



# CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY STANDING ADVISORY COMMITTEE

## Committee Members

Roberta Jaffe (Chair)  
Brenton Kelly (Vice Chair)  
Claudia Alvarado

Brad DeBranch  
Louse Draucker  
Jake Furstenfeld

Joe Haslett  
Mike Post  
Hilda Leticia Valenzuela

## AGENDA

May 31, 2018

**Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Standing Advisory Committee to be held on Thursday, May 31, 2018 at 4:00 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#.**

### Conference Hosting Locations:

4689 CA-166  
New Cuyama, CA 93254

7870 Fairchild Ave  
Winnetka, CA 91306

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

*In compliance with the Americans with Disabilities Act, if you need disability-related modifications or accommodations, including auxiliary aids or services, to participate in this meeting, please contact Taylor Blakslee at (661) 477-3385 by 4:00 p.m. on the Friday prior to this meeting. Agenda backup information and any public records provided to the Committee after the posting of the agenda for this meeting will be available for public review at 4853 Primero Street, New Cuyama, California. 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 (Jaffe) (1 min)
2. Roll Call (Jaffe) (1 min)
3. Pledge of Allegiance (Jaffe) (2 min)
4. Approval of Minutes (Jaffe) (2 min)
5. Report of the General Counsel (Hughes) (2 min)
6. Groundwater Sustainability Agency
  - a. Report of the Executive Director (Beck) (5 min)
  - b. SGMA Educational Item: What is Sustainability? (Melton/Van Lienden) (25 min)
  - c. Board of Directors Agenda Review (Beck) (5 min)
7. Groundwater Sustainability Plan
  - a. Groundwater Sustainability Plan Update (Melton/Van Lienden) (5 min)

- b. Technical Forum Update (Melton) (5 min)
  - c. Description of the Plan Area (Van Lienden) (20 min)
  - d. Stakeholder Engagement Update (Gardiner/Currie) (5 min)
8. Items for Upcoming Sessions (2 min)
9. Committee Forum (2 min)
10. Public comment for items not on the Agenda
- At this time, the public may address the Committee on any item not appearing on the agenda that is within the subject matter jurisdiction of the Committee. Persons wishing to address the Committee should fill out a comment card and submit it to the Executive Director prior to the meeting.*
11. Adjourn (5:24 min)

# Cuyama Basin Groundwater Sustainability Agency

## Acronyms List

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
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
TO	Task Order
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
Ventura	County of Ventura
WC	Woodard & Curran (GSP Development Consultant)
WMA	Water Management Area

# Cuyama Basin Groundwater Sustainability Agency Standing Advisory Committee Meeting

April 26, 2018

## Draft Meetings Minutes

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

### PRESENT:

Jaffe, Roberta – Chair  
Kelly, Brenton – Vice Chair  
Alvarardo, Claudia  
DeBranch, Brad  
Draucker, Louise  
Furstenfeld, Jake  
Haslett, Joe  
Post, Mike  
Beck, Jim – Executive Director  
Hughes, Joe – Legal Counsel

### ABSENT:

Valenzuela, Hilda Leticia

#### 1. Call to order

Chair Jaffe called the Standing Advisory Committee (SAC) to order at 3:05 pm.

#### 2. Roll call

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

#### 3. Pledge of Allegiance

The pledge of allegiance was led by Chair Jaffe.

#### 4. Approval of minutes

Cuyama Basin Groundwater Sustainability Agency (CBGSA) Executive Director Jim Beck presented the minutes from the last session. Minor editorial changes were suggested, and a motion was made by Committee Member Draucker to approve the revised minutes and seconded by Committee Member Post. The motion passed unanimously.

#### 5. Report of the General Counsel

Legal counsel Joe Hughes provided an update on the status of the funding agreement. He let the SAC know one of the main hang ups with the funding agreement is the issue of Kern County's participation, but let the Committee we are working with County of Kern staff to come to a resolution on this issue. Lastly, Mr. Hughes provided clarification on telephonic/remote meeting participation according to the Brown Act.

## 6. Report of the Executive Director

### a. Report of the Executive Director

Nothing to report.

### b. Revise Standing Advisory Committee Meeting Time

Mr. Beck discussed the SAC's request to push back the start time from 3 pm to 4 pm to accommodate greater community participation and match the Board of Directors start time. Mr. Beck reported that this item has been added to the CBGSA Board agenda and will be considered for approval by the Board.

### c. Board of Directors Agenda Review

Mr. Beck provided an overview of the May 2, 2018 CBGSA Board of Directors agenda.

## 7. Groundwater Sustainability Plan

### a. Groundwater Sustainability Plan Update

Woodard & Curran (W&C) Mr. Van Lienden provided an update on GSP activities. He reported that they drafted the Description of the Plan Area and are working on the hydrologic conceptual and numeric models. He also provided an update on the GSP timeline that includes the upcoming public workshops on June 6, 2018 that will discuss what sustainability means.

Chair Jaffe asked what proxy monitoring is and Mr. Van Lienden replied that it is measuring groundwater well levels to determine basin levels.

Vice Chair Kelly asked if staff is still engaging Cal Poly on land subsidence monitoring. Mr. Van Lienden replied that that type of monitoring will occur and a more detailed discussion of the monitoring network will take place in the July timeframe. Committee Member Draucker asked when we will start measuring/determining consumption. Mr. Van Lienden said we are not required to monitor consumption, but will be tracking sustainability indicators as prescribed by the Sustainable Groundwater Management Act (SGMA).

Vice Chair Kelly asked how you run a model if you do not know the draw down. Mr. Van Lienden said we can look at land use, evapotranspiration values and historic groundwater levels to calibrate the model.

Committee Member Draucker asked how we determine need. Mr. Beck said the Board gets to determine that. He explained that you get to develop a portfolio of options to get in balance and then through a public process, determine what is the best option for your area.

Chair Jaffe encouraged community members to attend the upcoming public workshops and stressed how important they are.

Regarding community data contributions, Mr. Van Lienden reported that the Cuyama Community Service District is expecting to get him their data by April 30.

Several SAC Members noted that landowners have told them that they are waiting to be contacted for their data. Mr. Beck said that we will distribute the list of workshop landowners we had that indicated they have data and if folks know others that have data, please add them to the list and

we will follow up with them.

Cuyama Valley Family Resource Center Lynn Carlisle asked if ground truthing is being done on the data and Mr. Van Lienden confirmed that they are spending significant time to do this.

**b. Technical Forum Update**

Mr. Van Lienden reported that the technical forum met via conference call on Friday, April 6, 2018 with 15 participants from W&C, EKI, Cleath-Harris, Santa Barbara County Water Agency, and HydroFocus. He reported that topics included discussion about geology, and the model grid among other items. Mr. Van Lienden reminded the Committee that this group meets monthly and activities and discussions from this group will be reported at the SAC and Board meeting.

**c. Description of the Plan Area**

Mr. Van Lienden noted that draft Description of the Plan Area has been drafted and we are asking for any comments on the plan be provided to Taylor Blakslee by May 24, 2018 via email at [tblakslee@hgcpm.com](mailto:tblakslee@hgcpm.com). Vice Chair Kelly asked if this will be the section of the GSP that will define other beneficial users (ex. Bureau of Land Management land, recreation areas, etc.). Mr. Kelly said it would be good to define the recreational land use areas.

Chair Jaffe asked if figures 1.6 and 1.7 are only up to 2000. Mr. Van Lienden said that was correct, but data through 2016 will be available soon for survey data.

Board member Jane Wooster said the draft plan refers to agricultural use and the report only refers to irrigated ag, but there is a lot of ag that is not irrigated.

Chair Jaffe asked how current the data is that will be used for the model. Mr. Van Lienden said we will use the most current data sets, but they are varied depending on the data set.

**d. Data Management Approach**

W&C Data Management expert Gina Bomb reported on the data management approach. She let the Committee know that the goal is to make the data management tool very user friendly and to function as an effective system. She expounded that the data management tool will help the CBGSA to perform automated reporting and track undesirable results. Ms. Bomb discussed several data management systems, but recommended Opti as the data management tool.

**e. Stakeholder Engagement Update**

Catalyst Group Mary Currie provided an update on stakeholder engagement activity including the upcoming June 6, 2018 public workshops starting at 6:30 pm. She reported that there will be an informal session from 6:30-7 pm, and then an open house forum for the remainder of the meeting.

**8. Grapevine Capital Partners Presentation**

Ray Shady from Grapevine Capital Partners (Grapevine) provided an overview of their operations. His main reason for presenting to the SAC was to introduce Grapevine, present the information they have been sharing with W&C, and to answer questions from the community. He let the SAC know he joined Grapevine Capital about two years ago.

Committee Member Post asked if they are pursuing a separate Water Management Area (WMA) as opposed to a boundary modification. Mr. Shady said their current perspective is that a separate WMA is what they are pursuing, but if data collected through a public process supports a separate basin, they will

pursue a boundary revision.

Committee Member Post asked if Grapevine's frost ponds are calculated in the estimate of the acreage they considered planting. Mr. Shady confirmed that they have.

Committee Member Haslett asked where the Russel fault separation is on the west side of the fault. Mr. Shady said it is the bedrock that pops up on that side.

Vice Chair Kelly asked if Grapevine Capital has done any of its own groundwater modelling. Mr. Shady let him know that their monitoring wells collect data every five minutes and help them determine how much pumpable water they think they have.

Director Jane Wooster asked where they measured total dissolved solids on the east side of the Russel fault, and asked if they believe the Russel Fault is impermeable at the bottom as well.

Steve Gliessman expressed concern regarding the impermeability of the fault and potential impacts downstream. Mr. Shady said they factored in the flashiness of the flows in their calculations.

Chair Jaffe asked if they have only invested 10 percent of their land, what will Harvard do with the rest of the land. Mr. Shady said the land was sold as a big chunk and he is not aware of what they plan on doing with the remaining piece of land, but reiterated that their vision is for the long-term.

Mr. Beck reminded the Committee that W&C will review all the data from Grapevine and will present their findings from their review.

#### **9. Standing Advisory Committee Responsibilities and Guidelines**

Chair Jaffe presented the revised SAC responsibilities and guidelines to the SAC and provided additional language to address SAC participation by Committee members who are also Board member alternates. Committee member Haslett made a motion to approve the revisions present them to the Board for consideration of adoption. The motion was seconded by Committee Member Post and passed unanimously.

#### **10. Items for Upcoming Sessions**

Nothing to report.

#### **11. Committee Forum**

Nothing to report.

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

Nothing to report.

#### **13. Adjourn**

Chair Jaffe adjourned the meeting at 5:16 pm.

I, Jim Beck, Executive Director of the Cuyama Basin Groundwater Sustainability Agency, do hereby certify that the foregoing is a fair statement of the proceedings of the meeting held on Thursday, April 26, 2018, by the Cuyama Basing Groundwater Sustainability Agency Standing Advisory Committee.

**Jim Beck**

Dated: May 31, 2018

DRAFT





TO: Standing Advisory Committee  
Agenda Item No. 6b

FROM: Jim Beck, Executive Director

DATE: May 31, 2018

SUBJECT: SGMA Educational Item: What is Sustainability?

**Issue**

Educational presentation on what defines “sustainability.”

**Recommended Motion**

None – information only.

**Discussion**

An educational presentation on what defines “sustainability” is provided as Attachment 1.

Cuyama Basin Groundwater Sustainability Agency

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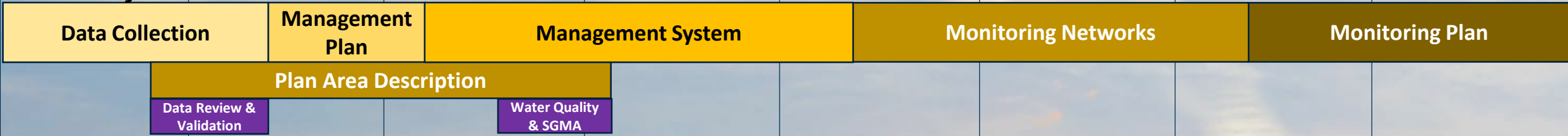
# SGMA Educational Item: What is Sustainability?

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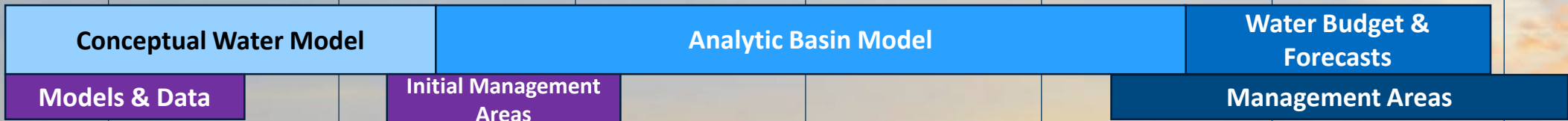
May 31, 2018

# Cuyama Basin Groundwater Sustainability Plan – Discussion Topics<sup>11</sup>

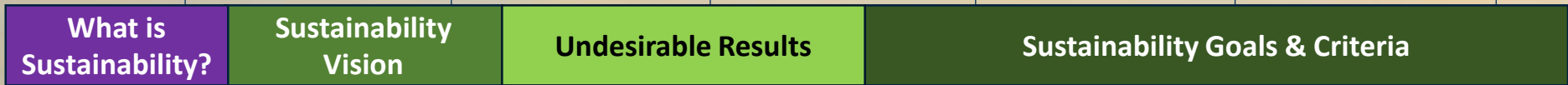
## Data & Information



## Basin Model



## Sustainability Goals



Education Topics






2018 Mar Apr May Jun Jul Aug Sep Oct



# Cuyama GSP Sustainability Goals Timeline

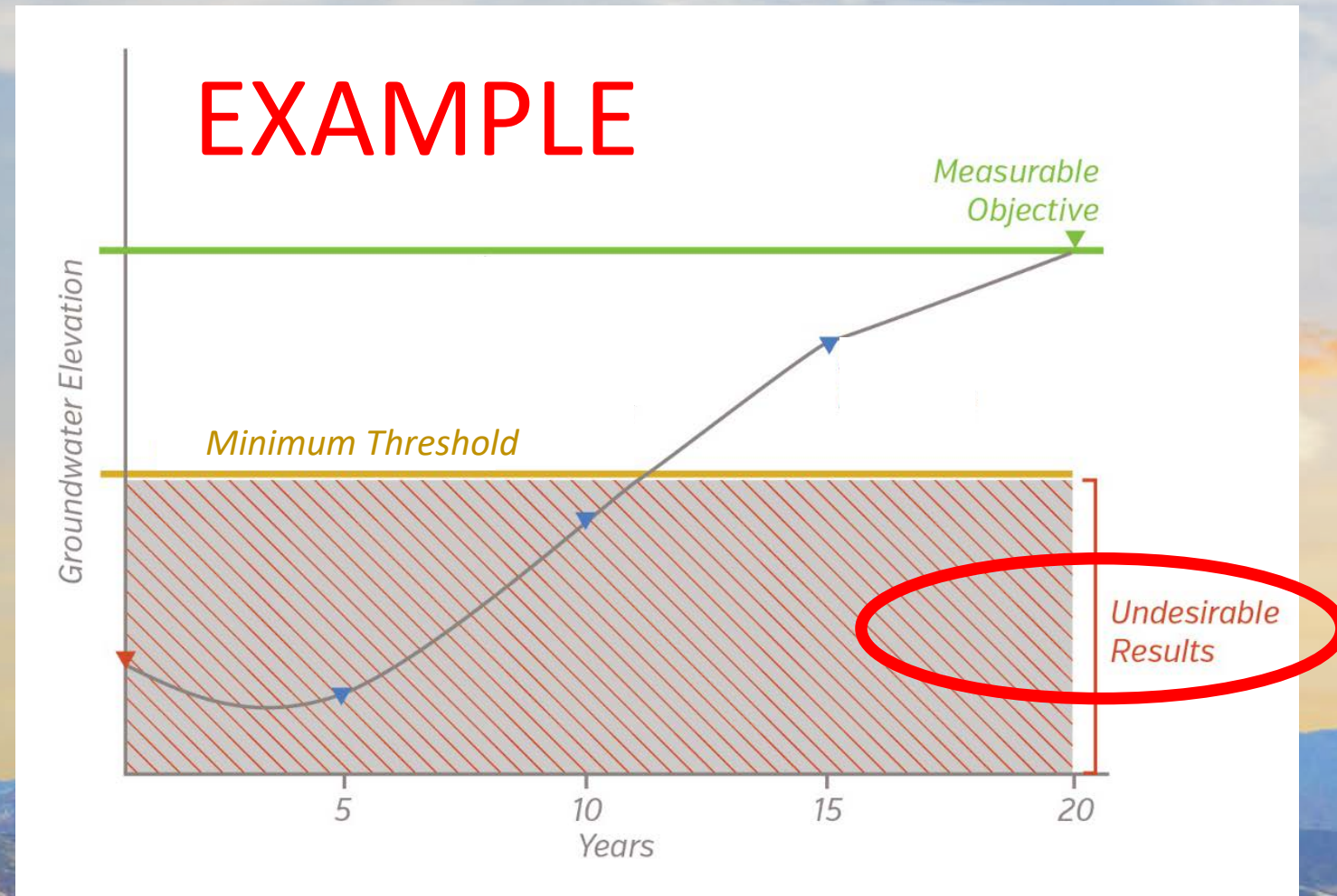
- May and June SAC and Board Meetings and Workshop:
  - Solicit initial input on sustainability vision and goals
- July/August:
  - Review undesirable result narratives
  - Discuss ideas for thresholds and objectives
- September/October:
  - Develop quantitative thresholds and objectives for each indicator

# Sustainability Indicators in the Cuyama Basin

Sustainability Indicators	Lowering GW Levels	Reduction of Storage	Land Subsidence	Surface Water Depletion	Degraded Water Quality
					
Metrics Defined by SGMA	Groundwater elevation	Total volume	Rate and extent of subsidence	Volume or rate of depletion	Migration of plumes; constituent concentrations
Example Problems	Dry Wells Low Pumping Production	Dry Wells Low Pumping Production	Unleveling of Fields Damage to Structures	Dry out Cuyama River earlier / more often	Higher salinity Nitrates in drinking water

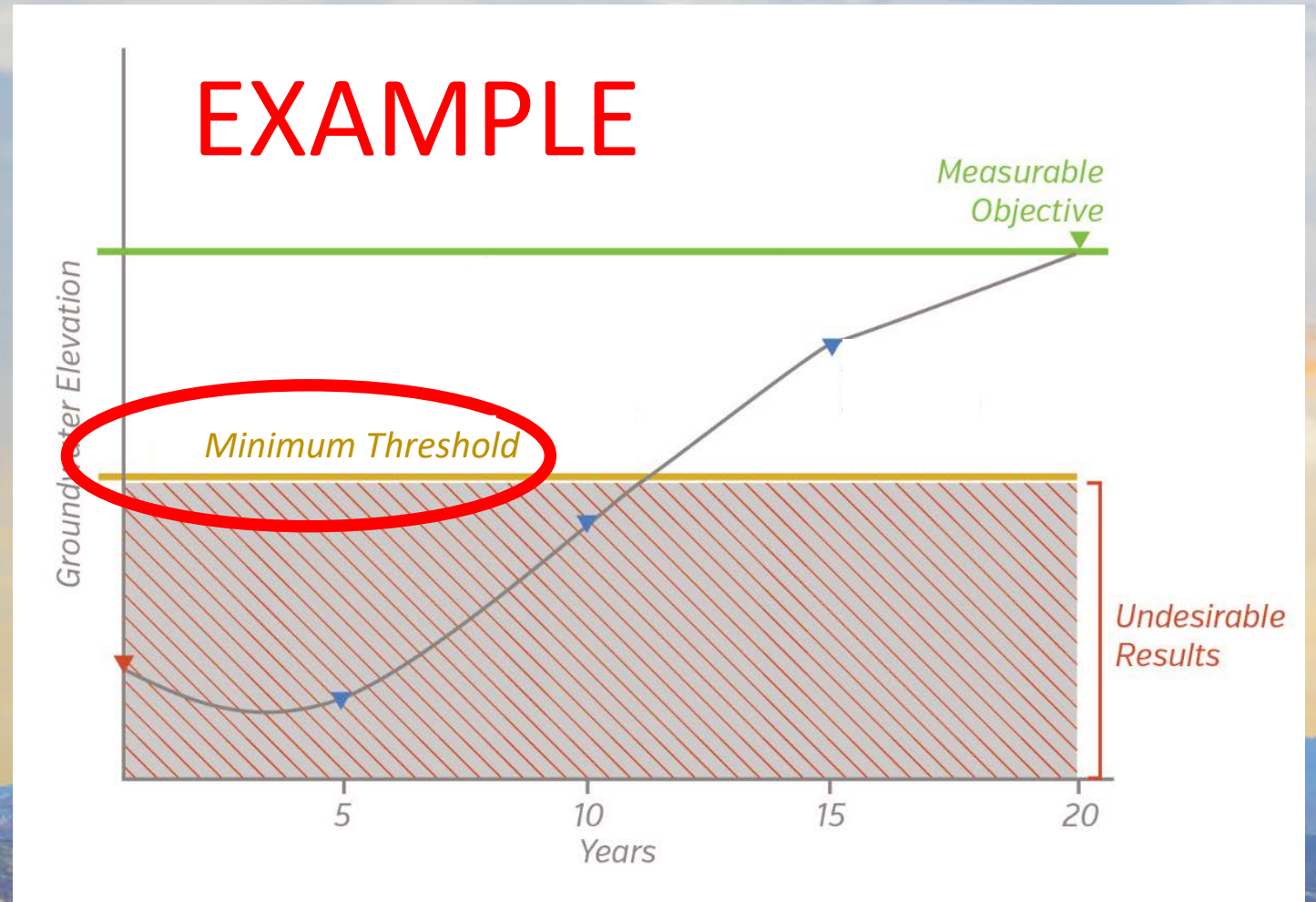
# Undesirable Results, Minimum Thresholds & Measurable Objectives

- Undesirable Results:
  - Must be “Significant and Unreasonable”
  - Statement that describes conditions that we do not want to have happen
  - Defined for each sustainability indicator



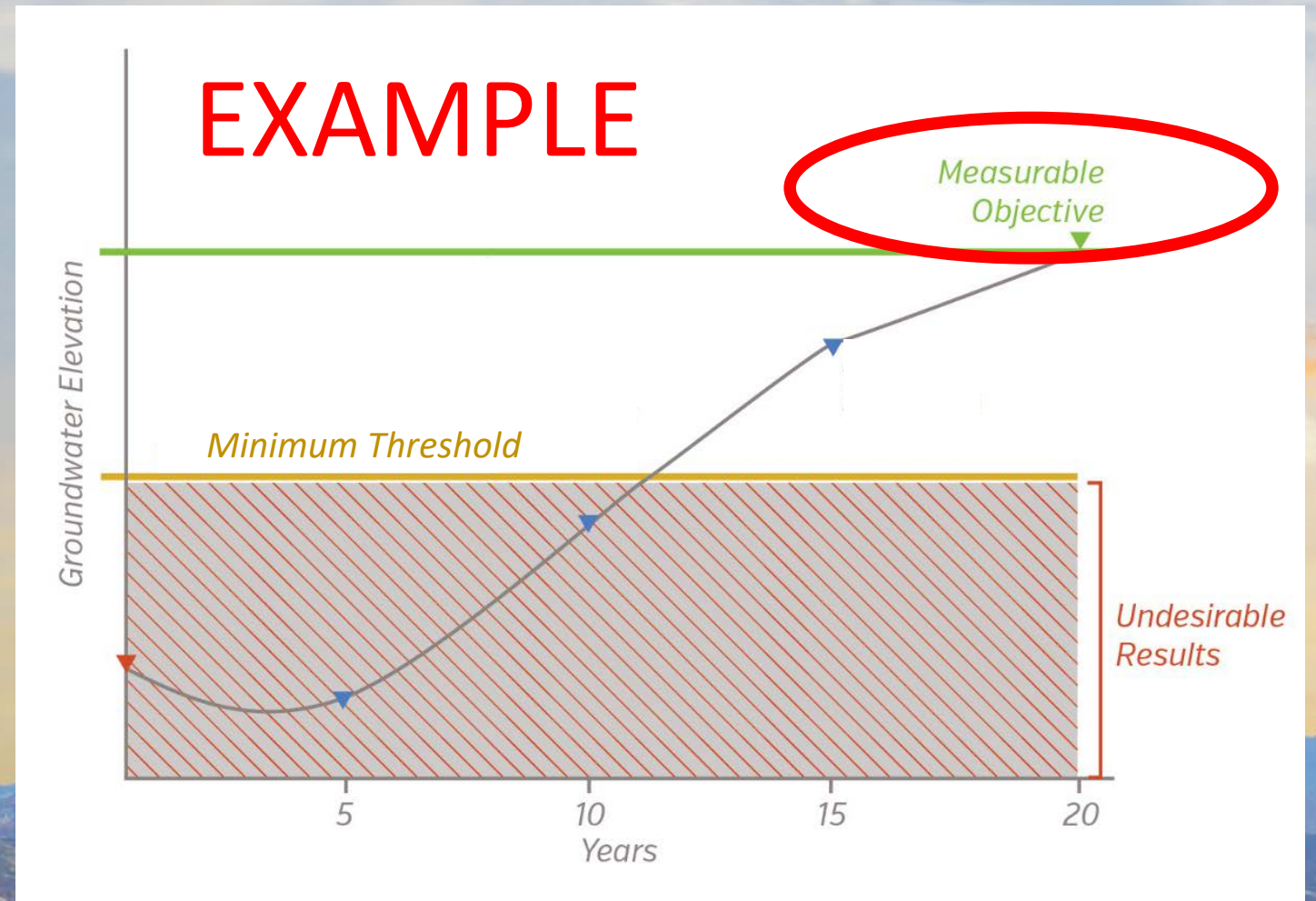
# Undesirable Results, Minimum Thresholds & Measurable Objectives

- **Minimum Thresholds:**
  - Anything worse is considered an “undesirable result”
  - The lowest the basin can go without something significant and unreasonable happening to groundwater



# Undesirable Results, Minimum Thresholds & Measurable Objectives

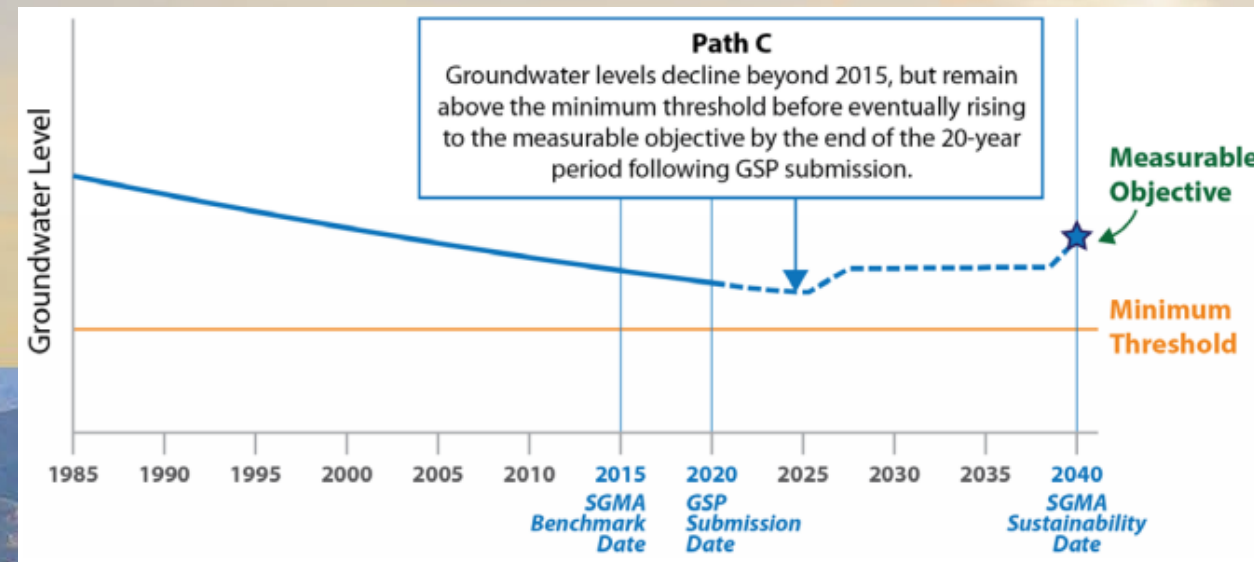
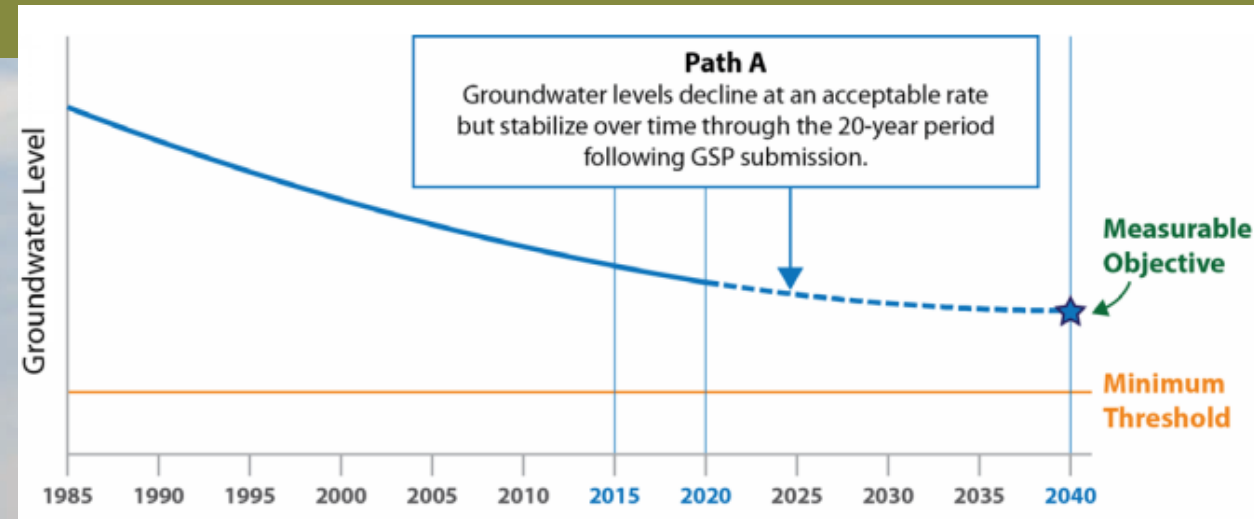
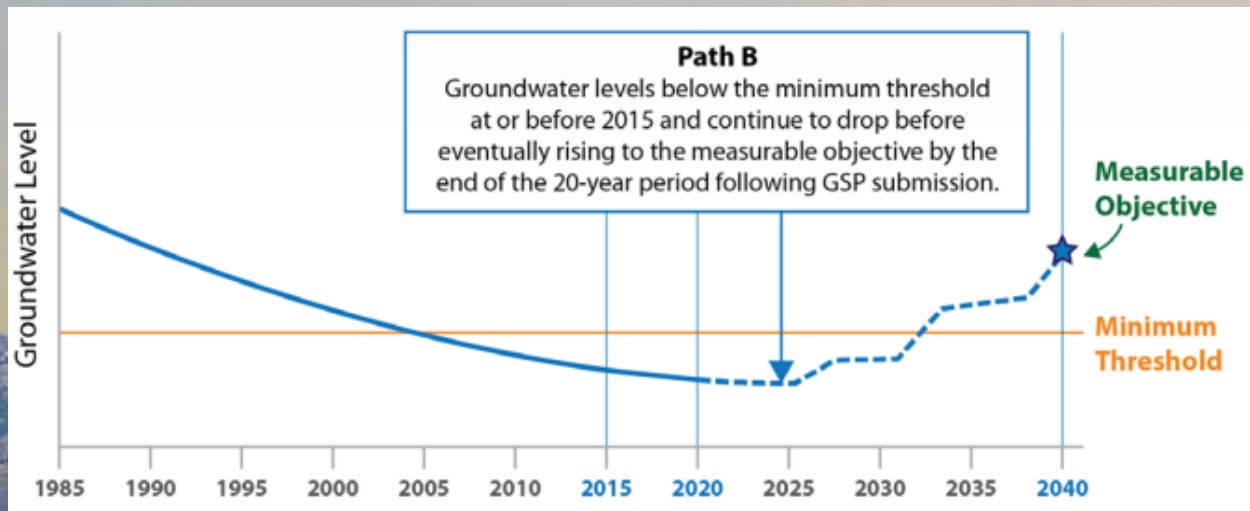
- Measurable Objectives:
  - A management target that provides a usable buffer for use during droughts, etc
  - Establishes the upper targeted boundary for basin management





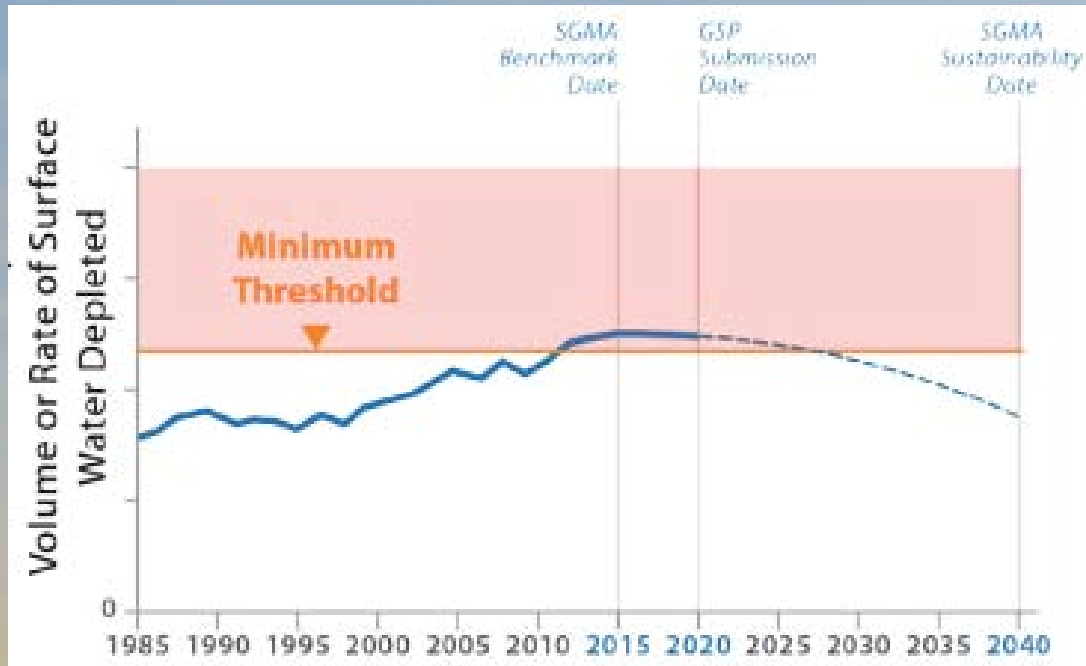
# Examples of Pathways to Sustainability

- Plan for future progress can vary based on local groundwater conditions and locally-defined values

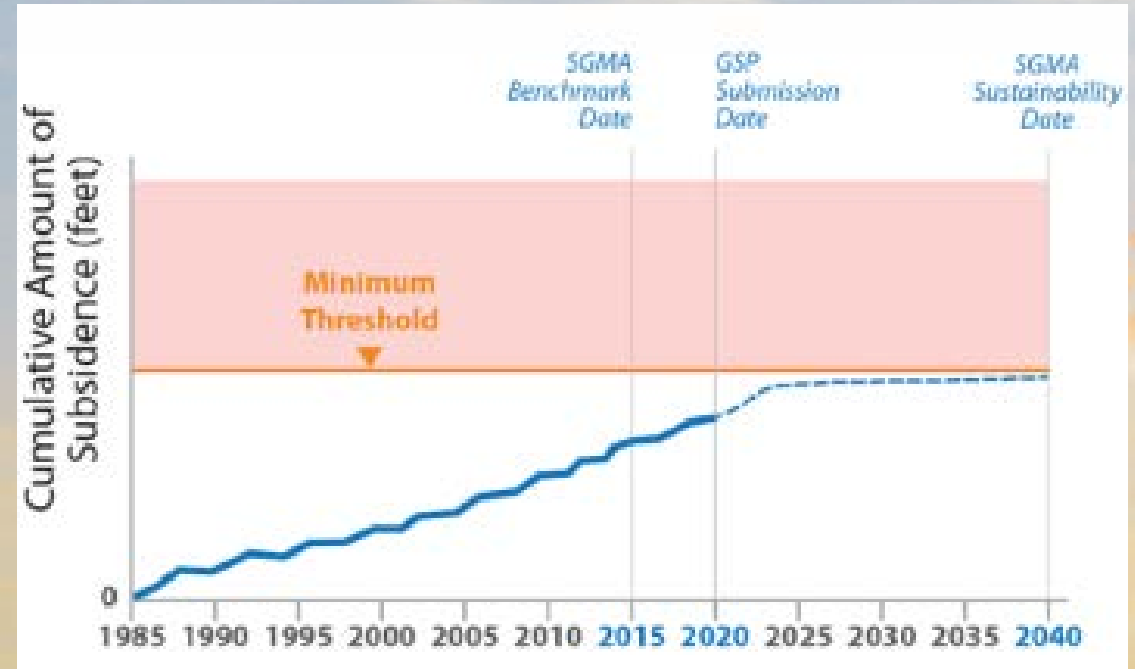


# Examples of Other Sustainability Indicators

## ■ Surface Water Depletions



## ■ Land Subsidence



# Workshop Discussion Questions

## Sustaining the future of the Cuyama Valley

- What does sustainability of the Cuyama Valley mean for you?
- Is your picture of the future different from the Cuyama Valley you know today, if it is, how is it different?

## The role of water in the future of the Cuyama Valley

- What do you see as important challenges or undesirable effects for the future of water in the Valley for the following?
  - Water and Jobs
  - Water and Community/Households
  - Water and Small Farms
  - Water and Large Farms
  - Water and Natural Resources



TO: Standing Advisory Committee  
Agenda Item No. 6c

FROM: Jim Beck, Executive Director

DATE: May 31, 2018

SUBJECT: Board of Directors Agenda Review

**Issue**

Review of the June 6, 2018 Cuyama Basin Groundwater Sustainability Agency Board of Directors agenda.

**Recommended Motion**

None – information only.

**Discussion**

The June 6, 2018 Cuyama Basin Groundwater Sustainability Agency Board of Directors agenda is provided as Attachment 1 for review.



# CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY BOARD OF DIRECTORS

## 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

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## AGENDA

June 6, 2018

Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Board of Directors to be held on Wednesday, June 6, 2018 at 4:00 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#.

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1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. Approval of Minutes
  - a. May 2, 2018
5. Report of the General Counsel
  - a. Funding Agreements Update
  - b. ACWA Pool for GSA Legal Protection
6. Report of the Standing Advisory Committee
7. Groundwater Sustainability Agency
  - a. Report of the Executive Director
  - d. Progress & Next Steps
8. Groundwater Sustainability Plan

- a. Groundwater Sustainability Plan Update
  - b. Technical Forum Update
  - c. Description of the Plan Area
  - d. Public Workshop and Stakeholder Engagement Update
9. Financial Report
  - a. Financial Management Overview
  - b. Hallmark Group Task Order
  - c. Woodard & Curran Task Orders
  - d. Payment of Bills
  - e. DWR Grant
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. Adjourn



TO: Standing Advisory Committee  
Agenda Item No. 7a

FROM: Jim Beck, Executive Director

DATE: May 31, 2018

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. The preliminary draft of the GSP document outline is provided as Attachment 2.

Cuyama Basin Groundwater Sustainability Agency

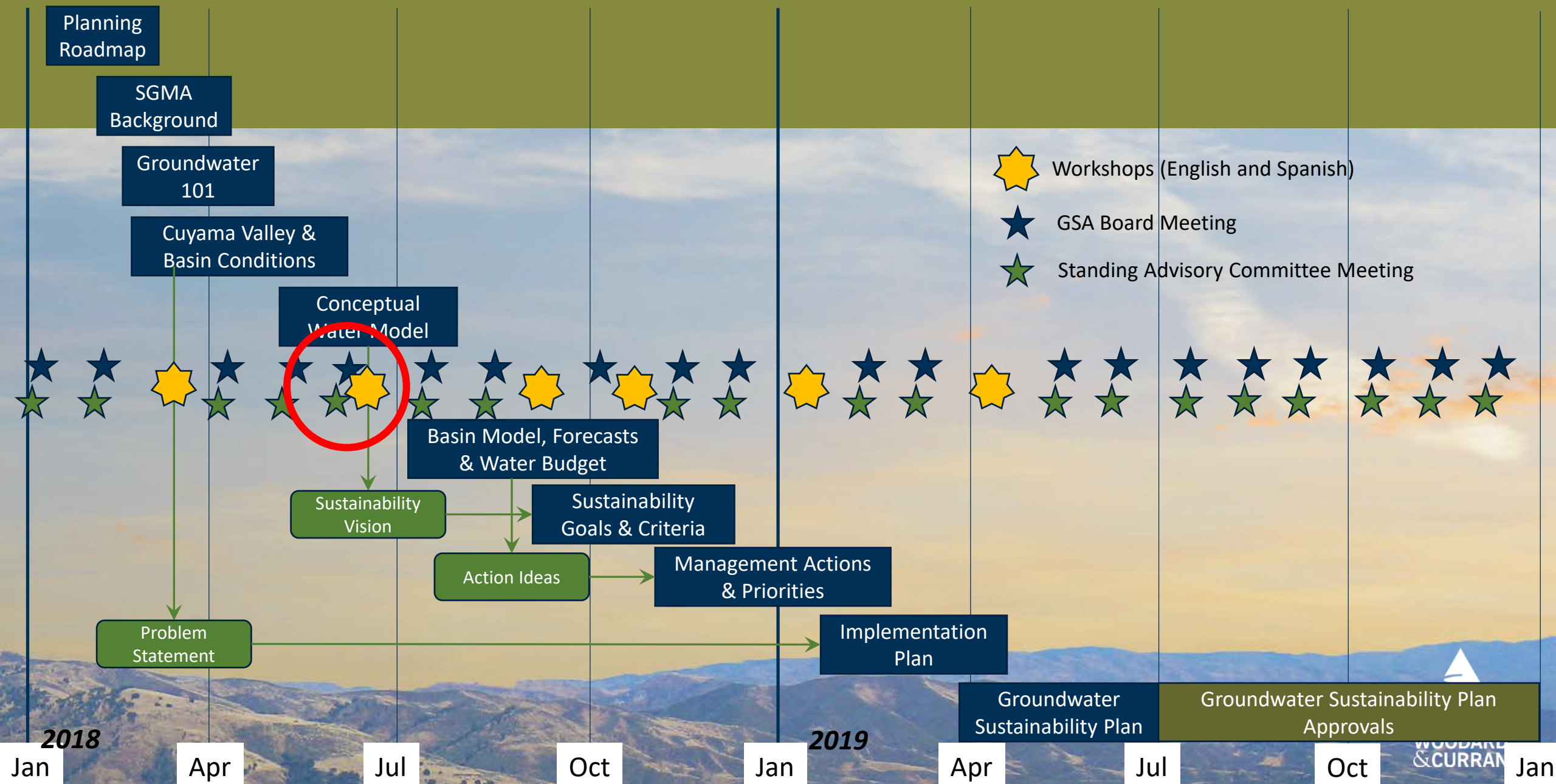
Groundwater Sustainability Plan Update

May 31, 2018





# Cuyama Basin Groundwater Sustainability Plan – Planning Roadmap <sup>25</sup>



# May GSP Accomplishments

- ✓ Distributed draft Description of Plan Area GSP section
- ✓ Continued data collection and processing
- ✓ Initiated implementation of data management system
- ✓ Continued work on conceptual basin model
- ✓ Continued work on GSP numerical model
- ✓ Developed preliminary GSP outline
- ✓ Distributed CBGSA newsletter – 1<sup>st</sup> Edition!

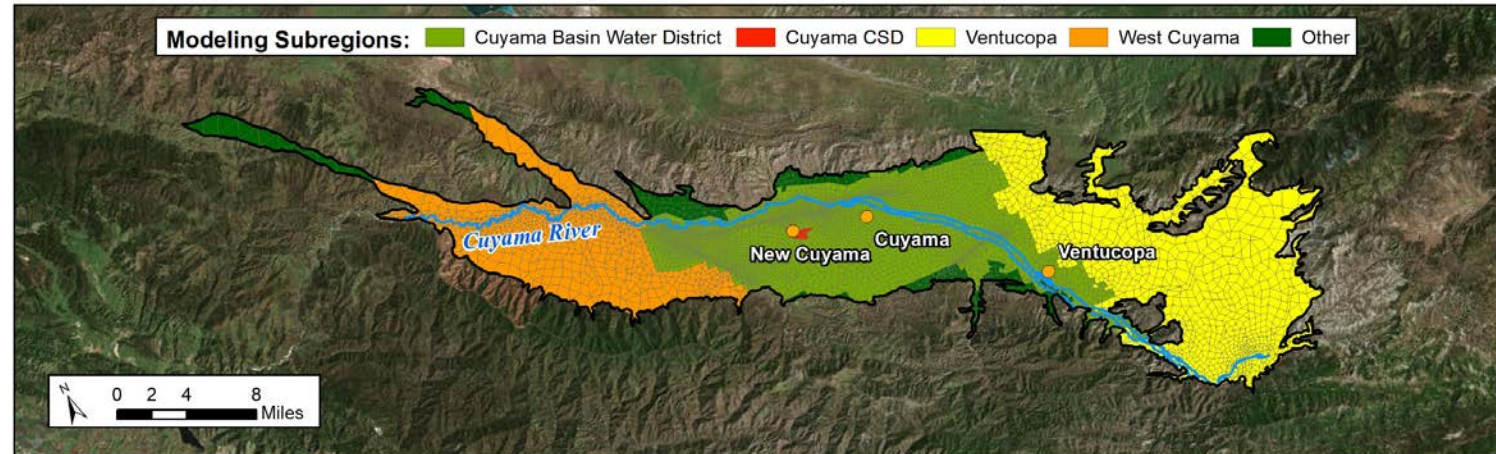
# Summary of Data Collection Efforts (as of May 25)

- Data/information received from:
  - Santa Barbara, San Luis Obispo and Ventura Counties
  - Cuyama CSD
  - 11 landowners within Cuyama Basin Water District
  - 4 Other landowners

Data Type	Cuyama Basin WD	Cuyama CSD	Ventucopa	West Cuyama	Other
Geology	●	●	◐	●	○
GW Levels	●	●	○	◐	○
GW Well Locations	◐	◐	◐	◐	◐
GW Pumping	○	○	○	○	○
Land Use/Cropping	●	●	◐	◐	◐
Precipitation	◐	●	◐	○	○
Subsidence	◐	◐	◐	○	○
Surface Water Flow	○	○	○	○	○
Water Quality	◐	◐	○	○	○

**Key**  
 ● Robust data available  
 ◐ Moderate data available  
 ○ Little or no data available

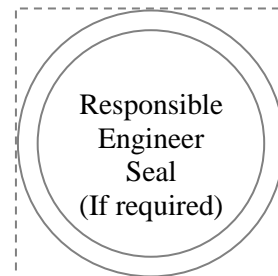
Note: Synthetic data will be developed where little or no data is available for groundwater pumping and surface water flows





# Groundwater Sustainability Plan Outline Preliminary Draft

Prepared by:



(If Necessary)

[In Association with:

List of key subconsultants]

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## Executive Summary

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## Chapter 1 Introduction

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### 1.1 General Information

#### 1.1.1 Purpose of GSP

### 1.2 Agency Information

### 1.3 Description of Plan Area

#### 1.3.1 Plan Area Definition

#### 1.3.2 Plan Area Setting

#### 1.3.3 Existing Groundwater Monitoring Programs

#### 1.3.4 Existing Groundwater Management Programs

#### 1.3.5 Conjunctive Use

#### 1.3.6 General Plans in Plan Area

#### 1.3.7 Plan Elements from CWC Section 10727.4

### 1.4 Coordination, Outreach and Engagement

#### 1.4.1 Beneficial uses and users

#### 1.4.2 Communication and Engagement

#### 1.4.3 Participating Agencies and Coordination

#### 1.4.4 Comments Received

### 1.5 GSP Organization

## Chapter 2 Basin Setting

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Prepared under the direction of a Professional Geologist or Engineer

### 2.1 Hydrogeologic Conceptual Model

#### 2.1.1 Regional Geologic and Structural Setting

#### 2.1.1 Basin Boundaries

#### 2.1.2 Principal Aquifers and Aquitards

#### 2.1.3 Topography, Surface Water and Recharge

#### 2.1.4 HCM Data Gaps

#### 2.1.5 Coordination of Hydrogeologic Conceptual Model (In basin / intra-basin if needed)

### 2.2 Groundwater Conditions

#### 2.2.1 Description of Current and Historical Conditions

#### 2.2.2 Groundwater Trends

#### 2.2.3 Historical Change in Storage

#### 2.2.4 Groundwater Quality

#### 2.2.5 Land subsidence

#### 2.2.6 Interconnected Surface Water Systems

#### 2.2.7 Groundwater Dependent Ecosystems

### 2.3 Water Budget

#### 2.3.1 Data Used in Water Budget Development

#### 2.3.2 Reference to Appendix for Model Documentation

#### 2.3.3 Water Budget Calculation Summary

#### 2.3.4 Current and Historical Water Budgets

##### Current Water Budget

##### Historical Water Budgets

#### 2.3.5 Projected Water Budgets

#### 2.3.6 Coordination of Hydrogeologic Conceptual Model (In basin / intra-basin if needed)



## **2.4 Management Areas (If Used)**

**2.4.1 Reason for Creation of Each Management Area**

**2.4.2 Description of Management Area Conditions**

**2.4.3 Monitoring for Each Management Area**

**2.4.4 Minimum Thresholds and Measurable Objectives**

**2.4.5 Management Differentiation Justification**

DRAFT

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## Chapter 3 Sustainable Management Criteria

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### 3.1 Sustainability Goal

- 3.1.1 Measures to Ensure Sustainable Yield
- 3.1.2 Explanation of how Goal Achieved in 20 Years
- 3.1.3 Explanation of how Goal Achieved Thereafter

### 3.2 Undesirable Results Description Narrative

- 3.2.1 Chronic Lowering of Groundwater Levels
- 3.2.2 Reduction in Groundwater Storage
- 3.2.3 Seawater Intrusion
- 3.2.4 Degraded Water Quality
- 3.2.5 Land Subsidence
- 3.2.6 Depletions of Interconnected Surface Water

### 3.3 Evaluation of Undesirable Results Occurrence

- 3.3.1 Chronic Lowering of Groundwater Levels
- 3.3.2 Reduction in Groundwater Storage
- 3.3.3 Seawater Intrusion
- 3.3.4 Degraded Water Quality
- 3.3.5 Land Subsidence
- 3.3.6 Depletions of Interconnected Surface Water

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## Chapter 4 Monitoring Networks

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### 4.1 Monitoring Network Objectives

#### 4.1.1 Measurement Trends Relative to Measurement Density and Frequency

### 4.2 Existing Monitoring

#### 4.2.1 Groundwater Level Monitoring

#### 4.2.2 Groundwater Quality Monitoring (Combine Existing Programs)

#### 4.2.3 Subsidence Monitoring (Combine Existing Programs)

#### 4.2.4 Surface Water Monitoring

### 4.3 Monitoring Rationales

### 4.4 Groundwater Level Monitoring Network

#### 4.4.1 Management Areas

#### 4.4.2 Representative Monitoring

#### 4.4.3 Monitoring Frequency

#### 4.4.4 Spatial Density

#### 4.4.5 Maps of Network

#### 4.4.6 Monitoring Protocols

### 4.5 Groundwater Storage Monitoring Network

#### 4.5.1 Management Areas

#### 4.5.2 Proxy and Representative Monitoring

#### 4.5.3 Monitoring Frequency

#### 4.5.4 Spatial Density

#### 4.5.5 Maps of Network

#### 4.5.6 Monitoring Protocols

### 4.6 Seawater Intrusion Monitoring Network

#### 4.6.1 Justification for not including in the GSP

## **4.7 Water Quality Monitoring Network**

- 4.7.1 Management Areas**
- 4.7.2 Proxy and Representative Monitoring (if used)**
- 4.7.3 Monitoring Frequency**
- 4.7.4 Spatial Density**
- 4.7.5 Maps of Network**
- 4.7.6 Monitoring Protocols**

## **4.8 Land Subsidence Monitoring Network**

- 4.8.1 Management Areas**
- 4.8.2 Proxy and Representative Monitoring (if used)**
- 4.8.3 Monitoring Frequency**
- 4.8.4 Spatial Density**
- 4.8.5 Maps of Network**
- 4.8.6 Monitoring Protocols**

## **4.9 Surface Water Monitoring Network**

- 4.9.1 Management Areas**
- 4.9.2 Proxy and Representative Monitoring (if used)**
- 4.9.3 Monitoring Frequency**
- 4.9.4 Spatial Density**
- 4.9.5 Maps of Network**
- 4.9.6 Monitoring Protocols**

## **4.10 Monitoring Summary**

## **4.11 Monitoring Network Improvement Plan**

- 4.11.1 Data Gaps**
- 4.11.2 Assessment of Network Function**
- 4.11.3 Plan to fill data gaps**

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

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### 5.1 Proxy Thresholds

### 5.2 Chronic Lowering of Groundwater Levels

#### 5.2.1 Management Areas

#### 5.2.2 Minimum Thresholds

#### 5.2.3 Measurable Objectives and Interim Milestones

#### 5.2.4 Selected minimum thresholds, measurable objectives, and interim milestone graphs, figures, and tables

### 5.3 Reduction of Groundwater Storage

#### 5.3.1 Management Areas

#### 5.3.2 Proxy Monitoring (if used, drop rest of section)

#### 5.3.3 Minimum Thresholds

#### 5.3.4 Measurable Objectives and Interim Milestones

#### 5.3.5 Selected minimum thresholds, measurable objectives, and interim milestone graphs, figures, and tables

### 5.4 Seawater Intrusion

- Reference to explanation of non-inclusion in monitoring/undesirable results

### 5.5 Degraded Water Quality

#### 5.5.1 Management Areas

#### 5.5.2 Proxy Monitoring (if used, drop rest of section)

#### 5.5.3 Minimum Thresholds

#### 5.5.4 Measurable Objectives and Interim Milestones

#### 5.5.5 Selected minimum thresholds, measurable objectives, and interim milestone graphs, figures, and tables

### 5.6 Subsidence

#### 5.6.1 Management Areas

**5.6.2 Proxy Monitoring (if used, drop rest of section)**

**5.6.3 Minimum Thresholds**

**5.6.4 Measurable Objectives and Interim Milestones**

**5.6.5 Selected minimum thresholds, measurable objectives, and interim milestone graphs, figures, and tables**

**5.6.6 Selected minimum thresholds, measurable objectives, and interim milestone graphs, figures, and tables**

**5.7 Depletions of Interconnected Surface Water**

**5.7.1 Management Areas**

**5.7.2 Proxy Monitoring (if used, drop rest of section)**

**5.7.3 Minimum Thresholds**

**5.7.4 Measurable Objectives and Interim Milestones**

**5.7.5 Selected minimum thresholds, measurable objectives, and interim milestone graphs, figures, and tables**

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## **Chapter 6 Projects, Management Actions and Adaptive Management**

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### **6.1 GSP Projects Implemented Regardless of Conditions**

6.1.1 Project 1 Description (repeat for each project)

### **6.2 Management Actions Implemented Regardless of Conditions**

6.2.1 Management Action 1 Description (repeat for each action)

### **6.3 Adaptive Management Actions Planned as Part of GSP**

6.3.1 Adaptive Management 1 Description (Repeat for each)

6.3.2 Conditions to Trigger Adaptive Management

### **6.4 Management Program**

6.4.1 List of Projects, Management Actions and Adaptive Management

6.4.2 How management program will generate sustainability

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## Chapter 7 Data Management System

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### 7.1 System Documentation

#### 7.1.1 Data Types/Relationships/Validation

#### 7.1.2 General Description

#### 7.1.3 Input Functionality

#### 7.1.4 Interfaces and Access

#### 7.1.5 Output

#### 7.1.6 Reporting to DWR Methodology

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## Chapter 8 GSP Implementation

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### 8.1 GSP Implementation Plan

#### 8.1.1 Data Management System Updates and Use

#### 8.1.2 Groundwater Model Updates and Use

#### 8.1.3 Monitoring Network Updates

#### 8.1.4 GSP Implementation Schedule

### 8.2 GSP Implementation Costs

#### 8.2.1 Costs Generated by GSP Implementation

#### 8.2.2 GSP Implementation Funding

#### 8.2.3 Parties Affected by GSP

### 8.3 Annual Reports

#### 8.3.1 General information

#### 8.3.2 Basin Conditions

#### 8.3.3 Description of Plan Implementation Progress

### 8.4 5 Year Evaluation Report

#### 8.4.1 Sustainability Evaluation

#### 8.4.2 Plan Implementation Progress

#### 8.4.3 Reconsideration of GSP elements

#### 8.4.4 Monitoring Network Description

#### 8.4.5 New Information

#### 8.4.6 Regulations or Ordinances

#### 8.4.7 Legal or Enforcement Actions

#### 8.4.8 Plan Amendments

#### 8.4.9 Coordination

## References

- Copies of Reference documents used
- Monitoring Protocols, standards and procedures

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## Appendix A - Model Documentation

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## Appendix B - Documents Referenced

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**Appendix C - Monitoring Protocols, Standards and Procedures**

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TO: Standing Advisory Committee  
Agenda Item No. 7b

FROM: Jim Beck, Executive Director

DATE: May 31, 2018

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 May 4, 2018 technical forum meeting is provided as Attachment 1, and the next forum is scheduled for June 8, 2018 at 2 pm.



## MEETING MEMORANDUM

PROJECT: Cuyama Basin Groundwater Sustainability Plan Development

MEETING DATE:  
5/4/2018

MEETING: Technical Forum Conference Call

ATTENDEES: Matt Young (Santa Barbara County Water Agency)  
Cathy Martin (San Luis Obispo County)  
Matt Klinchuch (Cuyama Basin Water District)  
Dennis Gibbs (Santa Barbara Pistachio Company)  
Jeff Shaw (EKI)  
Neil Currie (Cleath-Harris Geologists)  
John Fio (HydroFocus)  
Brian Van Lienden, Lyndel Melton, Ali Taghavi, John Ayres &  
Sercan Ceyhan (Woodard & Curran)

### 1. AGENDA

- Model grid update
- Hydrogeology
- Hydrology
- Land and water use
- Data collection update
- Next steps

### 2. DISCUSSION ITEMS

The following table summarizes discussion items raised at the meeting and the plans for resolution identified for each item.

Item No.	Discussion Item	Plan for Resolution
1	The updated model grid was provided for review on April 19, 2018.	Since no comments were provided, the W&C team is moving forward with the current grid.
2	The technical analysis needs to account for an unnamed fault near Cottonwood Canyon.	Neil Currie will provide information related to this fault. W&C will review this information and incorporate it into the hydrogeologic conceptual model (HCM). No change needed to the model grid as it appears to be of sufficient resolution to allow incorporation, as appropriate, into the model.



3	The HCM should use Delong's mapping of terrace outcrops.	W&C will review this information and incorporate it into the HCM.
4	We need to make clear in reporting where data came from, how it was validated and how it was used	Once the data collection effort is complete, W&C will report to the CBGSA and Technical Forum the sources of data and the approach used for data validation..
5	Materials should be sent out for review prior to the call. Technical forum members would like to see a draft HCM document prior to the next call.	Presentation materials will be sent out prior to each call, with documents provided as available. The W&C team will attempt to provide a draft HCM document prior to the next call.
6	Why has work begun on the numerical model before completion of the HCM? Don't we need a water budget before we can develop the numerical model?	Work on the numerical model needs to be done in parallel with the HCM to meet the aggressive project schedule. Information from the HCM will still be incorporated into the numerical model. W&C will develop a rough water budget for review; however, the numerical model will be the primary source of water budget information.
7	The upper and lower Morales formations have different anisotropy and need to be treated differently in the HCM and numerical model	This is consistent with the W&C team's understanding. Assessment of these formations will be primarily based on the USGS representation.
8	How is daily precipitation data developed? How are PRISM block data mapped to the numerical model grid?	PRISM includes daily data back to 1981; prior to that daily data will be developed by matching similar years. PRISM block data will be mapped to the model grid using spatial interpolation.
9	Will stakeholders be able to review groundwater level and hydrograph information?	Groundwater level information will be provided as part of the Groundwater Conditions portion of the GSP. Additional groundwater level information will be accessible to stakeholders through the Opti data management system once it is developed.



Cuyama Basin Groundwater Sustainability Agency

# Technical Forum Update

May 31, 2018



# May 4<sup>th</sup> Technical Forum Discussion

- Model grid update
- Hydrogeology
- Hydrology
- Land and water use
- Data collection update
- Next steps
- Next Meeting – June 8<sup>th</sup>
- Monthly Meetings – first Friday after each Board meeting



TO: Standing Advisory Committee  
Agenda Item No. 7c

FROM: Jim Beck, Executive Director

DATE: May 31, 2018

SUBJECT: Description of the Plan Area

**Issue**

Update on the Description of the Plan Area.

**Recommended Motion**

None – information only.

**Discussion**

Provided as Attachment 1 is a summary slide regarding an update on the Description of the Plan Area.

# Cuyama Basin Groundwater Sustainability Agency

## Description of the Plan Area

May 31, 2018



# Description of Plan Area

- Draft GSP Section provided to SAC and Board for review as part of Board Packet on April 20<sup>th</sup>
- Description of Plan Area describes:
  - Plan Area definition and setting
  - Existing surface water and groundwater monitoring programs
  - Existing water management programs
  - General Plans in the Plan Area
- Comment period closed May 24<sup>th</sup>
- Discuss proposed comment responses
- Revised draft presented for approval at the July 11<sup>th</sup> Board meeting



TO: Standing Advisory Committee  
Agenda Item No. 7d

FROM: Jim Beck, Executive Director

DATE: May 31, 2018

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 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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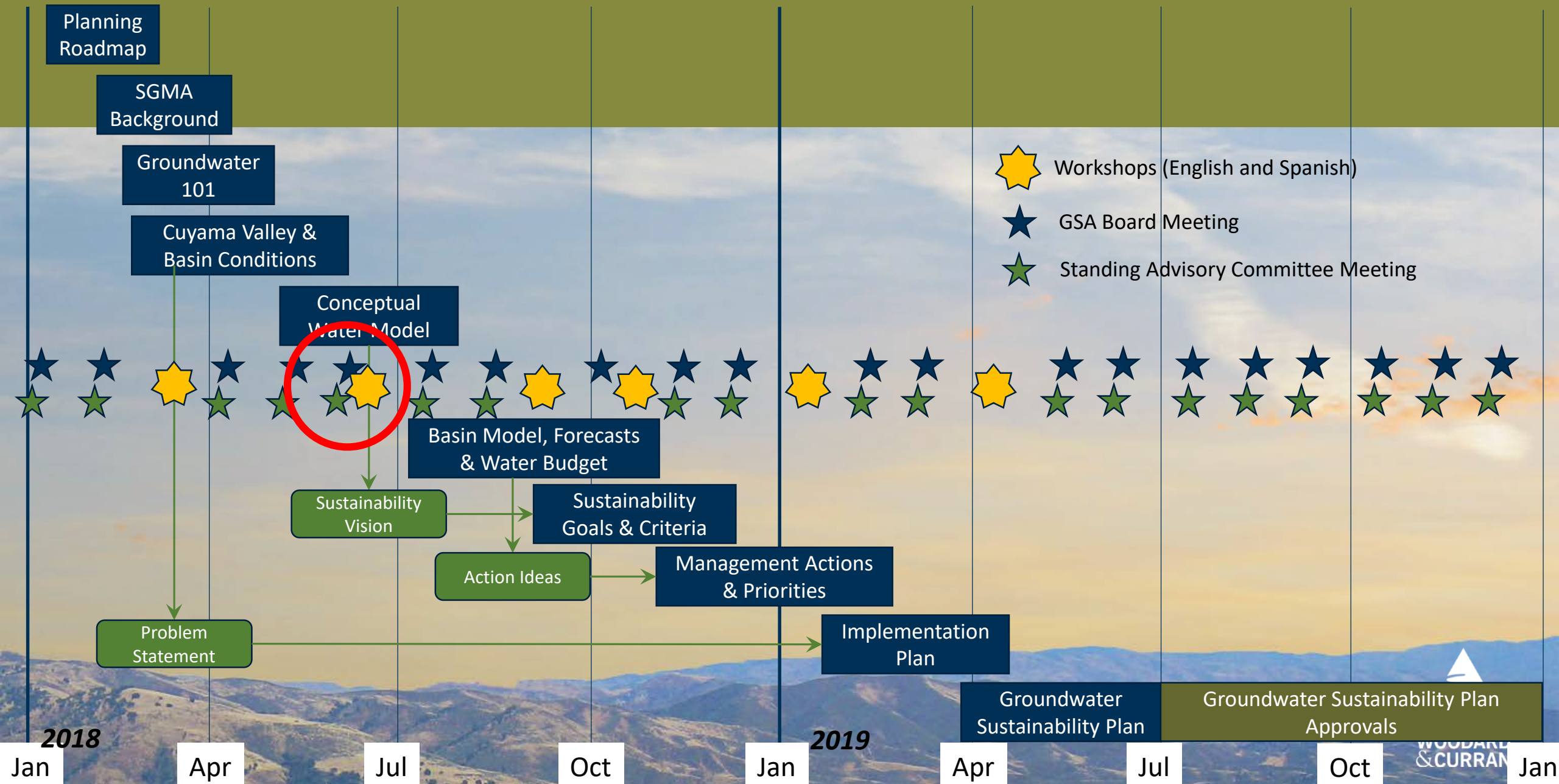
# Groundwater Sustainability Plan Stakeholder Engagement Update

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May 31, 2018



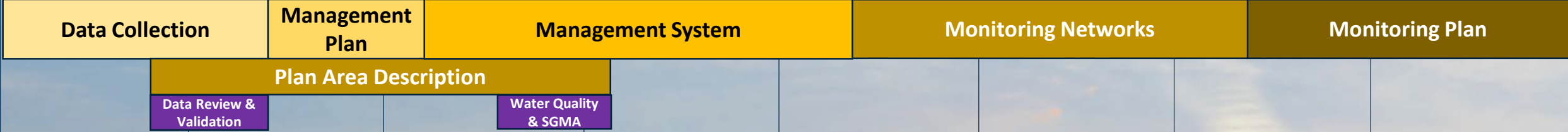
# Cuyama Basin Groundwater Sustainability Plan – Planning Roadmap <sup>56</sup>



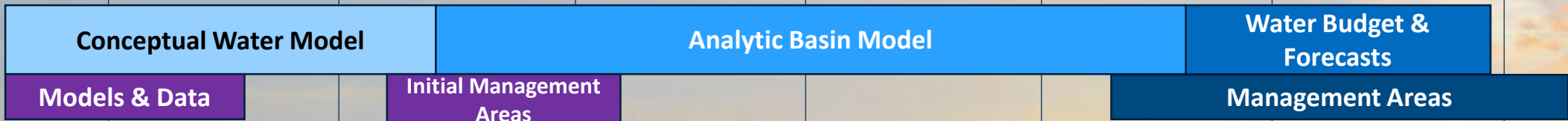


# Cuyama Basin Groundwater Sustainability Plan – Discussion Topics <sup>57</sup>

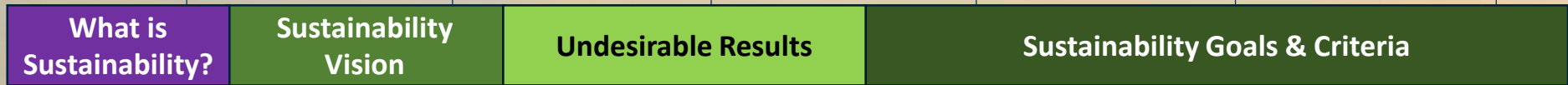
## Data & Information



## Basin Model



## Sustainability Goals



Education Topics

2018 Mar Apr May Jun Jul Aug Sep Oct



# Outreach Activities

- CBGSA Newsletter – Issued May 1
- June 6 Workshops Announced
  - English at 6:15 pm at the Cuyama Recreation District facility
  - Spanish at 6:15 pm at Cuyama Family Resources Center
- Next Steps
  - Conduct June 6 community workshops
  - Discuss workshop results and gather SAC and Board input next month
  - Continue planning educational topics for SAC meetings