CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

STANDING ADVISORY COMMITTEE

Committee Members

Roberta Jaffe (Chair)	Brad DeBranch	Joe Haslett
Brenton Kelly (Vice Chair)	Louse Draucker	Mike Post
Claudia Alvarado	Jake Furstenfeld	Hilda Leticia Valenzuela

AGENDA

April 26, 2018

Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Standing Advisory Committee to be held on Thursday, April 26, 2018 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#.

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)
2. Roll Call (Jaffe)
3. Pledge of Allegiance (Jaffe)
4. Approval of Minutes (Jaffe)
5. Report of the General Counsel (Hughes)
6. Groundwater Sustainability Agency
    a. Report of the Executive Director (Beck)
    b. Revise Standing Advisory Committee Meeting Time (Beck)
    c. Board of Directors Agenda Review (Beck)
7. Groundwater Sustainability Plan
    a. Groundwater Sustainability Plan Update (Melton/Van Lienden)
    b. Technical Forum Update (Melton)
    c. Description of the Plan Area (Van Lienden)
    d. Data Management Approach (Van Lienden)
    e. Stakeholder Engagement Update (Gardiner/Currie)

8. Grapevine Capital Partners Presentation
9. Standing Advisory Committee Responsibilities and Guidelines (Jaffe)
10. Items for Upcoming Sessions
11. Committee Forum
12. 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.

13. Adjourn

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

March 29, 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
Drauker, Louise
Furstenfeld, Jake
Haslett, Joe (*telephonically*)
Post, Mike
Valenzuela, Hilda Leticia
Beck, Jim – Executive Director

ABSENT:
Hughes, Joe – Legal Counsel

1. **Call to order**
   Chair Jaffe called the Standing Advisory Committee to order at 3:04 pm.

2. **Roll call**
   Taylor called roll of the Committee (shown above).

3. **Pledge of Allegiance**
   The pledge of allegiance was led by Chair Jaffe.

Chair Jaffe welcomed the two new Standing Advisory Committee (SAC) members to the SAC and asked existing members to introduce themselves and share a little bit of what they do.

Cuyama Basin Groundwater Sustainability Agency (CBGSA) Executive Director Jim Beck welcomed the audience members and reminded them to use the comment cards for public comment and to sign-in if they want to receive CBGSA updates.
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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 made, and a motion was made by Committee Member Post to approve the revised minutes and seconded by Committee Member Kelly. The motion

passed unanimously.

5. Report of the General Counsel

There was no report of the General Counsel for this session.

6. Report of the Executive Director

a. Report of the Executive Director

Mr. Beck reported that Woodard & Curran (W&C) Practice Leader Lyndel Melton (Groundwater Sustainability Plan consultant) and Catalyst Group Principal Strategist Charles Gardiner (outreach consultant) were participating in the SAC meeting via teleconference.

Mr. Beck gave an update on scheduling the June workshop date and provided a couple of the options the team will present to the Board of Directors for their approval. The options were to have the workshops the night before the Board, the day of Board, or the day after the Board meeting. Mr. Beck suggested the SAC discuss these options and have a recommendation for the Board at the April 4, 2018 Board meeting. Vice Chair Kelly commented that the last workshop was a good use of consultant time, but it was a marathon. Committee Member Post said he is ok with overnight, but would just need advanced notice. Cuyama Valley Family Resource Center Executive Director Lynn Carlisle commented that, at this time of year, a number of residents are working later in the fields and to be mindful of the workshop timing to maximize participation. Mr. Beck also discussed a simultaneous workshop where we could have the English and Spanish workshop occurring at the same time in an open house style format. Committee members Alvarado and Valenzuela mentioned that most agricultural workers would not get off until 6 pm. Chair Jaffe suggested having the regular Board meeting from 4-6 pm, and then a simultaneous workshop at 7 pm.

Mr. Beck let the SAC know that environmental and water consulting firm EKI is asking to be kept up to date on technical issues by meeting with CBGSA Groundwater Sustainability Plan (GSP) consultant W&C on a regular basis. Mr. Beck said that this request will be accommodated in the format of a monthly technical forum for technical consultants representing landowners to meet with W&C. He noted that this monthly meeting is not a public meeting, but for technical staff. Mr. Beck said if the SAC knows of other consultants that want to participate in these meetings to let Hallmark Project Coordinator Taylor Blakslee know and he will coordinate this. He can be reached via email at tblakslee@hgcpm.com, or phone at (661) 477-3385.

Mr. Beck reported that the County of Kern informed him they will not be paying their assessment and are requesting to be made a non-paying Board member. However, this is not an option under the Joint Powers Agreement (JPA). Mr. Beck said from a cashflow perspective, it will not impact the Board since we estimate to have a surplus of about $200,000 by the end of the project. Vice Chair Kelly asked what will happen regarding the power structure and voting if Kern leaves the CBGSA, noting that was the most difficult part in negotiating the JPA. Mr. Beck said we need to strategize with the Board on those issues if the County of Kern exits that JPA. He added it was unfortunate we got this far without hearing about this. Mr. Beck said he does not recommend this option, but you can cut out the County of Kern's portion from the CBGSA, but they will still have costs they would need to cover. Kern's perspective is that there is no pumping occurring in the County of Kern portion of the Cuyama Valley and therefore do not believe they really have a stake in the area. Mr. Beck reported that this perspective is coming from the entire Kern Board of Supervisors. Lastly, he noted that while Kern believes the areas they represent should be self-

sustaining, they have fronted costs in other parts of the County related to Sustainable Groundwater Management Act compliance and have recovered costs directly from the landowners, and this is an approach Kern could consider in Cuyama. Ultimately, he is hopeful we can figure out a scenario that avoids the County of Kern withdrawing from the JPA.

Mr. Beck reported that Grapevine Capital Partners representative Ray Shady will be presenting on their recent activities at the April 26, 2018 SAC and May 2, 2018 Board meetings.

b. SGMA Educational Item: What Makes A Good Groundwater Model?

W&C Project Manager Brian Van Lienden provided a PowerPoint presentation on what makes a good groundwater model.

As part of Mr. Van Lienden's presentation, Mr. Beck mentioned that an interactive Cuyama Basin map has been added to the CBGSA's website as a link under the resources section.

During Mr. Van Lienden's presentation of the type of data useful for the model, Vice Chair Kelly announced that he had forwarded water supply data he obtained from the National Forest Service. Committee member Mike Post reported that he has rain gauge information he can provide to W&C. Committee member Joe Haslett suggested W&C touch base with Shawn ___ from the County of Santa Barbara for any data he can provide.

Committee member Post asked if most of the well data was obtained from the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. Mr. Van Lienden confirmed this, but reiterated that any private well data would be very helpful to have. Vice Chair Kelly reported that the Cuyama Basin Water District (CBWD) is expecting W&C to issue a formal request for data that the water district can request from its landowners. Mr. Van Lienden reported that he did send a formal request for data to the CBWD. A member of the public commented that a data request from established organizations in the Cuyama Valley would be more familiar to landowners and would likely be a more effective route in collecting data. Mr. Melton reported that the data information request will be discussed with CBWD staff Matt Klinchuch at the upcoming technical consultant meeting with CBWD and EKI on April 3, 2018. Mr. Melton also commented that you do not have to have all the data in the Valley to form a good model. He said the more data the merrier, but even with the data we have today, it will be a very good model.

Ms. Carlisle asked if the data going into the model will be shared publicly. Mr. Van Lienden let her know that it would; either on the CBGSA website or through the California Department of Water Resources' (DWR) SGMA portal website.

Chair Jaffe asked if climate change will be addressed in the model and Mr. Van Lienden replied that it would as it is required by SGMA. Chair Jaffe asked how you determine if the Russel Fault is permeable. Mr. Van Lienden said he is not a hydrogeologist, but said you can take vertical data from each side of the fault and truth test this with well log data. She asked if W&C will be addressing contested basin elements to try and reconcile what is going on based on various conflicting reports. Mr. Van Lienden confirmed that contested issues will be addressed in the GSP development process. Chair Jaffe asked if existing studies by various technical consultants are public (USGS, EKI, Dudek and Cleath). Mr. Beck reported that several are public while others are not (such as the Cleath report). Mr. Van Lienden let the SAC know that reports shared publicly with W&C will be shared via the CBGSA website.

Mr. Van Lienden reported that SGMA requires monitoring of the entire basin and we will need to potentially add monitoring wells and flow gauges for the mandated 5-year interval reporting period.

Ms. Carlisle asked when the minimum threshold and measurable objectives are determined. Mr. Van Lienden said they will be determined after the conceptual model is developed, and this would possibly be a discussion point for the June public workshop.

c. Board of Directors Agenda Review
Mr. Beck provided an overview of the April 4, 2018 CBGSA Board of Directors agenda.

d. Logo Review
Mr. Beck reported on W&C's latest logo drafts. He reported that the team recommend draft No. 2 unless the SAC has any issues with that draft. Vice Chair Kelly confirmed the Committee's consensus on draft logo No. 2.

7. Groundwater Sustainability Plan

a. Groundwater Sustainability Plan Update
Mr. Van Lienden provided an update on GSP activities.

b. Stakeholder Engagement Update
Catalyst Group Charles Gardiner provided an update on stakeholder engagement activities. Catalyst Group Mary Currie reported on the status of the first edition of the CBGSA newsletter which is scheduled for distribution in the Recreation Center newsletter on May 1, 2018. Ms. Currie relayed that she had a conversation with Cuyama Elementary School Principal Rachel Leyland to strategize youth involvement in the SGMA efforts in the Cuyama Valley. Vice Chair reiterated his idea to include simple questions asked to various Cuyama residents in the newsletter to increase interest in the newsletter. Ms. Currie reported that the website had been updated with a Spanish language section and will continue to be updated as material is developed.

Committee member Valenzuela left at 4:25 pm.
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8. Standing Advisory Committee Responsibilities and Guidelines
Chair Jaffe reported that an ad hoc of consisting of Committee members Draucker, Kelly and herself met to develop responsibilities and guidelines for the way the SAC should function as a committee. Committee member Post said it is a great piece of work and does the job, but on page three, paragraph three, he would like to see the language on allowable meeting absences (currently written as reportable to the Board after three consecutive absences) to be strengthened by adding "and/or five missed meetings in a 12-week period."

Committee member Mike Post left at 4:59 pm.

The SAC discussed several revisions to the document and will present an update to the Board for adoption at the May 2, 2018 Board meeting.

9. Items for Upcoming Sessions

Mr. Beck reminded the SAC that Grapevine Capital Partners will be presenting at the April 26, 2018 SAC meeting.

10. Committee Forum

Vice Chair Kelly commented that he appreciated the acronym list being updated and asked that we continue to build on the list by adding EKI, Cleath, etc. Chair Jaffe mentioned the upcoming DWR SGMA workshops, specifically she pointed out there will be one in Ventura on April 25, 2018.

11. Public comment for items not on the Agenda

Steve reported that we got some nice rain last week.

12. Adjourn

Chair Jaffe adjourned the meeting at 5:39 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, March 29, 2018, by the Cuyama Basing Groundwater Sustainability Agency Standing Advisory Committee.

Jim Beck
Dated: April 26, 2018

TO: Standing Advisory Committee
Agenda Item No. 6c

FROM: Jim Beck, Executive Director

DATE: April 26, 2018

SUBJECT: Board of Directors Agenda Review

Issue
Review of the May 2, 2018 Cuyama Basin Groundwater Sustainability Agency Board of Directors agenda.

Recommended Motion
None – information only.

Discussion
The May 2, 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
David Couch 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

AGENDA

May 2, 2018

Agenda for a meeting of the Cuyama Basin Groundwater Sustainability Agency Board of Directors and Standing Advisory Committee to be held on Wednesday, May 2, 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#.

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.

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1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. Board Protocol
5. Approval of Minutes
    a. April 4, 2018
6. Report of the General Counsel
    a. Funding Agreements Update
7. Report of the Standing Advisory Committee
    a. SAC Guidelines and Responsibilities
8. Groundwater Sustainability Agency
    a. Report of the Executive Director
    b. Board Meeting Conflict on July 4, 2018

c. Revise Standing Advisory Committee Meeting Time

d. Progress & Next Steps

9. Groundwater Sustainability Plan

a. Groundwater Sustainability Plan Update

b. Technical Forum Update

c. Description of the Plan Area

d. Data Management Approach

e. Stakeholder Engagement Update

10. Grapevine Capital Partners Presentation

11. Financial Report

a. Financial Management Overview

b. Fiscal Year 2018/19 Budget

c. Payment of Bills

12. Reports of the Ad Hoc Committees

13. Directors' Forum

14. 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.

15. Adjourn

TO: Standing Advisory Committee
Agenda Item No. 7a

FROM: Jim Beck, Executive Director

DATE: April 26, 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.

Attachment 1

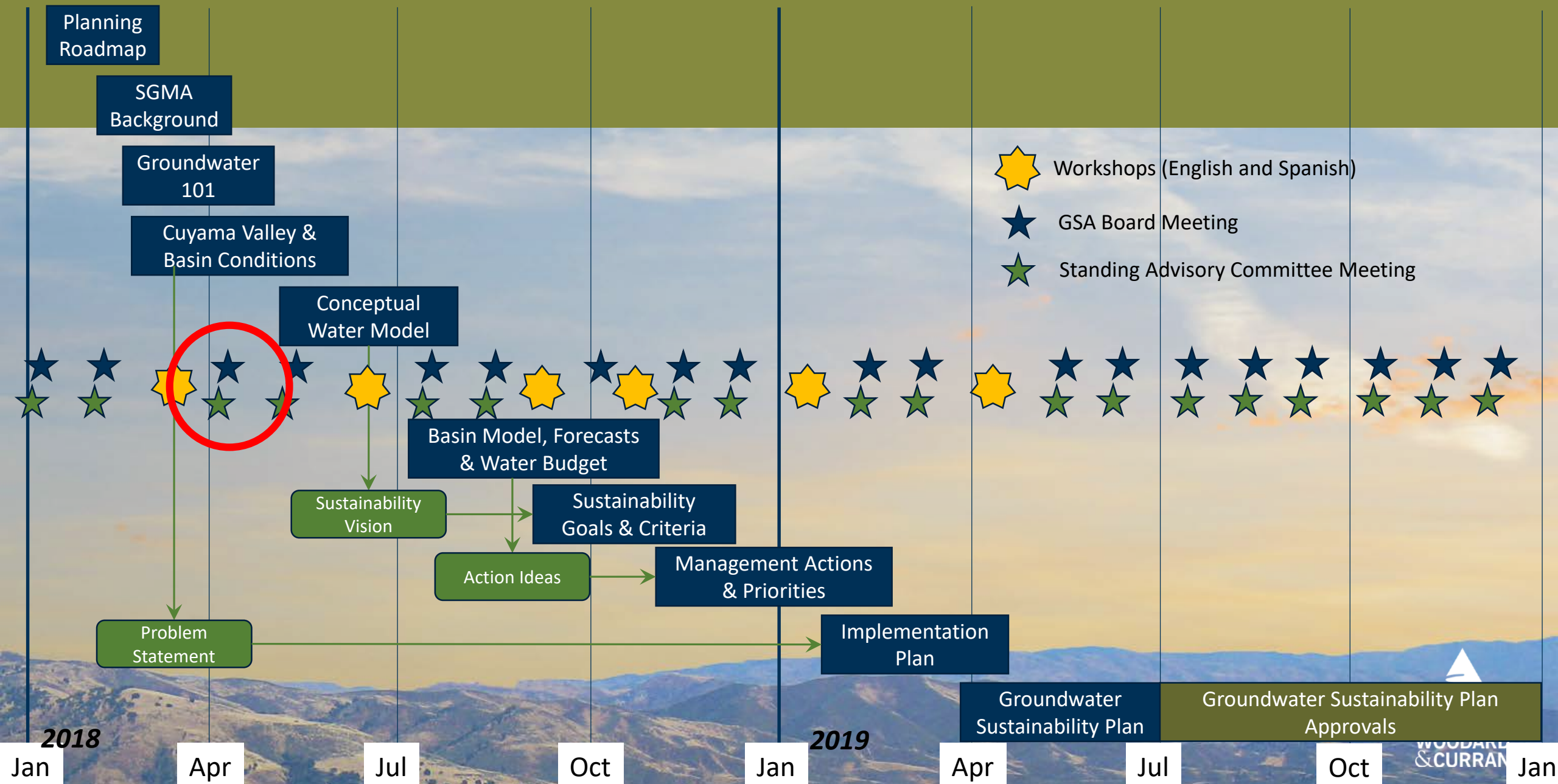
Cuyama Basin Groundwater Sustainability Agency

GSP Update

April 26, 2018

WOODARD &CURRAN

Cuyama Basin Groundwater Sustainability Plan – Planning Roadmap

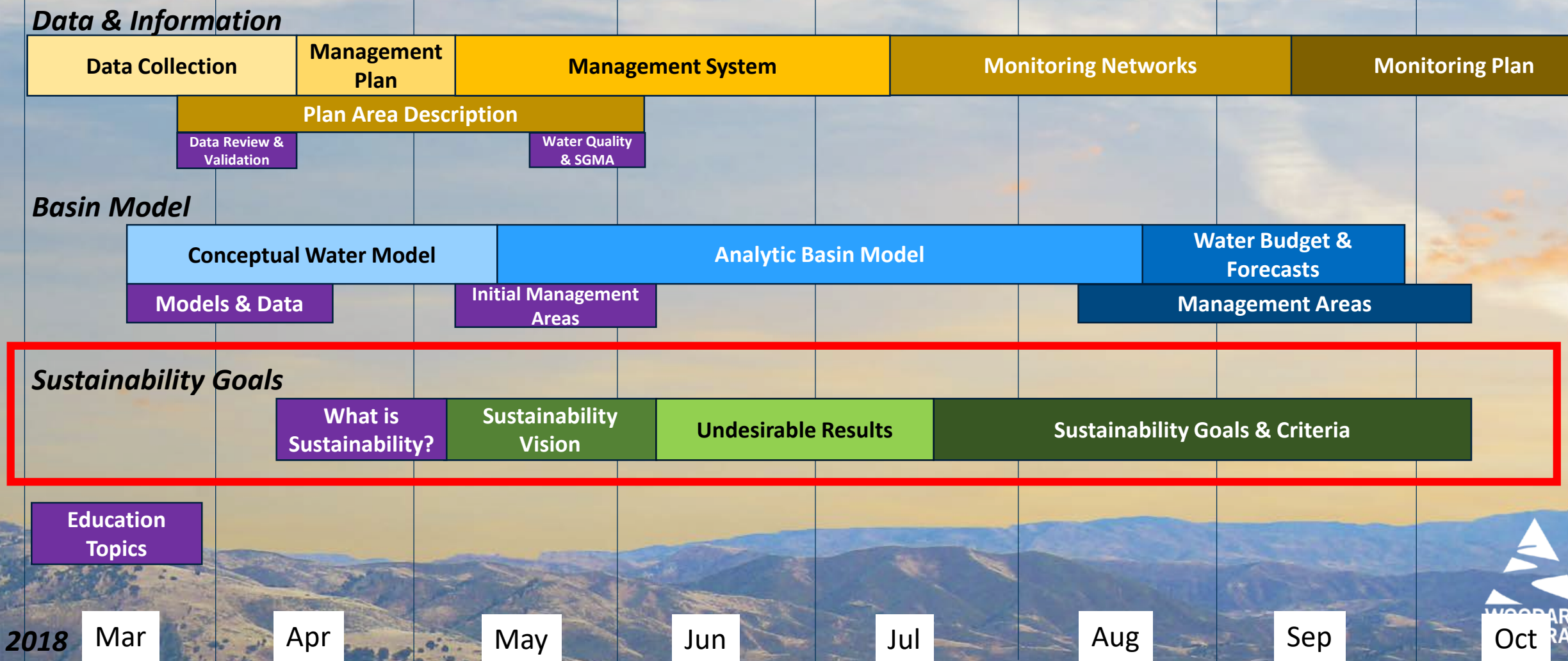


April GSP Accomplishments

- ✓ Prepared draft Description of Plan Area GSP section
- ✓ Continued data collection and processing
- ✓ Reviewed potential data management system options
- ✓ Performed initial work on conceptual basin model
- ✓ Performed initial work on GSP numerical model
- ✓ Developed initial CBGSA newsletter

WOODARD &CURRAN

Cuyama Basin Groundwater Sustainability Plan – Discussion Topics



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

WOODARD &CURRAN

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
Approach for measurement	Measured at “representative wells”	Estimate as a function of GW elevations	Estimate as a function of GW elevations	Estimate as a function of GW elevations	Measured at “representative wells”

WOODARD &CURRAN

Sustainability Thought Questions

1. What do you envision as the preferred future of the Cuyama Valley and how is that different from the Cuyama Valley you know today?
2. When you think about the importance of groundwater, which of the potential negative effects are of most concern for you?
3. What indicators or factors would best show the groundwater conditions are improving or deteriorating?
4. For these indicators, is there a minimum or maximum level, depending on the indicator, below/beyond which the Basin's groundwater should not be allowed to go?
5. What objectives or targets would you want to see achieved to show that the Cuyama Basin is sustainable?
6. What more would you want to know to help you answer these questions?

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Ongoing Data Collection Efforts

CONTINUED FOLLOW-UP	DATA NEEDS
Cuyama Basin Water District	Groundwater levels, historic pumping, well construction
Cuyama Community Services District	Population, pumping data, well construction
Individual Landowners	Additional data and information remains welcome

WOODARD &CURRAN

TO: Standing Advisory Committee
Agenda Item No. 7c

FROM: Jim Beck, Executive Director

DATE: April 26, 2018

SUBJECT: Description of the Plan Area

Issue
Report on the Description of the Plan Area.

Recommended Motion
None – information only.

Discussion
Cuyama Basin Groundwater Sustainability Agency Groundwater Sustainability Plan (GSP) consultant Woodard & Curran's summary of the description of the plan area is provided as Attachment 1. The draft plan is provided as Attachment 2.

Attachment 1

Cuyama Basin Groundwater Sustainability Agency

Description of the Plan Area

April 26, 2018

WOODARD &CURRAN

Description of Plan Area

- Draft GSP Section provided to SAC and Board for review as part of Board Packet on April 20
- 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
- Please provide any comments by May 24
  - Available on Cuyamabasin.org, latest news
  - Submit comments to tblakslee@hgcpm.com

WOODARD &CURRAN

DRAFT GROUNDWATER SUSTAINABILITY PLAN SECTION

April 2018

CUYAMA VALLEY GROUNDWATER BASIN

GROUNDWATER SUSTAINABILITY PLAN

DESCRIPTION OF PLAN AREA - DRAFT

2175 North California Blvd., Suite 315
Walnut Creek, CA 94596
925-647-4100

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

TABLE OF CONTENTS

SECTION **PAGE**

List of Acronyms

BLM	Bureau of Land Management
CASGEM	California Statewide Groundwater Elevation Monitoring
CBGSA	Cuyama Basin Groundwater Sustainability Agency
CBWD	Cuyama Basin Water District
CCSD	Cuyama Community Services District
CDEC	California Data Exchange Center
CDFW	California Department of Fish and Wildlife
DDW	Division of Drinking Water, State Water Resources Control Board
DWR	California Department of Water Resources

GAMA	Groundwater Ambient Monitoring and Assessment
GICIMA	Groundwater Information Center Interactive Map
GSP	Groundwater Sustainability Plan
ILRP	Irrigated Lands Regulatory Program
IRWM	Integrated Regional Water Management
LID	Low Impact Development
NMFS	National Marine Fisheries Service
NWIS	National Water Information System
PBO	Plate Boundary Observatory
RCD	Resource Conservation District
RWQCB	Regional Water Quality Control Board
SBCFC&WCD	Santa Barbara County Flood Control and Water Conservation District
SBCWA	Santa Barbara County Water Agency
SGMA	Sustainable Groundwater Management Act
SLOCFC&WCD	San Luis Obispo County Flood Control & Water Conservation District
SR	State Route
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
UNAVCO	University NAVSTAR Consortium
USGS	United States Geological Survey
VCWPD	Ventura County Watershed Protection District
WDL	Water Data Library
WMP	Water Management Plan

1. PLAN AREA

1.1 Introduction

The Description of Plan Area document is a detailed description of the Cuyama Valley Groundwater Basin, including major streams and creeks, institutional entities, agricultural and urban land uses locations of groundwater production wells, locations of state lands and geographic boundaries of surface water runoff areas. The Plan Area document also describes existing surface water and groundwater monitoring programs, existing water management programs, and general plans in the Plan Area.

This document will be included as part of a report section in the Cuyama Basin Groundwater Sustainability Plan (GSP) that satisfies § 354.8 of the Sustainable Groundwater Management Act (SGMA) Regulations.

1.2 Plan Area Definition

The Cuyama Valley Groundwater Basin (Cuyama Basin, or Basin) is located in California's Central Coast Hydrologic Region. It is beneath the Cuyama Valley, which is bounded by the Caliente Range to the northwest and the Sierra Madre Mountains to the southeast. The Basin was defined by the California Department of Water Resources (DWR) in its report titled "California's Groundwater Bulletin 118 - Update 2003." The boundaries of the Cuyama Basin were delineated by DWR because they were the boundary between permeable sedimentary materials and impermeable bedrock. DWR defines this boundary as "*Impermeable bedrock with lower water yielding capacity. These include consolidated rocks of continental and marine origin and crystalline/or metamorphic rock.*"

1.3 Plan Area Setting

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

Figure 1-2 shows the boundary of the Cuyama Basin Groundwater Sustainability Agency (CBGSA). The CBGSA boundary covers the entire Cuyama Basin. The CBGSA was created by a Joint Exercise of Powers Agreement (JEPA) among the following agencies: Counties of Kern, San Luis Obispo, and Ventura; Santa Barbara County Water Agency (SBCWA) representing the County of Santa Barbara; Cuyama Basin Water District (CBWD); and, Cuyama Community Services District (CCSD).

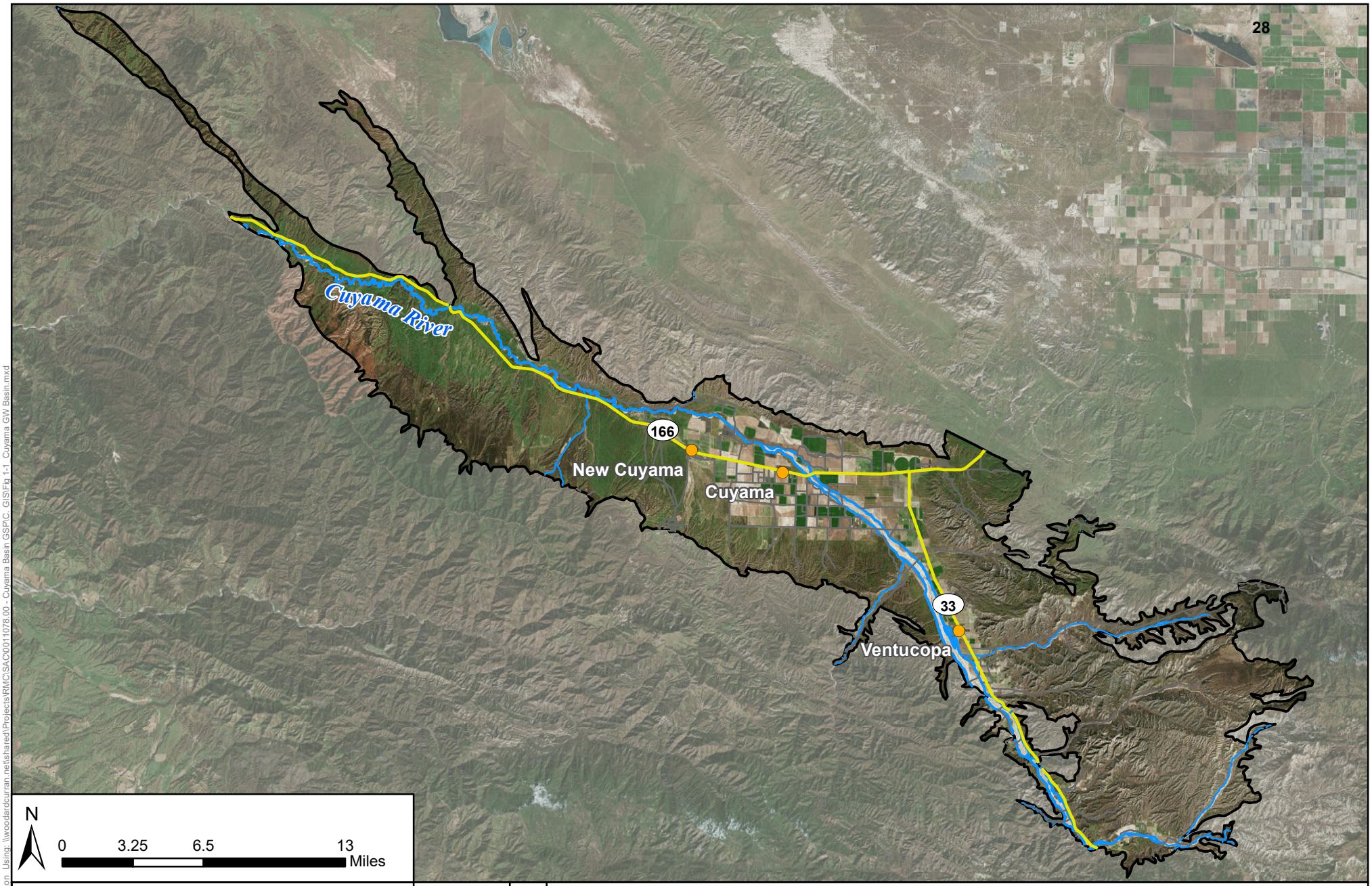

Figure 1-1 - Cuyama Valley Groundwater Basin

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

February 2018

WOODARD &CURRAN

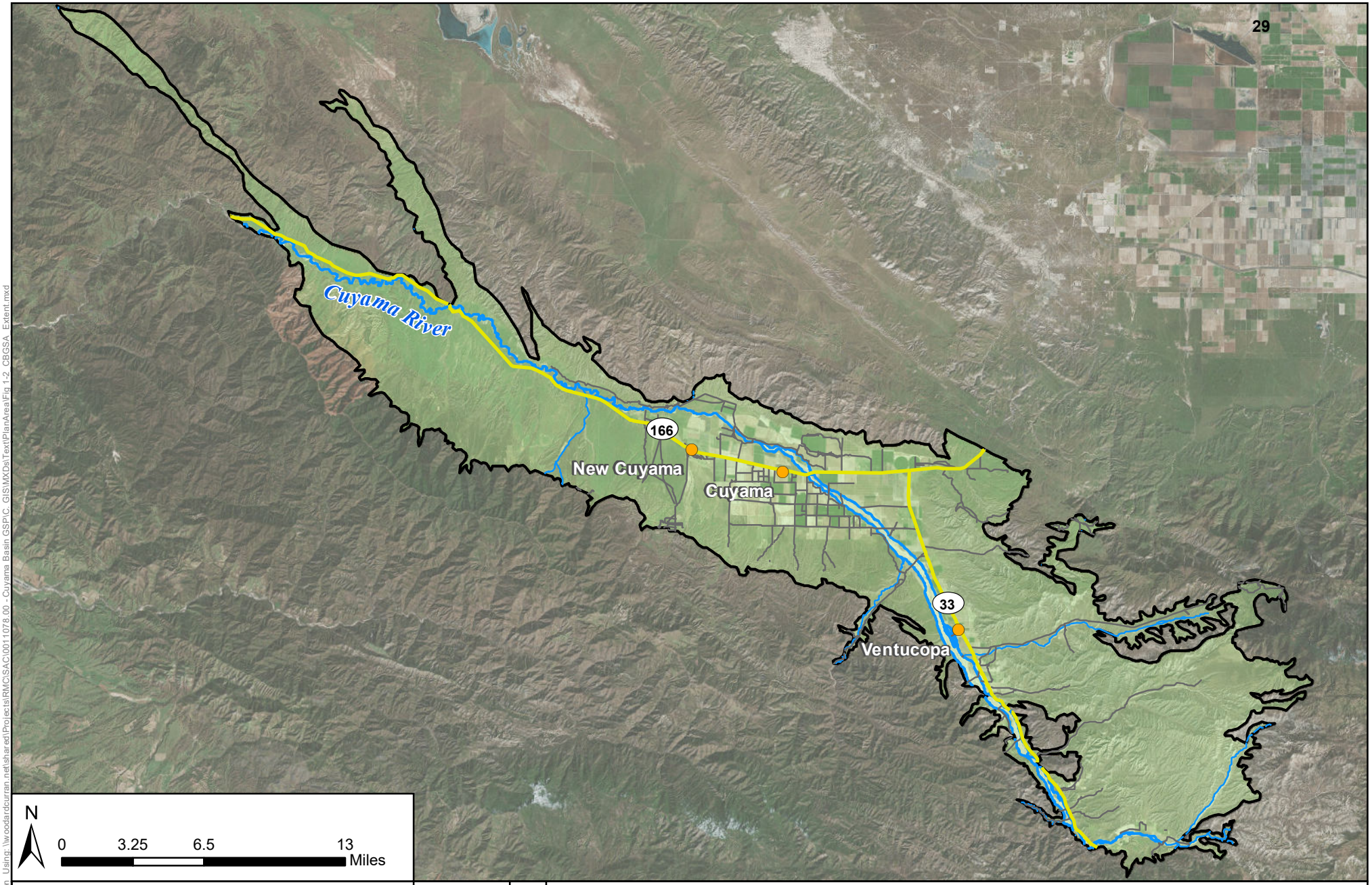

Figure 1-2 - Cuyama Valley Groundwater Sustainability Agency Boundary

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

February 2018

WOODARD &CURRAN

Figure Exported: 4/6/2018 By: ceggleton Using: \\woodardcurran.net\shared\Projects\RMC\SAC\00111078.00 - Cuyama Basin GSP\G. GIS\MXDs\Text\PlanAreaFig 1-2_CBGSA_Extent.mxd

Figure 1-3 shows the Cuyama Basin and neighboring groundwater basins. The Carrizo Plain Basin is located immediately northeast of the Cuyama Basin and they share a boundary at a location about five miles east of the intersection of SR 166 and SR 133. The San Joaquin Valley Basin is located just east of the Carrizo Plain Basin. The Cuyama Basin also shares a boundary with the Mil Potrero Area Basin, which is located just east of one of the Cuyama Basin's southeastern tips, and the Lockwood Valley Basin is located close to the Cuyama Basin's southern area but does not share a boundary with it. To the southwest, and more distant from the Cuyama Basin, are the Santa Maria, San Antonio Creek Valley and Santa Ynez River Valley Basins, which are located about 10 to 15 miles southwest of the Cuyama Basin.

Figure 1-4 depicts the Cuyama Basin's extent relative to the boundaries of the various counties which overlie the Basin. Santa Barbara County encompasses the largest portion of the Basin (168 square miles), covering most of the area south of the Cuyama River, as well as Ventucopa and a small area to the north of that community. San Luis Obispo County has jurisdiction over areas north of the Cuyama River (covering 77 square miles). The Cuyama River marks the boundary between San Luis Obispo County and Santa Barbara County. Kern County covers the smallest extent of Cuyama Basin area compared to the other counties (13 square miles). Its jurisdictional coverage is located just east of the SR 166 and SR 33 intersection, as well as tips of the Basin in the Quatal Canyon area. Ventura County encompasses the southeastern area of the Basin (covering 120 square miles), including the area east of Ventucopa.

Figure 1-5 shows the non-County jurisdictional boundaries in the Basin. The CBWD covers a large area of the Basin (about 130 square miles), from a location about five miles west of Wells Creek to the intersection of SR 166 and SR 33, and south of Ventucopa along SR 33. The CCSD covers a small area of the Basin (about 0.5 square miles) located along SR 166 in the community of New Cuyama.

Figures 1-6 and 1-7 show the agricultural and urban land uses in the Cuyama Basin from 1996-2000 and 2014, respectively. Agricultural land is located primarily in the New Cuyama and Ventucopa areas, and along the SR 166 and SR 33 corridors between those communities. Crops are generally rotated regularly, and some agricultural area is idle, but areas that are in active agricultural use produce primarily miscellaneous truck crops, carrots, potatoes and sweet potatoes, miscellaneous grains and hay, and grapes. Various other crop types are produced in the Basin as well, though at smaller production scales.

Figure 1-8 shows the land use by water source in the Cuyama Basin. Almost all of the water use in the Basin is served by groundwater. There are 37 surface water rights permits in the Basin that allow up to 116 acre-feet per year. Much of the surface water use is for stockwatering of pasture land, which may not be included in the land use dataset shown in the figure.

Figure 1-9 shows the number of domestic wells per square mile and the average depth of domestic wells in each square mile in the Cuyama Basin. Figure 1-9 shows a grid pattern where each block on the grid is a section that covers one square mile of land. The number in each square represents the average depth of the well(s) in the section. Most of the sections in the Cuyama Basin that have domestic wells contain only one well, while twelve sections contain two wells each, three sections contain three wells each, four sections contain four wells each, and one section contains six wells. Wells range in depth broadly across the Basin, from as shallow as 120 feet below ground surface in the southeast portion of the Basin to 1,000 feet below ground surface in the central portion of the Basin.

Figure 1-10 shows the density and average depth of production wells in the Cuyama Basin per square mile. There is a wide distribution of production well density in the Basin; between 1 and 11 wells per

square mile. Depths of production wells range from 50 feet below ground surface on the outer edges of the Basin, to over 1,200 feet in the central portion of the Basin.

Figure 1-11 shows the density and average depth of public wells in the Cuyama Basin. The Basin contains three public wells, one just south of New Cuyama, one east of Ventucopa and one at the southern tip of the Basin. These wells have depths of 855, 280 and 800 feet, respectively.

Figure 1-12 shows the public lands in and around the Basin. Some portions of the land that overlies the Cuyama Basin, and most of the areas immediately surrounding the Basin, have a federal or State jurisdictional designation. The Los Padres National Forest covers most of the Basin's northwestern arm, then runs outside the Basin's western boundary, where it enters the Basin again and covers most of the Basin east of Ventucopa. A portion of the Basin north of Ventucopa, as well as an area nearby that is immediately outside the Basin, is designated as the Bitter Creek National Wildlife Refuge. The Bureau of Land Management (BLM) has jurisdiction over a large area that runs outside the Basin, along the Basin's northern boundary, and covers small parts of the Basin north of the Cuyama River. Most of the northeastern arm of the Basin is designated as State Lands.

Figure 1-13 shows that the Cuyama Basin is located within the Cuyama Watershed, which lies within the larger Santa Maria watershed, with the Cuyama Basin occupying roughly the entirety of the Santa Maria Basin's eastern contributing watershed, and a small part of the Cuyama Basin's northeastern arm located in the Estrella River Basin. Figure 1-13 illustrates the Cuyama Watershed's location in the Santa Maria Basin, as well as the larger Basin's major receiving water bodies, which include the Santa Maria River, the Cuyama River, Wells Creek, Santa Barbara Creek, the Quatal Canyon drainage, and Cuyama Creek. The figure also identifies the various other groundwater basins in the general geographical vicinity of the Santa Maria Basin, including the San Antonio, Santa Ynez and Santa Clara-Calleguas Basins to the south. Basins to the north of the Santa Maria Basin include Estero Bay, Salinas, Estrella River, Carrizo Plain, Temblor, Fellows, South Valley Floor and Grapevine.

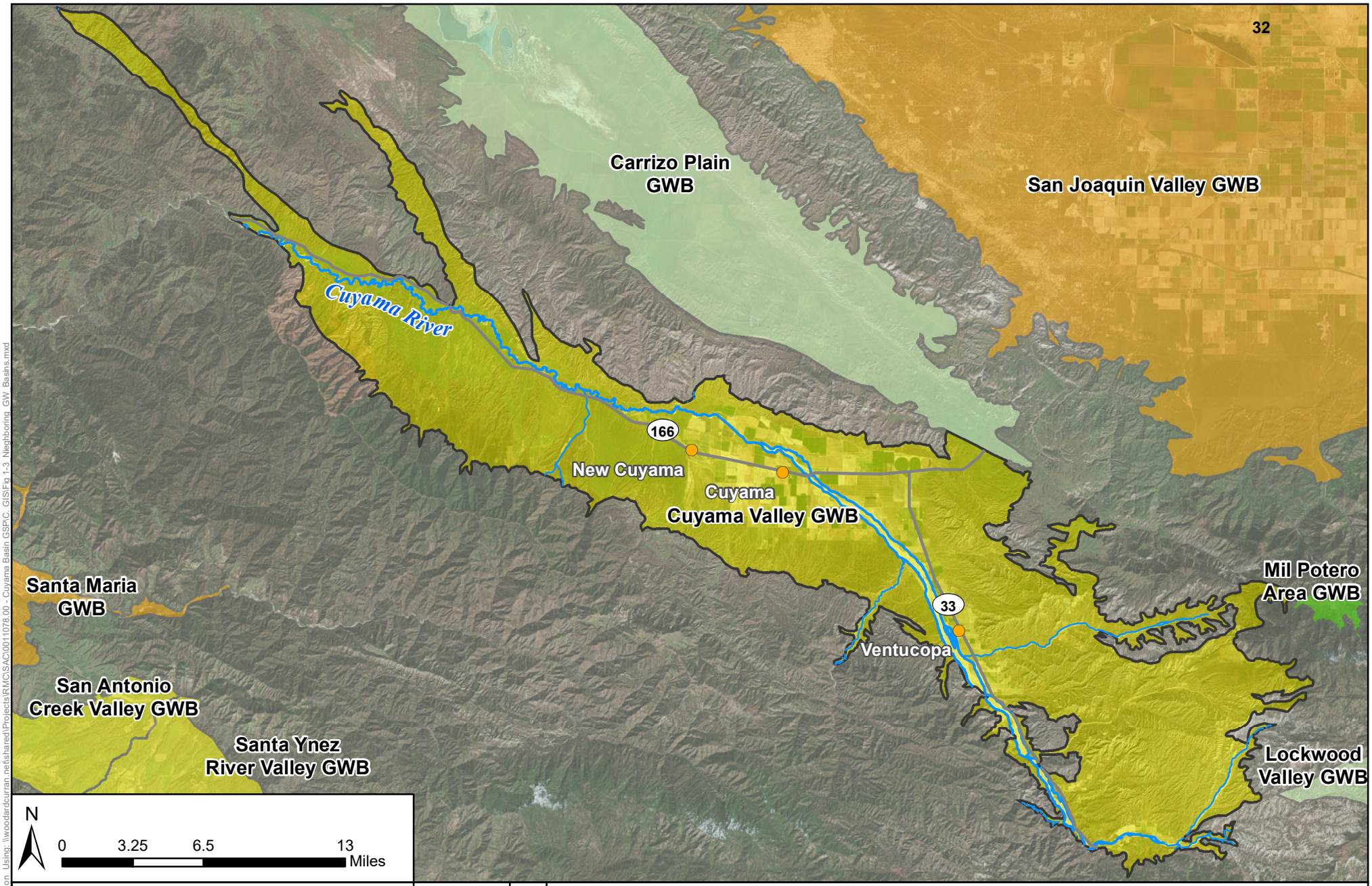

Figure 1-3 - Neighboring Groundwater Basins

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

February 2018

WOODARD &CURRAN

Legend

- Towns
- Cuyama Basin
- Highways
- Cuyama River
- Streams

Basin Priority

- High Priority
- Medium Priority
- Low Priority
- Very Low Priority

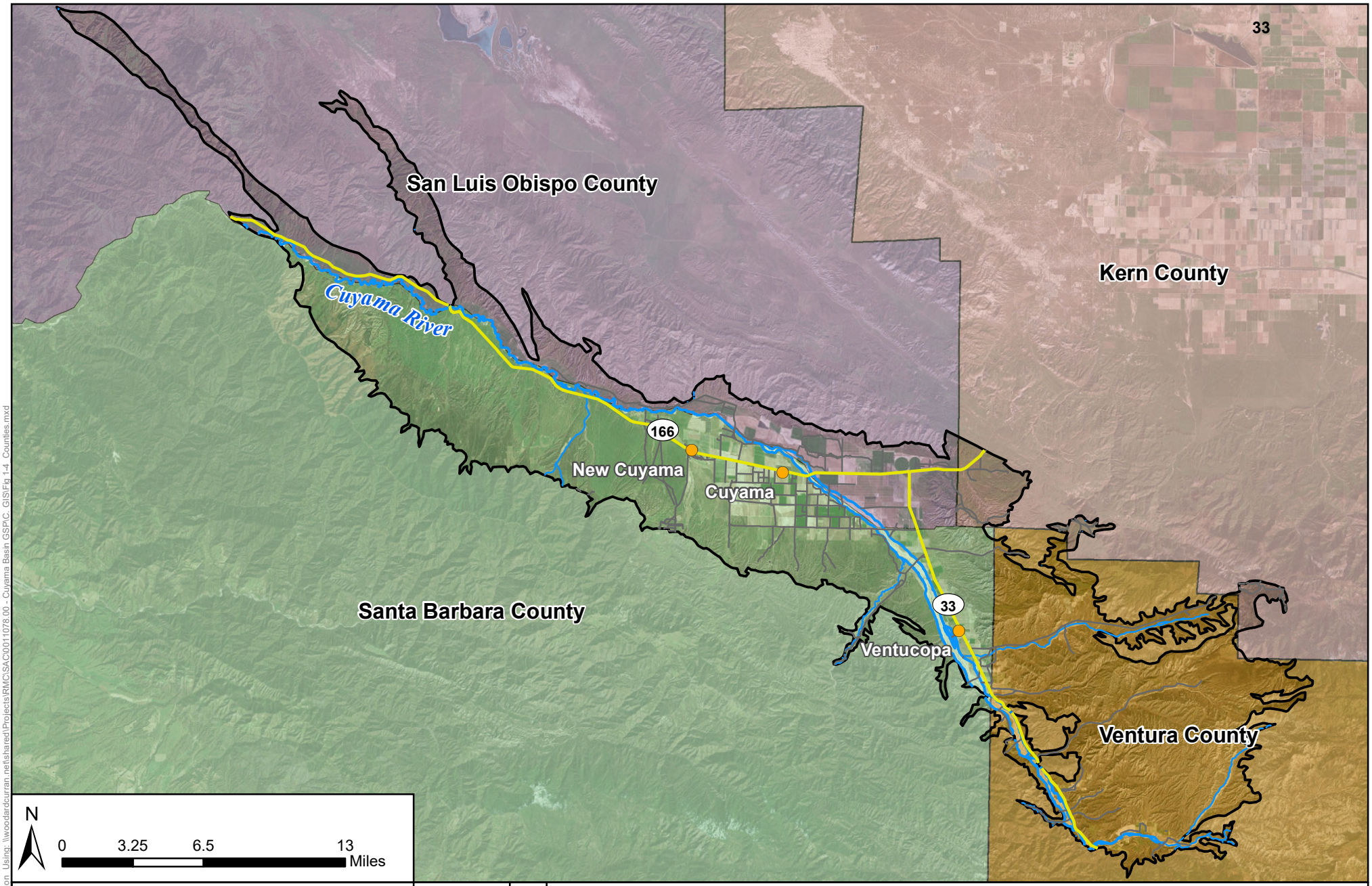

Figure 1-4 - Counties Overlying Cuyama Basin

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

February 2018

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Legend

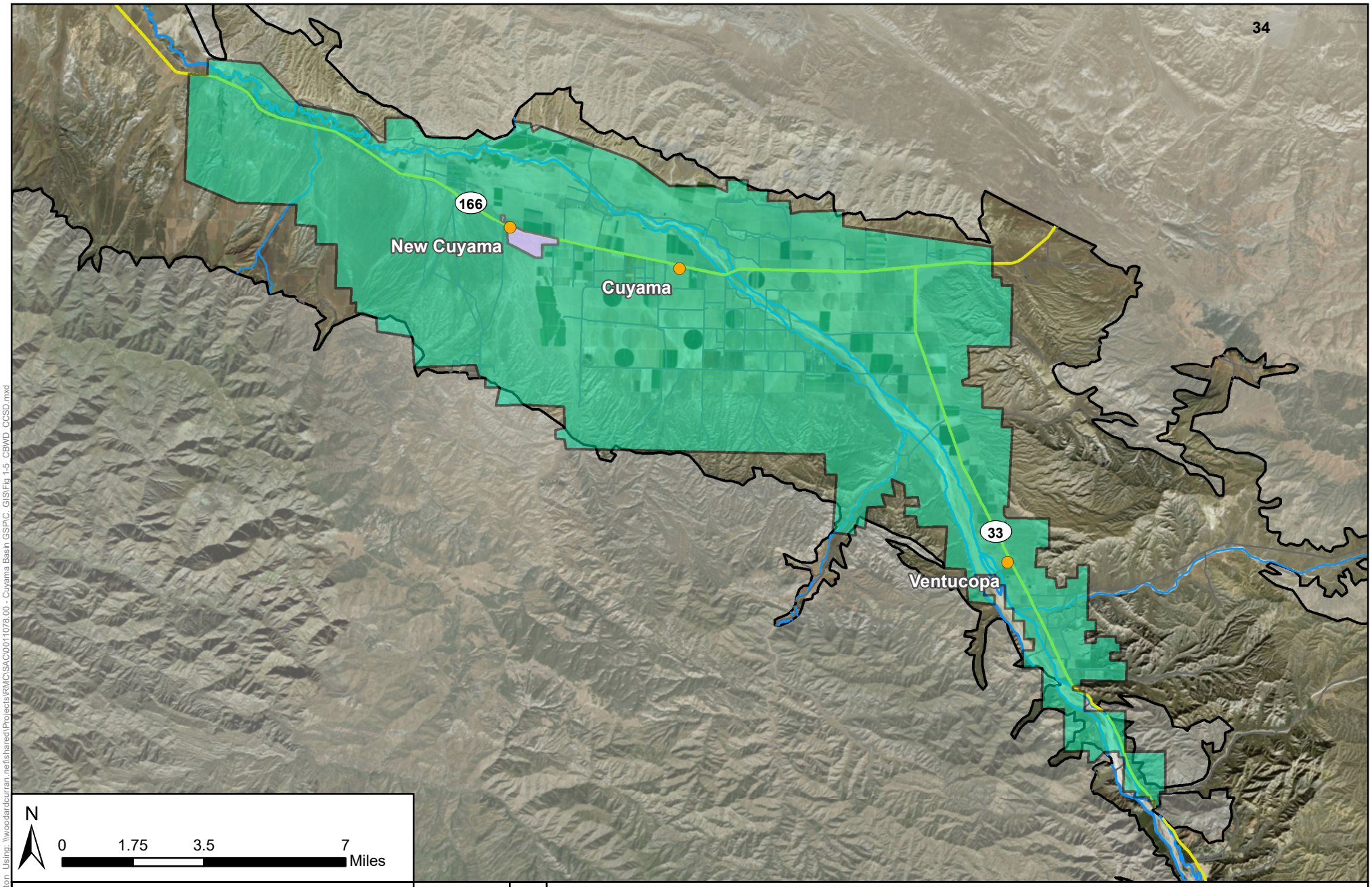

Figure 1-5 - Non-County Jurisdictional Boundaries

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

February 2018

WOODARD &CURRAN

Legend

- Cuyama Basin
- Towns
- Cuyama Community Service District
- Cuyama Basin Water District
- Highways
- Local Roads
- Cuyama River
- Streams

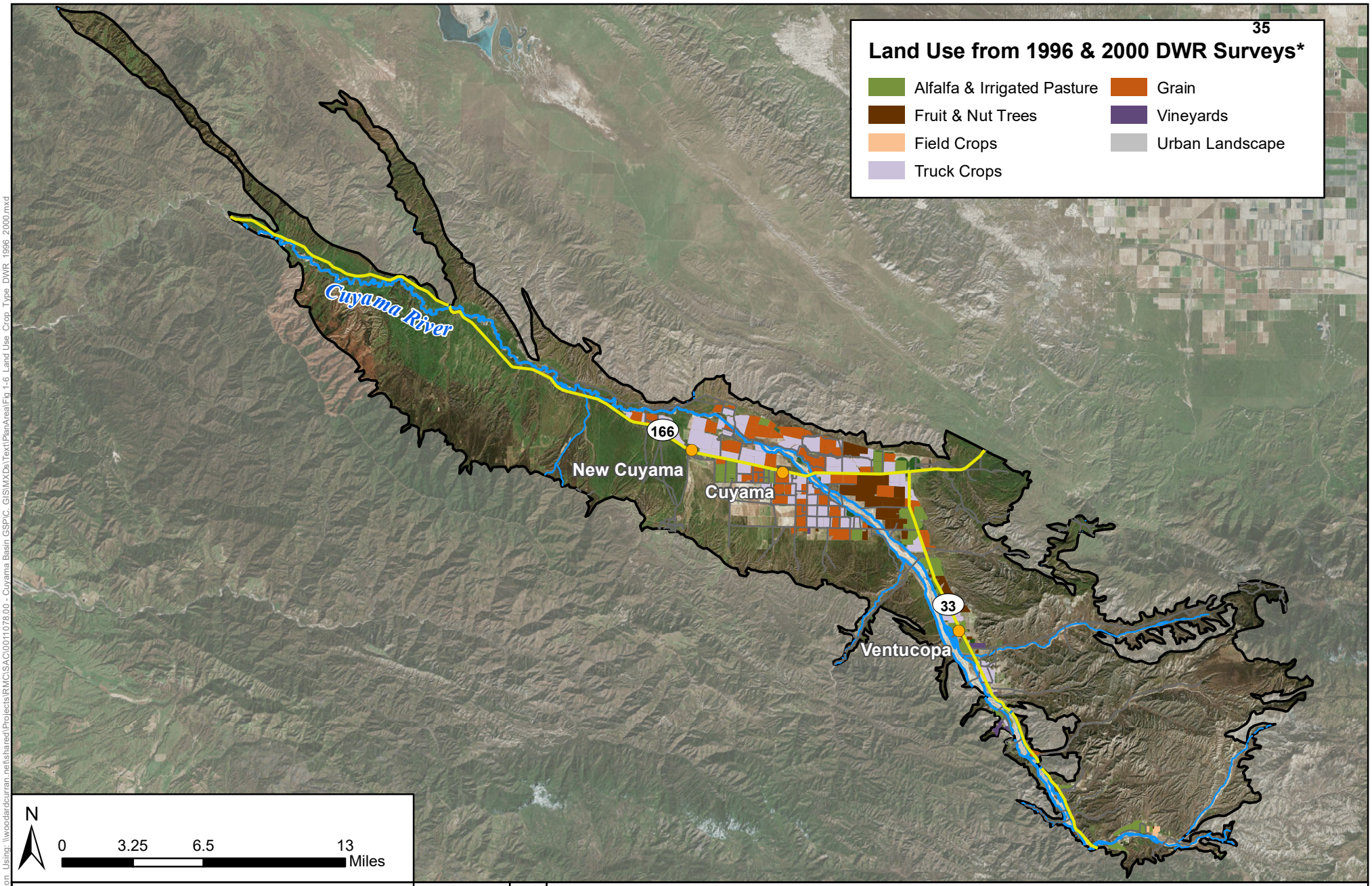

Figure 1-6 - 1996 & 2000 Land Use

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

March 2018

WOODARD &CURRAN

Legend

- Towns
- Highways
- Local Roads
- Cuyama River
- Streams
- Cuyama Basin

*Land use data is provided by county. The data in this map includes data from 2000 for Ventura County, and 1996 data for San Luis Obispo and Santa Barbara Counties. Kern County data does not extend into the Cuyama Basin, and is not included.

Source: California Department of Water Resources County Land Use Surveys, 1996 and 2000 datasets. https://www.water.ca.gov/Programs/Water-Use-And-Efficiency/Land-And-Water-Use/Land-Use-Surveys

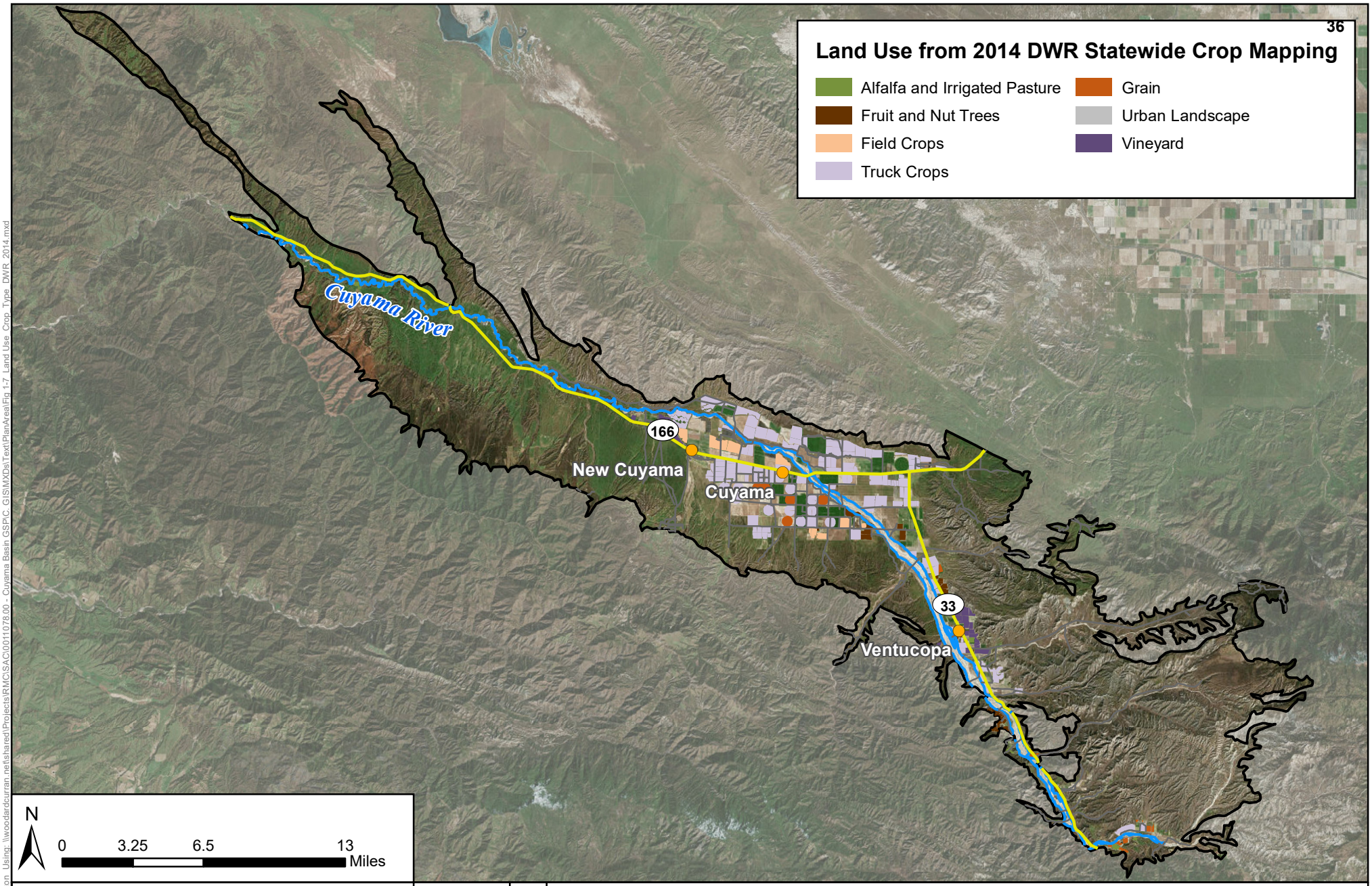

Figure 1-7 - 2014 Land Use

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

March 2018

WOODARD &CURRAN

Legend

- Towns
- Highways
- Local Roads
- Cuyama River
- Streams
- Cuyama Basin

Source: California Department of Water Resources Statewide Crop Mapping, 2014 dataset. https://www.water.ca.gov/Programs/Water-Use-And-Efficiency/Land-And-Water-Use/Land-Use-Surveys

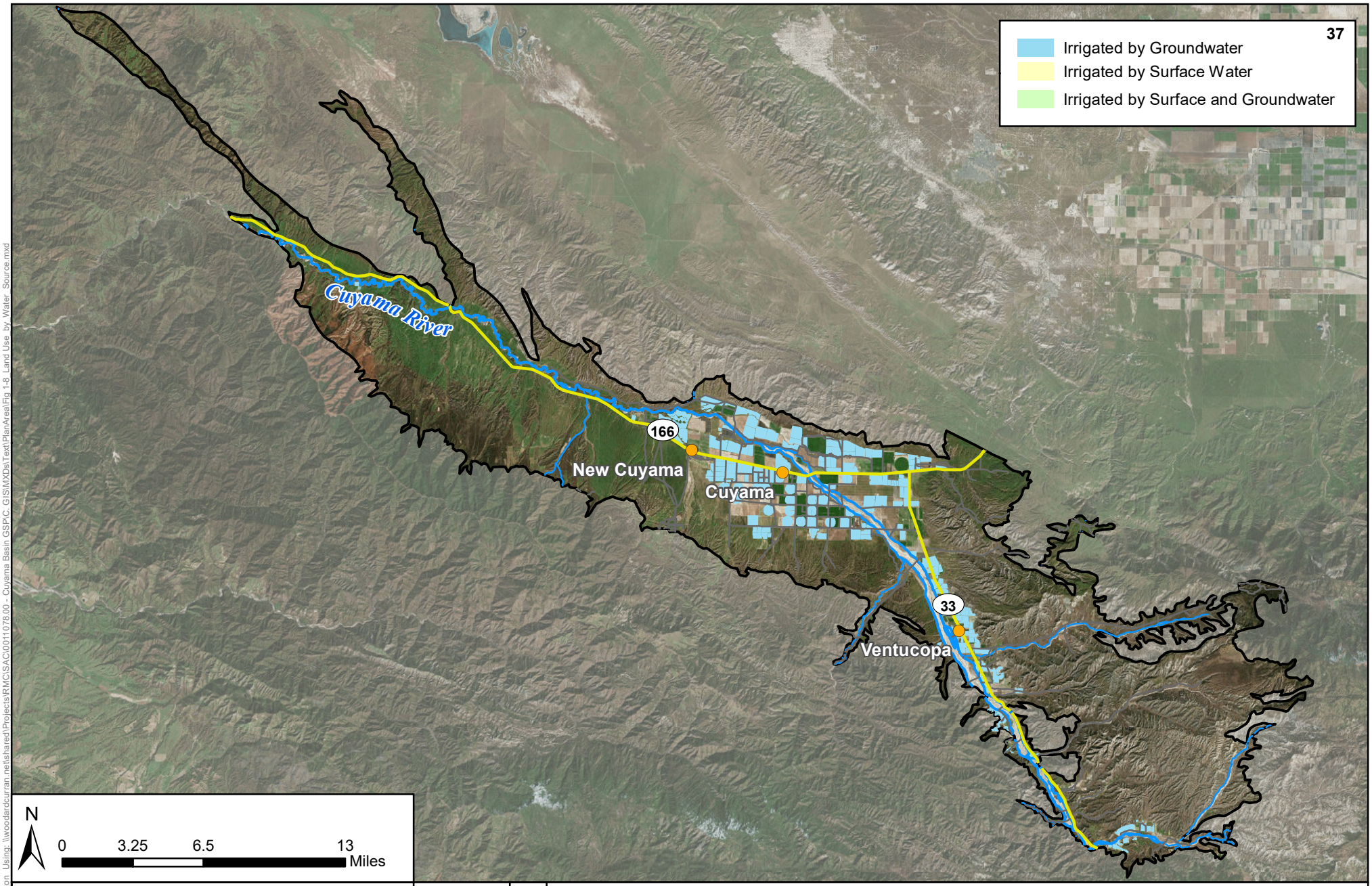

Figure 1-8 - Land Use by Water Source

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

March 2018

WOODARD &CURRAN

Legend

- Cuyama Basin
- Towns
- Highways
- Local Roads
- Cuyama River
- Streams

Source: California Department of Water Resources Statewide Crop Mapping, 2014 dataset. https://www.water.ca.gov/Programs/Water-Use-And-Efficiency/Land-And-Water-Use/Land-Use-Surveys

Figure Exported: 3/23/2018 By: cegqleton Using: \\woodardcurran.net\shared\Projects\RMC\SAC\00111078.00 - Cuyama Basin GSP\C. GIS\MXDs\Text\PlanArea\Fig 1-8 Land Use by Water Source.mxd

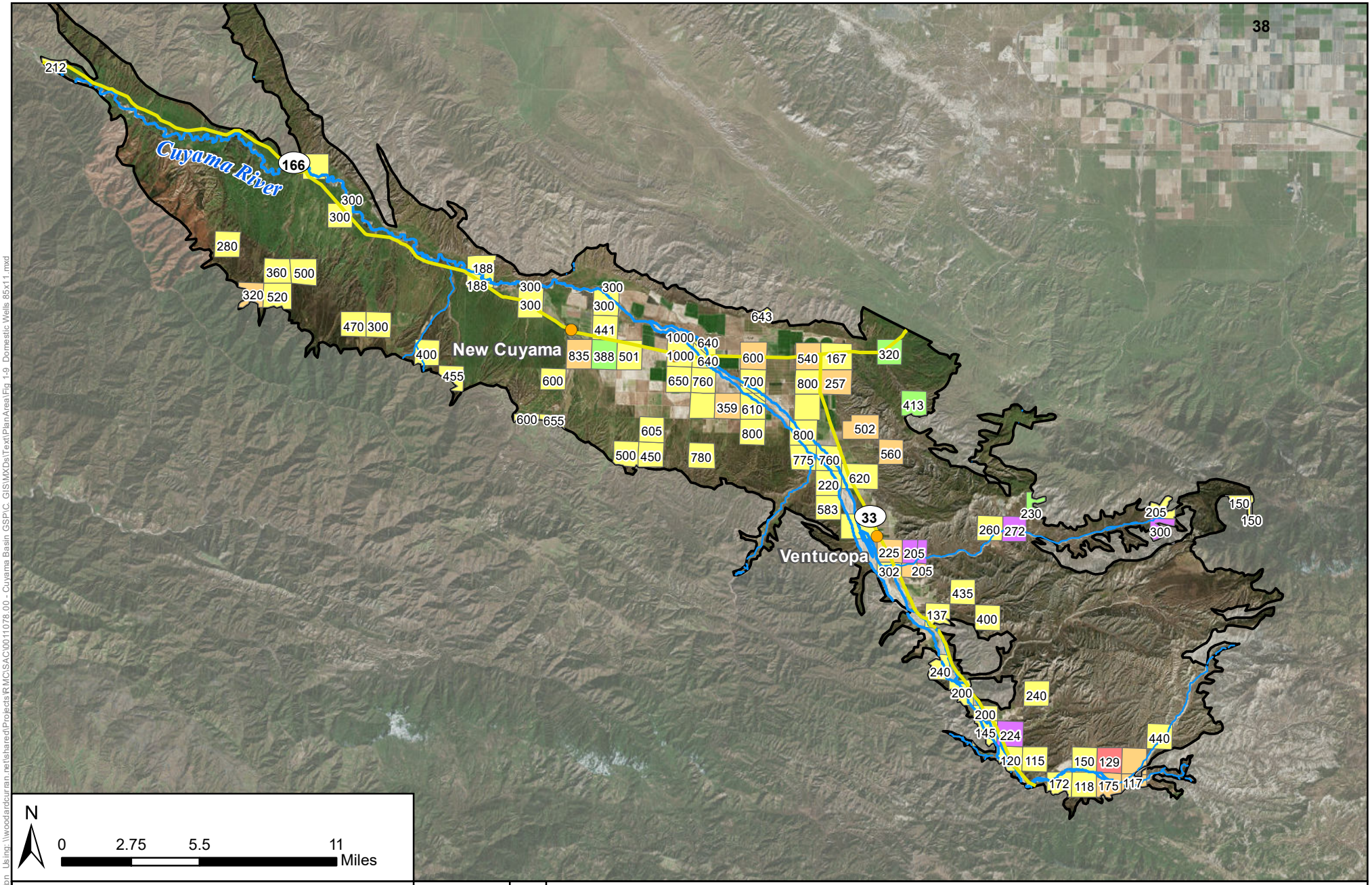

Figure 1-9 - Domestic Well Density and Average Depths

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2018

WOODARD &CURRAN

Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams

Township & Range with Domestic Wells

- 1 Well
- 2 Wells
- 3 Wells
- 4 Wells
- 6 Wells

Numbers in the township and range grid correspond to the average depth of the wells within that grid. Grids with no number have no associated well depth data. Average well depth is given in feet below the ground surface.

Source: Department of Water Resources, Well Completion Report Map Application. Downloaded on February 6, 2018. <https://dwr.maps.arcgis.com/apps/webappviewer/index.html?id=181078580a214c0986e2da28f8623b37>

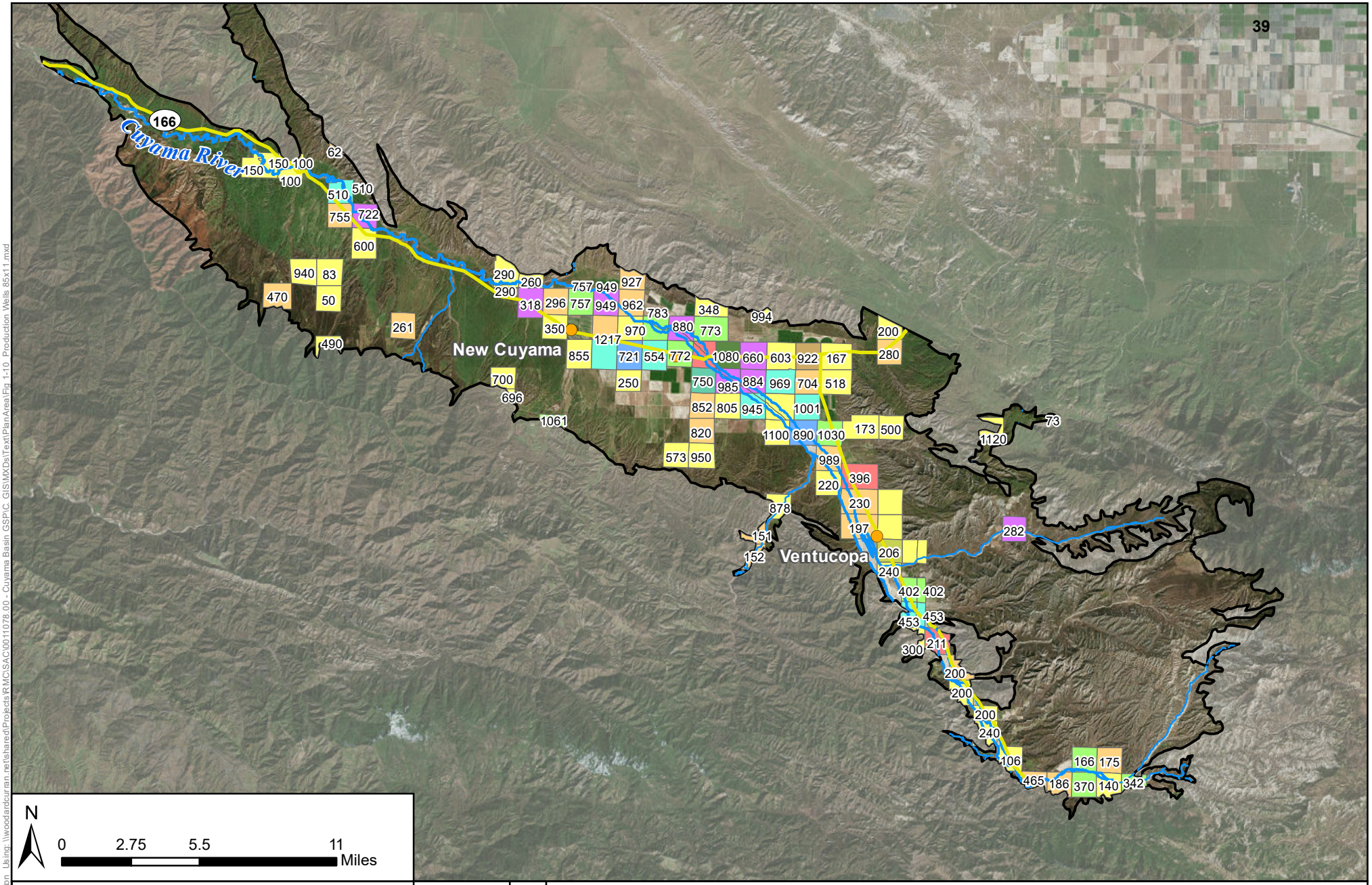

Figure 1-10 - Production Well Density and Average Depths

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2018

WOODARD &CURRAN

Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams

Township & Range with Domestic Wells

- 1 Well
- 2 Wells
- 3 Wells
- 4 Wells
- 5 Wells
- 6 Wells
- 7 Wells
- 8 Wells
- 9 Wells
- 10 Wells
- 11 Wells

Numbers in the township and range grid correspond to the average depth of the wells within that grid. Grids with no number have no associated well depth data. Average well depth is given in feet below the ground surface.

Source: Department of Water Resources, Well Completion Report Map Application. Downloaded on February 6, 2018. <https://dwr.maps.arcgis.com/apps/webappviewer/index.html?id=181078580a214c0986e2da28f8623b37>

Figure Exported: 4/12/2018 By: cegdleton Using: \\woodardcurran.net\shared\Projects\R MCSAC\00111078.00 - Cuyama Basin GSP\C. GIS\MXDs\Text\PlanArea\Fig 1-10_Production Wells 85x11.mxd

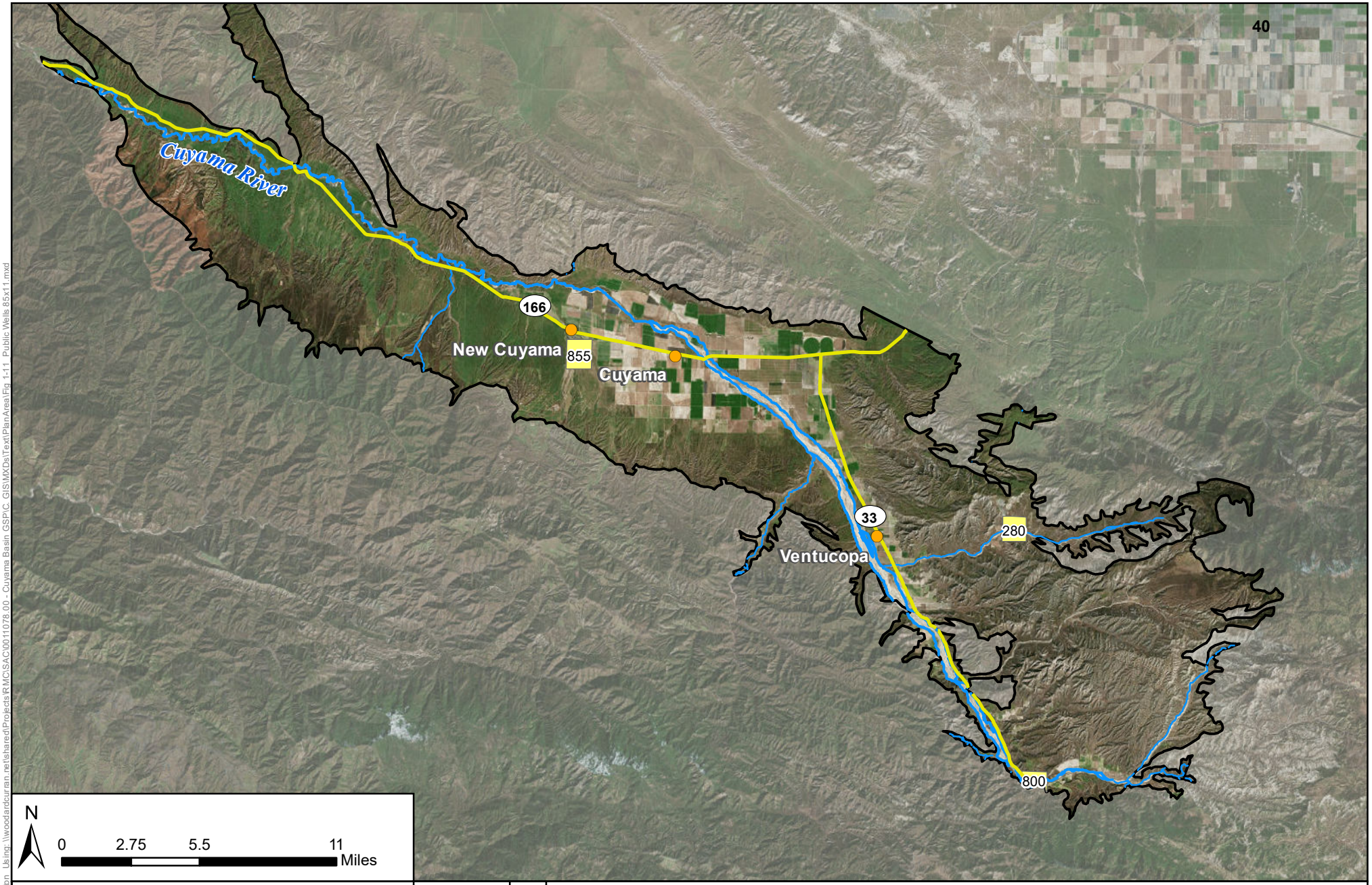

Figure 1-11 - Public Well Density and Average Depths

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

April 2018

WOODARD &CURRAN

Legend

- Cuyama Basin
- Towns
- Highways
- Cuyama River
- Streams

Township & Range with Domestic Wells

- 1 Well

Numbers in the township and range grid correspond to the average depth of the wells within that grid. Grids with no number have no associated well depth data. Average well depth is given in feet below the ground surface.

Source: Department of Water Resources, Well Completion Report Map Application. Downloaded on February 6, 2018. <https://dwr.maps.arcgis.com/apps/webappviewer/index.html?id=181078580a214c0986e2da28f8623b37>

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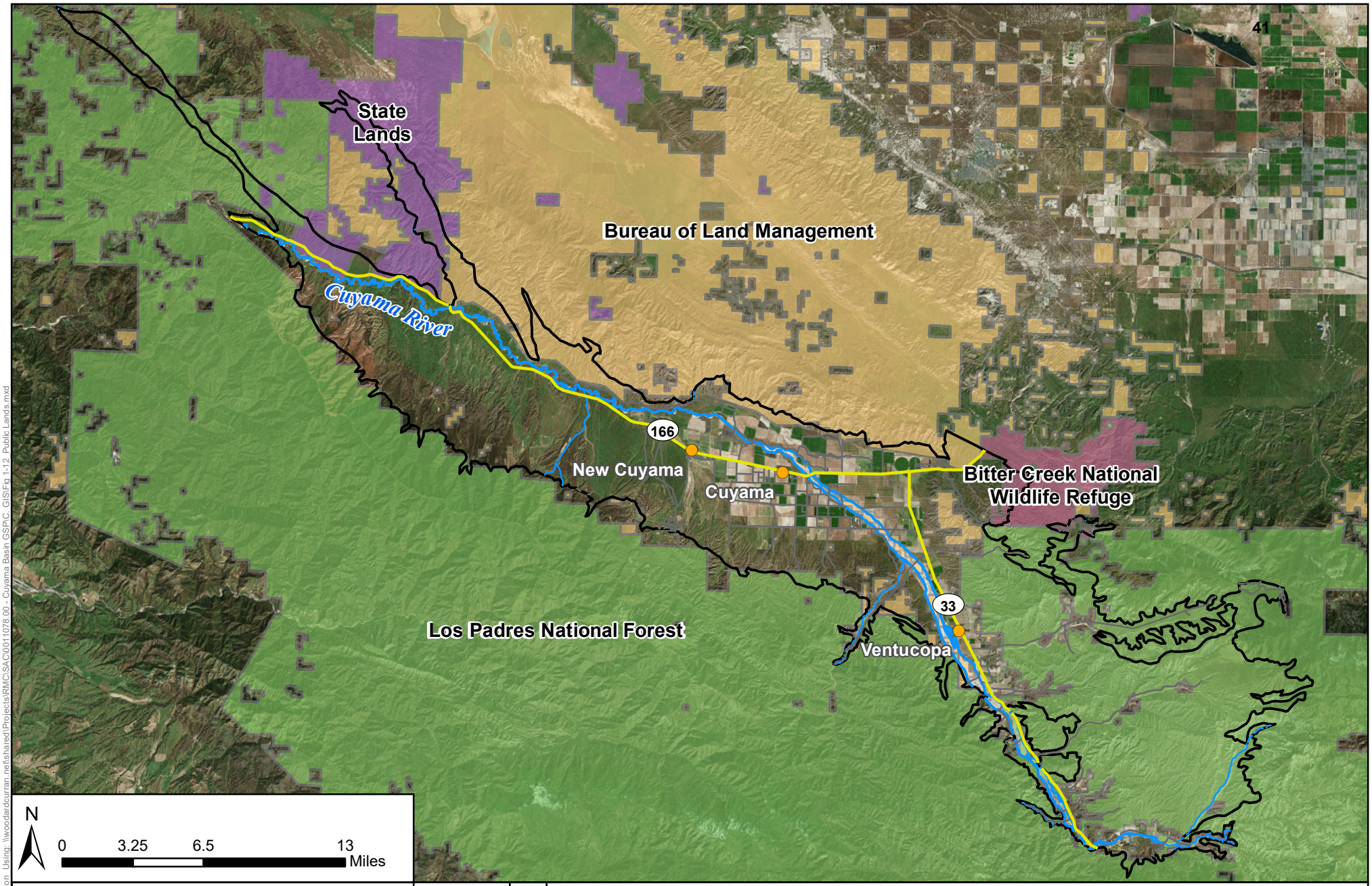

Figure 1-12 - Federal and State Lands

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

February 2018

WOODARD &CURRAN

Legend

- Cuyama Basin
- Towns
- Highways
- Local Roads
- Cuyama River
- Streams
- Bureau of Land Management
- US Forest Service
- US Fish and Wildlife
- State Lands

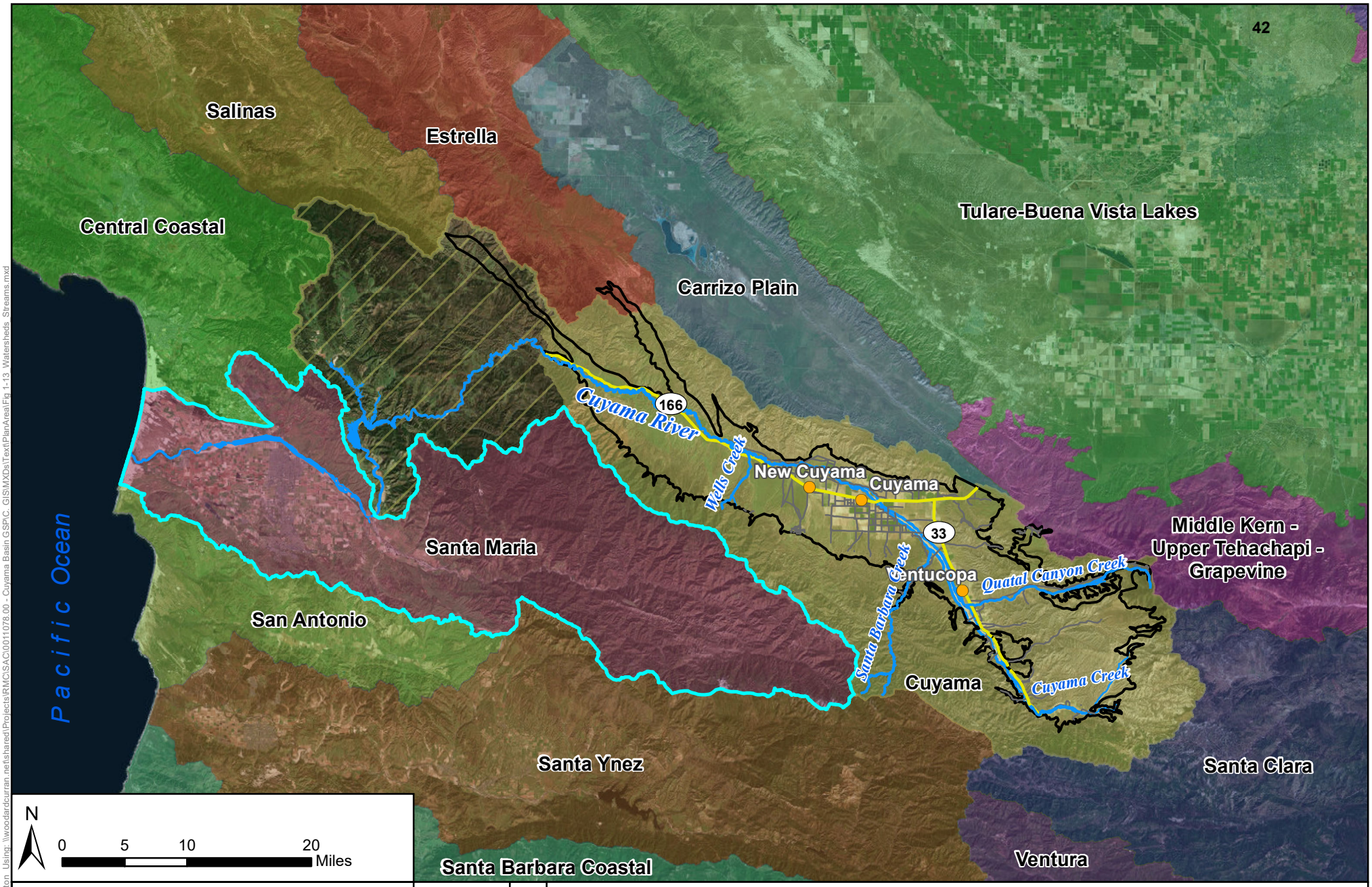

Figure 1-13 - Regional Watersheds

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

February 2018

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Legend

- Cuyama Basin
- Towns
- Highways
- Local Roads
- Cuyama River
- Streams

Cuyama Watershed

- Contributes to Cuyama GW Basin
- Does Not Contribute to Cuyama GW Basin

Watershed Data Source: USGS TNM Hydrography (WBD), U.S. Geological Survey - National Geospatial Program
Watersheds are 8-digit Hydrologic Units

Figure Exported: 3/22/2018 By: cegleton Using: \\woodardcurran.net\shared\Projects\RMC\SAC\00111078.00 - Cuyama Basin GSP\C. GIS\MXDs\Text\PlanAreaIFig 1-13_Watersheds_Streams.mxd

1.4 Existing Surface Water Monitoring Programs

Existing surface water monitoring in the Cuyama Basin is extremely limited. Existing surface water monitoring in the basin is limited to DWR's California Data Exchange Center (CDEC) program, and monitoring performed by the United States Geological Survey (USGS). The only CDEC gages in the Cuyama River watershed are at Lake Twitchell which is downstream of the Cuyama Basin. The USGS has two active gages that capture flows in the Cuyama River watershed upstream of Lake Twitchell, as well as four deactivated gages (Figure 1-14).

The two active gages include one gage on the Cuyama River downstream of the Basin (ID #11136800), which is located just upstream of Lake Twitchell. This gage has 58 recorded years of streamflow measurements from 1959 to 2017. The other active gage is south of the city of Ventucopa along Santa Barbara Canyon Creek (ID #11136600) and has seven recorded years of streamflow measurements ranging from 2010 to 2017. and another gage downstream of the watershed but above Twitchell reservoir on the Cuyama River. Although neither of these stream gages is located within the Cuyama Basin, they can be used to monitor the inflow and outflow of surface water through the Basin.

<< Description of how (and which) monitoring programs will be used in the GSP (fill in after monitoring network is prepared)>>

1.5 Existing Groundwater Monitoring Programs

Existing groundwater monitoring programs in the Cuyama Basin are primarily operated by regional, state and federal agencies. Local agencies such as the CCSD and CBWD do not conduct routine monitoring. Existing groundwater monitoring programs in the Basin collect data on groundwater elevation, groundwater quality and subsidence at varying temporal frequencies. There are 101 wells with groundwater elevation data, of which, 43 were monitored in 2017. A description of each groundwater monitoring program in the Basin is described in further detail below.

<< Description of how (and which) monitoring programs will be used in the GSP (fill in after monitoring network is prepared)>>

1.5.1 Groundwater Elevation Monitoring

Department of Water Resources Water Data Library

DWR's Water Data Library (WDL) is a database that stores groundwater elevation measurements from 78 unique wells in the Cuyama Basin measured from 1946 through 2017. Data is submitted to the WDL from different monitoring entities, including the Ventura County Watershed Protection District (VCWPD), SBCWA, Santa Barbara County Flood Control and Water Conservation District (SBCFC&WCD), and San Luis Obispo County Flood Control and Water Conservation District (SLOCFC&WCD).

SLOCFC&WCD has two wells in the service area with data recorded from 1990 to 2017. The VCWPD has elevation data for two wells, monitored from 2011 to 2017, and the SBCWA has elevation data for 16 wells from 2011 to 2017.

The USGS and SBCFC&WCD have monitored wells for groundwater levels in the Cuyama Basin but are no longer actively submitting data. The USGS provides historical data for 48 wells from 1946 to 2009, and the SBCFC&WCD provides data on seven wells from 2008 to 2010.

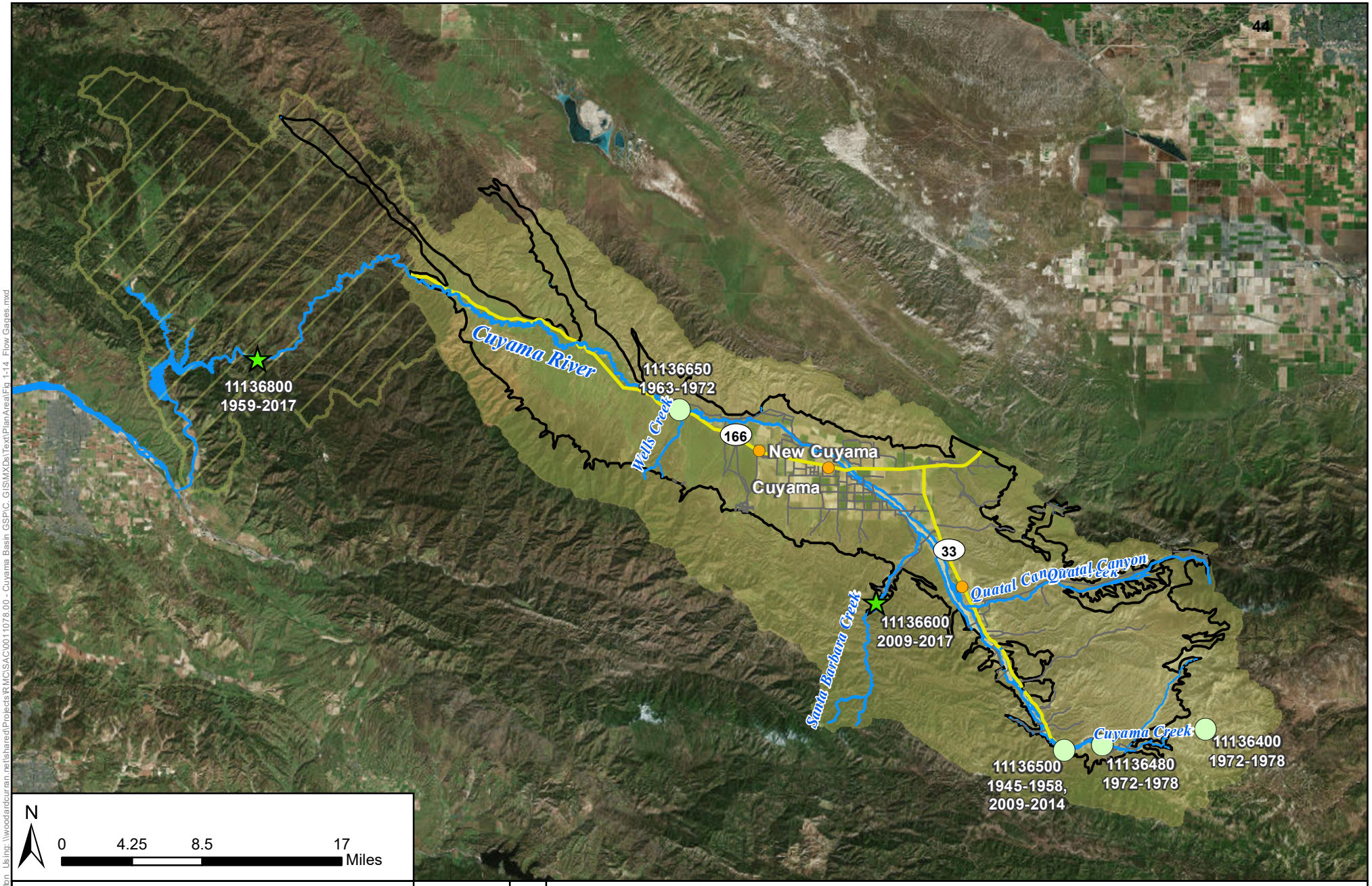

Figure 1-14 - Surface Stream Flow Gages

Cuyama Basin Groundwater Sustainability Agency

Cuyama Valley Groundwater Basin Groundwater Sustainability Plan

March 2018

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Legend

- Cuyama Basin
- Towns
- Highways
- Local Roads
- Cuyama River
- Inactive Flow Gages
- Active Flow Gages

Cuyama Watershed

- Contributes to Cuyama GW Basin
- Does Not Contribute to Cuyama GW Basin

Figure Exported: 4/17/2018 By: cegdleton Using: \\woodardcurran.net\shared\Projects\RMC\SAC\00111078.00 - Cuyama Basin GSP\C. GIS\MXDs\Text\PlanArea\Fig 1-14 Flow Gages.mxd

United States Geological Survey – National Water Information System

The USGS's National Water Information System (NWIS) contains extensive water data, including manual measurements of depth to water in wells throughout California. In the Cuyama Basin, there are 23 wells with water level measurements (in feet below land surface). Wells are monitored by the USGS in SBCFC&WCD's jurisdictional area. Wells were monitored in 2017, with most being monitored since 2008, although a few have measurements dating back to 1983. Groundwater level measurements at these wells are taken approximately once per quarter.

California Statewide Groundwater Elevation Monitoring

The California Statewide Groundwater Elevation Monitoring (CASGEM) Program monitors seasonal and long-term groundwater elevation trends in dedicated groundwater basins throughout California. Monitoring entities establish CASGEM dedicated monitoring wells and report seasonal groundwater levels to CASGEM's database. The information below describes sources where CASGEM data can be retrieved.

Department of Water Resources Groundwater Information Center Interactive Map

The Groundwater Information Center Interactive Map (GICIMA) is a database that collects and stores groundwater elevations and depth-to-water measurements. Groundwater elevations are measured biannually in the spring and fall by local monitoring agencies. Depth-to-water and groundwater elevation data is submitted to the GICIMA by the various monitoring entities including the SLOCFC&WCD, SBCWA, and VCWPD. In the Cuyama Basin, there are 21 wells with seasonal elevation level and depth-to-water data from 2013 to 2016. Of the 21 wells, 17 are monitored by the SBCWA, two are monitored by SLOFC&WCD, and two are monitored by the VCWPD.

Santa Barbara County Water Agency California Statewide Groundwater Elevation Monitoring Plan

The SBCWA's CASGEM Monitoring Plan discusses the SBCWA's 19-well monitoring network, which includes 16 actively monitored wells and three inactive wells no longer monitored due to accessibility and permission issues. Initially, SBCWA was the sole monitoring entity for the entire Basin, but in 2014 SBCWA reapplied to CASGEM as a partial monitoring entity to reduce their monitoring activities and grant permission for neighboring counties (San Luis Obispo and Ventura) to monitor their portions of the Basin.

Of the 16 active wells in SBCWA's monitoring network, three are CASGEM dedicated monitoring wells and 13 are voluntary. Wells are monitored by either SBCWA staff or USGS staff. The three CASGEM dedicated monitoring wells are measured biannually in April and October, whereas the 13 voluntary wells are measured annually. All wells are single completion. CASGEM dedicated wells have known Well Completion Reports and perforated intervals. Full construction information is not available for voluntary wells because SBCWA does not have permission to release available construction information. This known data gap was identified in the Monitoring Plan in addition to other data gaps, including:

- Spatial gaps in the northwestern and southeastern areas of the Santa Barbara County portion of the Basin.
- Data gaps in the area north of Highway 166 and in the center of the Basin between Bell and Kirschenmann Roads.

San Luis Obispo County Flood Control and Water Conservation District California Statewide Groundwater Elevation Monitoring Plan

The SLOCFC&WCD's CASGEM Monitoring Plan identifies two wells in their CASGEM monitoring network. Upon recognition as a CASGEM monitoring entity in 2014, San Luis Obispo County Department of Public Works staff monitored these wells biannually. Static water level measurements are obtained biannually in April and October (corresponding to seasonal highs and low groundwater elevations). One well is screened in the Younger Alluvium and Older Alluvium and the other well is screened in the Younger Alluvium, Older Alluvium, and Morales Formation. Data gaps identified by SLOCFC&WCD's Monitoring Plan include:

- **Horizontal spatial gap.** SLOCFC&WCD is responsible for monitoring 37 square miles of the Cuyama Basin. Based on the target minimum density of at least one well per 10 square miles, SLOCFC&WCD needs a minimum of four wells to meet CASGEM program requirements (DWR, 2016). SLOCFC&WCD identified the need to add two additional wells to the monitoring network to meet CASGEM's target well density criteria.

Ventura County Watershed Protection District CASGEM Monitoring Plan

The VCWPD CASGEM Monitoring Plan identifies the two wells in their CASGEM monitoring network. Upon recognition as a CASGEM monitoring entity in 2014, VCWPD staff have monitored the two wells biannually. Static water level measurements are obtained biannually, due to the remoteness of the area, in April and October (corresponding to seasonal highs and low groundwater elevations). The two wells are located in the southernmost portion of the Basin.

VCWPD does not have information beyond location and water elevation measurements for the two wells. There are no well completion reports for either well and the perforation intervals are unknown. VCWPD identifies the southeastern portion of the Basin as a spatial data gap, given that the area contains no monitoring wells.

1.5.2 Groundwater Quality Monitoring

Water Data Library (WDL)

DWR's WDL monitors groundwater quality data. Samples are collected from a variety of well types including irrigation, stock, domestic, and some public supply wells. WDL has 26 years of groundwater quality data dating from 1952 to 1978, which were collected from 163 wells in the Cuyama Basin over that time frame, though many have not been monitored since 1978. Wells are not regularly sampled, and most wells have only one or two days' worth of sampling measurements and large temporal gaps between the results. Constituents most frequently monitored include dissolved chloride, sodium, calcium, boron, magnesium, and sulfate. Measurements taken include conductance, pH, total alkalinity and hardness (more than 1,000 total samples per parameter). Additional dissolved nutrients, metals, and total dissolved solids (TDS) are also sampled but have fewer sample results available (one to 1,000 samples per parameter).

GeoTracker Groundwater Ambient Monitoring and Assessment Program

Established in 2000, the Groundwater Ambient Monitoring and Assessment (GAMA) Program monitors groundwater quality throughout the state of California. GAMA is intended to create a comprehensive

groundwater monitoring program throughout California and increase public availability and access to groundwater quality and contamination information. GAMA receives data from a variety of monitoring entities including DWR, USGS, and the State Water Resources Control Board (SWRCB). In the Basin, there are 367 wells with water quality data submitted to GAMA, of which 72 were monitored in 2017. In the Cuyama Groundwater Basin, three agencies submit data from monitoring wells for a suite of constituents including TDS, nitrates and nitrites, arsenic, and manganese.

National Water Information System

The USGS's NWIS monitors groundwater for chemical, physical, and biological properties in water supply wells throughout the Basin and data is updated to GeoTracker on a quarterly basis. The majority of wells with groundwater quality data were monitored prior to 2015. NWIS has records for 163 wells in the Basin, monitored between 1942 to 2013, 34 of which were from 2005 to 2017.

Irrigated Lands Regulatory Program

The Irrigated Lands Regulatory Program (ILRP), established in 2003, regulates discharges from irrigated agriculture to surface and ground waters and establishes waste discharge orders for selected regions. The ILRP focuses on priority water quality issues, such as pesticides and toxicity, nutrients, and sediments. In the Cuyama Basin, there are 47 wells with five years of water quality records from 2012 to 2017. Wells are sampled biannually, once between March and June, and once between September and December.

Division of Drinking Water

The SWRCB's Division of Drinking Water (DDW, and formerly the Department of Health Services) monitors public water system wells for California Code of Regulations Title 22 requirements relative to levels of organic and inorganic compounds such as metals, microbial compounds and radiological analytes. Data is available for active and inactive drinking water sources, for water systems that serve the public, and wells defined as serving 15 or more connections, or more than 25 people per day. In the Cuyama Basin, six DDW wells were monitored for Title 22 requirements, including pH, alkalinity, bicarbonate, calcium, magnesium, potassium, sulfate, barium, copper, iron, zinc, and nitrate. Monitoring data from these wells is available for the period 1985 to 2016.

1.5.3 Subsidence Monitoring

In the Cuyama Basin, subsidence monitoring is performed using continuous global positioning system (GPS) stations monitored by the University NAVSTAR Consortium's (UNAVCO) Plate Boundary Observatory (PBO) program. There are no known extensometers in the Cuyama Basin.

UNAVCO Plate Boundary Observatory

The UNAVCO PBO network consists of a network of about 1,100 continuous GPS and meteorology stations in the western U.S. used to monitor multiple pieces of information, including subsidence. There are two stations in the Cuyama Basin: (1) CUHS, located near the city of New Cuyama; and (2) VCST, located south of the city of Ventucopa. The CUHS station has subsidence data from 2000 through 2017, and the VCST station has subsidence data from 2001 through 2017.

Placeholder for other USGS Subsidence Monitoring

1.6 Existing Water Management Programs

1.6.1 Santa Barbara County Integrated Regional Water Management Plan 2013

The Santa Barbara County Integrated Regional Water Management Plan 2013 (IRWM Plan 2013) is the main integrated regional water management planning document for the Santa Barbara County IRWM Region (County of Santa Barbara, 2013). IRWM Plan 2013 emphasizes multi-agency collaboration, stakeholder involvement and collaboration, regional approaches to water management, water management involvement in land use decisions, and project monitoring to evaluate results of current practices. IRWM Plan 2013 identifies regionally and locally focused projects that help achieve regional objectives and targets while working to address water-related challenges in the region.

The following IRWM Plan 2013 objectives related to groundwater use would potentially influence implementation of the GSP:

- Protect, conserve, and augment water supplies
- Protect, manage, and increase groundwater supplies
- Practice balanced natural resource stewardship
- Protect and improve water quality
- Maintain and enhance water and wastewater infrastructure efficiency and reliability

IRWM Plan 2013 provides valuable resources related to potential concepts, projects and monitoring strategies that can be incorporated into the CBGSA GSP.

1.6.2 San Luis Obispo County 2014 Integrated Regional Water Management Plan

The San Luis Obispo 2014 IRWM Plan presents a comprehensive water resources management approach to managing the region's water resources, focusing on strategies to improve the sustainability of current and future needs of San Luis Obispo County (County of San Luis Obispo, 2014).

The following 2014 IRWM Plan goals related to groundwater use would potentially influence implementation of the GSP:

- **Water Supply Goal:** Maintain or improve water supply quantity and quality for potable water, fire protection, ecosystem health, and agricultural production needs; as well as to cooperatively address limitations, vulnerabilities, conjunctive-use, and water-use efficiency.
- **Ecosystem and Watershed Goal:** Maintain or improve the health of the Region's watersheds, ecosystems, and natural resources through collaborative and cooperative actions, with a focus on assessment, protection, and restoration/enhancement of ecosystem and resource needs and vulnerabilities.
- **Groundwater Monitoring and Management (Groundwater) Goal:** Achieve sustainable use of the region's water supply in groundwater basins through collaborative and cooperative actions.
- **Water Resources Management and Communications (Water Management) Goal:** Promote open communications and regional cooperation in the protection and management of water

resources, including education and outreach related to water resources conditions, conservation/water use efficiency, water rights, water allocations, and other regional water resource management efforts.

The 2014 IRWM Plan provides valuable resources related to potential concepts, projects, and monitoring strategies that can be incorporated into the CBGSA GSP.

1.6.3 Ventura County 2014 Integrated Regional Water Management Plan

The Ventura County 2014 IRWM Plan reflects the unique needs of a diverse region in Ventura County, which encompasses three major watersheds, ten cities, portions of the Los Padres National Forest, a thriving agricultural economy, and is home to more than 823,000 people (County of Ventura, 2014). The Plan is a comprehensive document that primarily addresses region-wide water management and related issues.

The following 2014 IRWM Plan goals related to groundwater use would potentially influence implementation of the GSP:

- Reduce dependence on imported water and protect, conserve and augment water supplies.
- Protect and improve water quality.
- Protect and restore habitat and ecosystems in watersheds.

The 2014 IRWM Plan provides valuable resources related to potential concepts, projects and monitoring strategies that can be incorporated into the CBGSA GSP.

1.6.4 Kern County 2011 Integrated Regional Water Management Plan

The Kern County 2011 IRWM Plan covers most of Kern County but does not include the portion of the county that includes the Cuyama Basin (Kern County Water Agency, 2011). Therefore, the IRWM Plan is not relevant to the Cuyama GSP and is not addressed here.

1.7 General Plans in Plan Area

As illustrated in Figure 1-4, the Cuyama Basin is located within the geographic boundaries of four counties, including Kern, San Luis Obispo, Santa Barbara and Ventura. Implementation of the CBGSA GSP would be affected by the policies and regulations outlined in the General Plans of these counties, given that the Cuyama Basin, and long-term land use planning decisions that would affect the Basin, are under the jurisdiction of these counties.

This section describes how implementation of the various General Plans may change water demands in the Basin, for example due to population growth and development of the built environment, how the General Plans may influence the GSP's ability to achieve sustainable groundwater use, and how the GSP may affect implementation of General Plan land use policies.

1.7.1 Kern County General Plan

Because of the close interrelationship between water supplies, land use, conservation, and open space issues, the Land Use, Conservation, and Open Space Element sections of the Kern County General Plan are

the most relevant elements for development of the GSP. These elements provide for a variety of land uses for future economic growth while also assuring the conservation of Kern County's agricultural, natural, and resource attributes (County of Kern, 2009).

Relevant Kern County General Plan Goals and Policies

The following Land Use, Conservation, and Open Space Element goals and policies related to groundwater use would potentially influence implementation of the GSP:

- **Goal 1.4.5:** Ensure that adequate supplies of quality water (appropriate for intended use) are available to residential, industrial, and agricultural users in Kern County.
- **Policy 1.4.2:** The efficient and cost-effective delivery of public services and facilities will be promoted by designating areas for urban development which occur in or adjacent to areas with adequate public service and facility capacity.
- **Policy 1.4.2.a:** Ensure that water quality standards are met for existing users and future development.
- **Goal 1.6.6:** Promote the conservation of water quantity and quality in Kern County.
- **Goal 1.6.7:** Minimize land use conflicts between residential and resource, commercial, and industrial land uses.
- **Policy 1.6.11:** Provide for an orderly outward expansion of new urban development so that it maintains continuity of existing development, allows for the incremental expansion of infrastructure and public service, minimizes impacts on natural environmental resources, and provides a high-quality environment for residents and businesses.
- **Policy 1.9.10:** To encourage effective groundwater resource management for the long-term economic benefit of the county, the following shall be considered:
- **Policy 1.9.10.a:** Promote groundwater recharge activities in various zone districts.
- **Policy 1.9.10.c:** Support the development of groundwater management plans.
- **Policy 1.9.10.d:** Support the development of future sources of additional surface water and groundwater, including conjunctive use, recycled water, conservation, additional storage of surface water and groundwater and desalination.
- **Goal 1.10.1:** Ensure that the county can accommodate anticipated future growth and development while maintaining a safe and healthful environment and a prosperous economy by preserving valuable natural resources, guiding development away from hazardous areas, and assuring the provision of adequate public services.
- **Policy 1.10.6.39:** Encourage the development of the county's groundwater supply to sustain and ensure water quality and quantity for existing users, planned growth, and maintenance of the natural environment.
- **Policy 1.10.6.40:** Encourage utilization of community water systems rather than the reliance on individual wells.

- **Policy 1.10.6.41:** Review development proposals to ensure adequate water is available to accommodate projected growth.

Kern County General Plan's Influence on Water Demand and Groundwater Sustainability Plan's Goals

Review of relevant Kern County General Plan goals and policies reveals that the County's goals and policies relative to future land use development and conservation complement the use and conservation of groundwater resources goals that are anticipated to be included in the CBGSA GSP. The General Plan explicitly encourages development of the county's groundwater supply to ensure that existing users have access to high quality water, and states that future growth should be accommodated only while ensuring that adequate high-quality water supplies are available to existing and future users. Due to the complementary nature of the General Plan and the GSP, the General Plan requirements will likely be with goals that are anticipated to be included in the GSP.

Groundwater Sustainability Plan's Influence on Kern County General Plan's Goals and Policies

Successful implementation of the GSP will help to ensure that the Cuyama Basin's groundwater supply is managed in a sustainable manner. Given the small portion of the Cuyama Basin that lies in Kern County, and the GSP's alignment with the General Plan's goals, it is anticipated that GSP implementation will have little to no effects on the General Plan's goals related to sustainable land use development in the county.

1.7.2 San Luis Obispo County General Plan

The San Luis Obispo County General Plan describes official County policy on the location of land uses and their orderly growth and development. It is the foundation upon which all land use decisions are based, guides action the County takes to assure a vital economy, ensures a sufficient and adequate housing supply, and protects agricultural and natural resources (County of San Luis Obispo, 2015).

Relevant San Luis Obispo General Plan Principles and Policies

The following San Luis Obispo General Plan Land Use Element principles and policies related to groundwater use would potentially influence implementation of the GSP:

- **Principle 1:** Preserve open space, scenic natural beauty and natural resources. Conserve energy resources. Protect agricultural land and resources.
- **Policy 1.2:** Keep the amount, location and rate of growth allowed by the Land Use Element within the sustainable capacity of resources, public services and facilities.
- **Policy 1.3:** Preserve and sustain important water resources, watersheds and riparian habitats.

The following San Luis Obispo General Plan Conservation and Open Space Element goals and policies related to groundwater use would potentially influence implementation of the GSP:

- **Goal WR 1:** The county will have a reliable and secure regional water supply.
- **Policy WR 1.2:** Conserve Water Resources. Water conservation is acknowledged to be the primary method to serve the county's increasing population. Water conservation programs should be implemented countywide before more expensive and environmentally costly forms of new water are secured.

- **Policy WR 1.3:** New Water Supply. Development of new water supplies should focus on efficient use of our existing resources. Use of reclaimed water, interagency cooperative projects, desalination of contaminated groundwater supplies, and groundwater recharge projects should be considered prior to using imported sources of water or seawater desalination, or dams and on-stream reservoirs.
- **Policy WR 1.7:** Agricultural Operations. Groundwater management strategies will give priority to agricultural operations. Protect agricultural water supplies from competition by incompatible development through land use controls.
- **Policy WR 1.12:** Impacts of New Development. Accurately assess and mitigate the impacts of new development on water supply. At a minimum, comply with the provisions of Senate Bills 610 and 221.
- **Policy WR 1.14:** Avoid Net Increase in Water Use. Avoid a net increase in non-agricultural water use in groundwater basins that are recommended or certified as Level of Severity II or III for water supply. Place limitations on further land divisions in these areas until plans are in place and funded to ensure that the safe yield will not be exceeded.
- **Goal WR 2:** The County will collaboratively manage groundwater resources to ensure sustainable supplies for all beneficial uses.
- **Policy WR 2.1:** Groundwater quality assessments Prepare groundwater quality assessments, including recommended monitoring, and management measures.
- **Policy WR 2.2:** Groundwater Basin Reporting Programs. Support monitoring and reporting programs for groundwater basins in the region.
- **Policy WR 2.3:** Well Permits. Require all well permits to be consistent with the adopted groundwater management plans.
- **Policy WR 2.4:** Groundwater Recharge. Where conditions are appropriate, promote groundwater recharge with high-quality water.
- **Policy WR 2.5:** Groundwater Banking Programs. Encourage groundwater-banking programs.
- **Goal WR 3:** Excellent water quality will be maintained for the health of the people and natural communities.
- **Policy WR 3.2:** Protect Watersheds. Protect watersheds, groundwater and aquifer recharge areas, and natural drainage systems from potential adverse impacts of development projects.
- **Policy WR 3.3:** Improve Groundwater Quality. Protect and improve groundwater quality from point and non-point source pollution, including nitrate contamination; MTBE and other industrial, agricultural, and commercial sources of contamination; naturally occurring mineralization, boron, radionuclides, geothermal contamination; and seawater intrusion and salts.
- **Policy WR 3.4:** Water Quality Restoration. Pursue opportunities to participate in programs or projects for water quality restoration and remediation with agencies and organizations such as the Regional Water Quality Control Board (RWQCB), California Department of Fish and

Wildlife (CDFW), National Marine Fisheries Service (NMFS), and Resource Conservation Districts (RCDs) in areas where water quality is impaired.

- **Goal 4:** Per capita water use in the county will decline by 20% by 2020.
- **Policy WR 4.1:** Reduce Water Use. Employ water conservation programs to achieve an overall 20% reduction in per capita residential and commercial water use in the unincorporated area by 2020. Continue to improve agricultural water use efficiency consistent with Policy AGP 10 in the Agricultural Element.
- **Policy WR 4.2:** Water Pricing Structures. Support water-pricing structures to encourage conservation by individual water users and seek to expand the use of conservation rate structures in areas with Levels of Severity II and III for water supply.
- **Policy WR 4.3:** Water conservation The County will be a leader in water conservation efforts.
- **Policy WR 4.5:** Water for Recharge. Promote the use of supplemental water such as reclaimed sewage effluent and water from existing impoundments to prevent overdraft of groundwater. Consider new ways to recharge underground basins and to expand the use of reclaimed water. Encourage the eventual abandonment of ocean outfalls.
- **Policy WR 4.6:** Graywater. Encourage the use of graywater systems, rainwater catchments, and other water reuse methods in new development and renovation projects, consistent with state and local water quality regulations.
- **Policy WR 4.7:** Low Impact Development. Require Low Impact Development (LID) practices in all discretionary and land division projects and public projects to reduce, treat, infiltrate, and manage urban runoff.
- **Policy WR 4.8:** Efficient Irrigation. Support efforts of the resource conservation districts, California Polytechnic State University, the University of California Cooperative Extension, and others to research, develop, and implement more efficient irrigation techniques.
- **Goal 5:** The best possible tools and methods available will be used to manage water resources.
- **Policy WR 5.1:** Watershed Approach. The County will consider watersheds and groundwater basins in its approach to managing water resources in order to include ecological values and economic factors in water resources development.

The following San Luis Obispo General Plan Agriculture Element goals and policies related to groundwater use would potentially influence implementation of the GSP:

- **Policy AGP10a:** Encourage water conservation through feasible and appropriate “best management practices.” Emphasize efficient water application techniques; the use of properly designed irrigation systems; and the control of runoff from croplands, rangelands, and agricultural roads.
- **Policy AGP10b:** Encourage the U.C. Cooperative Extension to continue its public information and research program describing water conservation techniques that may be appropriate for agricultural practices in this county. Encourage landowners to participate in programs that conserve water.

- **Policy AGP11b:** Do not approve proposed general plan amendments or re-zonings that result in increased residential density or urban expansion if the subsequent development would adversely affect: (1) water supplies and quality, or (2) groundwater recharge capability needed for agricultural use.
- **Policy AGP11c:** Do not approve facilities to move groundwater from areas of overdraft to any other area, as determined by the Resource Management System in the Land Use Element.

San Luis Obispo County General Plan's Influence on Water Demand and Groundwater Sustainability Plan

The semi-arid climate in the county is subject to limited amounts of rainfall and recharge of groundwater basins and surface reservoirs. A focus of the County General Plan is that future development should take place recognizing that the dependable supply of some county groundwater basins is already being exceeded. If mining of groundwater continues in those areas without allowing aquifers to recharge, water supply and water quality problems will eventually result, which may be costly to correct and could become irreversible.

The General Plan explicitly encourages preservation of the county's natural resources, and states that future growth should be accommodated only while ensuring that this growth occurs within the sustainable capacity of these resources. Due to the complementary nature of the General Plan and the GSP, implementation of the GSP is anticipated to be consistent with the General Plan's goals and policies.

The county was expected to grow between 0.44-1% per year from 2013 through 2018, an increase of approximately 12,000 persons over the five-year period and is expected to grow by over 41,000 from 2010 to 2030 (County of San Luis Obispo, 2014). These growth estimates are County-wide and the General Plan does not specify how much growth, if any, is expected to occur within the Basin. Ensuring sustainable management of the basin through implementation of the GSP will be critical in terms of supporting projected population growth in the county while maintaining sustainable groundwater levels in the basin.

Groundwater Sustainability Plan's Influence on San Luis Obispo County General Plan's Goals and Policies

Successful implementation of the GSP will help to ensure that the Cuyama Basin's groundwater supply is managed in a sustainable manner. Given the amount of population growth projected in the county in the coming years, it is possible that changes in groundwater management by the GSP will impact the location and type of development that will occur in the Basin in the future. It is anticipated that GSP implementation will reinforce the General Plan's goals related to sustainable land use development in the county.

1.7.3 Santa Barbara County Comprehensive Plan

The Santa Barbara County Comprehensive Plan is a means by which more orderly development and consistent decision making in the county can be accomplished. The Plan involves a continuing process of research, analysis, goal-setting and citizen participation, the major purpose of which is to enable the County Board of Supervisors and Planning Commission to more effectively determine matters of priority in the allocation of resources, and to achieve the physical, social and economic goals of the communities in the county (County of Santa Barbara, 2016).

Relevant Santa Barbara County Comprehensive Plan Principles and Policies

The following Santa Barbara County Comprehensive Plan Land Use Element policies related to groundwater use would potentially influence implementation of the GSP:

- **Land Use Development Policy 4:** Prior to issuance of a development permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public or private services and resources (i.e., water, sewer, roads, etc.) are available to serve the proposed development.
- **Hillside and Watershed Protection Policy 7:** Degradation of the water quality of groundwater basins, nearby streams, or wetlands shall not result from development of the site. Pollutants, such as chemicals, fuels, lubricants, raw sewage, and other harmful waste, shall not be discharged into or alongside coastal streams or wetlands either during or after construction.

The following Santa Barbara County Comprehensive Plan Conservation Element, Groundwater Resources Section goals and policies related to groundwater use would potentially influence implementation of the GSP:

- **Goal 1:** To ensure adequate quality and quantity of groundwater for present and future county residents, and to eliminate prolonged overdraft of any groundwater basins.
- **Policy 1.1:** The County shall encourage and assist all of the county's water purveyors and other groundwater users in the conservation and management, on a perennial yield basis, of all groundwater resources.
- **Policy 1.2:** The County shall encourage innovative and/or appropriate, voluntary water conservation activities for increasing the efficiency of agricultural water use in the county.
- **Policy 1.3:** The County shall act within its powers and financial abilities to promote and achieve the enhancement of groundwater basin yield.
- **Goal 2:** To improve existing groundwater quality, where feasible, and to preclude further permanent or long-term degradation in groundwater quality.
- **Policy 2.1:** Where feasible, in cooperation with local purveyors and other groundwater users, the County shall act to protect groundwater quality where quality is acceptable, improve quality where degraded, and discourage degradation of quality below acceptable levels.
- **Policy 2.2:** The County shall support the study of adverse groundwater quality effects which may be due to agricultural, domestic, environmental and industrial uses and practices.
- **Goal 3:** To coordinate County land use planning decisions and water resources planning and supply availability.
- **Policy 3.1:** The County shall support the efforts of the local water purveyors to adopt and implement groundwater management plans pursuant to the Groundwater Management Act and other applicable law.
- **Policy 3.2:** The County shall conduct its land use planning and permitting activities in a manner which promotes and encourages the cooperative management of groundwater resources by

local agencies and other affected parties, consistent with the Groundwater Management Act and other applicable law.

- **Policy 3.3:** The County shall use groundwater management plans, as accepted by the Board of Supervisors, in its land use planning and permitting decisions and other relevant activities.
- **Policy 3.4:** The County's land use planning decisions shall be consistent with the ability of any affected water purveyor(s) to provide adequate services and resources to their existing customers, in coordination with any applicable groundwater management plan.
- **Policy 3.5:** In coordination with any applicable groundwater management plan(s), the County shall not allow, through its land use permitting decisions, any basin to become seriously over drafted on a prolonged basis.
- **Policy 3.6:** The County shall not make land use decisions which would lead to the substantial over commitment of any groundwater basin.
- **Policy 3.7:** New urban development shall maximize the use of effective and appropriate natural and engineered recharge measures in project design, as defined in design guidelines to be prepared by the Santa Barbara County Flood Control and Water Conservation District in cooperation with P&D.
- **Policy 3.8:** Water-conserving plumbing, as well as water-conserving landscaping, shall be incorporated into all new development projects, where appropriate, effective, and consistent with applicable law.
- **Policy 3.9:** The County shall support and encourage private and public efforts to maximize efficiency in the pre-existing consumptive M&I use of groundwater resources.
- **Policy 3.10:** The County, in consultation with the cities, affected water purveyors, and other interested parties, shall promote the use of consistent "significance thresholds" by all appropriate agencies with regard to groundwater resource impact analysis.
- **Goal 4:** To maintain accurate and current information on groundwater conditions throughout the county.
- **Policy 4.1:** The County shall act within its powers and financial abilities to collect, update, refine, and disseminate information on local groundwater conditions.

The following Santa Barbara County Comprehensive Plan Agricultural Element goal and policy related to groundwater use would potentially influence implementation of the GSP:

- **Goal 1:** Santa Barbara County shall assure and enhance the continuation of agriculture as a major viable production industry in Santa Barbara Country. Agriculture shall be encouraged. Where conditions allow, (taking into account environmental impacts) expansion and intensification shall be supported.
- **Policy 1F:** The quality and availability of water, air, and soil resources shall be protected through provisions including but not limited to, the stability of Urban/Rural Boundary Lines, maintenance of buffer areas around agricultural areas, and the promotion of conservation practices.

Santa Barbara County Comprehensive Plan's Influence on Water Demand and Groundwater Sustainability Plan's Goals

Review of relevant Santa Barbara County Comprehensive Plan goals and policies reveals that the County's goals and policies relative to future land use development and conservation complement the use and conservation of groundwater resources goals anticipated to be included in the CBGSA GSP. The Comprehensive Plan explicitly states as a goal ensuring that adequate quality and quantity of groundwater will be available for present and future county residents, as well as the elimination of prolonged overdraft of any groundwater basins through land use planning decisions and water resources planning. Due to the complementary nature of the General Plan and the GSP, implementation of the General Plan would be a catalyst toward successful implementation of the GSP's goals.

The county is expected to grow from 428,600 to 520,000 residents between 2015 and 2040 (SBCAG, 2012). These growth estimates are County-wide and the General Plan does not specify how much growth, if any, is expected to occur within the Basin. Ensuring sustainable management of the Basin through implementation of the GSP will be critical in terms of supporting projected population growth in the county while maintaining sustainable groundwater levels in the Basin.

Groundwater Sustainability Plan's Influence on Santa Barbara County Comprehensive Plan's Goals and Policies

Successful implementation of the GSP will help to ensure that the Cuyama Basin's groundwater supply is managed in a sustainable manner. Given the amount of population growth projected in the county in the coming years, it is possible that changes in groundwater management by the GSP will result in changes to the pace, location and type of development that will occur in the county in the future. It is anticipated that GSP implementation will be consistent with the Comprehensive Plan's goals related to sustainable land use development in the county.

1.7.4 Ventura County General Plan

The Ventura County General Plan consists of: (a) countywide Goals, Policies and Programs containing four chapters (Resources, Hazards, Land Use, and Public Facilities and Services), (b) four appendices (Resources, Hazards, Land Use, and Public Facilities and Services) which contain background information and data in support of the Countywide Goals, Policies and Programs, and (c) several Area Plans which contain specific goals, policies and programs for specific geographical areas of the county.

Relevant Ventura County General Plan Principles and Policies

The following Ventura County General Plan (Resources Chapter, Water Resources Section, 1.3.1 Goals, 1.3.2 Policies) goals and policies related to groundwater use would potentially influence implementation of the GSP:

- **Goal 1:** Inventory and monitor the quantity and quality of the county's water resources.
- **Goal 2:** Effectively manage the water resources of the county by adequately planning for the development, conservation and protection of water resources for present and future generations.

- **Goal 3:** Maintain and, where feasible, restore the chemical, physical and biological integrity of surface and groundwater resources.
- **Goal 4:** Ensure that the demand for water does not exceed available water resources.
- **Goal 5:** Protect and, where feasible, enhance watersheds and aquifer recharge areas.
- **Goal 6:** Promote reclamation and reuse of wastewater for recreation, irrigation and to recharge aquifers.
- **Goal 7:** Promote efficient use of water resources through water conservation.
- **Policy 1:** Discretionary development which is inconsistent with the goals and policies of the County's Water Management Plan (WMP) shall be prohibited, unless overriding considerations are cited by the decision-making body.
- **Policy 2:** Discretionary development shall comply with all applicable County and State water regulations.
- **Policy 3:** The installation of on-site septic systems shall meet all applicable State and County regulations.
- **Policy 4:** Discretionary development shall not significantly impact the quantity or quality of water resources in watersheds, groundwater recharge areas or groundwater basins.
- **Policy 5:** Landscape plans for discretionary development shall incorporate water conservation measures as prescribed by the County's Guide to Landscape Plans, including use of low water usage landscape plants and irrigation systems and/or low water usage plumbing fixtures and other measures designed to reduce water usage.
- **Policy 10:** All new golf courses shall be conditioned to prohibit landscape irrigation with water from groundwater basins or inland surface waters identified as Municipal and Domestic Supply or Agricultural Supply in the California Regional Water Quality Control Board's Water Quality Control Plan unless either: a) the existing and planned water supplies for a Hydrologic Area, including interrelated Hydrologic Areas and Subareas, are shown to be adequate to meet the projected demands for existing uses as well as reasonably foreseeable probable future uses in the area, or b) it is demonstrated that the total groundwater extraction/recharge for the golf course will be equal to or less than the historic groundwater extraction/recharge (as defined in the Ventura County Initial Study Assessment Guidelines) for the site. Where feasible, reclaimed water shall be utilized for new golf courses.

The following Ventura County General Plan (Land Use Chapter, 3.1.1 Goals) goal related to groundwater use would potentially influence implementation of the GSP:

- **Goal 1:** Ensure that the county can accommodate anticipated future growth and development while maintaining a safe and healthful environment by preserving valuable natural resources, guiding development away from hazardous areas, and planning for adequate public facilities and services. Promote planned, well-ordered and efficient land use and development patterns.

The following Ventura County General Plan (Public Facilities Chapter, Water Supply Facilities section 4.3.1 Goals and 4.3.2 Policies) goals and policies related to groundwater use would potentially influence implementation of the GSP:

- **Goal 1:** Ensure the provision of water in quantities sufficient to satisfy current and projected demand.
- **Goal 2:** Encourage the employment of water conservation measures in new and existing development.
- Encourage the continued cooperation among water suppliers in the county in meeting the water needs of the county as a whole.
- **Policy 1:** Development that requires potable water shall be provided a permanent potable water supply of adequate quantity and quality that complies with applicable County and State water regulations. Water systems operated by or receiving water from Casitas Municipal Water District, the Calleguas Municipal Water District or the United Water Conservation District will be considered permanent supplies unless an Urban Water Management Plan (prepared pursuant to Part 2.6 of Division 6 of the Water Code) or a water supply and demand assessment (prepared pursuant to Part 2.10 of Division 6 of the Water Code) demonstrates that there is insufficient water supply to serve cumulative development in the district's service area. When the proposed water supply is to be drawn exclusively from wells in areas where groundwater supplies have been determined by the Environmental Health Division or the Public Works Agency to be questionable or inadequate, the developer shall be required to demonstrate the availability of a permanent potable water supply for the life of the project.
- **Policy 2:** Discretionary development as defined in section 10912 of the Water Code shall comply with the water supply and demand assessment requirements of Part 2.10 of Division 6 of the Water Code.
- **Policy 3:** Discretionary development shall be conditioned to incorporate water conservation techniques and the use of drought resistant native plants pursuant to the County's Guide to Landscape Plans.

Ventura County Plan's Influence on Water Demand and Groundwater Sustainability Plan's Goals

Review of relevant Ventura County General Plan goals and policies reveals that the County's goals and policies relative to future land use development and conservation complement the use and conservation of groundwater resources goals included in the CBGSA GSP. The General Plan explicitly states as a goal ensuring that adequate quality and quantity of groundwater will be available for present and future county residents, as well as accommodating anticipated future growth and development while maintaining a safe and healthful environment by preserving valuable natural resources, including groundwater. Due to the complementary nature of the General Plan and the GSP, it is anticipated that implementation of the GSP will be consistent with the General Plan.

The county is expected to grow from 865,090 to 969,271 residents between 2018 and 2040 (Caltrans, 2015). These growth estimates are County-wide and the General Plan does not specify how much growth, if any, is expected to occur within the Basin. Ensuring sustainable management of the basin through

implementation of the GSP will be critical in terms of supporting projected population growth in the county while maintaining sustainable groundwater levels in the Basin.

Groundwater Sustainability Plan's Influence on Ventura County General Plan's Goals and Policies

Successful implementation of the GSP will help to ensure that the Cuyama Basin's groundwater supply is managed in a sustainable manner. Given the amount of population growth projected in the county in the coming years, it is possible that changes in groundwater management by the GSP will result in changes to the pace, location and type of development that will occur in the county in the future. It is anticipated that GSP implementation will reinforce the General Plan's goals related to sustainable land use development in the county.

1.8 Plan Elements from CWC Section 10727.4

- To be filled in near end of GSP development. Will be used to address any component in the list below that was not addressed elsewhere in the GSP. If addressed in the GSP, a reference to where it's addressed will be provided.
    - (a) Control of saline water intrusion.
    - (b) Wellhead protection areas and recharge areas.
    - (c) Migration of contaminated groundwater.
    - (d) A well abandonment and well destruction program.
    - (e) Replenishment of groundwater extractions.
    - (f) Activities implementing, opportunities for, and removing impediments to, conjunctive use or underground storage.
    - (g) Well construction policies.
    - (h) Measures addressing groundwater contamination cleanup, groundwater recharge, in-lieu use, diversions to storage, conservation, water recycling, conveyance, and extraction projects.
    - (i) Efficient water management practices, as defined in Section 10902, for the delivery of water and water conservation methods to improve the efficiency of water use.
    - (j) Efforts to develop relationships with state and federal regulatory agencies.
    - (k) Processes to review land use plans and efforts to coordinate with land use planning agencies to assess activities that potentially create risks to groundwater quality or quantity.
    - (l) Impacts on groundwater dependent ecosystems.

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COMMITMENT & INTEGRITY DRIVE

TO: Standing Advisory Committee
Agenda Item No. 7d

FROM: Jim Beck, Executive Director

DATE: April 26, 2018

SUBJECT: Data Management Approach

Issue
Update on the Data Management Approach.

Recommended Motion
None – information only.

Discussion
Cuyama Basin Groundwater Sustainability Agency Groundwater Sustainability Plan (GSP) consultant Woodard & Curran's summary of its approach to data management is provided as Attachment 1.

Attachment 1

Cuyama Basin Groundwater Sustainability Agency

Data Management Approach

April 26, 2018

WOODARD &CURRAN

Data Management Criteria Go Beyond SGMA Requirements

- Flexible and open one-stop-shop
- Transparent and efficient data entry and visualization
- Coordination and sharing
- Automated reporting

CURRENT PHASE

- Sustainable groundwater management monitoring
- Ability to track undesirable results

FUTURE PHASES

WOODARD &CURRAN

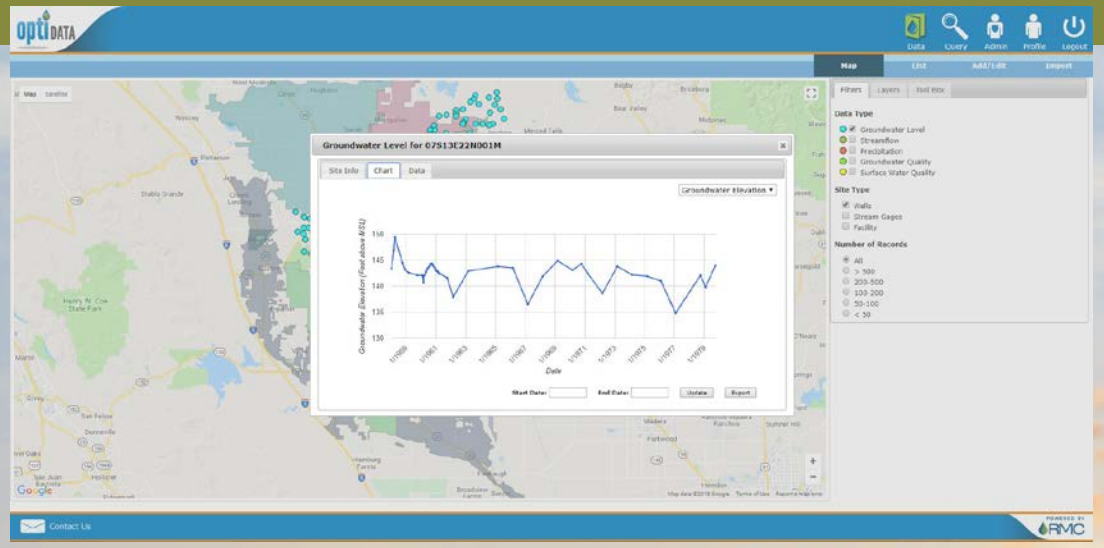
Data Management System Options to Meet SGMA Requirements

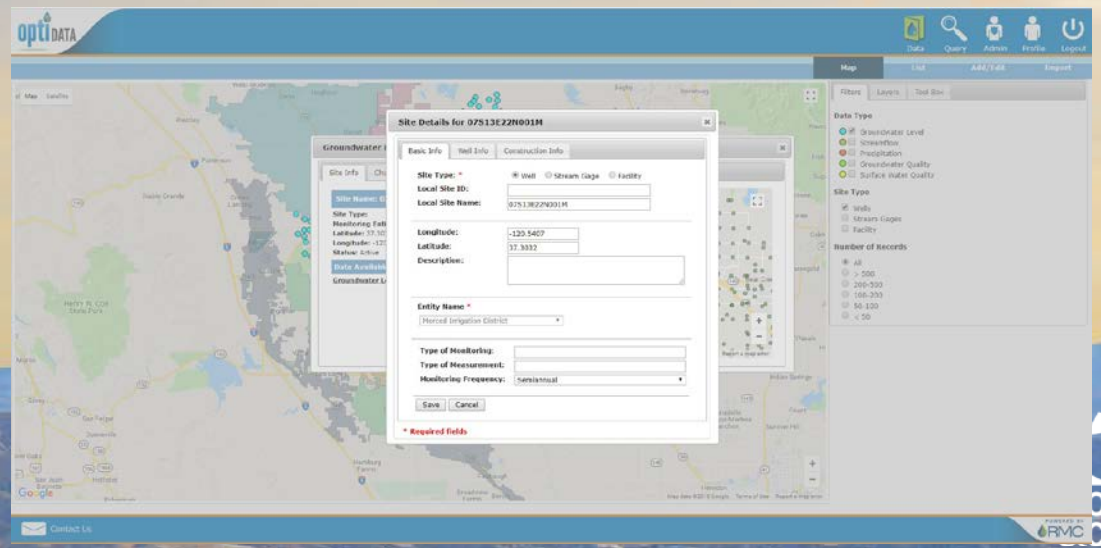
We've evaluated numerous DMS options:

DMS Option	Comments
Excel/Sharepoint/Geodatabase Combination	• Does not meet any success criteria • Software costs would be minimal, but labor costs will be high to maintain/report data
Off-the-Shelf Applications WISKI, HYDRSTRA, HydroDMS, Opti, RockWorks, w/no customization	• Will not meet all success criteria • User processes would need to be modified and labor costs could be higher to maintain/report data
Customized Off-the-Shelf Applications WISKI, HYDRSTRA, HydroDMS, Opti, RockWorks,	• Can be customized to meet success criteria depending on features of base software package
Custom Developed Application	• Can be developed to meet all success criteria • Budget and timeline required would be beyond grant parameters

Opti is a Ready-to-Use Proven Tool

- Numerous IRWM groups have used Opti
- Several GSAs are now implementing Opti
- Customized DMS to meet the specific needs of the Cuyama Basin
- Meets all identified Key Success Criteria
- Open platform enables future enhancements





TO: Standing Advisory Committee
Agenda Item No. 7e

FROM: Jim Beck, Executive Director

DATE: April 26, 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.

Attachment 1

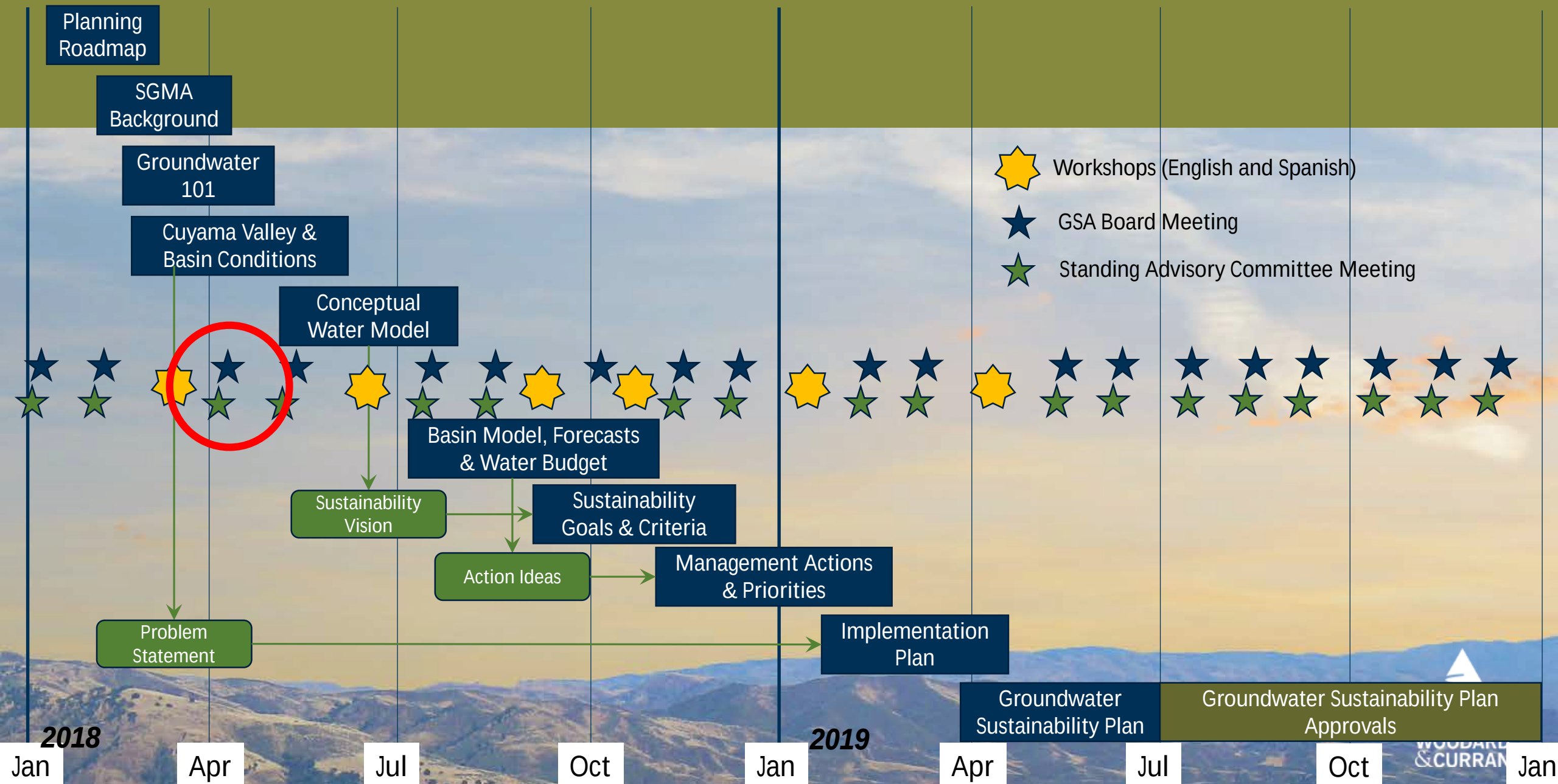
Cuyama Basin Groundwater Sustainability Agency

Groundwater Sustainability Plan Stakeholder Engagement Update

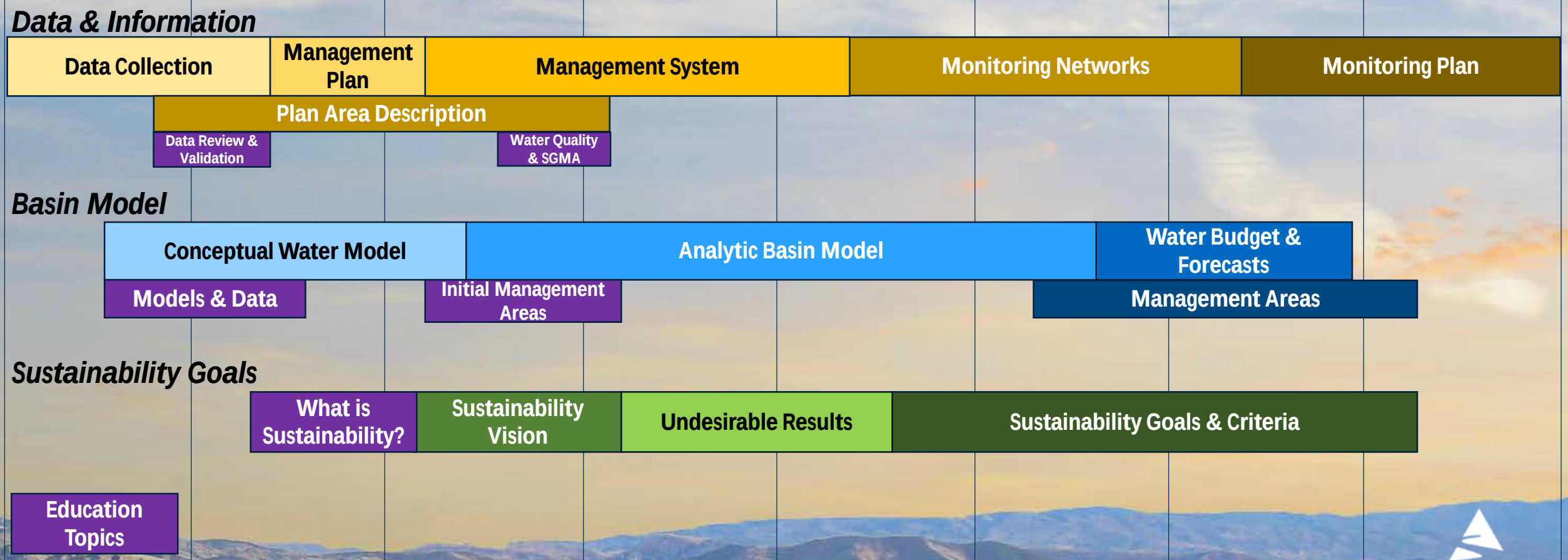
April 26, 2018

WOODARD &CURRAN

Cuyama Basin Groundwater Sustainability Plan – Planning Roadmap



Cuyama Basin Groundwater Sustainability Plan – Discussion Topics



Outreach Activities

- CBGSA Newsletter – Issued May 1
- June 6 Workshops set – English at 6:30 pm at the Cuyama Recreation District facility, and Spanish at 6:30 pm at Cuyama Family Resources Center
- Stakeholder Outreach – Contact with community members who only provided telephone contact information
- Next Steps
  - Prepare for June 6 workshop
  - Continue planning educational topics for SAC meetings

TO: Standing Advisory Committee
Agenda Item No. 9

FROM: Roberta Jaffe, Chair

DATE: April 26, 2018

SUBJECT: Standing Advisory Committee Responsibilities and Guidelines

Issue
Review of the draft Standing Advisory Committee Responsibilities and Guidelines.

Recommended Motion
Adopt the Standing Advisory Committee Responsibilities and Guidelines.

Discussion
The Standing Advisory Committee (SAC) requested clarity on the Committee's responsibilities as members. To address this, SAC Chair Jaffe worked with an ad hoc (Jaffe, Kelly, Draucker) to develop SAC Responsibilities and Guidelines (Guidelines). The Guidelines were presented at the March 29, 2018 SAC meeting and Committee members provided feedback on the draft. The revised Guidelines are provided as Attachment 1 for consideration of adoption.

Guidelines for Cuyama Basin Groundwater Sustainability Agency
Standing Advisory Committee (CBGSA SAC)

Establishment:

The SAC was established under Article 8.1 of the Joint Powers Agreement that establishes the Cuyama Basin GSA, which reads as follows:

8.1 Standing Advisory Committee. A Standing Advisory Committee is hereby established as a group of representatives to advise the GSA, and shall be appointed by the Board.

(a) Purpose. The Standing Advisory Committee shall advise the Board concerning, where legally appropriate, implementation of SGMA in the Basin and review the GSP before it is approved by the Board.

(b) Membership. The composition of and appointments to the Standing Advisory Committee shall be determined by the Board.

(c) Brown Act. All Meetings of the Standing Advisory Committee, including special meetings, shall be noticed, held and conducted in accordance with the Ralph M. Brown Act (Government Code 54950 et seq.)

(d) Compensation. No Advisory Committee member shall be compensated by the GSA for preparation for or attendance at meetings of the Board or any committee created by the Board.

Purpose:

The SAC shall advise the GSA Board concerning, where legally appropriate, formation, development and implementation of SGMA in the Basin and review the GSP before it is approved by the GSA Board. (Article 8.1,a)

The GSA Board commits to the value of the SAC and will consider SAC recommendations when making policy decisions.

The purpose of the SAC shall include but not be limited to:

- review of the agenda for the upcoming GSA meeting
- provide an oral report to the monthly GSA meeting including a summary of discussions and recommendations
- facilitating community outreach and education related to:
  - Development, adoption or amendment of the Groundwater Sustainability Plan ("GSP")
  - Sustainability goals and objectives
  - Monitoring programs
  - Annual work plans and reports (including mandatory 5-year milestone reports)
  - Modeling scenarios
  - Projects and management actions to achieve sustainability
  - Community outreach
  - Local regulations to implement SGMA
  - Fee proposals
  - General advisory assistance

Membership:

The composition of and appointments to the SAC shall be determined by the GSA Board. (Article 8.1,b)

No GSA Director may be a member of the SAC. Membership of the SAC shall intend to include:

- a majority of full and part-time residents in the Cuyama Basin
- representation of all geographic regions of the Cuyama Basin
- representation of all demographics of the Cuyama Basin including domestic well users, townsite water users, disadvantaged community representatives (as referred to in SGMA) and other representatives of the diversity of the beneficial uses and users of groundwater in the basin
- Members of the Standing Advisory Committee are subject to all applicable conflict of interest laws including Government Code section 1090 and the California Political Reform Act.

Terms and Responsibilities:

The GSA Board may announce a call for applications when a vacancy appears on the SAC or if it is recommended that a specific member demographic should be added to the SAC.

The SAC may recommend that seats be filled upon vacancy or determined need.

The GSA Board is responsible for reviewing applications and approving members.

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Term of service:

The SAC was formed in October 2017 with an understanding to serve through the submission of the GSP by January 31, 2020. The expectation is that the SAC will continue through development and implementation through 2040 alongside the GSA. At the time of submission of the GSP, SAC's members' initial terms will come to an end. At that time, 3 year terms of the SAC will be established. Current members can choose to end their term and step down; renew for a 3-year term; or a shorter term. Members would need to be reappointed by the GSA Board. There are no limits on reapplying for 3 year terms.

Responsibilities:

Advisory Committee members represent the diverse interests of the Cuyama Basin and groundwater users. In particular those interests not well represented on the GSA Board.

The criteria for Standing Advisory Committee members are to:

- Serve as a strong, effective advocate for those affected by administrative water decisions
- Work collaboratively with others
- Commit time needed for ongoing discussions
- Collectively reflect diversity of interests

Decision making:

To inform the GSA Board's decision-making, the Advisory Committee will provide oral reports at the monthly GSA meetings and can choose to submit written recommendations as needed. The recommendations will identify areas of agreement and disagreement.

The Advisory Committee will be consensus seeking. The Advisory Committee will strive to reach consensus on its recommendations. The definition of consensus spans the range from strong support to neutrality, to abstention, to "I can live with it," to "I will let this go forward." When unable to reach consensus on recommendations, the Advisory Committee will outline the areas of agreement and areas in which it does not agree, providing explanation to inform the Board's decision-making. To comply with the Brown Act, the position of each SAC member on the points of consensus will be noted in the SAC's minutes.

The Advisory Committee may request that one or more members present its recommendations to the Board, including areas of agreement and disagreement, consistent with Advisory Committee deliberations.

Meetings:

All meetings of the SAC, including special meetings, shall be noticed, held and conducted in accordance with the Ralph M. Brown Act. (Article 8.1,c). Any gathering or discussion among a quorum of the SAC is considered a meeting.
The SAC shall meet monthly in regular meetings. Special meetings and joint meetings with the GSA may be called as needed.
The GSA Board will be requested to notify in writing any member of the SAC who is absent from three or more consecutive SAC meetings and/or missed five meetings in a 12 month period with a request for greater participation or else asked to resign from their seat.
Officers of the SAC will work with GSA staff to develop the monthly meeting agenda.

Officers:

There will be an annual election of officers consisting of a Chair and Vice-Chair. Officers can serve more than one year in a row. The Chair will:

- In consultation with the staff and vice-chair, formulate the agenda and desired outcomes for the meetings
- work with members to ensure process and participation agreements are followed including:
  - assure a fair, effective, and credible process
  - make regular SAC reports to the GSA at the monthly GSA meetings
  - be substituted by the Vice-Chair for any roles the Chair is not able to fulfill.

If a Committee member has a concern about bias, neutrality or performance of the Chair, s/he should raise the concern first with the Chair and then the Executive Director or Legal Counsel.

Finances:

Final Draft 3/22/18

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• No Advisory Committee member shall be compensated by the GSA for preparation for or attendance at meetings of the Board or any committee created by the Board. (Article 8(d)
• The fiscal responsibility of the SAC falls under the oversight of the CBGSA.