond acceptable limits, and this methodology is responsive to the variety of conditions and well depths in this region." A well running dry would surely constitute an Undesirable Result.	Text has been updated for clarity
37	Brenton Kelly	Quail Springs	5.2.2 Minimum Thresholds...Western Threshold				OPTI Well 474 is not in this region, why is it mentioned here?	Well 474 is in the western region

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38	Brenton Kelly	Quail Springs	5.2.2 Minimum Thresholds...Northwestern Threshold				Very little publicly verified information is available for this region which until recently had never been developed for irrigation. Only two years of data exists from the new wells in the region. How was the "total average saturated thickness for the primary storage area of the region" determined with any validity? With such limited historical data available, how was 50 feet determined to be 5 years of storage? Local landowner input is suspect to be biased in the interest of their recent commercial development and is therefore questionable at best. In the case of such uncertainty it seems imprudent and risky to set MTs so far below current conditions in a critically overdrafted basin. Were the "Far-west Northwestern" wells put into a newly designated Threshold Region, moved into the "Western" region, or just "reclassified" because the rational is inappropriate? Is this an appropriate solution? This was never discussed by the SAC or GSA.	Information about this region was provided in two memorandums emailed to the Cuyama mailing list on 12/13/2018. The GSA Board was able to take this information into account when setting MTs for this region.
39	Brenton Kelly	Quail Springs	5.3 Reduction in Groundwater				Reduction of groundwater storage is certainly a concern for the Basin for obvious reasons. A lack of sufficient monitoring data in several areas of the Basin (western, northwestern, far west northwestern, eastern, and southeastern) inadequately represent conditions of groundwater storage. Chronic groundwater elevation declines in many areas of the Basin indicate significant reduction in storage. The historic and current condition of overdraft (-26 TAF/Y) has reduced groundwater storage in the basin by well over 1,000,000 AF, and is projected to continue until some substantial changes are made to the management of this resource. The reduction of groundwater storage caused by continued overdraft is an undesirable result experienced by every beneficial user in the basin	The text has been revised to just note that direct measurement of storage is not needed, while removing reference to storage not being a concern.
40	Brenton Kelly	Quail Springs	5.5 Degraded Water Quality				Because of the causal nexus between excessive groundwater extraction and degrading groundwater quality, the GSA is responsible for monitoring the changes in concentrations of any constituent that would represent an undesirable degradation of water quality due to groundwater extraction. These include Arsenic, Nitrates and TDS. Limiting the GSP to monitoring TDS alone is not sufficient and does not satisfy the requirements of SGMA with regards to monitoring groundwater quality.	Direction was provided by the GSA Board (through approval of the Monitoring Networks GSP section) to only include TDS for monitoring and sustainability in the GSP. As stated in the text, other contamination sites are regulated by the RWQC, nitrates are under the jurisdiction of the ILRP, and the GSA does not possess land use authority to influence fertilizer use. Additionally, Arsenic occurs at specific depths in the Basin and is not managed at the GSA regional scale.
41	Brenton Kelly	Quail Springs	5.5.3 Minimum Thresholds				TDS levels in the groundwater detrimentally impact the agricultural economy of the Basin because crops like potatoes, beets and leafy greens, formerly a much larger part of local production, are no longer commercially viable. Carrots may tolerate the high TDS, but they suffer in quality, taste and sweetness. It should be noted that to defend poor water quality and tasteless produce does not serve the local agricultural economy well and the GSP should not include this sort of language. Further, there is no mention made of the undesirable effect experienced by domestic and livestock users due to the poor water quality. It should be noted that carrot production is not the only beneficial user of groundwater in the basin. Disadvantaged communities in the valley are not well resourced to treat drinking water sources or redrill domestic wells.	High TDS in the Basin, as stated in the text (Sustainability Thresholds Section and Groundwater Conditions) is naturally occurring within the Basin. The GSA has voted to monitor TDS, but may only influence TDS concentrations through groundwater levels, through additional inputs. These inputs travel through highly saline rock, contributing to additional TDS in the groundwater. Per SGMA regulations, the GSA is also only required to maintain water quality conditions that exist as of January 1, 2015. The GSA may choose to refine these thresholds later as more data is collected.
42	Brenton Kelly	Quail Springs	Table 5-2: MOs				How is it that all the Interim Milestones set for TDS have progressively higher concentrations over time? For example Opti well 99, with a MT of 1562, has an IM of 1490 - 1508 mg/L for 2025, 1490 - 1526 mg/L for 2030, and 1490 - 1544 mg/L for 2035. This appears to be getting worse not better! Why is it that many wells in the table (all of the last 17) have MO the same as the MTs, with IMs that have no range or change? For example; Opti well 845 has an MO of 1250 and an MT of 1250, and all three IMs are 1250 - 1250 mg/L. This data table implies worsening TDS concentrations over time and needs further clarification.	Interim Milestone calculations have been updated such that IMs equal the MTs at all intervals.
43	Brenton Kelly	Quail Springs	5.6 Subsidence				With the current accelerating rate of subsidence of approximately 0.5 inches per year, what is the rationale of a MT of 2 inches per year? This is far too permissive and clearly allows for up to 10 inches of collapse in 5 years at four times the current rate. Ground surface instability and associated storage loss of this caliber is not achieving sustainability and would constitute a significant undesirable result. There needs to be a clearer explanation of why this undesirable result is allowable	No undesirable result has been identified for subsidence of up to 2 inches per year
44	Brenton Kelly	Quail Springs	5.7 Depletions of Interconnected				Riparian habitat and phreatophytes in the Cuyama River have been drying up and dying since long before January 1, 2015, as groundwater levels decline and the river bank storage is lost. Conditions continue to degrade with the depletion of interconnected surface water as less of the river experiences surface flows due to declining groundwater elevations. Deforestation and riparian habitat loss is an undesirable result due to the adverse effects of continued overdraft. Groundwater dependent ecosystems are similarly adversely impacted by this undesirable result. SGMA requires GSAs to identify, quantify and manage these beneficial uses to avoid any undesirable results. This GSP fails to recognize that requirement or manage for these undesirable results.	Comment noted. Please review the GDE report for additional information.
45	Brenton Kelly	Quail Springs	5.7 Depletions of Interconnected				Without the baseline information in the Groundwater Conditions, especially in the newly developed Northwestern region, it is difficult to justify the decision to allow for the continued decline of groundwater levels with these MT/MO.	Comment noted. The MTs and MOs reflect the values approved by the Board.
46	Byron Albano	Cuyama Orchards	5.2.1 Threshold Region...Southeastern Threshold				I believe it is inaccurate to describe this Region as having groundwater levels that are "generally high in this area, with levels around 50 feet or less below the ground surface which indicates that this region is likely in a 'full' condition." If the GSP is going to characterize this region like that, then it needs to point out that it is based on limited history from two wells in the southern headlands half of the region, and that little or no data exists for the areas north toward the narrows.  Data does, however, exist, and I think it should inform our understanding and description of the region. At the request of staff, I have twice sent 3rd party documentation in the form of various well drilling reports as well as additional information about the significant fluctuations in static water levels that have occurred historically within this region. Those documents, well videos and air-line measurements show that static water levels in this region have fluctuated significantly during drought periods to at least as low as 108' bgs.  I believe there needs to be a recognition of the historical fluctuation of water levels in this region, and that this section should include something like the following wording: "Groundwater is generally high in this area with levels around 100 feet or less below ground surface. Groundwater levels in this region are subject to significant declines during drought periods but have typically recovered to within 50' or less of ground surface during historically wet periods."	Text has been updated to add additional language.
47	Byron Albano	Cuyama Orchards	5.2.1 Threshold Region...Eastern Threshold				The Eastern Threshold Region description should include a little more information: It only mentions conditions during the past 20 years, whereas our understanding of the reliability and availability of water in this region relates to a much longer time horizon. Our historical modeling is informed by 50 years of data, and I think we should at least descriptively recognize what's happened in this region over a longer history.  I think we should include wording to the effect that "Hydrographs in this region indicate that groundwater levels have ranged widely and repeatedly over the past 50 years. Hydrographs in the Ventucopa area indicate that groundwater levels have been, in general, declining for the past 20 years.	Example is OPTI Well 85. Text has been updated for clarity.
48	Byron Albano	Cuyama Orchards	5.2.2 Minimum Thresholds...Southern Threshold				Although the charts and thresholds are all good, I believe the threshold description rationale is in error. It reverses the use of the terms MO and MT.	Text has been updated to correct this error.

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49	Byron Albano	Cuyama Orchards	5.2.2 Minimum Thresholds...Southeastern Threshold	2	1	The MT for the Southeastern Threshold Region...	It should read: "The MO for Southeastern Region..."	Text has been edited
50	Byron Albano	Cuyama Orchards	5.2.2 Minimum Thresholds...Southeastern Threshold	3	1	To provide an operational flexibility range, the...	Sentence should read "To provide an operational flexibility range, the MT was calculated by adding 5-years of groundwater storage to the MO."	Text has been edited
51	Byron Albano	Cuyama Orchards	5.5.3 Minimum Thresholds				<p>The section seems to say that the TDS levels in the water need to be better measured and understood, and that we can't do much about them, and they're not necessarily impacting the economy that much, but then goes on to set Minimum Thresholds at very strict levels sometimes just above a recent historical level. At least some of the OPTI wells in the DMS have very limited data associated with the TDS, or even just two data points, sometimes with the same date (OPTI 83) and have a falsely narrow range of readings. Under the MT formula, this results in an exceptionally strict MT such as in OPTI 83 where the MT is set at just 6 ppm over the only reading on the well which was August of 2011.</p> <p>TDS levels vary broadly over short distances, and can vary significantly from year to year. My own sampling results show TDS results varying by as much as 800 ppm from one well to the next and by similar amounts on an individual well over time. If water quality readings that violate MTs will be an issue, then I believe the proposed MTs should be rethought and not expressed in terms of historical ranges, but rather as a percentage factor over recent values.</p>	Comment noted. The Board can reassess the thresholds in the future as more data is collected.
52	Matt Young	SBCWA	5.1 Useful Terms	Final			Typo in use of MI instead of IM.	Text has been updated
53	Matt Young	SBCWA	5.2.1 Threshold Regions	1		These conditions are influenced by geographic...	This sentence is confusing and needs revision	Text has been updated
54	Matt Young	SBCWA	5.2.1 Threshold Regions...Southeastern Threshold				Typo "southeaster"	Text has been updated
55	Matt Young	SBCWA	5.2.1 Threshold Regions...Southeastern Threshold				Describing groundwater levels is sufficient, no need to editorialize about "full" condition", or at least state that it is currently in a full condition.	Text has been updated
56	Matt Young	SBCWA	5.2.1 Threshold Regions...Central Threshold			Hydrographs in this region indicate that groundwater levels have been...	Should note that the levels have been substantially declining, or give a sense of the average rate of decline.	Comment noted. This is shown in the Groundwater Conditions section.
57	Matt Young	SBCWA	5.2.1 Threshold Regions...Western Threshold				Mention types of land use to distinguish it from NW Region Also, describing groundwater levels is sufficient, no need to editorialize about "full" condition", or at least state that it is currently in a full condition.	Text has been updated
58	Matt Young	SBCWA	5.2.1 Threshold Regions...Northwestern Threshold			The Northwestern Threshold Region is the bottom of the Cuyama...	Please be more specific and revise to something like: " The Northwestern Threshold Region is at the western edge of the Cuyama Basin and has undergone changes in land use from grazing to irrigated crops over the past 4 years." Also, describing groundwater levels is sufficient, no need to editorialize about "full" condition", or at least state that it is currently in a full condition.	Text has been updated
59	Matt Young	SBCWA	5.2.1 Threshold Regions...Badlands Threshold			There is no monitoring in this region, and this	Revise to "... and no sustainability criteria were developed for this region."	Text has been updated
60	Matt Young	SBCWA	5.2.2 Minimum Thresholds	General Comment			MTs were established for wells, not regions. So the text should state that MTs were calculated for wells in a given region.	Text has been updated
61	Matt Young	SBCWA	5.2.2 Minimum Thresholds	General Comment			Include additional reasoning why the various threshold rationales were chosen.	Comment noted. This will be included in the Undesirable Results Narrative.
62	Matt Young	SBCWA	5.2.2 Minimum Thresholds...Central Threshold			The MT for the Central Threshold Region	Typo "The MT for the Central Threshold Region was calculated by taking finding..."	Text has been updated
63	Matt Young	SBCWA	5.2.2 Minimum Thresholds...Central Threshold			OPTI Wells 74, 103, 114, 568, 609, and	Please explain the reason for this in the text (e.g., "Because OPTI Wells 74, 103, 114, 568, 609, and 615 did not have sufficient measurements...")	The text has been updated. These wells did not have measurements to within the specified time range to represent January 1, 2015 conditions and thus utilized a linear trendline to extrapolate and estimated value.
64	Matt Young	SBCWA	5.2.2 Minimum Thresholds...Western Threshold			OPTI Well 474 utilizes a modified MO calculation	Please explain why in the text.	Text has been updated
65	Matt Young	SBCWA	5.3 Reduction in Groundwater	2		Reduction of groundwater storage is not a concern for the Basin for two reasons.	Reduction of groundwater storage may be able to measured using levels as a proxy, but it is inaccurate to say that it is not a concern. Even areas that may be currently "full" may suffer reductions in groundwater storage going forward. Suggest deleting this discussion.	The text has been revised to just note that direct measurement of storage is not needed, while removing reference to storage not being a concern.
66	Matt Young	SBCWA	5.5 Degraded Water Quality	3		Because the undesirable result for degraded	Explain in text why TDS will be monitored. Current discussion is only about constituents not to be monitored.	Text has been updated
67	Matt Young	SBCWA	5.5 Degraded Water Quality	3		Arsenic occurs at specific depths in the basin, but the location	If arsenic increases with depth, then managing declines in groundwater levels would manage arsenic concentrations.	Text has been updated
68	Matt Young	SBCWA	5.5.3 Minimum Thresholds	3	1	Due to these factors the MT for representative well sites are set	Please give an example of how this is calculated with an example well for clarity in the text. Also provide the calculations in Table 5.2 or in an appendix. Columns with the total range and the 90th percentile of measurements would be useful.	Text and Table has been updated

**Cuyama Basin Sustainability Section**  
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Comment #	Commenter	Commenter Organization	Section	Section Paragraph #	Paragraph's Sentence #	Sentence Starts with, "...	Comment	Response to Comment
69	Matt Young	SBCWA	Table 5-2: MOs				Table should state that these concentrations are for TDS. Include units for MO and MT as they are for the IMs. For ease of table reading, could move units to the header.	Table has been updated
70	Matt Young	SBCWA	5.6.2 Representative Monitoring				It's not just water-related infrastructure that is impacted by land subsidence. It can be roads, bridges, etc.	Text has been updated
71	Matt Young	SBCWA	Figure 5-4				Needs to be referenced	Text has been updated
72	Matt Young	SBCWA	5.7 Depletions of Interconnected	2	2	In January 1, 2015 surface flows infiltrated into the groundwater	This statement, and this whole section is confusing and should be revised. I think that the intent is to say that there has been no change in surface water depletion since 2015, but the wording is quite awkward and would not be coherent to a reader without significant background knowledge.	Text has been updated
73	Diane Kukol	Cuyama Valley GSA	General Comment				In general, the Central Coast Water Board recommends that the number of chemical constituents included in the Minimum Thresholds (MT), Measurable Objectives (MO), and Interim Milestones (IM) be increased. The Central Coast Water Board agrees that MTs, MOs and IMs should be established for total dissolved solids (TDS), however, including only that single constituent is insufficient for determining whether a groundwater basin is being managed sustainably with respect to water quality or for determining if undesirable results are being addressed. Land use in the Cuyama Valley is dominated by commercial agriculture, an industry that utilizes a variety of chemicals and practices that pose threats to groundwater quality. Therefore, the Central Coast Water Board recommends expanding the list of chemical constituents in the MT, MO, and IM to include nitrate, arsenic, and major dissolved ions. The reasoning for this recommendation is described in detail below.	Direction was provided by the GSA Board (through approval of the Monitoring Networks GSP section) to only include TDS for monitoring and sustainability in the GSP. Therefore, this Section will only include water quality sustainability indicators for TDS, unless alternate direction is provided by the Board.
74	Diane Kukol	Cuyama Valley GSA	General Comment				Nitrate: Nitrate contamination of groundwater from agricultural activities is widely documented in the Central Coast region, including within the Cuyama Valley. Approximately 9% of on-farm domestic wells in the Cuyama Valley exceed the human health standard for nitrate concentration in drinking water <sup>1</sup> . The draft chapter states that the Cuyama Valley groundwater sustainability agency (GSA) does not have the authority to influence fertilizer use, and we are not suggesting the GSA should undertake such a regulatory role. However, the GSPs are required to implement thresholds and monitoring that can identify when undesirable results are occurring. Given the current impairment from nitrate in the basin and ongoing agricultural activity, it is appropriate to require thresholds and monitoring for nitrate in the Cuyama Valley groundwater basin. Nitrate monitoring is not unusual in agriculturally-dominated basins; for example, the Salinas Valley GSA is recommending an expanded suite of chemical constituents for its thresholds and monitoring. The recommendation in their most recent draft includes up to 25 different chemical constituents, including nitrate and arsenic. Finally, we recommend that nitrate be reported as nitrogen (nitrate as N), because this convention allows for easy comparison and summation (e.g., calculation of total nitrogen).	Direction was provided by the GSA Board (through approval of the Monitoring Networks GSP section) to only include TDS for monitoring and sustainability in the GSP. Therefore, this Section will only include water quality sustainability indicators for TDS, unless alternate direction is provided by the Board.
75	Diane Kukol	Cuyama Valley GSA	General Comment				Arsenic: Arsenic is a toxic chemical compound that occurs naturally in relatively high concentrations in many of the sediments that form California groundwater basins, including those of the Central Coast. Groundwater data from the Water Board's GeoTracker GAMA website indicates that 12% of the wells in the Cuyama Valley groundwater basin exceed the maximum contaminant level (MCL) for arsenic in drinking water. The highest concentration recorded in the basin occurred in 2011 and was more than six times greater than the MCL. Furthermore, recent studies in the Central Valley of California and the Mekong Delta in Thailand have demonstrated that ground subsidence associated with groundwater over-pumping can mobilize arsenic by 'squeezing' it out of subsurface clay layers. The resulting mobilized arsenic can then enter groundwater and increase arsenic concentrations in nearby water supply wells. Because there is documented overdraft and subsidence in the Cuyama Valley, there is the potential risk of anthropogenically-induced arsenic contamination of groundwater due to arsenic mobilization from clay layers in the Cuyama Valley basin. Lastly, in addition to sediment related sources, arsenic is a component in many pesticides commonly used on various crops. These factors suggest that arsenic should be included in the MTs, MOs, and IMs for the Cuyama Valley basin.	Direction was provided by the GSA Board (through approval of the Monitoring Networks GSP section) to only include TDS for monitoring and sustainability in the GSP. Therefore, this Section will only include water quality sustainability indicators for TDS, unless alternate direction is provided by the Board.
76	Diane Kukol	Cuyama Valley GSA	General Comment				Major Dissolved Ions: Major dissolved cation and anion composition in groundwater reflects the source of recharge water, lithological and hydrological properties of the aquifer, groundwater residence time, and chemical processes within the aquifer. As such, major dissolved ions are valuable for identifying different groundwater types (via Piper or Stiff diagrams) and for "fingerprinting" source water from individual wells. In addition, ionic charge balance provides quality assurance that all the major ions are actually included in the analysis and that TDS concentrations are accurate. Finally, collection and analysis of major dissolved ion samples is easy and inexpensive, and the cost of the analysis is well worth the data provided, particularly if the well is already being sampled for other constituents.	Direction was provided by the GSA Board (through approval of the Monitoring Networks GSP section) to only include TDS for monitoring and sustainability in the GSP. Therefore, this Section will only include water quality sustainability indicators for TDS, unless alternate direction is provided by the Board.
77	Cathy Martin	SLO County	5.1 Useful Terms				Suggest that the GSA Board is aware that the representative wells are theoretical until an agreement between the GSA and well owner is executed. Does the Consultant have a list of other potential representative wells in case a well is not operational, or an agreement cannot be executed?	All the wells that could be used as representatives wells are included, and thus no alternative list is available. The text has been updated for clarity
78	Cathy Martin	SLO County	5.2.1 Threshold Regions...Southeastern Threshold	1	1	The Southeastern Threshold Region	Spelling	Text has been updated
79	Cathy Martin	SLO County	5.2.1 Threshold Regions...Southeastern Threshold	1	2	Groundwater is generally high	Consider adding a timeframe or date to when this area was defined as full.	Text has been edited for clarity
80	Cathy Martin	SLO County	5.2.1 Threshold Regions...Southeastern Threshold	1	3	The northern boundary of this region is the	Consider defining all four boundary directions for the Southeastern Threshold Region.	Text has been updated
81	Cathy Martin	SLO County	5.2.1 Threshold Regions...Eastern Threshold	1	4	The northern boundary of this region	Consider defining all four boundary directions for the Eastern Threshold Region.	Text has been updated
82	Cathy Martin	SLO County	5.2.1 Threshold Regions...Central Threshold	1	3	The south-eastern boundary is defined by	Consider defining all four boundary directions for the Central Threshold Region.	Text has been updated
83	Cathy Martin	SLO County	5.2.1 Threshold Regions...Western Threshold	1	1	The Western Threshold Region is characterized	Consider adding a timeframe or date to when this area was defined as full.	The text has been updated.
84	Cathy Martin	SLO County	5.2.1 Threshold Regions...Western Threshold	1	3	The eastern boundary is defined by	Consider defining all four boundary directions for the Western Threshold Region.	Text has been updated
85	Cathy Martin	SLO County	5.2.1 Threshold Regions...Northwestern Threshold	1	2	Hydrographs in this portion of the	Consider adding a timeframe or date to when this area was defined as full.	The text has been updated.



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Comment #	Commenter	Commenter Organization	Section	Section Paragraph #	Paragraph's Sentence #	Sentence Starts with, "...	Comment	Response to Comment
86	Cathy Martin	SLO County	5.2.1 Threshold Regions...Northwestern Threshold	1	3	The southeastern border was drawn to	Consider defining all four boundary directions for the Northwestern Threshold Region.	Text has been updated
87	Cathy Martin	SLO County	5.2.1 Threshold Regions...Eastern Threshold	1	3	The northern boundary of this region is	Consider defining all four boundary directions for the Eastern Threshold Region.	Text has been updated
88	Cathy Martin	SLO County	5.2.1 Threshold Regions...Central Threshold	1	3	The south-eastern boundary	Consider defining all four boundary directions for the Central Threshold Region.	Text has been updated
89	Cathy Martin	SLO County	5.2.1 Threshold Regions...Western Threshold			The Western Threshold Region is characterized	Consider adding a timeframe or date to when this area was defined as full.	The text has been updated.
90	Cathy Martin	SLO County	5.2.1 Threshold Regions...Western Threshold			The eastern boundary is defined by the	Consider defining all four boundary directions for the Western Threshold Region.	Text has been updated
91	Cathy Martin	SLO County	5.2.1 Threshold Regions...Northwestern Threshold	1	2	Hydrographs in this portion of the Basin	Consider adding a timeframe or date to when this area was defined as full.	The text has been updated.
92	Cathy Martin	SLO County	5.2.1 Threshold Regions...Northwestern Threshold	1	3	The southeastern border	Consider defining all four boundary directions for the Northwestern Threshold Region.	Text has been updated
93	Cathy Martin	SLO County	5.2.1 Threshold Regions...Badlands Threshold	1	2	There are few active wells and little	Consider removing the word little and adding an estimated value of groundwater from the groundwater model.	The text has been edited.
94	Cathy Martin	SLO County	5.2.1 Threshold Regions...Badlands Threshold	1	3	There is no monitoring in this region	Consider defining the geology of the Badlands area, such as adding Ballinger, Quatal, and Apache Canyons. This will help explain why this area has few active wells	This is in the HCM section.
95	Cathy Martin	SLO County	5.2.2 Minimum Thresholds	1	1		Consider adding a summary of why each region may have a different MT and MO.	This information is provided in the text
96	Cathy Martin	SLO County	5.2.2 Minimum Thresholds...Southern Threshold				Consider adding a hydrograph figure to help explain each threshold region for MO & MT.	Hydrographs with thresholds are provided in an appendix
97	Cathy Martin	SLO County	5.2.2 Minimum Thresholds...Eastern Threshold				Consider adding a hydrograph figure to help explain each threshold region for MO & MT.	Hydrographs with thresholds are provided in an appendix
98	Cathy Martin	SLO County	5.2.2 Minimum Thresholds...Central Threshold				Consider adding a hydrograph figure to help explain each threshold region for MO & MT.	Hydrographs with thresholds are provided in an appendix
99	Cathy Martin	SLO County	5.2.2 Minimum Thresholds...Western Threshold				Consider adding a hydrograph figure to help explain each threshold region for MO & MT.	Hydrographs with thresholds are provided in an appendix
100	Cathy Martin	SLO County	5.2.2 Minimum Thresholds...Northwestern Threshold				Consider adding a hydrograph figure to help explain each threshold region for MO & MT.	Hydrographs with thresholds are provided in an appendix
101	Cathy Martin	SLO County	5.2.2 Minimum Thresholds...Badlands Threshold			The Badlands Threshold Region has no	Page 5-8 states that the area has few active wells, please clarify or correct.	Text has been updated
102	Cathy Martin	SLO County	5.2.3 Selected Minimum Thresholds				Consider adding a summary table for MO / MT, such as the one shown in the GSA Board agenda packet on March 6th.	Summary table is provided - Table 5-1
103	Cathy Martin	SLO County	5.5.3 Minimum Thresholds	2	3	Much of the crops grown	Consider referencing the crop types or adding a figure on crop types to support this statement.	This information would be included in the plan in the Basin Settings section
104	Cathy Martin	SLO County	General Comment				Consider adding adaptive management as a section in this chapter to provide flexibility to the GSA Board for MO, MT, and interim milestones. Revisions to the MO, MT, and interim milestones could be based on the data collected and analyzed from the GSP monitoring and overall plan effectiveness.	Adaptive management will be included in the Projects and management action section.
105	Cathy Martin	SLO County	References			California Department of Water Resources (DWR),	Wrong agency?	Text has been updated
106	Cathy Martin	SLO County	References			Irrigated Land Regulatory Program (IRLP),	Correction - ILRP	Text has been updated

**Cuyama Basin Water Budget Section**  
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Comment #	Commenter	Commenter Organization	Section	Section Paragraph #	Paragraph's Sentence #	Sentence Starts with, "...	Comment	Response to Comment
1	Catherine Martin	SLO County	2.3.4 Water Budget...Current and Projected	1		Because there is no basis to assume any changes in Cuyama Basin	Consider adding projects to the projected water budget.	The Water Budget section on sustainable yield now includes an analyses that incorporates potential projects.
2	Brenton Kelly	Quail Springs	General Comments				"As defined by the Groundwater Sustainability Plan (GSP) regulations promulgated by the California Department of Water Resources (DWR), the water budgets section is intended to quantify the following: (5) If overdraft conditions occur, a quantification of overdraft over a period of years during which water year and water supply conditions approximate average conditions."  These are the only two times the word "overdraft" is used in this whole chapter, yet the data indicates that of the 60 TAF extracted every year from the Cuyama Groundwater Basin for agriculture, 23 to 26 TAF of it is in excess of available recharge, otherwise known as "overdraft". That's 44% overdraft, almost 1/2 the amount that is being extracted. That is before climate change or GDEs are factored into the budget. Yet there is not one mention of the word overdraft! Change in Storage is an unclear euphemism that must be qualified with another disassociating term, such as positive/negative or gain/loss. In a basin that is designated by DWR as critically overdrafted, the GSP should not be hiding the problem behind misleading terminology that downplays the issue. Call it by its real name; Overdraft.	A note has been added that reduction in storage is overdraft.
3	Brenton Kelly	Quail Springs	2.3.5 Water Budget Estimates				The terms used for the components of the surface and groundwater budgets should be clearly defined in a Useful Terms section. What is specifically meant by these terms and how are they calculated, estimated or measured; Evapotranspiration, Deep Percolation, Applied Water, Runoff, Stream Seepage, Subsurface inflow, Reduction in storage	A Useful Terms section has been added
4	Brenton Kelly	Quail Springs	2.3.6 Historical Water Budget			The Basin average annual historical groundwater budget has greater	This sounds like chronic overdraft. To accurately quantify it would be to compare it to the total pumping demand. 23 TAF/Y has no reference to the basin as a whole. 44% overdraft is a quantification. The decision makers who are charged with balancing this basin are not well served when the problem is not clearly stated.	Required pumping reductions to eliminate overdraft are now quantified in the sustainable yield section.
5	Brenton Kelly	Quail Springs	2.3.7 Current and Projected Water Budget				The water budget considers native vegetation within the surface water system of the water budget. Native vegetation evapotranspiration (174,000 AFY) is a significant portion (60%) of the average annual surface water budget. Because the section of the report related to Groundwater Dependent Ecosystems is not yet available for review, it is unknown if some portion of the native vegetation could be utilizing groundwater as its water source. It is also recognized that this is one of the many real data gaps, as this Basin's hydrologic connection to the native ecosystems is poorly understood. The Project of Rangeland Management fits in here with a possible win/win between ecological services and a water Budget. Fire, as a management strategy for maintaining a more mature natural ecosystem, can augment groundwater recharge in the main basin. Where is the Data Gap section to help refine this understanding to help improving these Thresholds into the future.	GDEs are now discussed in the Groundwater Conditions section. The rangeland management project is not included in the GSP per direction from the Board
6	Brenton Kelly	Quail Springs	2.3.7 Current and Projected Water Budget				The text incorrectly identifies Figure 2.3-9 and Figure 2.3-10 as historical when they are current and projected numbers. The text also fails to quantify the overdraft of 42% by only stating that the "budget has greater outflows than inflows, leading to an average annual decrease in groundwater storage of 25,000 AF" By presenting only the value of the imbalance, the degree of overdraft is not conveyed and the severity of the situation is avoided and misrepresented. This is an unacceptable disservice to contextual understanding, which misleads and decontextualized the situation to decision-makers and stakeholders.	The text has been corrected. Required pumping reductions to eliminate overdraft are now quantified in the sustainable yield section.
7	Brenton Kelly	Quail Springs	Table 2.3-4: Current and Projected				What is meant by these Water Year Types? How many inches of rain per type of water year? This table could be informative if it had more reference or context. What is the % of normal or average?	Water year types were developed for the Cuyama Basin based on historical Basin precipitation.
8	Brenton Kelly	Quail Springs	2.3.8 Sustainable Yield Estimate				DWR requires an estimate of sustainable yield for the basin. Why is this incomplete? This section can be developed without the projects and management actions modeling analysis. Why not estimate the Sustainable Yield for the baseline condition before projects and management actions? Some amount less than the sum of Deep Percolation + Stream Seepage + Subsurface Inflow would be a Sustainable Yield. That's < 35,000 AF or 56% of current pumping. Quantify what we do already know.	Sustainable yield information is now included in the section.
9	Brenton Kelly	Quail Springs	General Comments				It is disingenuous to present alarming data without reference or context for the understanding of its severity. DWR requires the quantification of the overdraft. W&C has not only failed to clearly quantify the degree of overdraft, but they refrained from even using the term at all. For the sake of stakeholder understanding and effective decision making it is critical that all information is presented in full context. Complex issues need their significance and their implications explained clearly.	A note has been added that reduction in storage is overdraft.
10	Matt Young, Matt Scudato, Fray Crease	SBCWA	2.3.1 Water Budget Information	3			It would be useful to be more specific which regulations are binding than the entire California Code of Regulations.	A footnote has been added as suggested below.
11	Matt Young, Matt Scudato, Fray Crease	SBCWA	Figure 2.3-2				Please double-check the cumulative departure calculations. Based on visual inspection, the calculations appears to be off in places (e.g., 2003 received 12 inches below average precip, but the cumulative departure only drops about 8 inches)	The figure has been updated
12	Matt Young, Matt Scudato, Fray Crease	SBCWA	2.3.4 Water Budget...Current and Projected	1		This baseline uses current land and water use	This is not accurate based on previously presented information in the Technical Forum. It was previously understood that you are varying assumed land use going forward to match historical changes in annual crops.	The text has been revised for clarity.
13	Matt Young, Matt Scudato, Fray Crease	SBCWA	General Comments				There does not appear to be a placeholder for a projected groundwater budget considering climate change.	A section on climate change has been added.
14	Matt Klinchuch	CBWD	2.3.1 Water Budget Information	3		In this document, consistent with the	Suggest citing in footnote: California Code of Regulations, Title 23. Waters, Division 2. Department of Water Resources, Chapter 1.5. Groundwater Management, Subchapter 2. Groundwater Sustainability Plans	This has been added.
15	Matt Klinchuch	CBWD	Figure 2.3-2				Align and standardize vertical scales to allow direct comparison for a given year or set of years.	The figure has been updated
16	Matt Klinchuch	CBWD	General Comments				The IWFM was calibrated for the period 1995-2015. The historical budget is for the period 1998-2017. Presumably the 2016 and 2017 periods are predicted by the model. Where is the post audit of those results?	These can be made available to the Tech Forum members
17	Matt Klinchuch	CBWD	2.3.4 Water Budget...Historical	1	2	The hydrologic period of 1998	This results in cumulative removal of 18 inches of water relative to the long-term average.	Comment noted. No change required in document.
18	Matt Klinchuch	CBWD	2.3.5 Water Budget Estimates			The following components are included in the groundwater budget	Are spring flows negligible/ignored?	Spring flows are negligible compared to the overall water budget.
19	Matt Klinchuch	CBWD	Table 2.3-2			Average Annual Land Surface Water Budget	Incorporate "20-yr" and "50-yr" in table title	These have been added as footnotes to the table

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Comment #	Commenter	Commenter Organization	Section	Section Paragraph #	Paragraph's Sentence #	Sentence Starts with, "...	Comment	Response to Comment
20	Matt Klinchuch	CBWD	Table 2.3-3			Average Annual Land Surface Water Budget	Move tables closer to text where they are discussed.	The section has been re-formatted
21	Matt Klinchuch	CBWD	Table 2.3-4			"Runoff" cell	Is this flow out of the basin?	Yes
22	Matt Klinchuch	CBWD	Table 2.3-3			Cell with 25,000 value in 3rd column for Deep Percolation	Rounding error? Why not 26,000 AFY as with land surface deep percolation?	Yes, this difference is due to rounding.
23	Matt Klinchuch	CBWD	Figure 2.3.4			Historical Land Surface Water Budget	Need to be rigorous about land surface and groundwater budgets; do not refer to basin budget components.	The text has been revised as recommended.
24	Matt Klinchuch	CBWD	2.3.6 Historical Water Budget			The Basin experiences about 285,000 AF	"Basin" - The unsaturated soil zone, not the basin; groundwater is part of the basin water budget.	The text has been revised as recommended.
25	Matt Klinchuch	CBWD	2.3.6 Historical Water Budget			The Basin experiences about 285,000 AF	"inflows" - Land surface inflows	The text has been revised as recommended.
26	Matt Klinchuch	CBWD	2.3.6 Historical Water Budget			About 225,000 AFY is consumed as evapotranspiration	These amounts make sense?	Yes, the evapotranspiration estimates are reasonable given the available land use data. The stream seepage and deep percolation estimates are reasonable given the data that is available.

**Cuyama Basin Placeholder Sections**  
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Comment #	Commenter	Commenter Organization	Section	Section Paragraph #	Paragraph's Sentence #	Sentence Starts with, "...	Comment	Response to Comment
1	Cathy Martin	County of SLO	1.2.8 Plan Elements from CWC Section 10727.4	1	1	The plan elements from...	Suggest revising language in 1.2.8 - first sentence	The text has been revised
2	Cathy Martin	County of SLO	2.2.4 Change in Groundwater Storage	1	5	The color of bar...	Consider revising the river name	The year type index has been clarified.
3	Cathy Martin	County of SLO	2.2.10 Data Gaps	1			Consider adding a table on all the data gaps mentioned below in 2.2.10, including data gaps required by DWR GSP regulations.	This is not needed
5	Brenton Kelly	Quail Springs Permaculture	General				Overdraft continues to be hidden within confusing language. Clarity with this issue is paramount and should not be at all ambiguous.	The text has been revised to note that negative change in storage is overdraft
6	Brenton Kelly	Quail Springs Permaculture	General				Some shake up in classifying GDEs has made two unrealistic elimination of either 56% or 82% potential GDEs.	Comment noted. A more detailed analysis of GDEs can be performed during implementation if the Board chooses to do so.
7	Brenton Kelly	Quail Springs Permaculture	General				Additional Data Gaps for the Groundwater Conditions we noted.	The data gaps section has been edited.
8	Brenton Kelly	Quail Springs Permaculture	General				Due to the absence of any stream gauges in the Cuyama in the basin the model is calculating all the amounts and the relationships between the surface and groundwater. This interpreted Interconnectivity of surface waters with the groundwater in not well reflected from the model onto the Figure. More inter-relativity in the presentation is needed.	Comment noted.
9	Brenton Kelly	Quail Springs Permaculture	2.1.10 Hydrogeologic Conceptual Model Data Gaps				It has been recognized that the interconnectivity between Groundwater and surface water is poorly understood, and represents a significant Data Gap in the HCM and throughout this GSP. Many historic seeps, springs and wetlands indicate a complex cascading basin in the three main aquifers with perched groundwater elevations on top of clay layered aquitards. This affects the Groundwater Dependent Ecosystems across the basin and needs further understanding.	Comment noted. A more detailed analysis of GDEs can be performed during implementation if the Board chooses to do so.
10	Brenton Kelly	Quail Springs Permaculture	2.2.4 Change in Groundwater Storage	1	4	Average annual use over the twenty-year period was...	The text does not express the degree or severity of the overdraft. The sentence is incorrect and misinforming. It does not even use the euphemism "change in storage", the word "use" should read "overdraft".	The text has been revised to note that negative change in storage is overdraft
11	Brenton Kelly	Quail Springs Permaculture	2.2.4 Change in Groundwater Storage	1	1	Historical change in storage in the Cuyama Basin...	The text does not express the degree or severity of the overdraft. In this sentence, at least the first "change in storage" could be replaced for clarity with "overdraft". At the very least quantify it as "negative change in storage".	The text has been revised to note that negative change in storage is overdraft
12	Brenton Kelly	Quail Springs Permaculture	2.2.4 Change in Groundwater Storage				The water year type should be correlated to a Cuyama Basin type of water year, not the central valley. Please define what is designated by the water year type as a percent of deviation from an average or normal year.	The year type index has been clarified.
13	Brenton Kelly	Quail Springs Permaculture	2.2.8 Interconnected Surface Water Systems				Is this the same Appendix X as the GDE Report Appendix X?	The text has been revised to clarify that this is referring to the IWFm model appendix.
14	Brenton Kelly	Quail Springs Permaculture	2.2.8 Interconnected Surface Water Systems				Presumably, the Cuyama Basin IWFm Model can be used to analyze groundwater interactions between all the surface water flows in the Basin. Figure 2.2 only represents the Cuyama River, and four of the creeks. Are these the only reaches being analyzed from the model? And can we get more analysis of this data? Show amounts and percentages of gain and loss by reach.	While runoff from all watersheds is simulated in the model, these are the only reaches explicitly simulated as creeks in the model.
15	Brenton Kelly	Quail Springs Permaculture	2.2.8 Interconnected Surface Water Systems				As is noted in the Section 4-10 below, this modeling is being done without any stream gauge data points, because there are no stream gauges, yet.	Comment noted.
16	Brenton Kelly	Quail Springs Permaculture	Table 2-1				This table needs a couple of additional rows on the bottom for Totals & Averages by Reach. This would illustrate the patterns better than the Total column does and it would be helpful to overlay on Figure 2-2 (which needs relabeling). Range of data and the % of Total would also be informative additional rows to this chart	An average annual row has been added.
17	Brenton Kelly	Quail Springs Permaculture	2.2.9 Groundwater Dependent Ecosystems				How and why did we go from reducing to 497 acres from the 2700 acres of GDEs in the DWR's Natural Communities Commonly Associated with Groundwater (NCCAG) dataset, to these 123 "probable GDEs" and 275 "probable non-GDEs"? What happened to acreage? It is not reasonable to eliminate such a large % (82% & 56% respectively) of possible GDE acres from a desktop analysis of aerial imagery and such little field study (1 & 1/2 days and only six discreet sites). All of the GDEs up Santa Barbara Canyon are on public land and are full of seeps, springs & wetlands. You just have to walk in to verify them, not drive. Why are they classified as non-GDEs? Figure 2-5 misspelled "Likely Wetlands" and shows no discernable wetlands at all. This report drastically underrepresents the remaining GDEs and risks the continued loss of this important beneficial use of the groundwater resources.	Comment noted. A more detailed analysis of GDEs can be performed during implementation if the Board chooses to do so.
18	Brenton Kelly	Quail Springs Permaculture	2.2.9 Groundwater Dependent Ecosystems	2	2	The NCCAG dataset was compiled by the Nature Conservancy...	Is this true? I thought it was CWDR. The text and Figure 2-3 should credit DWR, not The Nature Conservancy. And that is all the more reason to ground truth verify the data before tossing it out	The text has been revised.
19	Brenton Kelly	Quail Springs Permaculture	2.2.10 Data Gaps				Additional Data Gaps in the Groundwater Conditions include the following: All the major faults are not well understood with regard to the degree they represent a barrier to flow and at what depth below the surface.	The data gaps section has been edited.
20	Brenton Kelly	Quail Springs Permaculture	2.2.10 Data Gaps				Additional Data Gaps in the Groundwater Conditions include the following: The wells in the database and in the Monitoring Network are not well known and must be canvassed to verify well depth, perforation interval and current status.	The data gaps section has been edited.
21	Brenton Kelly	Quail Springs Permaculture	2.2.10 Data Gaps				Additional Data Gaps in the Groundwater Conditions include the following: The size of the Basin with regard to groundwater in storage is not well known and after 40 years of chronic overdraft and the loss of over 1 MAF, what remains in storage?	The data gaps section has been edited.
22	Brenton Kelly	Quail Springs Permaculture	4.10 Depletions of Interconnected Surface Water Monitoring Network			Monitoring Networks for depletions of surface water cannot ...	It is appreciated by this reviewer that the lack of any surface water gage stations on the Cuyama River in the Basin is recognized as an impediment to accurate modeling. No amount of numeric estimating can make up for the lack of real data points. When can we see these new stream gages installed?	Comment noted.
23	Brenton Kelly	Quail Springs Permaculture	Appendix X				This Technical Memorandum could have been more informative with a brief Publication Review. Historical reference with field verification and local experience would have yielded different conclusions. With only six actual field sites visited, this was not a significant field verification and the aerial imagery analysis was inadequate to identify the many existing GDEs that were disqualified in this report.	Comment noted. A more detailed analysis of GDEs can be performed during implementation if the Board chooses to do so.



TO: Board of Directors  
Agenda Item No. 7c

FROM: Jim Beck/Taylor Blakslee, Hallmark Group

DATE: May 1, 2019

SUBJECT: Fiscal Year 2019-20 Budget Adoption

### **Issue**

Review of the Fiscal Year 2019-20 Budget, Cash Flow and Implementation Costs.

### **Recommended Motion**

Adopt the Fiscal Year 2019-20 Budget.

### **Discussion**

Provided as Attachment 1 is a Cash Flow comparison with and without implementation and other costs. This comparison describes the changes between the original cash flow and the updated cash flow that includes implementation costs and updated cash flow items. The resulting cash flow from this attachment shows a decrease in the amount of the remaining cash on hand at the end of the program. This is the result of a number of out of scope activities that included multiple rounds of document revisions with stakeholders, more than four times the number of meetings (including the technical forum calls), and coordination of DWR Technical Support Services. The total amount for these out of scope activities is roughly \$180,000. Attachment 2 is the draft Fiscal Year 2019-20 budget for consideration of approval, Attachment 3 is the updated cash flow that reflects the FY 19-20 budget, and Attachment 4 is the estimated implementation costs through 2040.

### **Key Assumptions**

We assume the below meeting cadence for the period July 1, 2019 going forward.

<b>Meeting</b>	<b>Prior Frequency</b>	<b>Recommended FY 19-20 Frequency</b>
<b>Standing Advisory Committee</b>	Monthly	Bimonthly
<b>Board</b>	Monthly	Bimonthly
<b>Technical Forum</b>	Monthly	Cancel
<b>Public Workshops</b>	Quarterly	Semiannual
<b>Newsletter</b>	Quarterly	Semiannual

## CASHFLOW COMPARISON - Without Implementation & Other Costs

December 2017 through June 2020

Cashflow Category	Previous	Updated	Difference	Change
Grant Proposal 1	\$ 39,151	\$ 39,151	\$ -	0%
Grant Proposal 2			\$ -	NA
HG Task Order 1-4	\$ 541,012	\$ 550,901	\$ 9,889	2%
Legal Counsel	\$ 92,577	\$ 138,689	\$ 46,112	50%
Audit		\$ 10,000	\$ 10,000	NA
Website Updates	\$ 5,700		\$ (5,700)	-100%
Insurance and Cal Mutual Membership	\$ 29,571	\$ 31,729	\$ 2,158	7%
Travel / Conference and Other	\$ 17,500		\$ (17,500)	-100%
Contingency	\$ 60,000		\$ (60,000)	-100%
Category 1 & 2 Grant Tasks	\$ 2,148,124	\$ 2,328,792	\$ 180,668	8%
Unbudgeted Meeting Participation for W&C			\$ -	NA
Admin & Support for DWR TSS			\$ -	NA
<b>Total Expenses</b>	<b>\$ 2,933,636</b>	<b>\$ 3,099,262</b>	<b>\$ 165,626</b>	<b>6%</b>

### Items added following Budget Ad Hoc discussion

#### Implementation and Other Expenses (Feb - June)

Prop 218 Basin-wide			\$ -	NA
Economic Analysis of Projects and Actions			\$ -	NA
GSA Implementation Tasks (Basin-wide)			\$ -	NA
GSA Implementation Tasks (Management Areas)			\$ -	NA
<b>Total Additional Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses</b>	<b>\$ 2,933,636</b>	<b>\$ 3,099,262</b>	<b>\$ 165,626</b>	<b>6%</b>

### Revenues

DWR Reimbursement Received	\$ 2,148,124	\$ 2,148,124	\$ (0)	0%
Proposed Participant Contributions	\$ 996,808	\$ 996,808	\$ -	0%
SBCWA Grant Additional Funds			\$ -	
Potential DWR Grant Funds				
<b>Total Revenues</b>	<b>\$ 3,144,932</b>	<b>\$ 3,144,932</b>	<b>\$ (0)</b>	<b>0%</b>
<b>Total Revenues Minus Expenses</b>	<b>\$ 211,296</b>	<b>\$ 45,670</b>	<b>\$ (165,626)</b>	<b>-78%</b>

## CASHFLOW COMPARISON - With Implementation and Other Costs

December 2017 through June 2020

Cashflow Category	Previous	Updated	Difference	Change
Grant Proposal 1	\$ 39,151	\$ 39,151	\$ -	0%
Grant Proposal 2		\$ 40,000	\$ 40,000	NA
HG Task Order 1-4	\$ 541,012	\$ 550,901	\$ 9,889	2%
Legal Counsel	\$ 92,577	\$ 138,689	\$ 46,112	50%
Audit		\$ 10,000	\$ 10,000	NA
Website Upates	\$ 5,700	\$ 6,000	\$ 300	5%
Insurance and Cal Mutual Membership	\$ 29,571	\$ 31,729	\$ 2,158	7%
Travel / Conference and Other	\$ 17,500	\$ 9,333	\$ (8,167)	-47%
Contingency	\$ 60,000	\$ 20,000	\$ (40,000)	-67%
Category 1 & 2 Grant Tasks	\$ 2,148,124	\$ 2,328,792	\$ 180,668	8%
Unbudgeted Meeting Participation for W&C		\$ 196,000	\$ 196,000	NA
Admin & Support for DWR TSS		\$ 60,000	\$ 60,000	NA
<b>Total Expenses</b>	<b>\$ 2,933,636</b>	<b>\$ 3,430,595</b>	<b>\$ 496,959</b>	<b>17%</b>

### Items added following Budget Ad Hoc discussion

#### Implementation and Other Expenses (Feb - June)

Prop 218 Basin-wide		\$ 60,000	\$ 60,000	NA
Economic Analysis of Projects and Actions		\$ 100,000	\$ 100,000	NA
GSA Implementation Tasks (Basin-wide)		\$ 320,000	\$ 320,000	NA
GSA Implementation Tasks (Management Areas)		\$ 85,000	\$ 85,000	NA
<b>Total Additional Expenses</b>	<b>\$ -</b>	<b>\$ 565,000</b>	<b>\$ 565,000</b>	
<b>Total Expenses</b>	<b>\$ 2,933,636</b>	<b>\$ 3,995,595</b>	<b>\$ 1,061,959</b>	<b>36%</b>

#### Revenues

DWR Reimbursement Received	\$ 2,148,124	\$ 2,148,124	\$ (0)	0%
Proposed Participant Contributions	\$ 996,808	\$ 996,808	\$ -	0%
SBCWA Grant Additional Funds		\$ 39,565	\$ 39,565	
Potential DWR Grant Funds				
<b>Total Revenues</b>	<b>\$ 3,144,932</b>	<b>\$ 3,184,497</b>	<b>\$ 39,565</b>	<b>1%</b>
<b>Total Revenues Minus Expenses</b>	<b>\$ 211,296</b>	<b>\$ (811,098)</b>	<b>\$ (1,022,394)</b>	<b>-484%</b>

## CBGSA FY 2019-20 BUDGET - DRAFT

	July-Jan	Feb-Jun	Total
<b>HALLMARK GROUP</b>			
HG - CBGSA Board of Directors Meetings	\$ 66,014	\$ 13,300	\$ 79,314
HG - Consultant Management and GSP Development	\$ 16,901	\$ 28,900	\$ 45,801
HG - Financial Information Coordination	\$ 19,240	\$ 13,550	\$ 32,790
HG - Cuyama Basin GSA Outreach	\$ 11,588	\$ 7,600	\$ 19,188
HG - Management Area Admin		\$ 15,000	\$ 15,000
HG - Travel (Mileage)	\$ 848	\$ 280	\$ 1,128
<i>FY 19-20 Total</i>	\$ 114,590	\$ 78,630	\$ <b>193,220</b>
<i>Monthly Total</i>	\$ 16,370	\$ 15,726	\$ 16,102
<b>LEGAL &amp; ADMIN</b>			
Legal Counsel	\$ 35,000	\$ 25,000	\$ 60,000
Grant Proposals	\$ 40,000		\$ 40,000
Prop 218 - Basin-wide	\$ 60,000		\$ 60,000
Audit	\$ 10,000		\$ 10,000
Insurance		\$ 11,000	\$ 11,000
California Association of Mutual Water Co. Membership	\$ 200		\$ 200
Travel/ Conferences/ Training	\$ 2,917	\$ 2,083	\$ 5,000
Other / Miscellaneous	\$ 1,167	\$ 833	\$ 2,000
Contingency	\$ 20,000		\$ 20,000
<i>FY 19-20 Total</i>	\$ 169,283	\$ 38,917	\$ <b>208,200</b>
<i>Monthly Total</i>			\$ 17,350
<b>WOODARD &amp; CURRAN &amp; TECHNICAL</b>			
<b>BASIN-WIDE COSTS</b>			
Economic Analysis of Projects and Actions		\$ 100,000	\$ 100,000
Stakeholder/Board Engagement			
SAC meetings (6/year)	\$ 36,000	\$ 36,000	\$ 72,000
Board meetings (6/year)	\$ 36,000	\$ 36,000	\$ 72,000
Board Ad-hoc calls (6/year)	\$ 6,000	\$ 6,000	\$ 12,000
Public Workshops (2/year)	\$ 20,000		\$ 20,000
Outreach			
General, Newsletter development, etc.	\$ 10,000	\$ 10,000	\$ 20,000
<i>Meeting and Outreach Subtotal</i>	\$ 108,000	\$ 88,000	\$ 196,000
Website Updates - Maintenance / Hosting	\$ 3,000	\$ 3,000	\$ 6,000
Finalization of GSP (year 1 only)			
Category 1 (funded) - <i>field work</i>	\$ 180,000		\$ 180,000
Category 2 (funded) - <i>grant admin / document revisions</i>	\$ 15,000		\$ 15,000
Category 2 (unfunded) - <i>additional GSP development costs</i>	\$ 30,000		\$ 30,000
GSP Implementation Program Management		\$ 75,000	\$ 75,000
Manage Satellite Imagery to Track Water Usage		\$ 25,000	\$ 25,000



## CBGSA FY 2019-20 BUDGET - DRAFT

	July-Jan	Feb-Jun	Total
GW Level/Quality Monitoring Network			
Levels		\$ 60,000	\$ 60,000
Quality (TDS only)		\$ 60,000	\$ 60,000
TSS Support	\$ 40,000	\$ 20,000	\$ 60,000
Data Management		\$ 40,000	\$ 40,000
Complete Annual Reports		\$ 60,000	\$ 60,000
GSP 5-year Evaluation/Update			\$ -
<b>MANAGEMENT AREA COSTS</b>			\$ -
Development of MA Policies and Guidelines		\$ 85,000	\$ 85,000
Prop 218 - MA			\$ -
Pumping allocation tracking and management			\$ -
Initiate program			\$ -
Annual management			\$ -
Project implementation			\$ -
Water Supply Projects			\$ -
Project Feasibility Studies			\$ -
Design, permitting and construction			\$ -
Annual O&M - Cloud Seeding			\$ -
Annual O&M - Storm Water Capture			\$ -
	<i>FY 19-20 Total</i>	\$ 376,000	\$ 616,000
	<i>Monthly Total</i>	\$ 53,714	\$ 123,200
	<b>TOTAL</b>	\$ 659,873	\$ 733,547
			<b>\$ 1,393,420</b>

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Revised Cash Flow Projection - 4/29/2019

Year	Month	Grant Proposal	Executive Director Task Order 1	Executive Director Task Order 2	Executive Director Task Order 3	Executive Director Task Order 4	Legal Counsel	Prop 218 Basinwide	Audit	Website Updates	Insurance & CalMutual Membership	Travel Conference and Other	Contingency	Category 1 & 2 Grant Tasks	Unbudgeted Meeting Participation and Outreach for W&C	Admin & Support for DWR TSS	Economic Analysis of Projects and Actions	GSA Implementation Tasks (Basin-wide)	GSA Implementation Tasks (MA)	Total	Quarterly Totals	Beginning CBGSA Fund Balance	Revenues		Fund Balance	New CBGSA Obligations	CBGSA Payments	Shortfall	Ending CBGSA Fund Balance	
																							DWR Reimbursement Received	Proposed Participant Contributions						SBCWA Grant Additional Funds
<b>Expenses</b>																														
2017	December-17	39,151	26,375	3,875			17,577				2,451			43,199						132,629	132,629	-	-	-	132,629	-	132,629	(132,629)		
2018	January-18		14,463	4,038			2,889													21,389										
	February-18		14,630	2,300			3,727													20,656										
	March-18		16,600	2,825			2,376							378,393						400,193	442,239	(132,629)	-	519,927	387,298	442,239	387,298	54,941	-	
	April-18		11,194	4,450			2,732				9,039									27,415										
	May-18		14,301	8,175			4,283													26,759										
	June-18		16,547	4,338			2,592								443,978					467,455	521,630	-	-	476,881	476,881	521,630	521,630	-	(44,749)	
	July-18		14,427	2,475			2,417													19,319										
	August-18		15,100	4,075			3,366													22,541										
	September-18		14,134	3,800			1,778								432,197					451,909	493,769	(44,749)	-	-	(44,749)	493,769	493,769	-	(538,518)	
	October-18		14,787	2,875			3,017													20,680										
	November-18		20,331	1,750			2,477													24,559										
	December-18		15,488	1,525			5,280								329,425					351,718	396,956	(538,518)	-	-	(538,518)	396,956	(538,518)	935,474	(935,474)	
2019	January-19				21,360		6,224													27,584										
	February-19				15,963		3,954			100										20,017										
	March-19				16,370		3,500					583		228,918						249,371	296,972	(935,474)	-	-	39,565	(895,909)	296,972	(895,909)	1,192,881	(1,192,881)
	April-19				16,370		3,500				9,039	583								29,492										
	May-19				16,370		3,500					583								20,453										
	June-19				16,370		3,500					583		247,682						268,135	318,081	(1,192,881)	1,627,192	-	434,311	318,081	318,081	-	116,230	
	July-19	40,000			16,370		5,000	10,000	10,000	3,000		583								84,953										
	August-19				16,370		5,000	10,000				583								31,953										
	September-19				16,370		5,000	10,000				583		82,500	54,000	40,000				208,453	325,360	116,230	228,918	-	345,148	325,360	325,360	-	19,788	
	October-19				16,370		5,000	10,000				583								31,953										
	November-19				16,370		5,000	10,000				583								31,953										
	December-19				16,370		5,000	10,000				583		52,500	54,000					138,453	202,360	19,788	247,682	-	267,470	202,360	202,360	-	65,110	
2020	January-20				16,370		5,000				200	583	20,000			20,000			62,153											
	February-20						15,726	5,000		3,000		583					20,000			24,309										
	March-20						15,726	5,000				583		45,000	44,000		20,000	128,000	34,000	110,309	196,772	65,110	44,332	-	109,442	196,772	196,772	-	(87,330)	
	April-20						15,726	5,000			11,000	583					20,000			32,309										
	May-20						15,726	5,000				583					20,000			21,309										
	June-20						15,726	5,000				583		45,000	44,000		20,000	192,000	51,000	110,309	163,928	(87,330)	-	-	(87,330)	163,928	163,928	-	(251,258)	
<b>Total</b>		<b>79,151</b>	<b>208,379</b>	<b>46,500</b>	<b>217,392</b>	<b>78,630</b>	<b>138,689</b>	<b>60,000</b>	<b>10,000</b>	<b>6,000</b>	<b>31,829</b>	<b>9,333</b>	<b>20,000</b>	<b>2,328,792</b>	<b>196,000</b>	<b>60,000</b>	<b>100,000</b>	<b>320,000</b>	<b>85,000</b>	<b>3,490,695</b>	<b>3,490,695</b>		<b>2,148,124</b>	<b>996,808</b>	<b>39,565</b>					

47,289





TO: Board of Directors  
Agenda Item No. 7d

FROM: Charles Gardner, Catalyst Group

DATE: May 1, 2019

SUBJECT: Stakeholder Engagement Update

**Issue**

Update on the Cuyama Basin Groundwater Sustainability Agency Groundwater Sustainability Plan stakeholder engagement.

**Recommended Motion**

None – information only.

**Discussion**

Cuyama Basin Groundwater Sustainability Agency (CBGSA) Groundwater Sustainability Plan (GSP) outreach consultant the Catalyst Group's stakeholder engagement update is provided as Attachment 1.

Cuyama Basin Groundwater Sustainability Agency

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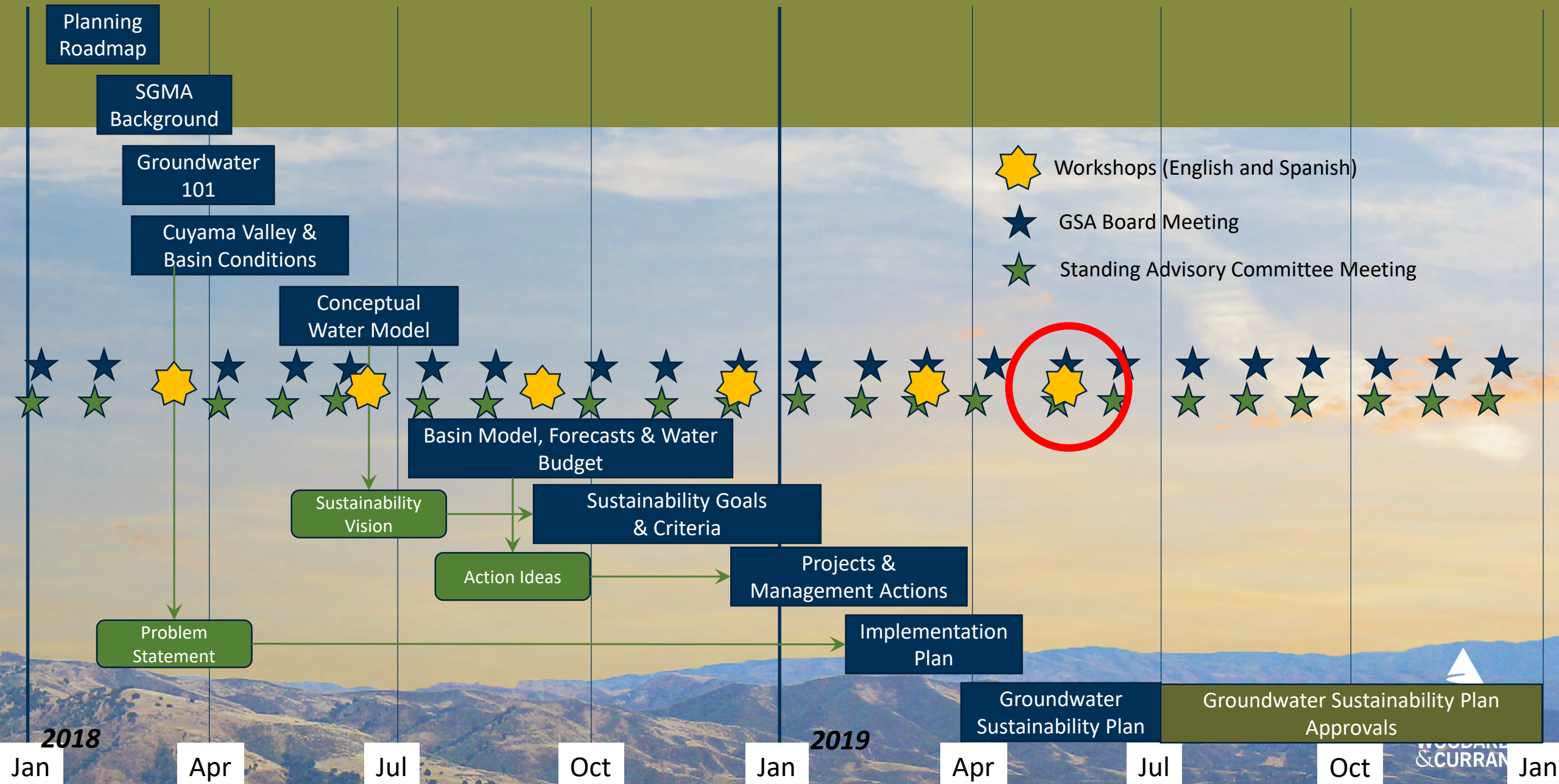
# Groundwater Sustainability Plan Stakeholder Engagement Update

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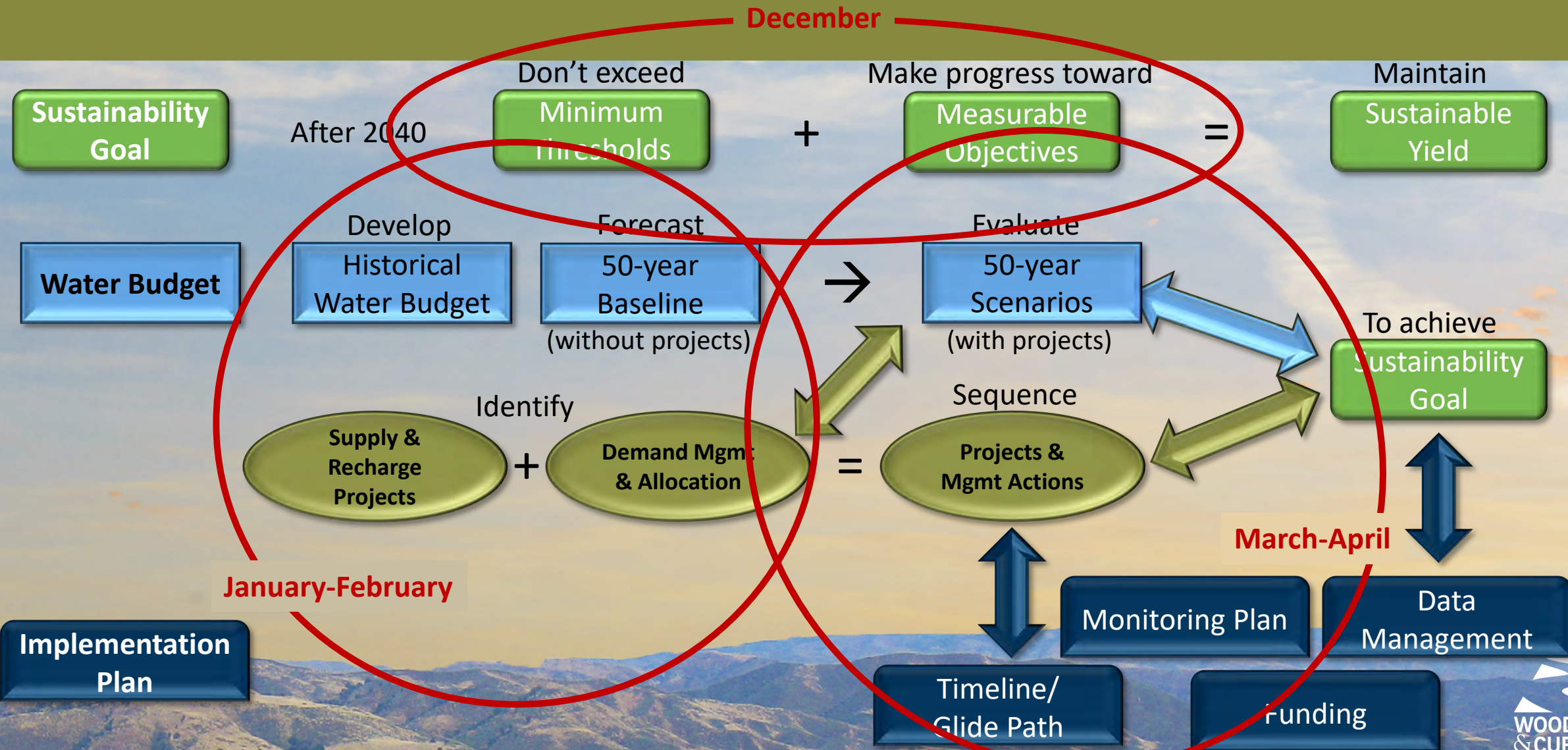
May 1, 2019



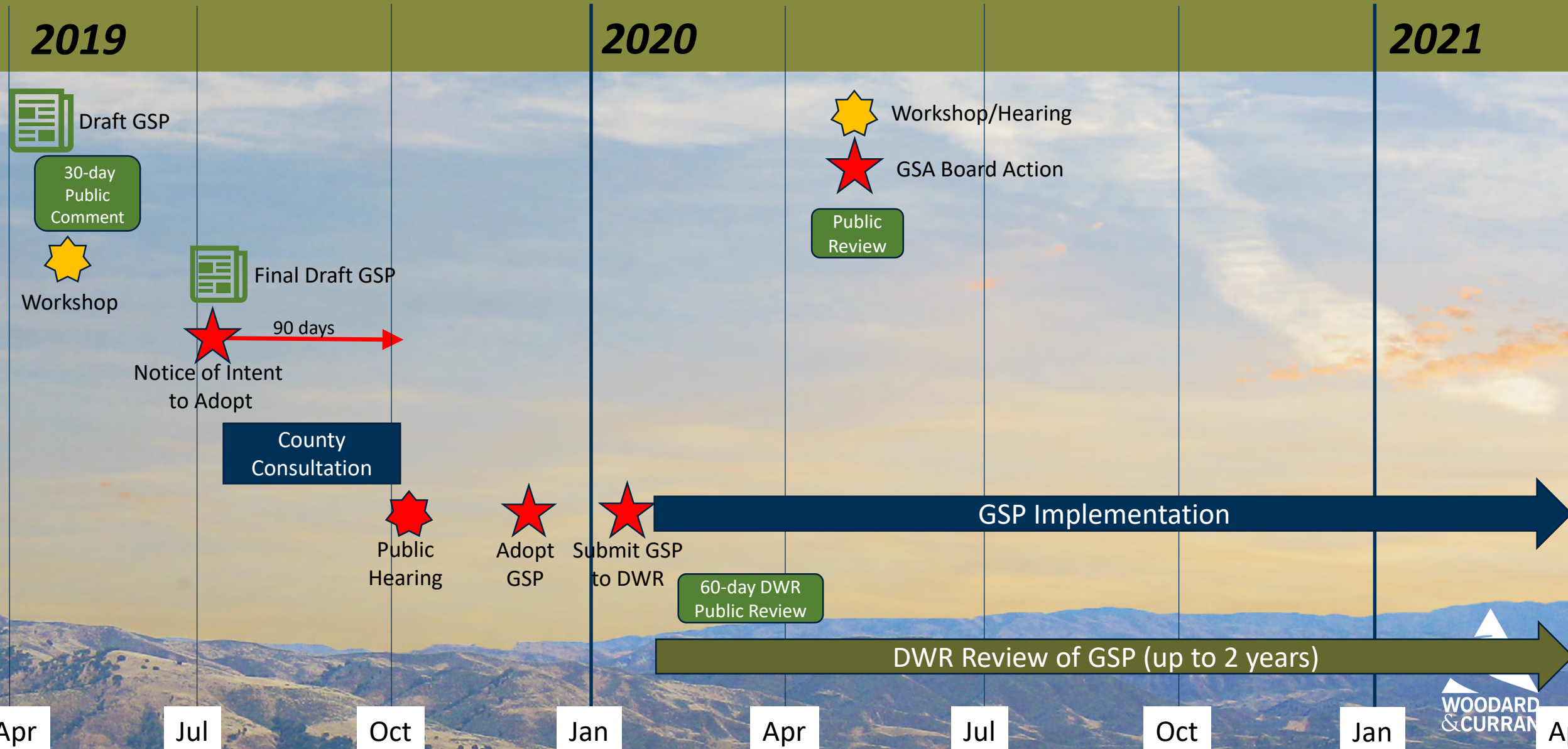
# Cuyama Basin Groundwater Sustainability Plan – Planning Roadmap <sup>88</sup>



# GSP Discussion Approach & Terminology



# GSP Public Review and Adoption Process





# Update on Outreach Activities

- **Community Workshops Wednesday, May 1**
  - Highlights of the draft GSP
  - Public review process and comment opportunities
  - Community discussion and comment
- **Notification**
  - GSA Newsletter – email April 15 and hard copies at USPS and around the valley
  - Postcard – April 16 to property owners and PO Box holders
  - Volunteer hand distribution – April 17 through 29
  - SLO County email – week of April 22
  - CBGSA reminder email – April 25
- **Public Comments due May 22**



TO: Board of Directors  
Agenda Item No. 8b

FROM: Jim Beck, Executive Director

DATE: May 1, 2019

SUBJECT: Progress & Next Steps

**Issue**

Report on the progress and next steps for Cuyama Basin Groundwater Sustainability Agency activities.

**Recommended Motion**

None – information only.

**Discussion**

A presentation on the progress and next steps for Cuyama Basin Groundwater Sustainability Agency activities is provided as Attachment 1.

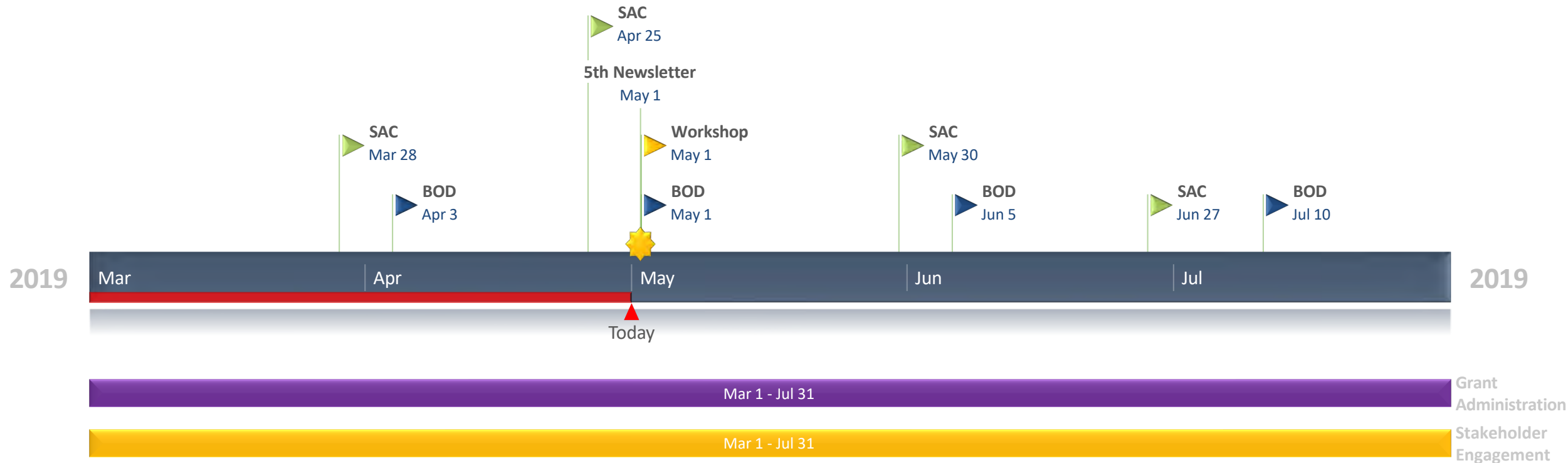
# Cuyama Basin Groundwater Sustainability Agency

## Progress & Next Steps

May 1, 2019

# Cuyama Basin Groundwater Sustainability Agency

## Near-Term Schedule



# Mar 2019 Accomplishments & Next Steps

## Accomplishments

- ✓ Ongoing administration of the CBGSA
- ✓ Drafted FY 2019-20 budget and updated cash flow
- ✓ Met with Budget ad hoc

## Next Steps

- Finalize FY 2019-20 budget
- Submit Grant Admin documentation
- Contact audit firms to solicit bids
- Develop proposal for filling SAC position





TO: Board of Directors  
Agenda Item No. 9a

FROM: Taylor Blakslee, Hallmark Group

DATE: May 1, 2019

SUBJECT: Financial Management Overview

**Issue**

Overview of the financial management for Cuyama Basin Groundwater Sustainability Agency activities.

**Recommended Motion**

None – information only.

**Discussion**

A presentation on the financial management for Cuyama Basin Groundwater Sustainability Agency activities is provided as Attachment 1.

# Cuyama Basin Groundwater Sustainability Agency

## Financial Report

May 1, 2019

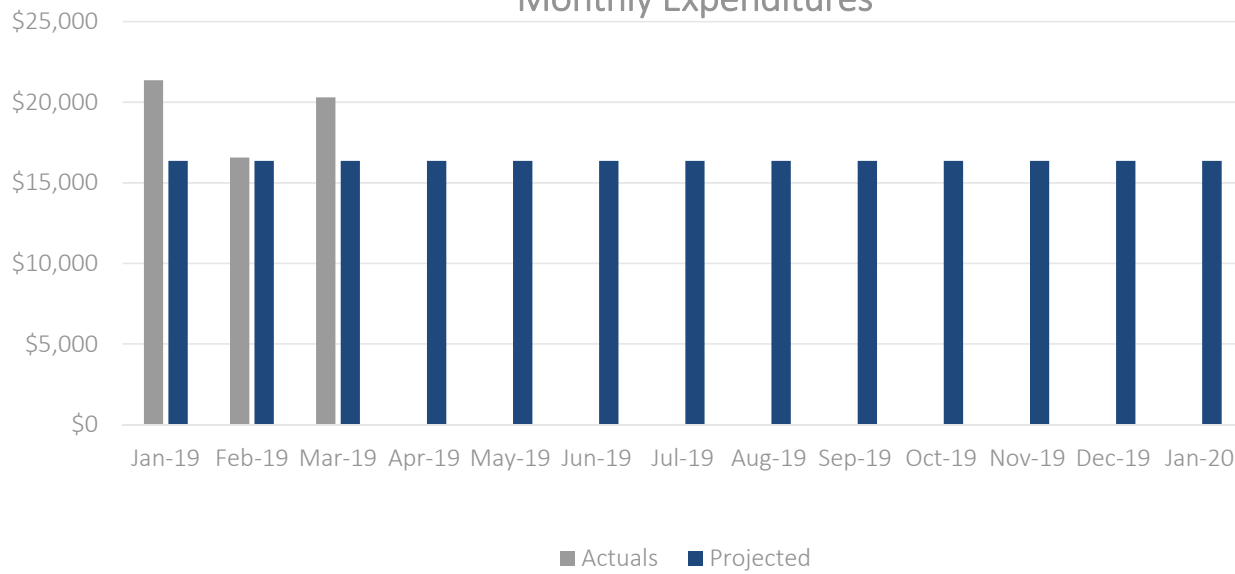
## CBGSA OUTSTANDING INVOICES

Task	Invoiced Through	Cumulative Total
Legal Counsel	3/19/2019	\$32,358.00
Executive Director	3/31/2019	\$169,486.00
GSP Development	3/29/2019	\$1,171,065.00
<b>TOTAL</b>		<b>\$1,372,909.00</b>

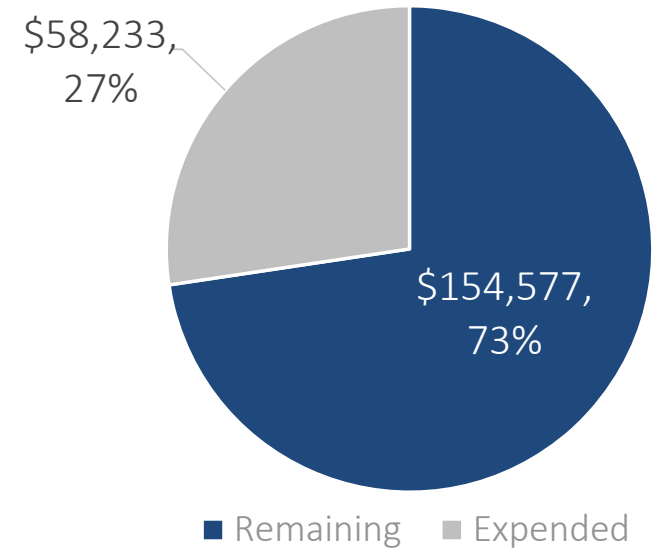


# Executive Director Task Order 3

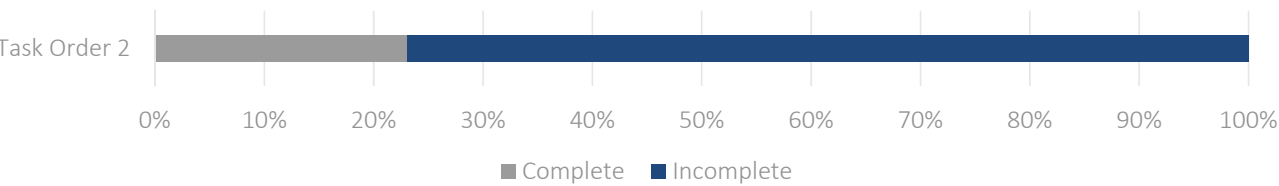
### Monthly Expenditures



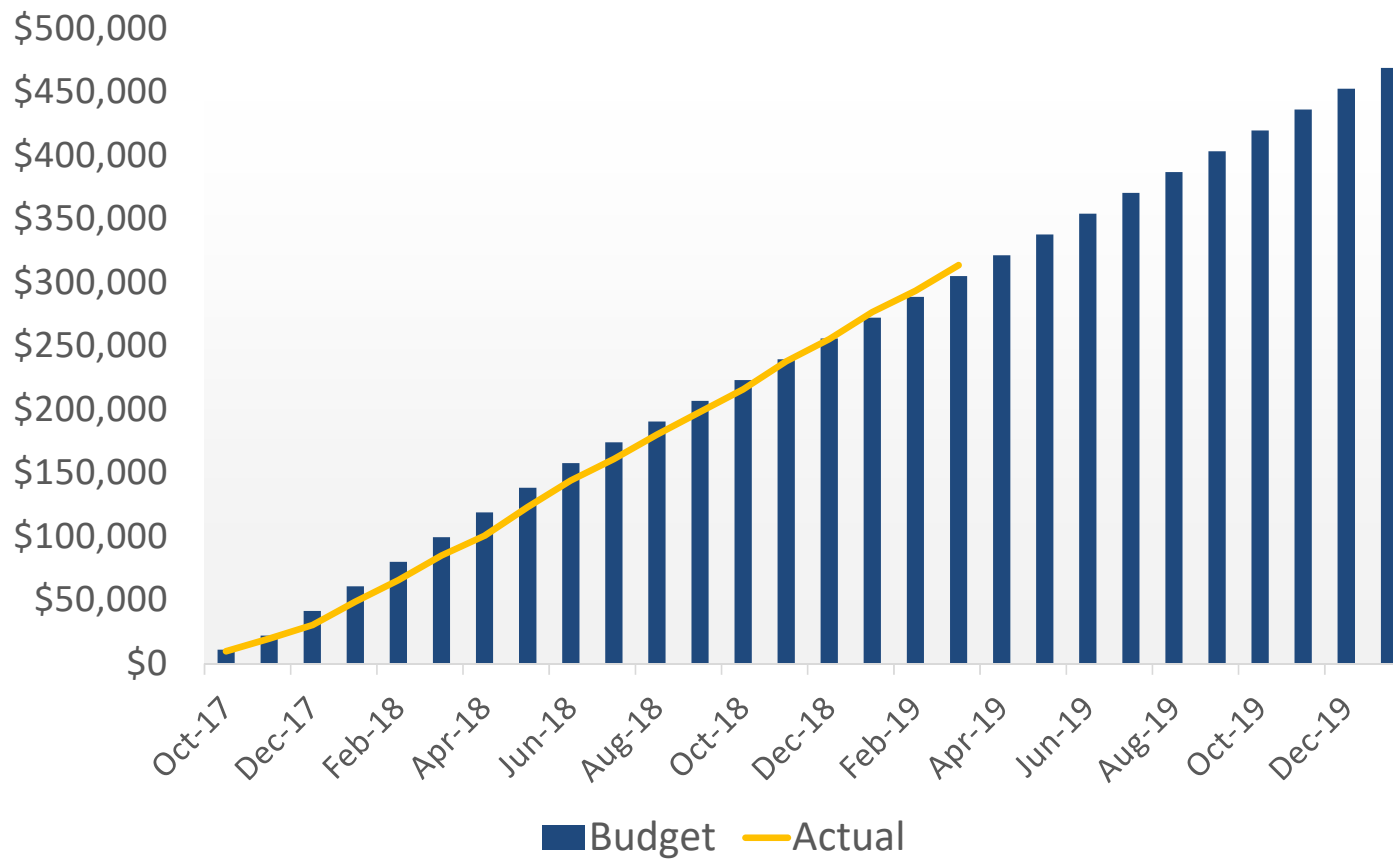
Total Authorized \$212,810  
Through 1/31/2020



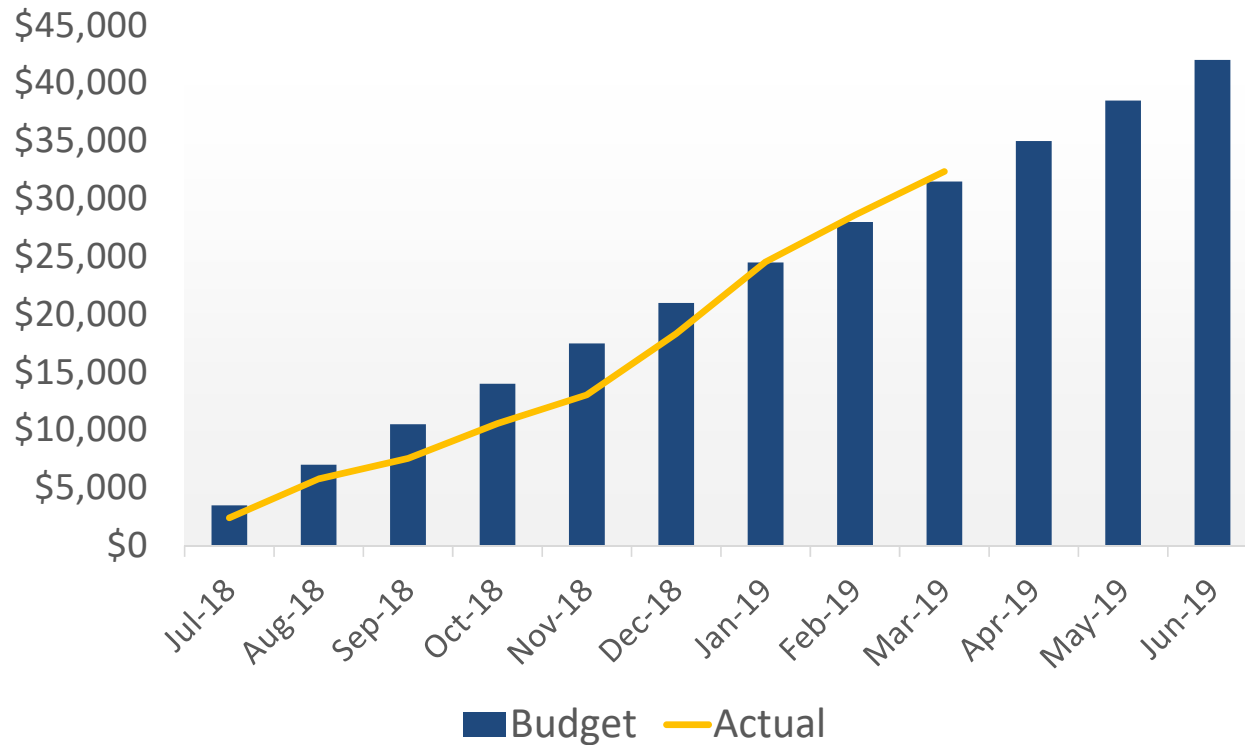
### Progress Complete



# Task Order Nos. 1-3: Budget to Actual

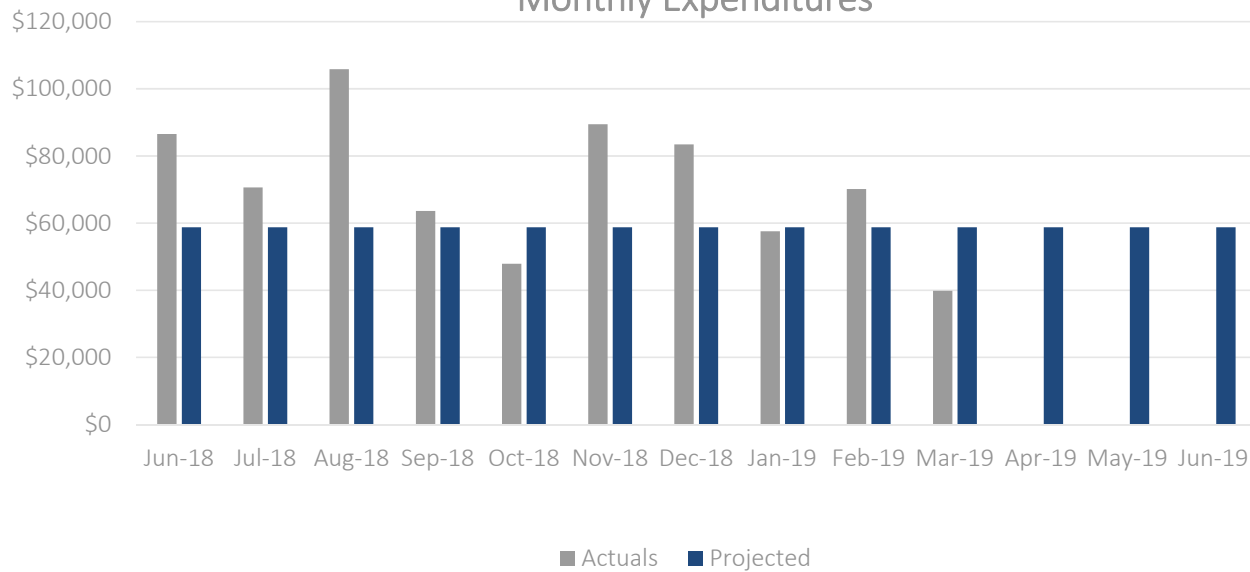


## Legal Counsel: Budget to Actual (FY 18-19)

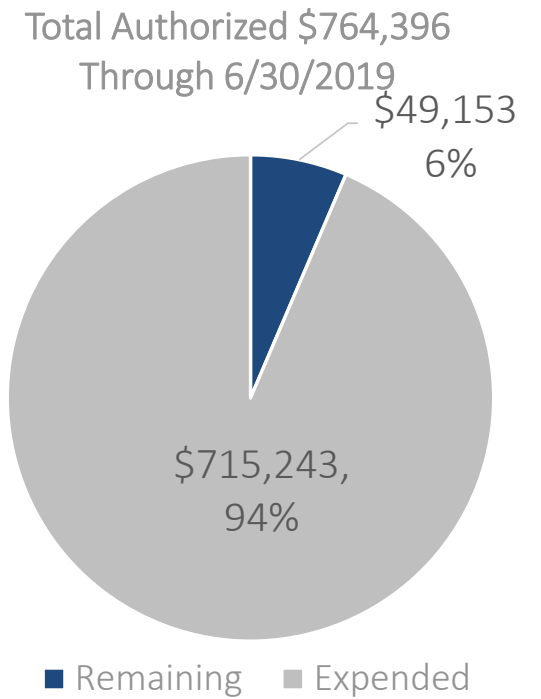
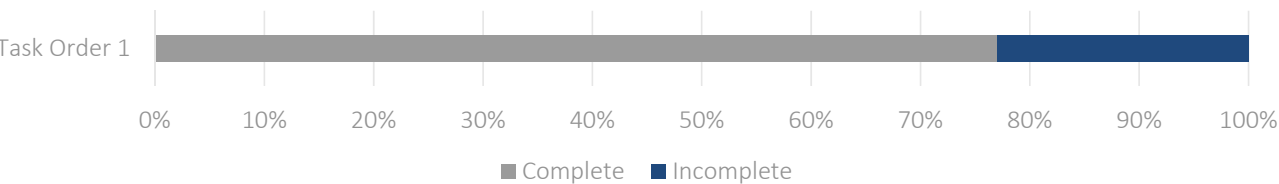


# GSP Development Task Order 4

Monthly Expenditures

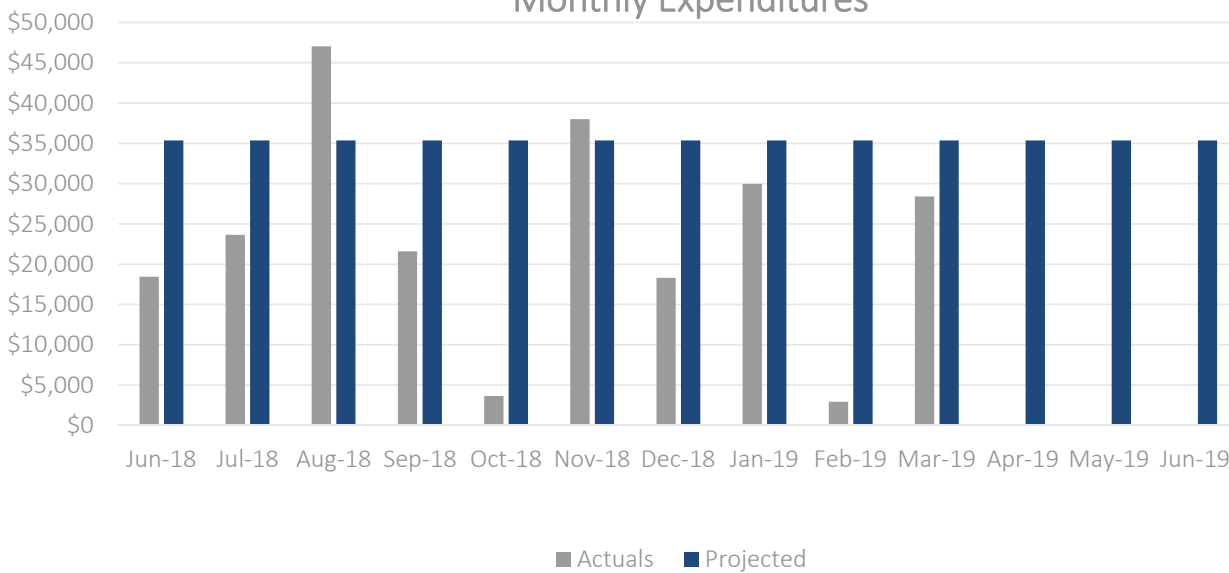


Progress Complete

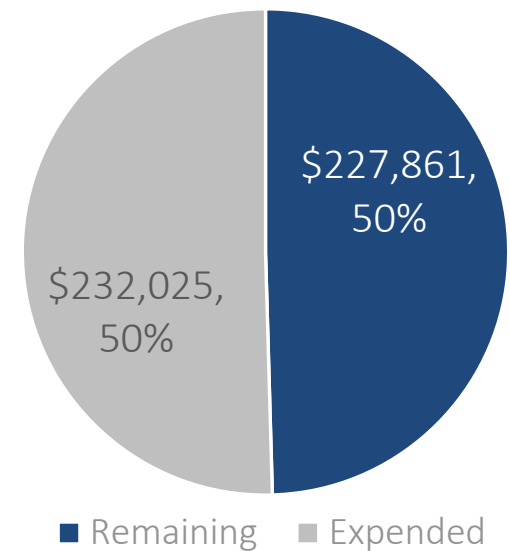


# GSP Development Task Order 5

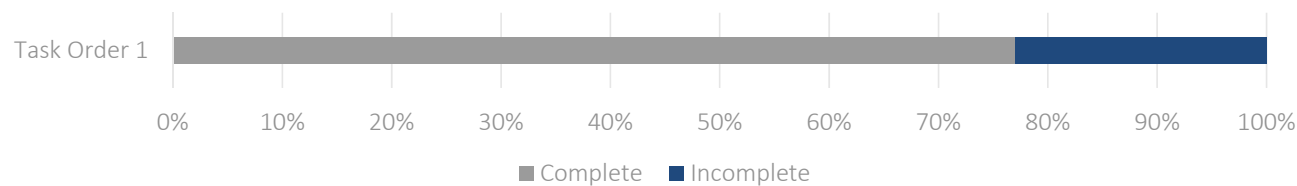
Monthly Expenditures



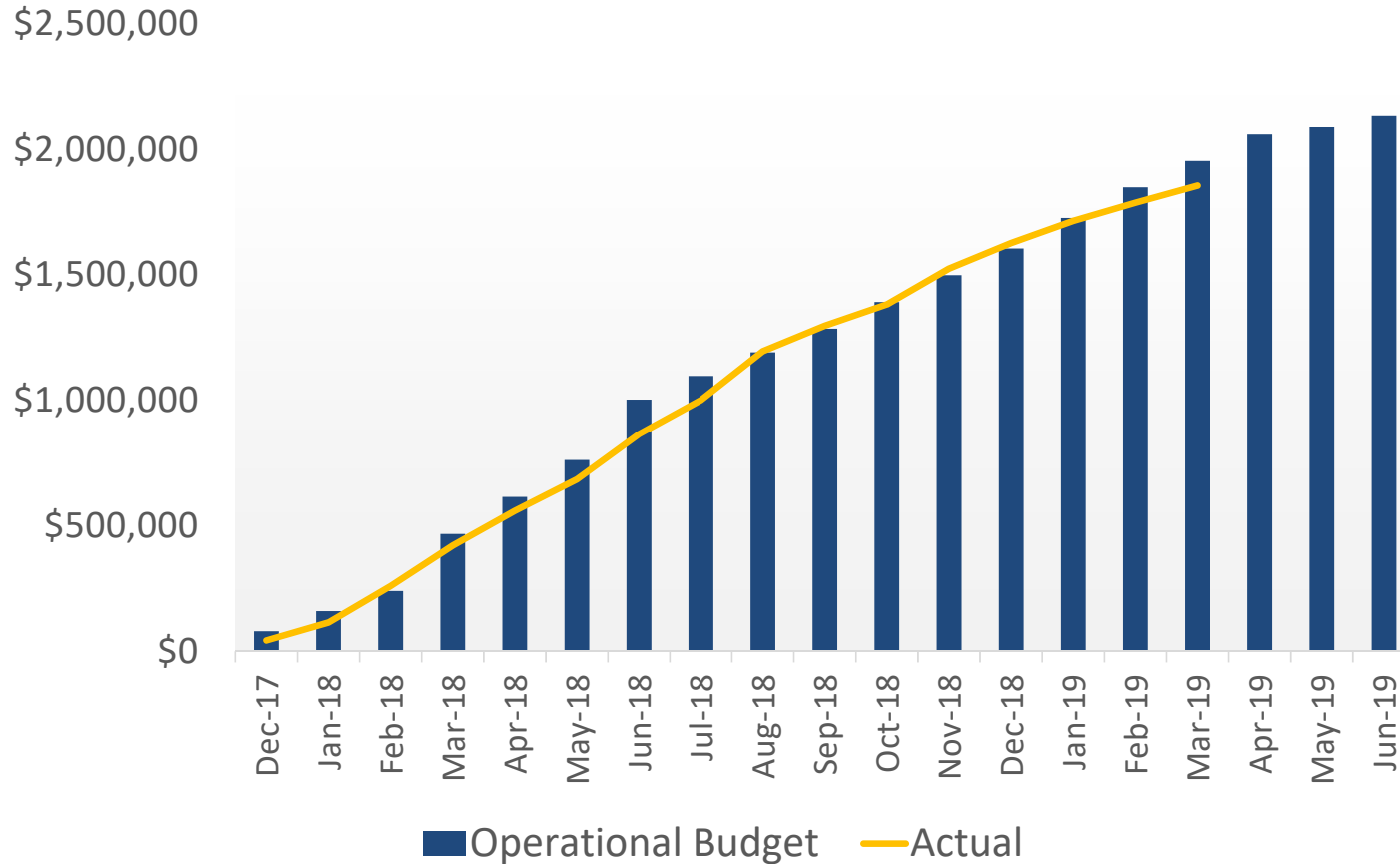
Total Authorized \$459,886  
Through 6/30/2019



Progress Complete



# W&C Budget - Operational





TO: Board of Directors  
Agenda Item No. 9b

FROM: Taylor Blakslee, Hallmark Group

DATE: May 1, 2019

SUBJECT: Financial Report

**Issue**

Financial Report

**Recommended Motion**

None – information only.

**Discussion**

The Cuyama Basin Groundwater Sustainability Agency's financial report is provided as Attachment 1.

The report includes:

- Statement of Financial Position, *as of March 31, 2019*
- Receipts and Disbursements, *as of March 31, 2019*
- A/R Aging Summary, *as of March 31, 2019*
- A/P Aging Summary, *as of March 31, 2019*
- Statement of Operations with Budget Variance, *July 2018 through March 2019*
- 2018/2019 Operational Budget, *July 2018 through June 2019*



# **Cuyama Basin GSA**

## **Financial Statements**

**March 31, 2019**



**CUYAMA BASIN GSA**  
**Statement of Financial Position**  
As of March 31, 2019

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107

	<u>Mar 31, 19</u>
<b>ASSETS</b>	
Current Assets	
Checking/Savings	
Chase - General Checking	60,315
Total Checking/Savings	60,315
Accounts Receivable	
Accounts Receivable	52,270
Total Accounts Receivable	52,270
Total Current Assets	112,585
<b>TOTAL ASSETS</b>	<b><u>112,585</u></b>
<b>LIABILITIES &amp; EQUITY</b>	
Liabilities	
Current Liabilities	
Accounts Payable	
Accounts Payable	1,372,910
Total Accounts Payable	1,372,910
Total Current Liabilities	1,372,910
Total Liabilities	1,372,910
Equity	
Unrestricted Net Assets	-110,130
Net Income	-1,150,194
Total Equity	-1,260,324
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b><u>112,585</u></b>

**CUYAMA BASIN GSA**  
**Receipts and Disbursements**  
**As of March 31, 2019**

Type	Date	Num	Name	Debit	Credit
<b>Chase - General Checking</b>					
Payment	07/02/2018	11366440	County of Kern	38,567.66	
Payment	07/05/2018	1001819148	County of Ventura	18,451.08	
Payment	07/05/2018	1039	Cuyama Basin Water District	387,307.44	
Payment	07/09/2018	9706702	Santa Barbara County Water Agency	56,306.25	
Payment	07/16/2018	10575	Cuyama Community Services District	3,251.50	
Bill Pmt -Check	07/18/2018	1006	HGCPM, Inc.		80,730.24
Bill Pmt -Check	07/18/2018	1007	Klein, DeNatale, Goldner		18,598.06
Bill Pmt -Check	07/18/2018	1008	Woodard & Curran		394,461.11
Payment	08/31/2018	10615	Cuyama Community Services District	2,982.30	
Check	09/30/2018	Fees	Chase Bank		95.00
Check	10/31/2018	Fees	Chase Bank		95.00
Check	11/30/2018	Fees	Chase Bank		95.00
Check	12/13/2018	1009	Santa Barbara County Water Agency		3,718.75
Check	12/31/2018	Fees	Chase Bank		95.00
Check	01/31/2019	Fees	Chase Bank		95.00
Check	02/05/2019	Fees	Chase Bank		95.00
Payment	02/12/2019	2613575	County of San Luis Obispo	38,567.66	
Check	03/05/2019	Fees	Chase Bank		95.00
Bill Pmt -Check	03/12/2019	1010	Insurica		9,315.00
Bill Pmt -Check	03/12/2019	1011	CA Assoc of Mutual Water Companies		100.00
Total Chase - General Checking				545,433.89	507,588.16
<b>TOTAL</b>				<b>545,433.89</b>	<b>507,588.16</b>

**CUYAMA BASIN GSA**  
**A/R Aging Summary**  
As of March 31, 2019

---

	<u>Current</u>	<u>1 - 30</u>	<u>31 - 60</u>	<u>61 - 90</u>	<u>&gt; 90</u>	<u>TOTAL</u>
Santa Barbara County Water Agency	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>52,270</u>	<u>52,270</u>
<b>TOTAL</b>	<u><b>0</b></u>	<u><b>0</b></u>	<u><b>0</b></u>	<u><b>0</b></u>	<u><b>52,270</b></u>	<u><b>52,270</b></u>

**CUYAMA BASIN GSA  
A/P Aging Summary  
As of March 31, 2019**

---

	<u>Current</u>	<u>1 - 30</u>	<u>31 - 60</u>	<u>61 - 90</u>	<u>&gt; 90</u>	<u>TOTAL</u>
HGCPM, Inc.	20,302	16,572	21,360	17,497	93,756	169,486
Klein, DeNatale, Goldner	3,769	4,029	6,224	5,280	13,055	32,358
Woodard & Curran	68,280	73,094	87,544	101,806	840,341	1,171,065
<b>TOTAL</b>	<b><u>92,351</u></b>	<b><u>93,695</u></b>	<b><u>115,128</u></b>	<b><u>124,583</u></b>	<b><u>947,152</u></b>	<b><u>1,372,910</u></b>

**CUYAMA BASIN GSA**  
**Statement of Operations with Budget Variance**  
July 2018 through March 2019

	Jul '18 - Mar 19	Budget	\$ Over Budget	% of Budget
<b>Ordinary Income/Expense</b>				
<b>Income</b>				
<b>Direct Public Funds</b>				
Grants	0	1,555,427	-1,555,427	0%
Participant Assessments	52,270	0	52,270	100%
<b>Total Direct Public Funds</b>	52,270	1,555,427	-1,503,157	3%
<b>Total Income</b>	52,270	1,555,427	-1,503,157	3%
<b>Cost of Goods Sold</b>				
<b>Program Expenses</b>				
<b>Category/Component 1</b>				
Monitoring/AMP Implementation	296,403	355,834	-59,431	83%
Grant Administration	0	8,736	-8,736	0%
<b>Total Category/Component 1</b>	296,403	364,570	-68,167	81%
<b>Category/Component 2</b>				
GSP Development	694,136	668,893	25,243	104%
Grant Administration	0	16,956	-16,956	0%
<b>Total Category/Component 2</b>	694,136	685,849	8,287	101%
<b>Total Program Expenses</b>	990,540	1,050,419	-59,879	94%
<b>Total COGS</b>	990,540	1,050,419	-59,879	94%
<b>Gross Profit</b>	-938,270	505,008	-1,443,278	-186%
<b>Expense</b>				
<b>Administration and Operation</b>				
<b>Administrative Overhead</b>				
Bank Service Fees	665	0	665	100%
General Liability Insurance	9,315	12,108	-2,793	77%
Legal	32,358	31,500	858	103%
Other Admin Expense	100	1,500	-1,400	7%
Postage and Mailing Services	0	15,000	-15,000	0%
Travel, Conferences, Trainings	0	3,750	-3,750	0%
<b>Total Administrative Overhead</b>	42,438	63,858	-21,420	66%
<b>Administration of GSA</b>				
Executive Director				
GSA BOD Meetings	95,588	39,150	56,438	244%
Consult Mgmt and GSP Devel	25,700	32,850	-7,150	78%
Financial Information Coord	17,788	7,650	10,138	233%
CBGSA Outreach	8,713	19,800	-11,088	44%
Budget Devel and Admin	125	6,700	-6,575	2%
Outreach Facilitation	7,150	12,150	-5,000	59%
Financial Management	9,225	28,960	-19,735	32%
Travel and Direct Costs	5,199	2,115	3,084	246%
<b>Total Executive Director</b>	169,486	149,375	20,111	113%
<b>Total Administration of GSA</b>	169,486	149,375	20,111	113%
<b>Total Administration and Operation</b>	211,924	213,233	-1,309	99%
<b>Total Expense</b>	211,924	213,233	-1,309	99%
<b>Net Ordinary Income</b>	-1,150,194	291,775	-1,441,969	-394%
<b>Net Income</b>	<b>-1,150,194</b>	<b>291,775</b>	<b>-1,441,969</b>	<b>-394%</b>

**CUYAMA BASIN GSA**  
**2018/2019 Operational Budget**  
 July 2018 through June 2019

	Jul '18 - Jun 19
<b>Ordinary Income/Expense</b>	
<b>Income</b>	
<b>Direct Public Funds</b>	
Grants	1,966,858
<b>Total Direct Public Funds</b>	1,966,858
<b>Total Income</b>	1,966,858
<b>Cost of Goods Sold</b>	
<b>Program Expenses</b>	
<b>Category/Component 1</b>	
Monitoring/AMP Implementation	472,989
Grant Administration	13,104
<b>Total Category/Component 1</b>	486,093
<b>Category/Component 2</b>	
GSP Development	889,032
Grant Administration	25,434
<b>Total Category/Component 2</b>	914,466
<b>Total Program Expenses</b>	1,400,559
<b>Total COGS</b>	1,400,559
<b>Gross Profit</b>	566,299
<b>Expense</b>	
<b>Administration and Operation</b>	
<b>Administrative Overhead</b>	
General Liability Insurance	12,108
Legal	42,000
Other Admin Expense	2,000
Postage and Mailing Services	20,000
Travel, Conferences, Trainings	5,000
<b>Total Administrative Overhead</b>	81,108
<b>Administration of GSA</b>	
Executive Director	
GSA BOD Meetings	52,200
Consult Mgmt and GSP Devel	43,800
Financial Information Coor	10,200
CBGSA Outreach	26,400
Budget Devel and Admin	6,700
Outreach Facilitation	16,200
Financial Management	38,120
Travel and Direct Costs	2,820
<b>Total Executive Director</b>	196,440
<b>Total Administration of GSA</b>	196,440
<b>Total Administration and Operation</b>	277,548
<b>Total Expense</b>	277,548
<b>Net Ordinary Income</b>	288,751
<b>Net Income</b>	288,751



TO: Board of Directors  
Agenda Item No. 9c

FROM: Taylor Blakslee, Hallmark Group

DATE: May 1, 2019

SUBJECT: Review and Approval of Out-of-Scope Activities

**Issue**

Review and approve out-of-scope activities.

**Recommended Motion**

Approve out-of-scope activities as outlined in Attachment 1 to Agenda Item No. 9c.

**Discussion**

Provided as Attachment 1 is a list of out-scope-activities for consideration of approval by the Cuyama Basin Groundwater Sustainability Agency Board of Directors.

Cuyama Basin Groundwater Sustainability Agency

**Out-of-Scope Activities**

Item / Estimated Efforts	Cost
1) Standing Advisory Committee Position Replacement	
<i>Public Notice</i>	\$ 238
<i>Review Applications (including legal review)</i>	\$ 325
<i>Review call with BOD SAC Ad hoc</i>	\$ 225
<i>SAC member orientation</i>	\$ 125
Total:	<u>\$ 913</u>





TO: Board of Directors  
Agenda Item No. 9d

FROM: Jim Beck, Executive Director

DATE: May 1, 2019

SUBJECT: Payment of Bills

**Issue**

Consider approving the payment of bills for March 2019.

**Recommended Motion**

Approve payment of the bills through the month of March 2019 in the amount of \$92,350.86.

**Discussion**

Consultant invoices for the month of March 2019 are provided as Attachment 1.



1901 Royal Oaks Drive  
Suite 200  
Sacramento, CA 95815

INVOICE

916 923.1500  
hgcpm.com

To: **Cuyama Basin GSA**  
c/o Jim Beck  
4900 California Avenue, Ste B  
Bakersfield, CA 93309

Please Remit To: **Hallmark Group**  
1901 Royal Oaks Drive, Suite 200  
Sacramento, CA 95815  
P: (916) 923-1500

Invoice No.: 2019-CB-T03-03  
Task Order: CB-HG-003  
Agreement No. 201709-CB-001  
Date: April 15, 2019

For professional services rendered for the month of March 2019

Task Order	Sub Task	Task Description	Billing Classification	Hours	Rate	Amount
CB-HG-003	1	GSA Board of Directors and Advisory Committee Meetings	Executive Director	16.25	\$ 250.00	\$ 4,062.50
			Project Coordinator/Admin	57.75	\$ 100.00	\$ 5,775.00
<b>Total Sub Task 1 Labor</b>						<b>\$ 9,837.50</b>
CB-HG-003	2	Consultant Management and GSP Development	Executive Director	5.00	\$ 250.00	\$ 1,250.00
			Project Coordinator/Admin	16.75	\$ 100.00	\$ 1,675.00
<b>Total Sub Task 2 Labor</b>						<b>\$ 2,925.00</b>
CB-HG-003	3	Financial Information Coordination	Executive Director	9.75	\$ 250.00	\$ 2,437.50
			Project Controls	3.00	\$ 200.00	\$ 600.00
			Project Coordinator/Admin	24.25	\$ 100.00	\$ 2,425.00
<b>Total Sub Task 3 Labor</b>						<b>\$ 5,462.50</b>
CB-HG-003	4	CBGSA Outreach	Executive Director	4.50	\$ 250.00	\$ 1,125.00
			Project Coordinator/Admin	3.75	\$ 100.00	\$ 375.00
<b>Total Sub Task 4 Labor</b>						<b>\$ 1,500.00</b>
<b>Total Labor</b>						<b>\$ 19,725.00</b>
Travel						\$ 135.16
Other Direct Costs: Conference Calls						\$ 287.14
Printing Costs						\$ 133.50
<b>SubTotal Travel and Other Direct Costs</b>						<b>\$ 555.80</b>
ODC Mark Up						\$ 21.03
<b>Total Travel and Other Direct Costs</b>						<b>\$ 576.83</b>
<b>TOTAL AMOUNT DUE FOR THIS INVOICE</b>						<b>\$ 20,301.83</b>

Task Order	Original Totals	Amendment(s)	Total Committed	Previously Billed	Current Billing	Remaining Balance
CB-HG-003	\$ 212,810.00	\$ -	\$ 212,810.00	\$ 36,600.00	\$ 19,725.00	\$ 156,485.00
Travel and ODC	\$ -	\$ -	\$ -	\$ 1,331.63	\$ 576.83	\$ (1,908.46)
<b>Total</b>	<b>\$ 212,810.00</b>	<b>\$ -</b>	<b>\$ 212,810.00</b>	<b>\$ 37,931.63</b>	<b>\$ 20,301.83</b>	<b>\$ 154,576.54</b>

# CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

## PROGRESS REPORT FOR TASK ORDER CB-HG-003

<b>Client Name:</b>	Cuyama Basin Groundwater Sustainability Agency	<b>Agreement Number:</b>	201709-CB-001
<b>Company Name:</b>	HGCPM, Inc. DBA The Hallmark Group	<b>Address:</b>	1901 Royal Oaks Drive, Suite 200 Sacramento, CA 95815
<b>Task Order Number:</b>	CB-HG-003	<b>Report Period:</b>	March 1-31, 2019
<b>Progress Report Number:</b>	3	<b>Project Manager:</b>	Jim Beck
<b>Invoice Number:</b>	2019-CB-TO3-03	<b>Invoice Date:</b>	April 15, 2019

### SUMMARY OF WORK PERFORMED

#### Task 1: Board and Standing Advisory Committee Meeting Facilitation

- Prepared for and attended monthly Cuyama Basin Groundwater Sustainability Agency (CBGSA) Standing Advisory Committee (SAC) and Board meetings.
- Drafted, prepared, and distributed documents for the CBGSA SAC and Board of Directors meeting packets.
- Drafted CBGSA SAC and Board minutes.
- Drafted, reviewed, and discussed SAC and Board agendas.
- Distributed and tracked Form 700s.
- Researched and coordinated with J. Beck and legal counsel regarding SAC resignation procedures.
- Discussed the counties that overly Cuyama Basin and the non-county jurisdictional boundaries with California Special Districts Association representative.

#### Task 2: GSP Consultant Management and GSP Development

- Prepared for, met with, and facilitated CBGSA Program Management Team (PMT) on a weekly basis to discuss Groundwater Sustainability Plan (GSP) section progress and outreach.
- Distributed Water Budget, Sustainability Thresholds, and Placeholder GSP Chapters and forwarded comments to Woodard & Curran (W&C).
- Prepared for and attended Cuyama GSP presentation review meeting with W&C and discussed edits with W&C.
- Prepared for and attended Cuyama Workshop presentation review meeting with W&C and discussed edits with W&C.
- Updated GSP schedule graphic.

### Task 3: Financial Management

- Drafted and revised Fiscal Year (FY) 2019-20 budget and cash flow.
- Coordinated, prepared for, and attended teleconference meeting with the Budget Ad hoc to review the FY 2019-20 budget and cash flow.
- Coordinated follow up teleconference meeting with the Budget Ad hoc.
- Coordinated, prepared for, and attended teleconference meeting with W&C to discuss budget.
- Drafted progress reports for Grant Administration.
- Coordinated with counties regarding audit requirements.
- Processed Walter Mortenson/INSURICA California Association of Mutual Water Companies invoices.
- Processed billing and administration.
- Processed accounts payable and prepared financial statements.

### Task 4: Stakeholder Outreach Facilitation

- Coordinated the update of the Cuyama Basin Groundwater Sustainability Agency (CBGSA) website with Board and Standing Advisory Committee minutes, agendas, GSP chapters, and GSP presentations.
- Reviewed and provided comments on the draft public engagement timeline.
- Prepared for, attended, and facilitated CBGSA public workshop on March 6, 2019.
- Corresponded with Central Coast Water Board's J. Bishop regarding GSP Chapter comments and SAC meeting logistics.
- Updated CBGSA public stakeholder contact list.

### DELIVERABLES AND COMPLETED TASKS

- Developed CBGSA Board agenda for March 6, 2019 and SAC agenda for March 28, 2019.
- Attended CBGSA Board meeting on March 6, 2019 and SAC meeting on March 28, 2019.
- Drafted meeting minutes for CBGSA Board meeting on March 6, 2019 and SAC meeting on March 28, 2019.
- Attended CBGSA Public Workshops on March 6, 2019.
- Prepared for, met with, and facilitate CBGSA PMT on a weekly basis.

### PLANNED OBJECTIVES FOR NEXT REPORTING PERIOD

- Prepare for and attend CBGSA Board meeting on April 3, 2019 and SAC meeting on April 25, 2019.

### SIGNIFICANT ISSUES OR CHALLENGES (IF ANY) AND POTENTIAL RESOLUTIONS

- There are no outstanding issues or challenges at this time.



**Invoice Date: 4/1/2019**  
**Total: \$2,072.19**  
 Statement# 38960 Customer# 3122729

**HGCPM, Inc. - Formerly Advance Education**  
**1901 Royal oaks DR**  
**Sacramento, CA 95815 -0000**

**Remit to:**  
**Great America Networks Conferencing**  
**1441 Branding Lane**  
**Suite 200**  
**Downers Grove, IL 60515 0000**

CALL US  
 1-877-438-4261

**Summary**

Balance Information	
Previous Balance	1,098.12
Balance Forward	1,098.12
New Charges	
New Usage Charges	806.05
Recurring Charges	0.00
Non-recurring Charges	16.47
Taxes and Surcharges	151.55
Total New Charges	974.07
Total Amount Due	2,072.19

**Non-recurring Charges**

Description	Start	End	Amount
Late Fee	03/31/19	03/31/19	16.47
<b>Subtotal</b>			<b>\$16.47</b>

**Taxes and Surcharges**

Federal Universal Service Fund	151.55
<b>Subtotal</b>	<b>\$151.55</b>

**Management Reports**

**Usage by Category**

Description	Calls	Minutes	Charge
Usage - Conference Calling	257	16,121.00	806.05
	<b>257.00</b>	<b>16,121.00</b>	<b>806.05</b>

**Long Distance By Line**

TN	Calls	Mins	Charge
	257	16,121.00	806.05
	<b>257</b>	<b>16,121.00</b>	<b>806.05</b>

**Toll-free Usage**

**Cuyama BDSAC Conference ID: 4745752**

#	Date	Time	Other	Location	Mins	Amt
1	03/06/19	03:58P	6172725538	Participant	10.00	.50
2	03/06/19	04:01P	6617662369	Host	232.00	11.60
3	03/06/19	04:02P	8057815275	Host	13.00	.65
4	03/06/19	04:15P	6613321043	Host	73.00	3.65
5	03/06/19	04:15P	8057815275	Host	11.00	.55
6	03/06/19	04:27P	9254872099	Host	206.00	10.30
7	03/06/19	04:50P	6613196477	Participant	181.00	9.05
8	03/06/19	05:40P	8054777139	Participant	1.00	.05
<b>Subtotal</b>			<b>727.00</b>			<b>36.35</b>

**Cuyama BDSAC Conference ID: 4745868**

#	Date	Time	Other	Location	Mins	Amt
1	03/06/19	08:16P	6172725538	Participant	1.00	.05
<b>Subtotal</b>			<b>1.00</b>			<b>.05</b>

**Cuyama BDSAC Conference ID: 4745870**

#	Date	Time	Other	Location	Mins	Amt
1	03/06/19	08:26P	6172725538	Participant	25.00	1.25
<b>Subtotal</b>			<b>25.00</b>			<b>1.25</b>

**Cuyama BDSAC Conference ID: 4767186**

#	Date	Time	Other	Location	Mins	Amt
1	03/21/19	04:58P	6614773385	Host	34.00	1.70
2	03/21/19	04:59P	6613337091	Host	33.00	1.65
3	03/21/19	04:59P	8318182451	Host	33.00	1.65
4	03/21/19	05:01P	6613302610	Host	31.00	1.55
5	03/21/19	05:01P	8058867239	Host	32.00	1.60
<b>Subtotal</b>			<b>163.00</b>			<b>8.15</b>

**Cuyama BDSAC Conference ID: 4767214**

#	Date	Time	Other	Location	Mins	Amt
---	------	------	-------	----------	------	-----

1	03/21/19	05:32P	6613302610	Host	1.00	.05
<b>Subtotal</b>			<b>1.00</b>			<b>.05</b>

**Cuyama BDSAC Conference ID: 4775383**

#	Date	Time	Other	Location	Mins	Amt
1	03/28/19	11:56A	6613337091	Host	80.00	4.00
2	03/28/19	11:58A	6613638463	Host	79.00	3.95
3	03/28/19	11:59A	8056160470	Host	78.00	3.90
4	03/28/19	11:59A	8056814200	Host	77.00	3.85
5	03/28/19	12:00P	5304058800	Host	77.00	3.85
6	03/28/19	12:00P	8056802226	Host	77.00	3.85
7	03/28/19	12:01P	5596361166	Host	76.00	3.80
<b>Subtotal</b>			<b>544.00</b>			<b>27.20</b>

**Cuyama BDSAC Conference ID: 4776365**

#	Date	Time	Other	Location	Mins	Amt
1	03/28/19	05:57P	8185492340	Participant	67.00	3.35
2	03/28/19	05:58P	6613951000	Host	69.00	3.45
3	03/28/19	05:58P	6617662369	Host	230.00	11.50
4	03/28/19	06:00P	4155242290	Host	177.00	8.85
5	03/28/19	06:02P	9256274112	Host	190.00	9.50
6	03/28/19	07:03P	8185492340	Participant	164.00	8.20
7	03/28/19	09:15P	9256274112	Host	14.00	.70
<b>Subtotal</b>			<b>911.00</b>			<b>45.55</b>

**Cuyama GSA Conference ID: 0**

#	Date	Time	Other	Location	Mins	Amt
1	03/15/19	11:57A	4157938420	Host	1.00	.05
<b>Subtotal</b>			<b>1.00</b>			<b>.05</b>

**Cuyama GSA Conference ID: 4739685**

#	Date	Time	Other	Location	Mins	Amt
1	03/01/19	11:59A	4157938420	Host	60.00	3.00
2	03/01/19	11:59A	5304058800	Host	12.00	.60
3	03/01/19	11:59A	6613337091	Host	60.00	3.00
4	03/01/19	12:00P	4155242290	Host	59.00	2.95
5	03/01/19	12:00P	9256274112	Host	59.00	2.95
6	03/01/19	12:01P	6614773385	Host	58.00	2.90
7	03/01/19	12:12P	5304058800	Host	48.00	2.40
<b>Subtotal</b>			<b>356.00</b>			<b>17.80</b>

**Cuyama GSA Conference ID: 4739778**

#	Date	Time	Other	Location	Mins	Amt
1	03/01/19	12:59P	6613337091	Host	4.00	.20
<b>Subtotal</b>			<b>4.00</b>			<b>.20</b>

**Cuyama GSA Conference ID: 4750631**

#	Date	Time	Other	Location	Mins	Amt
1	03/11/19	11:56A	4157938420	Host	91.00	4.55
2	03/11/19	11:58A	6614773385	Host	88.00	4.40
3	03/11/19	12:00P	9169998777	Host	86.00	4.30
4	03/11/19	12:01P	6613951000	Host	98.00	4.90
5	03/11/19	12:02P	9256274112	Host	84.00	4.20
6	03/11/19	12:04P	6613337091	Host	33.00	1.65
7	03/11/19	12:37P	6613337091	Host	50.00	2.50
<b>Subtotal</b>			<b>530.00</b>			<b>26.50</b>

**Cuyama GSA Conference ID: 4757741**

#	Date	Time	Other	Location	Mins	Amt
1	03/15/19	11:57A	4157938420	Host	55.00	2.75
2	03/15/19	11:59A	6613337091	Host	53.00	2.65
3	03/15/19	11:59A	9256274112	Host	53.00	2.65
4	03/15/19	12:01P	6613951000	Host	51.00	2.55
5	03/15/19	12:01P	6614773385	Host	51.00	2.55
<b>Subtotal</b>			<b>263.00</b>			<b>13.15</b>

**Cuyama GSA Conference ID: 4760550**

#	Date	Time	Other	Location	Mins	Amt
1	03/18/19	03:59P	9169998777	Host	70.00	3.50
2	03/18/19	03:59P	9256274112	Host	29.00	1.45
3	03/18/19	04:01P	6614773385	Host	68.00	3.40
4	03/18/19	04:28P	9258581340	Host	42.00	2.10
<b>Subtotal</b>			<b>209.00</b>			<b>10.45</b>

**Cuyama GSA Conference ID: 4764101**

#	Date	Time	Other	Location	Mins	Amt
1	03/20/19	12:58P	6613337091	Host	81.00	4.05

2	03/20/19	12:58P	6614773385	Host	113.00	5.65
3	03/20/19	01:00P	9169998777	Host	111.00	5.55
<b>Subtotal</b>			<b>305.00</b>			<b>15.25</b>

**Cuyama GSA Conference ID: 4768181**

#	Date	Time	Other	Location	Mins	Amt
1	03/22/19	11:59A	4157938420	Host	40.00	2.00
2	03/22/19	12:00P	6614773385	Host	75.00	3.75
3	03/22/19	12:00P	9169998777	Host	76.00	3.80
4	03/22/19	12:01P	6613337091	Host	36.00	1.80
5	03/22/19	12:01P	9258581340	Host	39.00	1.95
<b>Subtotal</b>			<b>266.00</b>			<b>13.30</b>

**Cuyama GSA Conference ID: 4777356**

#	Date	Time	Other	Location	Mins	Amt
1	03/29/19	11:56A	6613337091	Host	103.00	5.15
2	03/29/19	11:57A	4157938420	Host	23.00	1.15
3	03/29/19	11:58A	9256274112	Host	104.00	5.20
4	03/29/19	11:59A	5304058800	Host	1.00	.05
5	03/29/19	11:59A	6614773385	Host	104.00	5.20
6	03/29/19	12:00P	5304058800	Host	96.00	4.80
7	03/29/19	12:01P	4155242290	Host	36.00	1.80
8	03/29/19	12:01P	6613951000	Host	37.00	1.85
9	03/29/19	12:20P	4157938420	Host	18.00	.90
10	03/29/19	01:36P	5304058800	Host	6.00	.30
<b>Subtotal</b>			<b>528.00</b>			<b>26.40</b>

A Cuyama Charges:		
	1-Mar	\$17.80
	1-Mar	\$0.20
	6-Mar	\$36.35
	6-Mar	\$0.05
	6-Mar	\$1.25
	11-Mar	\$26.50
	15-Mar	\$13.15
	15-Mar	\$0.05
	18-Mar	\$10.45
	20-Mar	\$15.25
	21-Mar	\$8.15
	21-Mar	\$0.05
	22-Mar	\$13.30
	28-Mar	\$27.20
	28-Mar	\$45.55
	29-Mar	<u>\$26.40</u>
B	Subtotal	\$241.70
C	Total Conf Line Charge	\$806.05
D	Cuyama % of Total Bill (B/C)	30%
E	Fees	\$151.55
F	Fee Incurred by Cuyama (D*E)	\$45.44
G	Total Cuyama Charge (B+F)	<b>\$287.14</b>

## CUYAMA PRINTING COSTS

### Board- 3/6/19

Document	B&W, or Color	Pages	Rate	Cost
Agenda (Board)	B&W	30	\$ 0.10	\$ 3.00
Agenda (Public)	B&W	40	\$ 0.10	\$ 4.00
Spanish Presentations	B&W	186	\$ 0.10	\$ 18.60
Sign-in Sheet	B&W	1	\$ 0.10	\$ 0.10
Board Packets	B&W	198	\$ 0.10	\$ 19.80
Public Workshops Tent Cards	Color	2	\$ 0.50	\$ 1.00
Total Cost				\$ 46.50

### SAC- 3/28/19

Document	B&W, or Color	Pages	Rate	Cost
Agenda (Board)	B&W	30	\$ 0.10	\$ 3.00
Agenda (Public)	B&W	40	\$ 0.10	\$ 4.00
Spanish Presentations	B&W	177	\$ 0.10	\$ 17.70
Sign-in Sheet	B&W	1	\$ 0.10	\$ 0.10
SAC Packets	B&W	104	\$ 0.10	\$ 10.40
Total Cost				\$ 35.20

## CUYAMA LANDOWNER PRINTING COSTS

### March

Document	B&W, or Color	Pages	Rate	Cost
3/6 Board Packet	B&W	194	\$ 0.10	\$ 19.40
3/28 SAC Packet	B&W	65	\$ 0.10	\$ 6.50
Total Cost				\$ 25.90
Total Cost				\$ 51.80
<b>Total Cost</b>				<b>\$ 133.50</b>



**KLEIN, DENATALE, GOLDNER  
COOPER, ROSENLIEB & KIMBALL, LLP**

123

4550 CALIFORNIA AVENUE  
SECOND FLOOR  
BAKERSFIELD, CA 93309

MAILING ADDRESS:  
P.O. BOX 11172  
BAKERSFIELD, CA 93389-1172  
**(661) 395-1000**  
FAX (661) 326-0418  
E-MAIL accounting@kleinlaw.com

CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY  
C/O HALLMARK GROUP  
\*\*\*\*\*EMAIL INVOICES\*\*\*\*\*

March 29, 2019  
**Bill No. 22930-001-143373**  
JDH

Statement for Period through March 19, 2019

Re: 22930 - CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY  
001 GENERAL BUSINESS

<b>Date</b>	<b>Services</b>	<b>Hours</b>	<b>Amount</b>	
02/22/19 JDH	WEEKLY PMT CALL; PREPARED FOR SAME.	2.20	594.00	
02/26/19 JDH	RESEARCHED MANAGEMENT AREA ISSUE AND DELEGATION OF AUTHORITY TO MEMBER AGENCY.	0.50	135.00	
02/26/19 DM	OFFICE CONFERENCE WITH J. HUGHES REGARDING MANAGEMENT AREAS.	0.30	81.00	
02/27/19 JDH	TELEPHONE CONFERENCE WITH J. BECK, L. MARTIN, AND T. BLAKSLEE REGARDING MANAGEMENT AREAS.	0.70	189.00	
02/28/19 JDH	ATTENDED SAC MEETING TELEPHONICALLY.	2.00	540.00	
03/06/19 DKK	RESEARCHED TWO-YEAR AUDIT CYCLE FOR GSA.	0.80	152.00	
03/06/19 JDH	ATTENDED MARCH REGULAR BOARD MEETING TELEPHONICALLY.	3.00	810.00	
03/07/19 DKK	RESEARCHED TWO-YEAR AUDIT REQUIREMENTS FOR JPA.	1.50	285.00	
03/07/19 DKK	E-MAILED J. HUGHES REGARDING TWO- YEAR AUDIT REQUIREMENT FOR JPA.	0.20	38.00	
03/11/19 JDH	PMT CONFERENCE CALL.	1.50	405.00	
03/14/19 JDH	TELEPHONE CONFERENCE WITH A. DOUD REGARDING VARIOUS GSP MATTERS.	0.60	162.00	
03/14/19 JDH	TELEPHONE CONFERENCE WITH T. BLAKSLEE.	0.40	108.00	
03/15/19 JDH	WEEKLY PMT CALL.	1.00	270.00	
		<b>Rate</b>	<b>Hours</b>	<b>Amount</b>
JDH	HUGHES, JOSEPH	270.00	11.90	3,213.00
DKK	KEY, DARIEN	190.00	2.50	475.00
DM	MULLINS, DENNIS	270.00	0.30	81.00
<b>Total Fees</b>				<b>\$3,769.00</b>

**PAYMENT DUE UPON RECEIPT**  
PLEASE REFER TO BILL NUMBER LOCATED BENEATH STATEMENT DATE WHEN SUBMITTING PAYMENT  
TO ENSURE PROPER CREDIT.  
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% ANNUALLY) WILL BE CHARGED ON ALL BALANCES OVER 30 DAYS.  
**FEDERAL I.D. NO. 95-2298220**

**KLEIN, DENATALE, GOLDNER,  
COOPER, ROSENLIEB & KIMBALL, LLP**

124

**Bill No. 22930-001-143373**  
Client Ref: 22930 - 001

**March 29, 2019**

**Page 2**

<b>Current Charges</b>	<b><u>\$3,769.00</u></b>
Prior Statement Balance	28,589.02
Payments/Adjustments Since Last Bill	-0.00
<b>Pay This Amount</b>	<b><u>\$32,358.02</u></b>

Any Payments Received After March 29, 2019 Will Appear on Your Next Statement

**PAYMENT DUE UPON RECEIPT**  
PLEASE REFER TO BILL NUMBER LOCATED BENEATH STATEMENT DATE WHEN SUBMITTING PAYMENT  
TO ENSURE PROPER CREDIT.  
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% ANNUALLY) WILL BE CHARGED ON ALL BALANCES OVER 30 DAYS.  
**FEDERAL I.D. NO. 95-2298220**



COMMITMENT & INTEGRITY  
DRIVE RESULTS

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

T 800.426.4262  
T 207.774.2112  
F 207.774.6635

INVOICE 125

TD BANK  
Electronic Transfer:  
⑆211274450 ⑆2427662596⑆

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

April 16, 2019  
Project No: 0011078.01  
Invoice No: 161834

Project 0011078.01 CUYAMA GSP

**Professional Services for the period ending March 29, 2019**

Phase 008 Groundwater Sustainability Plan Implementation

**Professional Personnel**

	Hours	Rate	Amount	
National Practice Leader Melton, Lyndel	1.00	320.00	320.00	
Project Manager 2 Van Lienden, Brian	15.00	266.00	3,990.00	
Senior Technical Practice Leader Taghavi, Ali	3.00	310.00	930.00	
Totals	19.00		5,240.00	
<b>Labor Total</b>				<b>5,240.00</b>
		<b>Total this Phase</b>		<b>\$5,240.00</b>

Phase 009 Groundwater Sustainability Plan Document Development

**Professional Personnel**

	Hours	Rate	Amount
Engineer 2 Ceyhan, Mahmut	18.00	187.00	3,366.00
Engineer 3 Ceyhan, Mahmut	22.00	212.00	4,664.00
National Practice Leader Melton, Lyndel	3.00	320.00	960.00
Planner 1 Honn, Emily	15.50	162.00	2,511.00
Planner 2 De Anda, Vanessa	9.75	187.00	1,823.25
Project Manager 2 Cayar, Mesut	.50	266.00	133.00

Project	0011078.01	CUYAMA GSP	Invoice	161834
Van Lienden, Brian		44.00	266.00	11,704.00
Senior Technical Practice Leader				
Lopezcalva, Enrique		2.00	310.00	620.00
Taghavi, Ali		4.00	310.00	1,240.00
Tracy, Kyle		3.00	310.00	930.00
Totals		121.75		27,951.25
<b>Labor Total</b>				<b>27,951.25</b>
<b>Reimbursable</b>				
Vehicle Expenses				
3/28/2019	Van Lienden, Brian		Cuyama GSP SAC meeting	48.55
3/29/2019	Van Lienden, Brian		Cuyama GSP SAC meeting	49.48
3/29/2019	Van Lienden, Brian		Cuyama GSP SAC meeting	96.20
Travel & Lodging				
3/28/2019	Van Lienden, Brian		Cuyama GSP SAC meeting	112.49
3/28/2019	Van Lienden, Brian		Cuyama GSP SAC meeting	11.47
Meals				
3/28/2019	Van Lienden, Brian		Cuyama GSP SAC meeting	10.31
<b>Reimbursable Total</b>			<b>1.1 times</b>	<b>328.50</b>
				<b>361.35</b>
			<b>Total this Phase</b>	<b>\$28,312.60</b>

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Phase 011 Project Management

**Professional Personnel**

	Hours	Rate	Amount
National Practice Leader			
Melton, Lyndel	6.50	320.00	2,080.00
Planner 1			
Honn, Emily	.75	162.00	121.50
Planner 2			
Kidson, Jennifer	10.50	187.00	1,963.50
Project Assistant			
Hughart, Desiree	2.25	110.00	247.50
Project Manager 2			
Van Lienden, Brian	6.00	266.00	1,596.00
Senior Technical Practice Leader			
Lopezcalva, Enrique	1.00	310.00	310.00
Totals	27.00		6,318.50
<b>Labor Total</b>			<b>6,318.50</b>
			<b>Total this Phase</b>
			<b>\$6,318.50</b>

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Phase 012 GW Monitoring Well Network Expansion (Cat 1 – Task 1)

**Professional Personnel**

	Hours	Rate	Amount
National Practice Leader			
Melton, Lyndel	1.00	320.00	320.00
Planner 2			
Eggleton, Charles	6.50	187.00	1,215.50
Totals	7.50		1,535.50
<b>Labor Total</b>			<b>1,535.50</b>

Project	0011078.01	CUYAMA GSP	Invoice	161834
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**Reimbursable**

## Vehicle Expenses

3/1/2019	Van Lienden, Brian	Cuyama GSP SAC meeting	45.48
3/1/2019	Van Lienden, Brian	Cuyama GSP SAC meeting	141.03
3/6/2019	Van Lienden, Brian	Cuyama GSP Board meeting	26.99
3/7/2019	Van Lienden, Brian	Cuyama GSP Board meeting	140.28
3/7/2019	Van Lienden, Brian	Cuyama GSP Board meeting	32.72
3/8/2019	Van Lienden, Brian	Cuyama GSP Board meeting	17.45

## Travel &amp; Lodging

3/6/2019	Van Lienden, Brian	Cuyama GSP SAC meeting	112.49
3/6/2019	Van Lienden, Brian	Cuyama GSP SAC meeting	11.47

## Meals

3/6/2019	Van Lienden, Brian	Cuyama GSP Board meeting	12.19
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<b>Reimbursable Total</b>		<b>1.1 times</b>	<b>540.10</b>	<b>594.11</b>
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<b>Total this Phase</b>	<b>\$2,129.61</b>
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Phase	013	Evapotranspiration Evaluation for Cuyama (Cat 1 – Task 2)
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**Professional Personnel**

	Hours	Rate	Amount	
Planner 2				
Eggleton, Charles	.50	187.00	93.50	
Project Manager 2				
Van Lienden, Brian	6.00	266.00	1,596.00	
Totals	6.50		1,689.50	
<b>Labor Total</b>				<b>1,689.50</b>
<b>Total this Phase</b>				<b>\$1,689.50</b>

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Phase	014	Surface Water Monitoring Program (Cat 1 – Task 3)
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**Professional Personnel**

	Hours	Rate	Amount	
Engineer 3				
Lee, Elisa	4.25	212.00	901.00	
Graphic Artist				
Fox, Adam	1.75	118.00	206.50	
National Practice Leader				
Melton, Lyndel	16.00	320.00	5,120.00	
Planner 1				
De Anda, Vanessa	18.75	162.00	3,037.50	
Project Manager 2				
Van Lienden, Brian	2.00	266.00	532.00	
Totals	42.75		9,797.00	
<b>Labor Total</b>				<b>9,797.00</b>

Project	0011078.01	CUYAMA GSP	Invoice	161834
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**Reimbursable**

## Vehicle Expenses

3/5/2019	Melton, Lyndel	Board Meeting	160.66
3/6/2019	De Anda, Vanessa	Cuyama GSP Stakeholder Meeting	157.76
3/7/2019	Melton, Lyndel	Board Meeting	160.66

## Travel &amp; Lodging

2/28/2019	Van Lienden, Brian	Cuyama GSP SAC meeting	112.49
2/28/2019	Van Lienden, Brian	Cuyama GSP SAC meeting	11.47

## Meals

2/28/2019	Van Lienden, Brian	Cuyama GSP SAC meeting	15.53
3/6/2019	De Anda, Vanessa	Cuyama GSP Stakeholder Meeting	10.82
3/26/2019	Melton, Lyndel	Meeting	42.95

<b>Reimbursable Total</b>		<b>1.1 times</b>	<b>672.34</b>	<b>739.57</b>
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**Consultant**

## Subcontractor Expense

3/29/2019	The Catalyst Group, Inc.	Inv#393	11,082.95
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<b>Consultant Total</b>		<b>1.1 times</b>	<b>11,082.95</b>	<b>12,191.25</b>
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<b>Total this Phase</b>				<b>\$22,727.82</b>
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Phase	015	Project Management (Cat 1 – Task 4)
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**Professional Personnel**

	Hours	Rate	Amount	
Project Manager 2				
Van Lienden, Brian	7.00	266.00	1,862.00	
Totals	7.00		1,862.00	
<b>Labor Total</b>				<b>1,862.00</b>
		<b>Total this Phase</b>		<b>\$1,862.00</b>
		<b>Total this Invoice</b>		<b>\$68,280.03</b>

**Outstanding Invoices**

<b>Number</b>	<b>Date</b>	<b>Balance</b>
152397	7/19/2018	180,525.65
153619	8/23/2018	135,300.00
154409	9/19/2018	195,124.42
155666	10/23/2018	101,772.20
156545	11/14/2018	84,659.70
157849	12/19/2018	142,959.49
159014	1/24/2019	101,806.18
160067	2/22/2019	87,543.93
161007	3/20/2019	73,093.65
<b>Total</b>		<b>1,102,785.22</b>

	<b>Current Fee</b>	<b>Previous Fee</b>	<b>Total</b>
<b>Project Summary</b>	<b>68,280.03</b>	<b>1,787,829.53</b>	<b>1,856,109.56</b>

Approved by: 

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Brian Van Lienden  
Project Manager  
Woodard & Curran



## Progress Report

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### Cuyama Basin Groundwater Sustainability Plan Development

**Subject:** March 2019 Progress Report  
Jim Beck, Executive Director,  
**Prepared for:** Cuyama Basin Groundwater Sustainability Agency (CBGSA)  
**Prepared by:** Brian Van Lienden, Woodard & Curran  
**Reviewed by:** Lyndel Melton, Woodard & Curran  
**Date:** April 17, 2019  
**Project No.:** 0011078.01

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This progress report summarizes the work performed and project status for the period of February 23, 2019 through March 29, 2019 on the Cuyama Basin Groundwater Sustainability Plan Development project. The work associated with this invoice was performed in accordance with our Consulting Services Agreement dated December 6, 2017, and with Task Orders 4 and 5, issued by the CBGSA on June 6, 2018. Note that Task Order 1, 2 and 3 were already 100% spent as of the beginning of this reporting period.

The progress report contains the following sections:

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

#### 1 Work Performed

A summary of work performed on the project during the current reporting period is provided in Tables 1 and 2 below. Table 1 shows work performed under Task Orders 2 and 4, which include tasks identified in the forthcoming Category 2 grant from the California Department of Water Resources (DWR). Table 2 shows work performed under Task Orders 3 and 5, which includes tasks identified in the forthcoming Category 1 grant from DWR.



Table 1: Summary of Task/Deliverables Status for Category 2 Tasks (Task Orders 2 and 4)

Task	Work Completed During the Reporting Period	Work Scheduled for Next Period
<b>Task 1: Initiate Work Plan for GSP and Stakeholder Engagement Strategy Development</b>	<ul style="list-style-type: none"> <li>Task 1 is completed; no work was undertaken on this task during this reporting period</li> </ul>	<ul style="list-style-type: none"> <li>Task 1 is completed; no further work is anticipated</li> </ul>
<b>Task 2: Data Management System, Data Collection and Analysis, and Plan Review</b>	<ul style="list-style-type: none"> <li>Task 2 is completed; no work was undertaken on this task during this reporting period</li> </ul>	<ul style="list-style-type: none"> <li>Task 2 is completed; no further work is anticipated</li> </ul>
<b>Task 3: Description of the Plan Area, Hydrogeologic Conceptual Model, and Groundwater Conditions</b>	<ul style="list-style-type: none"> <li>Task 3 is completed; no work was undertaken on this task during this reporting period</li> </ul>	<ul style="list-style-type: none"> <li>Task 3 is completed; no further work is anticipated</li> </ul>
<b>Task 4: Basin Model and Water Budget</b>	<ul style="list-style-type: none"> <li>Task 4 is completed; no work was undertaken on this task during this reporting period</li> </ul>	<ul style="list-style-type: none"> <li>Task 4 is completed; no further work is anticipated</li> </ul>
<b>Task 5: Establish Basin Sustainability Criteria</b>	<ul style="list-style-type: none"> <li>Task 5 is completed; no work was undertaken on this task during this reporting period</li> </ul>	<ul style="list-style-type: none"> <li>Task 5 is completed; no further work is anticipated</li> </ul>
<b>Task 6: Monitoring Networks</b>	<ul style="list-style-type: none"> <li>Task 6 is completed; no work was undertaken on this task during this reporting period</li> </ul>	<ul style="list-style-type: none"> <li>Task 6 is completed; no further work is anticipated</li> </ul>
<b>Task 7: Projects and Actions for Sustainability Goals</b>	<ul style="list-style-type: none"> <li>Task 7 is completed; no work was undertaken on this task during this reporting period</li> </ul>	<ul style="list-style-type: none"> <li>Task 7 is completed; no further work is anticipated</li> </ul>

Task	Work Completed During the Reporting Period	Work Scheduled for Next Period
<b>Task 8. GSP Implementation</b>	<ul style="list-style-type: none"> <li>Developed updated presentation materials on the implementation plan and presented them for consideration by Technical Forum, SAC and Board</li> <li>Revise implementation plan components based on feedback from Technical Forum, SAC and Board</li> </ul>	<ul style="list-style-type: none"> <li>Develop draft Implementation Plan section for the GSP</li> </ul>
<b>Task 9. GSP Development</b>	<ul style="list-style-type: none"> <li>Developed GSP chapter contents for inclusion in the GSP Public Draft</li> </ul>	<ul style="list-style-type: none"> <li>The GSP Public Draft will be submitted during the April reporting period</li> </ul>
<b>Task 10: Education, Outreach and Communication</b>	<ul style="list-style-type: none"> <li>Participated in meetings with CBGSA Board and SAC</li> </ul>	<ul style="list-style-type: none"> <li>Continued participation in meetings with CBGSA Board, SAC and local stakeholders</li> </ul>
<b>Task 11: Project Management</b>	<ul style="list-style-type: none"> <li>Ongoing project management activities</li> </ul>	<ul style="list-style-type: none"> <li>Task 11 is completed; no further work is anticipated. Further project management activities will be covered in Task 15.</li> </ul>

**Table 2: Summary of Task/Deliverables Status for Category 1 Tasks (Task Orders 3 and 5)**

Task	Work Completed During the Reporting Period	Work Scheduled for Next Period
<b>Task 12: Groundwater Monitoring Well Network Expansion</b>	<ul style="list-style-type: none"> <li>A draft plan was developed to install groundwater data sensors as required by the DWR grant</li> </ul>	<ul style="list-style-type: none"> <li>Work will continue to install the groundwater data sensors</li> </ul>
<b>Task 13: Evapotranspiration Evaluation for Cuyama Basin Region</b>	<ul style="list-style-type: none"> <li>Implementation of land use and METRIC ET estimates in Cuyama Basin model was finalized</li> <li>A documentation tech memo was developed that will be included in the GSP Public Draft</li> </ul>	<ul style="list-style-type: none"> <li>Task 13 is completed; no further work is anticipated</li> </ul>
<b>Task 14: Surface Water Monitoring Program</b>	<ul style="list-style-type: none"> <li>A draft plan was developed to install surface flow gages as required by the DWR grant</li> </ul>	<ul style="list-style-type: none"> <li>Work will continue to install the surface flow gages</li> </ul>

Task	Work Completed During the Reporting Period	Work Scheduled for Next Period
<b>Task 15: Category 1 Project Management</b>	<ul style="list-style-type: none"> <li>Ongoing project management activities</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing project management activities</li> </ul>

## 2 Budget Status

Table 3 shows the percent spent for each task under Task Order 1. 100% of the available Task Order 1 budget has been expended (\$321,135.00 out of \$321,135).

**Table 3: Budget Status for Task Order 1**

Task	Total Budget	Spent Previously	Spent this Period	Total Spent to Date	Budget Remaining	% Spent to Date
<b>1</b>	\$ 35,768.00	\$ 35,755.53	\$ -	\$ 35,755.53	\$ 12.47	100%
<b>2</b>	\$ 61,413.00	\$ 61,413.00	\$ -	\$ 61,413.00	\$ -	100%
<b>3</b>	\$ 45,766.00	\$ 45,766.00	\$ -	\$ 45,766.00	\$ -	100%
<b>4</b>	\$ 110,724.00	\$ 110,724.00	\$ -	\$ 110,724.00	\$ -	100%
<b>5</b>	\$ -	\$ -	\$ -	\$ -	\$ -	n/a
<b>6</b>	\$ -	\$ -	\$ -	\$ -	\$ -	n/a
<b>7</b>	\$ 12,120.00	\$ 12,120.00	\$ -	\$ 12,120.00	\$ -	100%
<b>8</b>	\$ -	\$ -	\$ -	\$ -	\$ -	n/a
<b>9</b>	\$ -	\$ -	\$ -	\$ -	\$ -	n/a
<b>10</b>	\$ 45,420.00	\$ 45,432.47	\$ -	\$ 45,432.47	\$ (12.47)	100%
<b>11</b>	\$ 9,924.00	\$ 9,924.00	\$ -	\$ 9,924.00	\$ -	100%
<b>Total</b>	<b>\$ 321,135.00</b>	<b>\$ 321,135.00</b>	<b>\$ -</b>	<b>\$ 321,135.00</b>	<b>\$ -</b>	<b>100%</b>

Table 4 shows the percent spent for each task under Task Order 2. 100% of the available Task Order 2 budget has been expended (\$399,469.00 out of \$399,469).

**Table 4: Budget Status for Task Order 2**

Task	Total Budget	Spent Previously	Spent this Period	Total Spent to Date	Budget Remaining	% Spent to Date
1	\$ -	\$ -	\$ -	\$ -	\$ -	n/a
2	\$ 48,457.00	\$ 48,458.00	\$ -	\$ 48,458.00	\$ (1.00)	100%
3	\$ 24,182.00	\$ 24,182.00	\$ -	\$ 24,182.00	\$ -	100%
4	\$ 103,880.00	\$ 103,880.00	\$ -	\$ 103,880.00	\$ -	100%
5	\$ 60,676.00	\$ 60,676.00	\$ -	\$ 60,676.00	\$ -	100%
6	\$ 65,256.00	\$ 65,255.00	\$ -	\$ 65,255.00	\$ 1.00	100%
7	\$ 36,402.00	\$ 36,402.00	\$ -	\$ 36,402.00	\$ -	100%
8	\$ -	\$ -	\$ -	\$ -	\$ -	n/a
9	\$ -	\$ -	\$ -	\$ -	\$ -	n/a
10	\$ 45,420.00	\$ 45,420.00	\$ -	\$ 45,420.00	\$ -	100%
11	\$ 15,196.00	\$ 15,196.00	\$ -	\$ 15,196.00	\$ -	100%
<b>Total</b>	<b>\$ 399,469.00</b>	<b>\$ 399,469.00</b>	<b>\$ -</b>	<b>\$ 399,469.00</b>	<b>\$ -</b>	<b>100%</b>

Table 5 shows the percent spent for each task under Task Order 3. 100% of the available Task Order 3 budget has been expended (\$188,238.00 out of \$188,238).

**Table 5: Budget Status for Task Order 3**

Task	Total Budget	Spent Previously	Spent this Period	Total Spent to Date	Budget Remaining	% Spent to Date
12	\$ 53,244.00	\$ 53,244.00	\$ -	\$ 53,244.00	\$ -	100%
13	\$ 69,706.00	\$ 69,706.00	\$ -	\$ 69,706.00	\$ -	100%
14	\$ 53,342.00	\$ 53,342.00	\$ -	\$ 53,342.00	\$ -	100%
15	\$ 11,946.00	\$ 11,946.00	\$ -	\$ 11,946.00	\$ -	100%
<b>Total</b>	<b>\$ 188,238.00</b>	<b>\$ 188,238.00</b>	<b>\$ -</b>	<b>\$ 188,238.00</b>	<b>\$ -</b>	<b>100%</b>

Table 6 shows the percent spent for each task under Task Order 4 as of March 29, 2019. 94% of the available Task Order 4 budget has been expended (\$715,242.90 out of \$764,396).

**Table 6: Budget Status for Task Order 4**

Task	Total Budget	Spent Previously	Spent this Period	Total Spent to Date	Budget Remaining	% Spent to Date
1	\$ -	\$ -	\$ -	\$ -	\$ -	n/a
2	\$ 24,780.00	\$ 24,793.50	\$ -	\$ 24,793.50	\$ (13.50)	100%
3	\$ 26,912.00	\$ 26,894.00	\$ -	\$ 26,894.00	\$ 18.00	100%
4	\$ 280,196.00	\$ 280,190.26	\$ -	\$ 280,190.26	\$ 5.74	100%
5	\$ 47,698.00	\$ 47,641.88	\$ -	\$ 47,641.88	\$ 56.12	100%
6	\$ -	\$ -	\$ -	\$ -	\$ -	n/a
7	\$ 117,010.00	\$ 117,009.20	\$ -	\$ 117,009.20	\$ 0.80	100%
8	\$ 69,780.00	\$ 56,927.25	\$ 5,240.00	\$ 62,167.25	\$ 7,612.75	89%
9	\$ 91,132.00	\$ 21,767.65	\$ 28,312.60	\$ 50,080.25	\$ 41,051.75	55%
10	\$ 70,236.00	\$ 69,766.10	\$ -	\$ 69,766.10	\$ 469.90	99%
11	\$ 36,652.00	\$ 30,381.96	\$ 6,318.50	\$ 36,700.46	\$ (48.46)	100%
<b>Total</b>	<b>\$ 764,396.00</b>	<b>\$ 675,371.80</b>	<b>\$ 39,871.10</b>	<b>\$ 715,242.90</b>	<b>\$ 49,153.10</b>	<b>94%</b>

Table 7 shows the percent spent for each task under Task Order 5 as of March 29, 2019. 50% of the available Task Order 5 budget has been expended (\$232,024.67 out of \$459,886).

**Table 7: Budget Status for Task Order 5**

Task	Total Budget	Spent Previously	Spent this Period	Total Spent to Date	Budget Remaining	% Spent to Date
12	\$ 196,208.00	\$ 104,894.62	\$ 2,129.61	\$ 107,024.23	\$ 89,183.77	55%
13	\$ 24,950.00	\$ 23,243.51	\$ 1,689.50	\$ 24,933.01	\$ 16.99	100%
14	\$ 204,906.00	\$ 57,588.06	\$ 22,727.82	\$ 80,315.88	\$ 124,590.12	39%
15	\$ 33,822.00	\$ 17,889.55	\$ 1,862.00	\$ 19,751.55	\$ 14,070.45	58%
<b>Total</b>	<b>\$ 459,886.00</b>	<b>\$ 203,615.74</b>	<b>\$ 28,408.93</b>	<b>\$ 232,024.67</b>	<b>\$ 227,861.33</b>	<b>50%</b>

### 3 Schedule Status

The project is on schedule. Work authorized under Task Orders 1, 2 and 3 are complete.

### 4 Outstanding Issues to be Coordinated

There are no outstanding issues at this time.