



Welcome to the Cuyama Basin GSA Public Workshop

August 25, 2022

Schedule

- 5:15 p.m. Welcome and Schedule Overview (Jim)
- 5:30 p.m. Presentation and Q&A (Jim, Brian, Alex, Taylor)
- 6:30 p.m. Final Q&A
- 8:00 p.m. Close

Format and Decorum

- Presentation and Q&A
- May impose speaker time limit
- Not noticed as a Board meeting
- Silence cell phones
- Ask questions at podium so people online can hear
- Be respectful

Introductions

- Team introduction
- Food sponsorship

Presentation Outline

- SGMA/GSA Background
- What has the GSA done?
- What GSA activities are planned?
- Landowner requirements

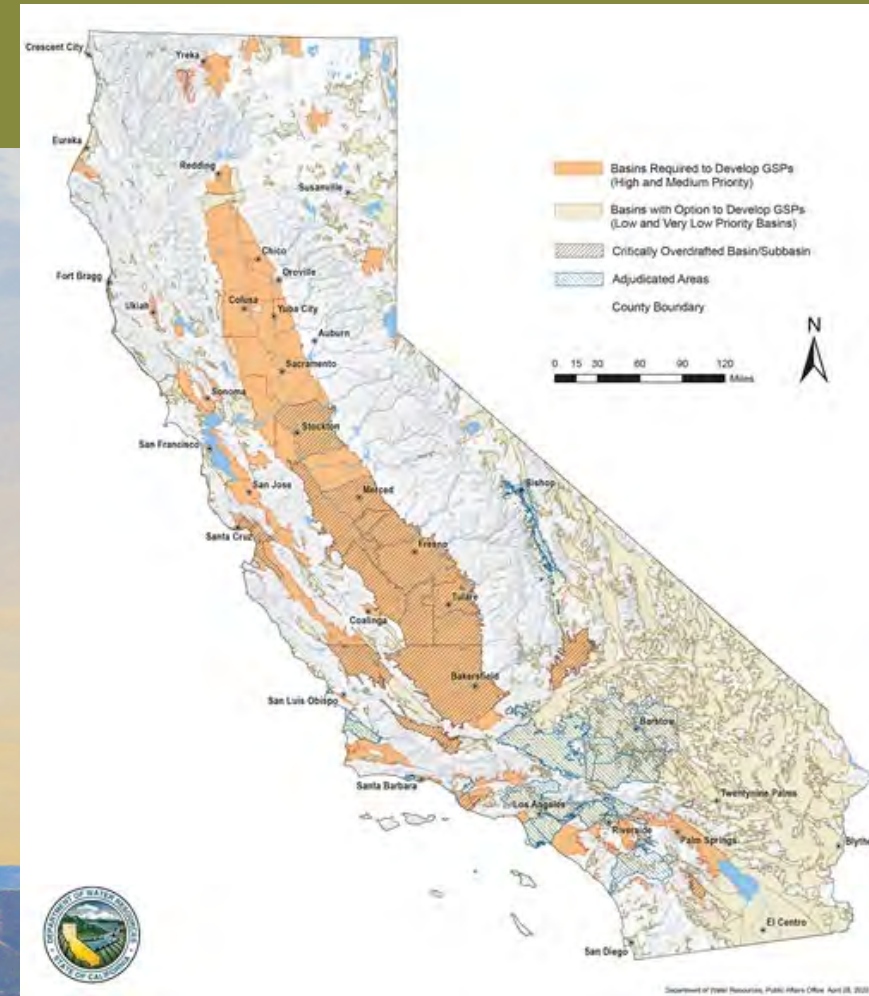
Cuyama Basin Groundwater Sustainability Agency

SGMA / GSA Background



SGMA

- 2014 - Sustainable Groundwater Management Act (SGMA) adopted by the Legislature regulating groundwater in California
- Designates groundwater basins in the State (critical, high, medium, low) and requires Groundwater Sustainability Plans (GSP) outlining how basins will become sustainable by 2040
- Must avoid undesirable results for impacts related to the below key indicators:
 - Lowering of groundwater levels
 - Degradation of groundwater water quality
 - Subsidence impacts



Sustainable Groundwater Management Act (SGMA) Requirements

- Basin Setting
- Six Undesirable Results & Sustainability Goals
- Monitoring Network
- Measurable Objectives, Minimum Thresholds, and Interim Milestones
- Identify Projects and Management Actions
- Annual Groundwater Sustainability Plan (GSP) Reporting

Sustainability Indicators



Lowering of Groundwater Levels



Reduction of Groundwater Storage



Degraded Water Quality



Seawater Intrusion

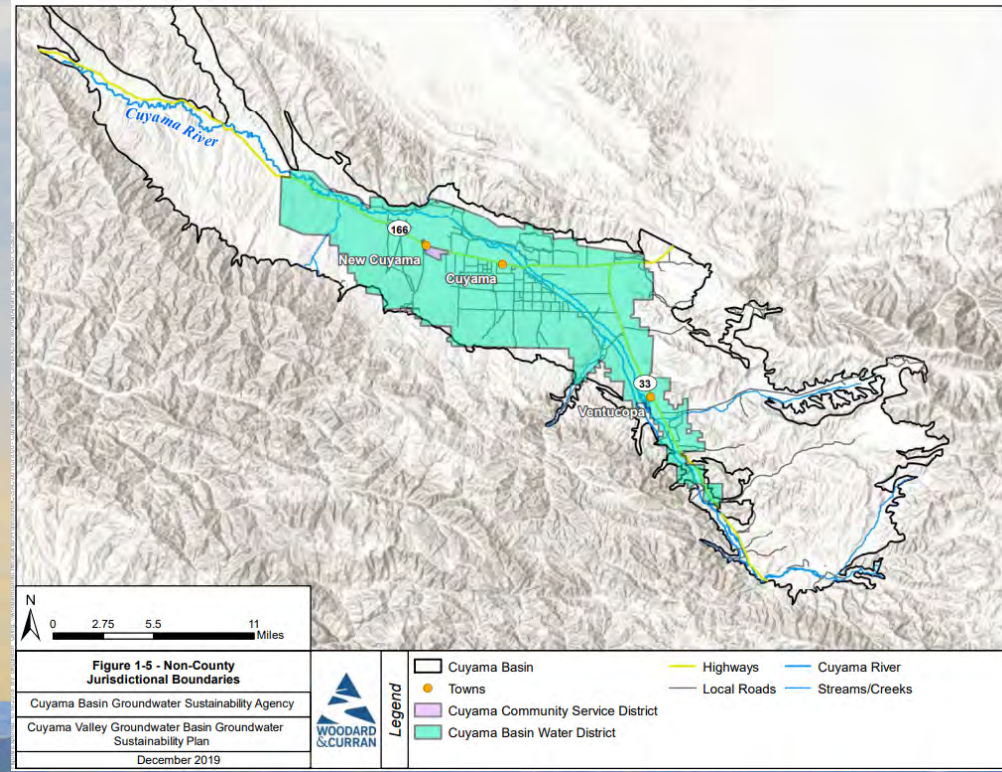
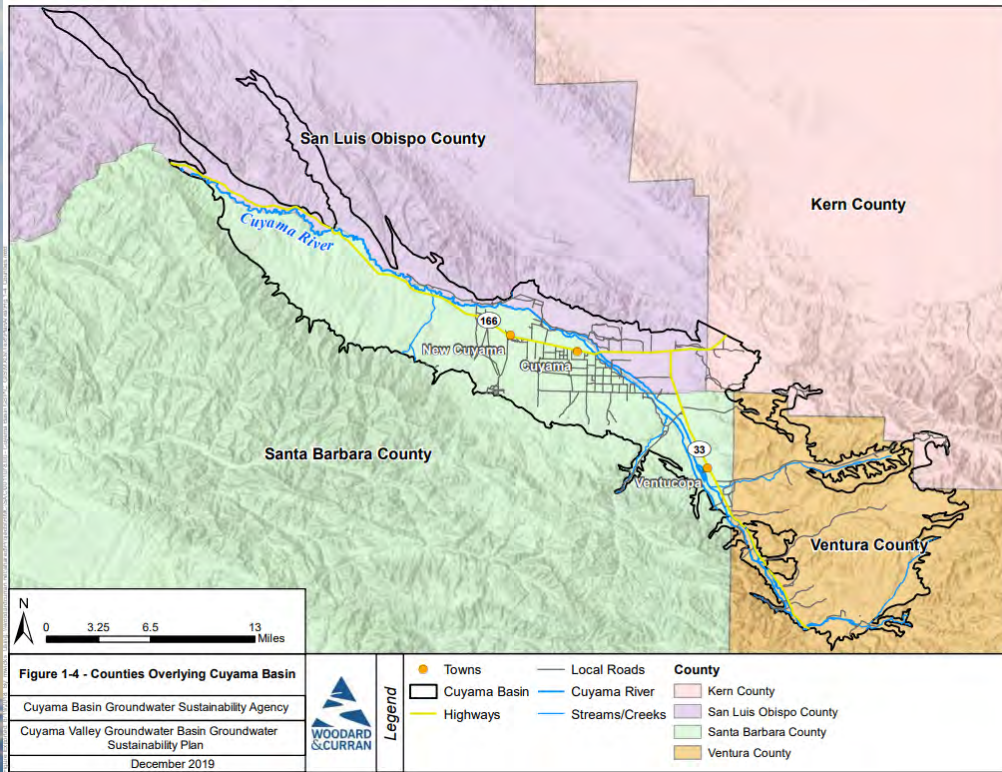


Land Subsidence



Depletions of Interconnected Surface Water

Cuyama Basin GSA



Groundwater Sustainability Agency (GSA) and Management Structure

Decision-makers

Cuyama Basin
Groundwater
Sustainability
Agency (GSA)

Managers/
Legal

**Executive
Director**
Jim Beck
Taylor Blakslee
Legal Counsel
Joe Hughes
Alex Dominguez

Consultants

Woodard & Curran
Brian Van Lienden
Ali Taghavi
Micah Eggleton

11-Member Board

Counties

Kern
San Luis Obispo
Santa Barbara (2)
Ventura

Landowners & Agriculture

Cuyama Valley Water District (5)

Community

Cuyama Community Services District

7-Member
Standing Advisory
Committee (Community
Representatives)

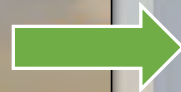
GSP

- The Groundwater Sustainability Plan (GSP) is required by DWR to describe how the basin will achieve sustainability by 2040
- The GSP is a 1,640-page document
- Developed between 2018 and 2020
- Over 65 public meetings (including 6 public workshops) were held to develop the GSP
- Every 5 years, major updates to the GSP are required

GSA Website and Resources

- www.cuyamabasin.org

The screenshot shows the homepage of the Cuyama Basin GSA. The navigation bar at the top includes links for Home, Cuyama GSA Board, Advisory Committee, Get Involved, GW Sustainability, Resources (circled in yellow), Español, and Contact Us. The main heading is "Cuyama Basin GSA" with a welcome message. Below this, several buttons are displayed: "Final GSP" (circled in yellow), "Groundwater Extraction Fee", "New Landowner Info Sheet", "Adjudication Docs", "Latest News", "Stay Connected", and "Español".



The screenshot shows the Resources page of the Cuyama Basin GSA. The navigation bar is identical to the homepage, with "Resources" highlighted. The main heading is "Resources". Below this, a grid of buttons lists various resources: "Annual Reports", "Final GSP", "GW Conditions", "GW Extraction Fee", "Reporting Forms", "DMS" (circled in yellow), "Cuyama Info", "Educational Topics", "Streamflow gauges", "Special Presentations", and "SGMA/GW Info".

Data Management System (DMS)

The screenshot displays the OptiData Data Management System (DMS) interface. At the top left is the 'optiDATA' logo. The top right navigation bar includes icons for DATA, QUERY, ADMIN, PROFILE, and LOGOUT. Below this is a secondary navigation bar with 'Map', 'List', 'Add/Edit', and 'Import' options. The main area features a satellite map of a region with numerous blue circular markers representing monitoring sites. A black outline on the map delineates a specific area of interest. On the right side, a sidebar contains a 'Filters' section with 'Data Type' and 'Site Type' categories. The 'Data Type' section includes checkboxes for Groundwater Level (checked), Streamflow, Precipitation, Groundwater Quality, Subsidence, and No Data Type. Below this are sections for 'Monitoring Network', 'Well Status', 'Number Of Records', 'Basin', 'Managing Entity', and 'Monitoring Entity'. At the bottom left, there is a 'Contact Us' button with an envelope icon. At the bottom right, it says 'POWERED BY' followed by the 'WOODARD & CURRAN' logo.

Data Management System (DMS)

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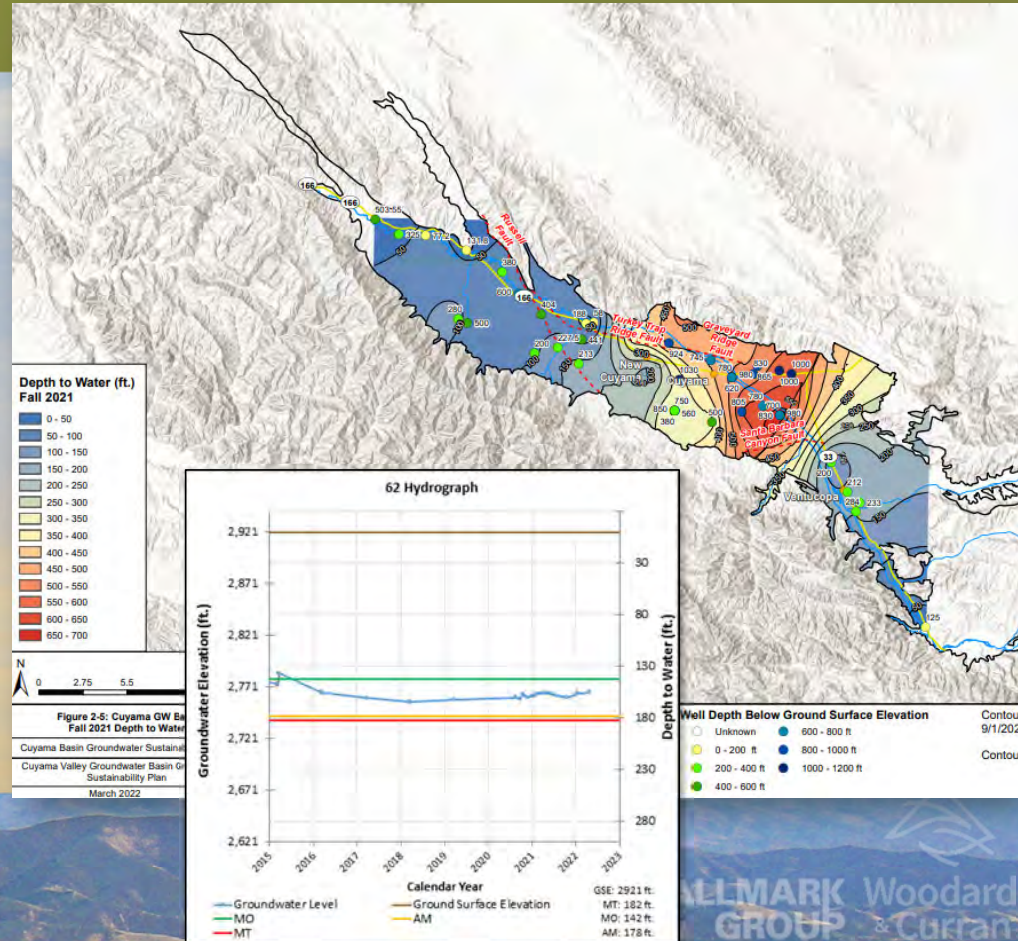
Date	Groundwater Elevation (feet above MSL)
1/1/1998	1,900
1/1/1999	1,870
1/1/2000	1,840
1/1/2001	1,900
1/1/2002	1,890
1/1/2003	1,910
1/1/2004	1,840
1/1/2005	1,830
1/1/2006	1,880
1/1/2007	1,870
1/1/2008	1,860
1/1/2009	1,840
1/1/2010	1,810
1/1/2011	1,780
1/1/2012	1,840
1/1/2013	1,790
1/1/2014	1,770
1/1/2015	1,760
1/1/2016	1,750
1/1/2017	1,730
1/1/2018	1,790
1/1/2019	1,760
1/1/2020	1,750
1/1/2021	1,790
1/1/2022	1,780

Annual GSP Reporting and 5-Year GSP Update

- DWR's GSP Emergency Regulations require that an Annual Report be submitted each year by April 1, including:
 - Updated groundwater conditions
 - Estimated water use
 - Change in groundwater storage
 - Plan implementation status
- A GSP 5-Year Update will be developed by January 2025, including:
 - Sustainability evaluation
 - Plan implementation progress
 - Reconsideration of GSP elements
 - Updated monitoring network description
 - Any other plan amendments

Annual GSP Reporting to Date

- Three Annual Reports have been approved and submitted to DWR
 - WY 2018-19
 - WY 2019-20
 - WY 2020-21
- Provides updates and current conditions for the Basin



Cuyama Basin Groundwater Sustainability Agency

What Has the GSA Done?

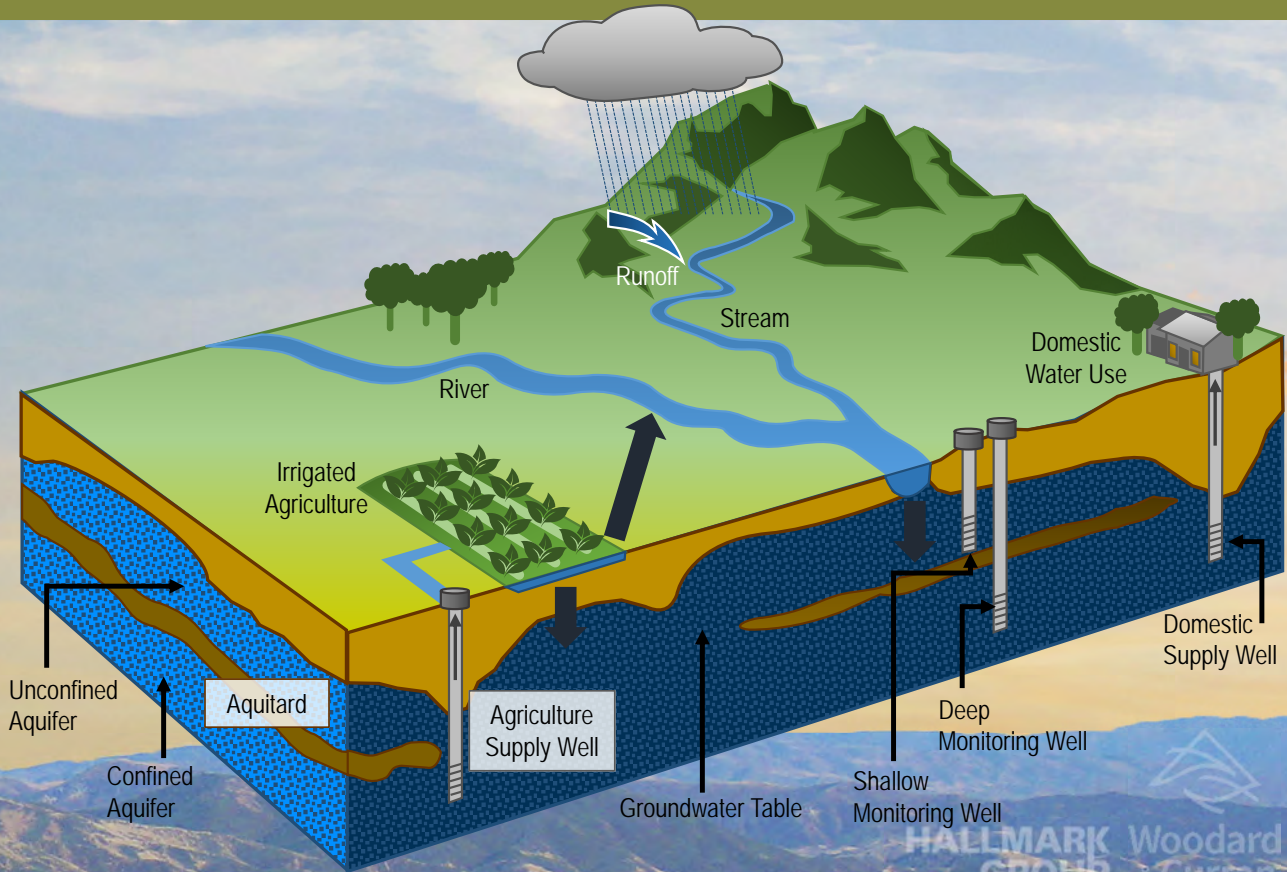


Water Budgets and Sustainable Yield

- Numerical modeling of basin water budgets and sustainable yield estimates performed with best data and information that is currently available
 - Numerical model was recently updated, with revised results presented to the CBGSA Board in July 2022
 - Modeling will continue to improve in the future with augmented data to characterize groundwater in the Cuyama Basin

Approach for Cuyama Basin Model Development

- Develop a Robust and Defensible Integrated Water Resources Model
 - Robust Model Grid
 - Agricultural and Domestic Water Demands
 - Include physical features affecting movement of surface and groundwater
 - Consider interaction between groundwater and surface water systems

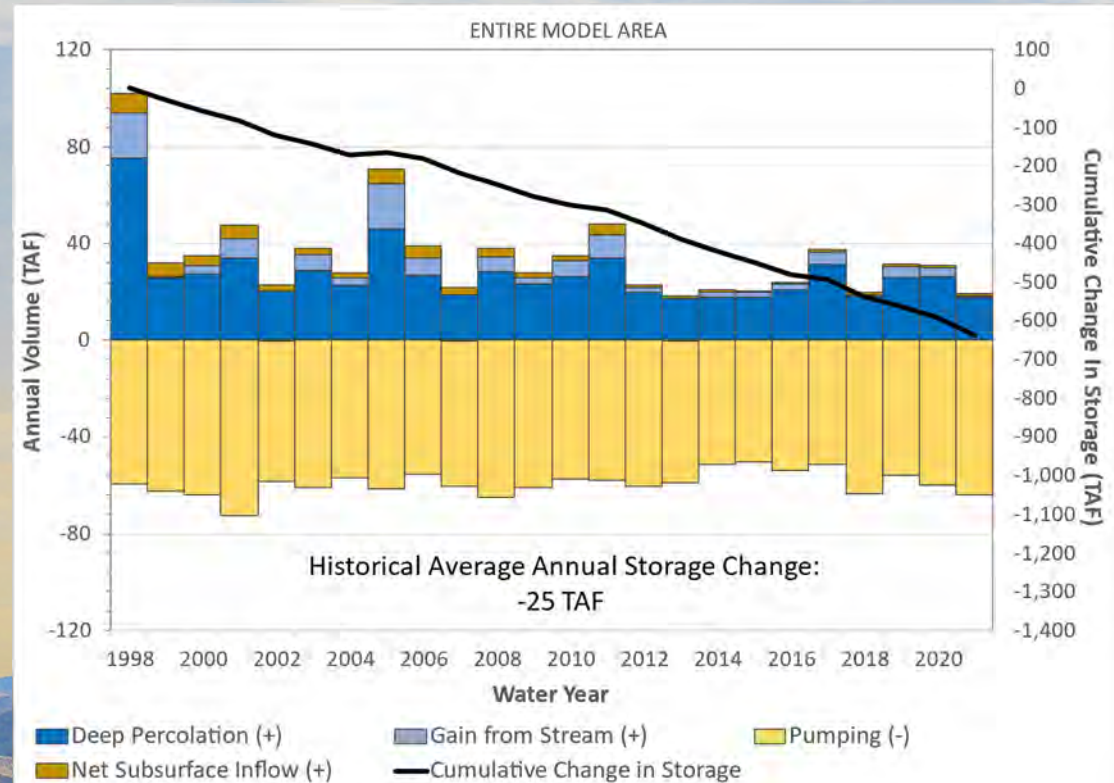


Updated Basin-Wide Conditions

Historical Groundwater Budget

Water years 1998-2021

Component	GSP – v0.10 (1998-2017) AF/Yr	Updated – v0.20 (1998-2021) AF/Yr
Inflow		
Deep Percolation	28,000	27,000
Stream Seepage	3,000	4,700
Subsurface Inflow	5,000	2,800
<i>Total Inflow</i>	<i>36,000</i>	<i>34,500</i>
Outflow		
Groundwater Pumping	59,000	59,300
<i>Total Outflow</i>	<i>59,000</i>	<i>59,300</i>
GW Storage Deficit	23,000	24,800

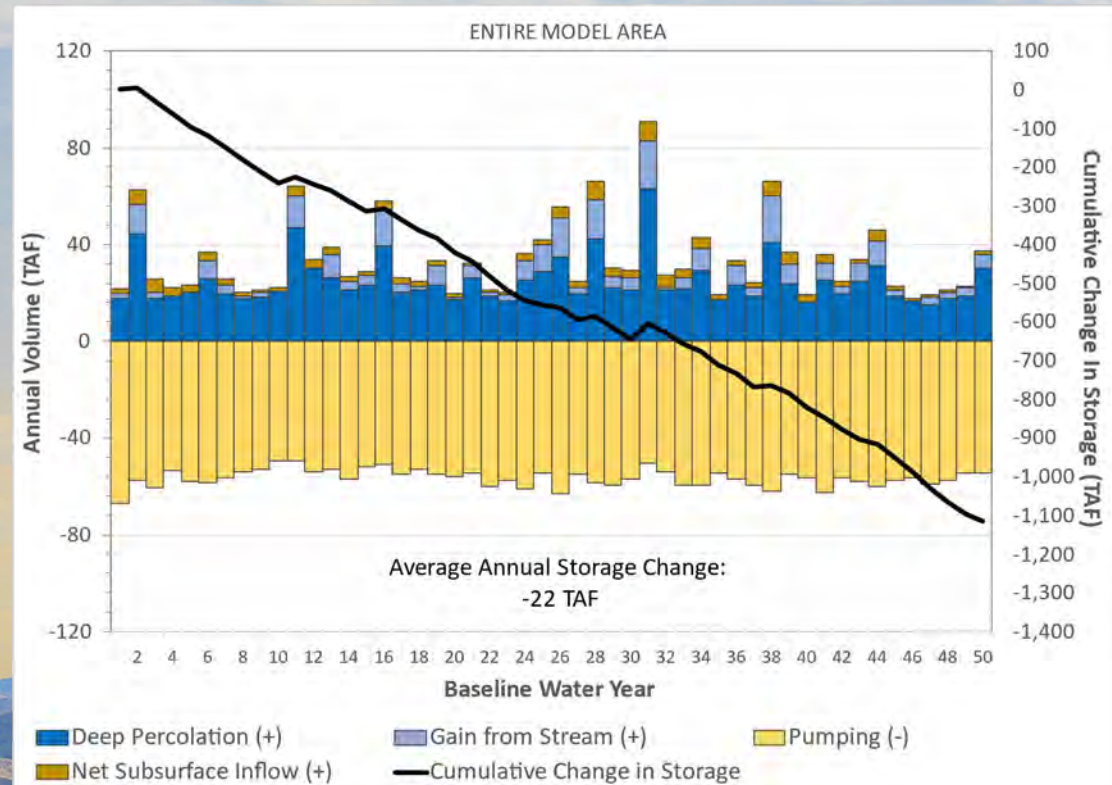


Updated Basin-Wide Conditions

Projected Groundwater Budget

- Based on the 50-year hydrology (1968-2017)

Component	GSP – v0.10 Projected AF/Yr	Updated – v0.20 Projected AF/Yr
Inflow		
Deep Percolation	25,000	24,800
Stream Seepage	5,000	5,600
Subsurface Inflow	5,000	2,900
<i>Total Inflow</i>	<i>35,000</i>	<i>33,300</i>
Outflow		
Groundwater Pumping	60,000	56,500
<i>Total Outflow</i>	<i>60,000</i>	<i>56,500</i>
GW Storage Deficit	25,000	22,300



Updated Sustainable Yield Estimate

Component	Projected Baseline AF/Yr	Sustainable Conditions AF/Yr
Inflow		
Deep Percolation	24,800	14,000
Stream Seepage	5,600	5,600
Subsurface Inflow	2,900	2,800
Total Inflow	33,300	22,400
Outflow		
Groundwater Pumping	56,500 <i>(GSP: 59,000)</i>	23,900* <i>(GSP: 20,000)</i>
Total Outflow	56,500	23,900
Groundwater Storage Deficit	22,300	1,400*

Sustainable yield is the average annual pumping level where long-term storage change = 0

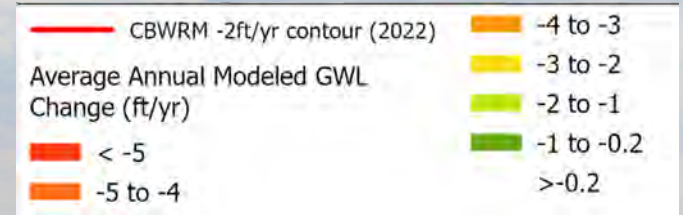
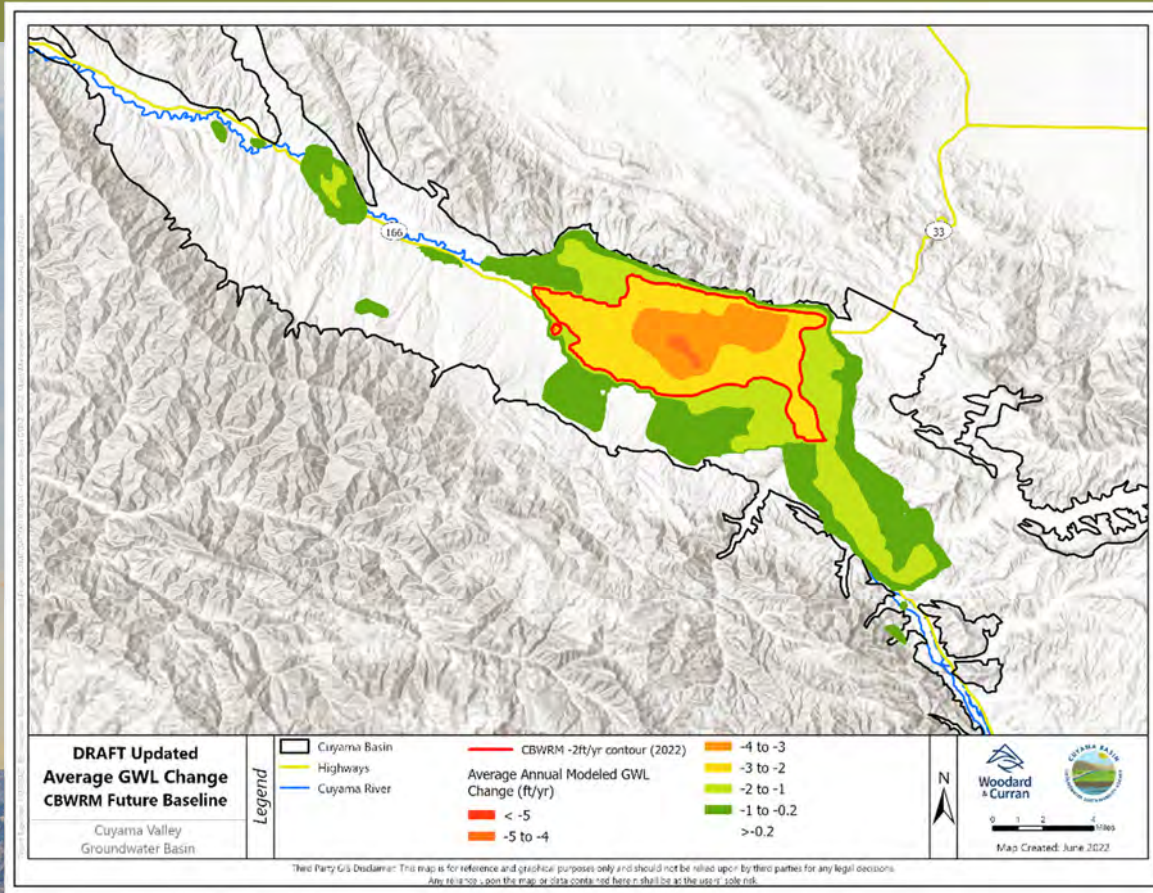
Basin-wide reduction in Annual Pumping:
32,600 AF/Yr (GSP: 40,000 AF/Yr)

Sustainable Pumping estimate for
the updated Central Management Area:
8,850 AF/Yr

*Groundwater pumping and storage deficits only reflect pumping reductions in the Central Region of the Basin

Updated Management Area

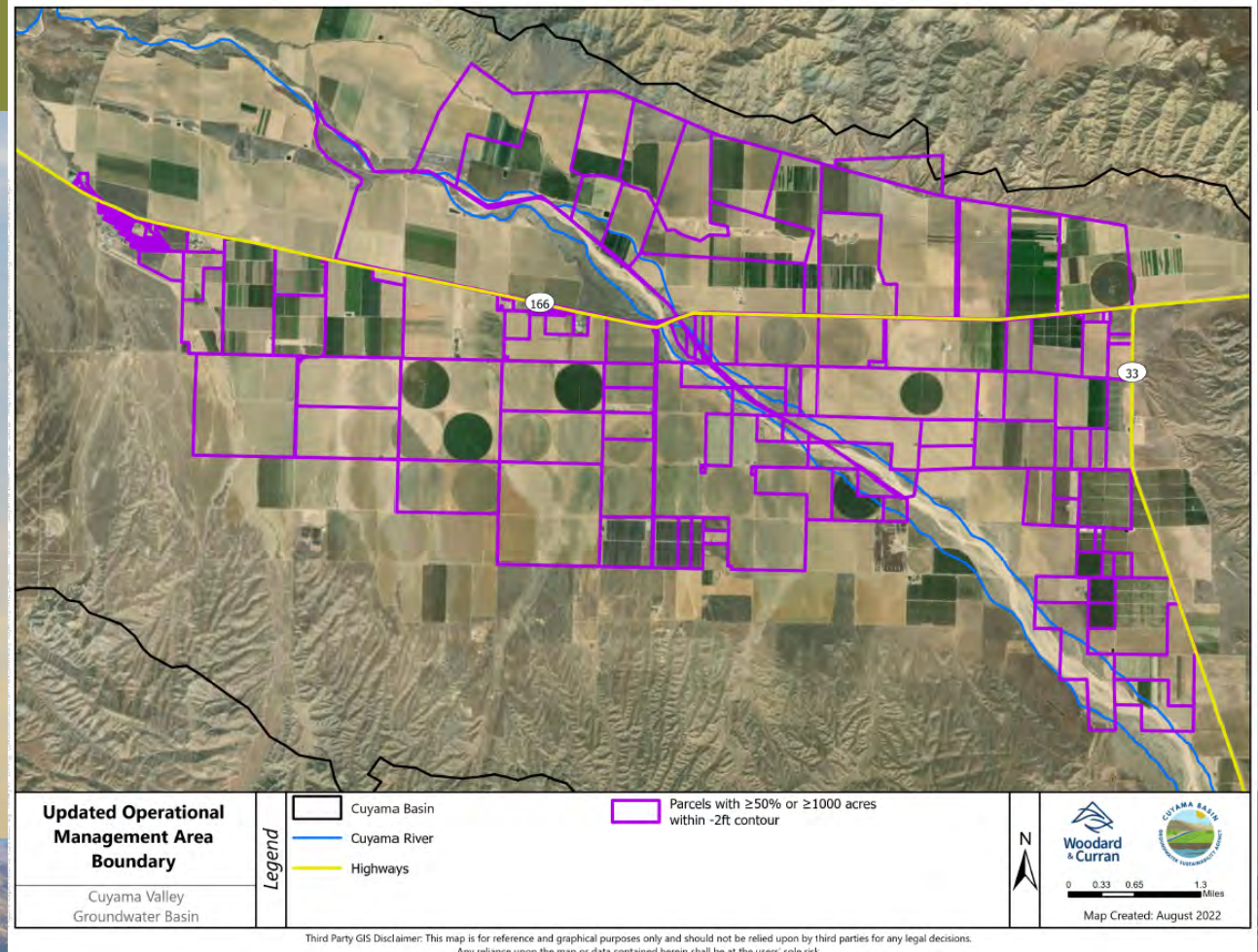
Average Annual Groundwater Level Change during Projected BL



- Based on the simulated 2 ft/yr decline criteria

CMA Operational Boundary

- In July 2022, the CBGSA Board voted to use an operational management area boundary
- [Interactive map](#) (on website Resources page)



Allocation Methodology in the CMA

- The allocation methodology for 2023 and 2024 is based on historic water use averaged from the 1998-2017 Water Year period for each parcel in the CMA
- Water use estimates for each parcel in the CMA were calculated using the updated CBWRM model version 0.20

Pumping Reduction Baseline/Starting Point

- For 2023 and 2024, the Maximum Annual Pumping in the CMA is calculated as follows:

	2023 (acre-feet)	2024 (acre-feet)	Calculations
A Initial Pumping Baseline (CMA)	41,700	41,700	
B CCSD Estimated Historic Pumping	188	188	
C Adjusted Initial Pumping Baseline	41,512	41,512	$A - B = C$
D Sustainable Yield (CMA)	8,850	8,850	
E Base Amount to Reduce From	32,662	32,662	$C - D = E$
F Amount to Reduce (5% each year)	1,633	1,633	$E * 0.05 = F$
G Maximum Annual Pumping	39,879	38,246	2023 = $C - F$ 2024 = $C - (F * 2)$

- Allocations for each parcel owner in the CMA were distributed on July 30, 2022, and a variance process was established by the Board on July 6, 2022

Variance Request Form

Variance Process

- To address potential inaccuracies with historic water use data, a landowner may use the draft variance process
- Examples of a variance request include correcting landowner information (i.e., name, acreage, etc.), combining parent-owned entities, and correcting historic water use



Variance Request Form For 2023 and 2024 in the Central Management Area Cuyama Basin Groundwater Sustainability Agency

Name _____
Date _____
Phone _____
Email _____
Assessor Parcel Number(s) (APN) _____

Please describe the basis for your request and include any supporting documentation

Variance Request Process

1. If a landowner identifies an inaccuracy with his or her historic water use data that landowner may submit a Variance Request Form to Taylor Blakslee by e-mail at tblakslee@hgcpm.com or by mail to 4900 California Ave, Tower B, Suite 210, Bakersfield, CA 93309, **by 5:00 p.m. on September 1, 2022**, for allocation adjustments *to be considered for 2023 and 2024*. A processing fee of \$250 must be submitted with the Variance Request Form. The CBGSA will refund this processing fee if the inaccuracy identified is the result of an error in CBGSA records
2. Staff will perform an initial review of the variance request and any supporting documentation
3. An ad hoc committee of the Board will review the variance request and any supporting documentation with staff

Variance Request Process

4. The ad hoc committee will provide a recommendation to the Board regarding how to address the variance request
5. The Board will approve or deny the variance request at a subsequent Board meeting. Any such approval may be conditioned by the Board as it deems appropriate
6. If the Board approves the variance request, staff will update the entire CMA allocation and distribute updated allocations to all landowners by December 1, 2022

Upcoming Water Management Decisions

- Increased water use outside the CMA
 - Pumping reductions currently being implemented in the CMA
 - Additional reductions will be required outside the CMA to achieve sustainability in the Cuyama Basin
 - Additional studies and data is required to determine a potential allocation in the Cuyama Basin
- Development of pumping allocation rules and regulations (water market)
 - CBGSA Board to consider implementing rules and regulations including the potential development of a water market

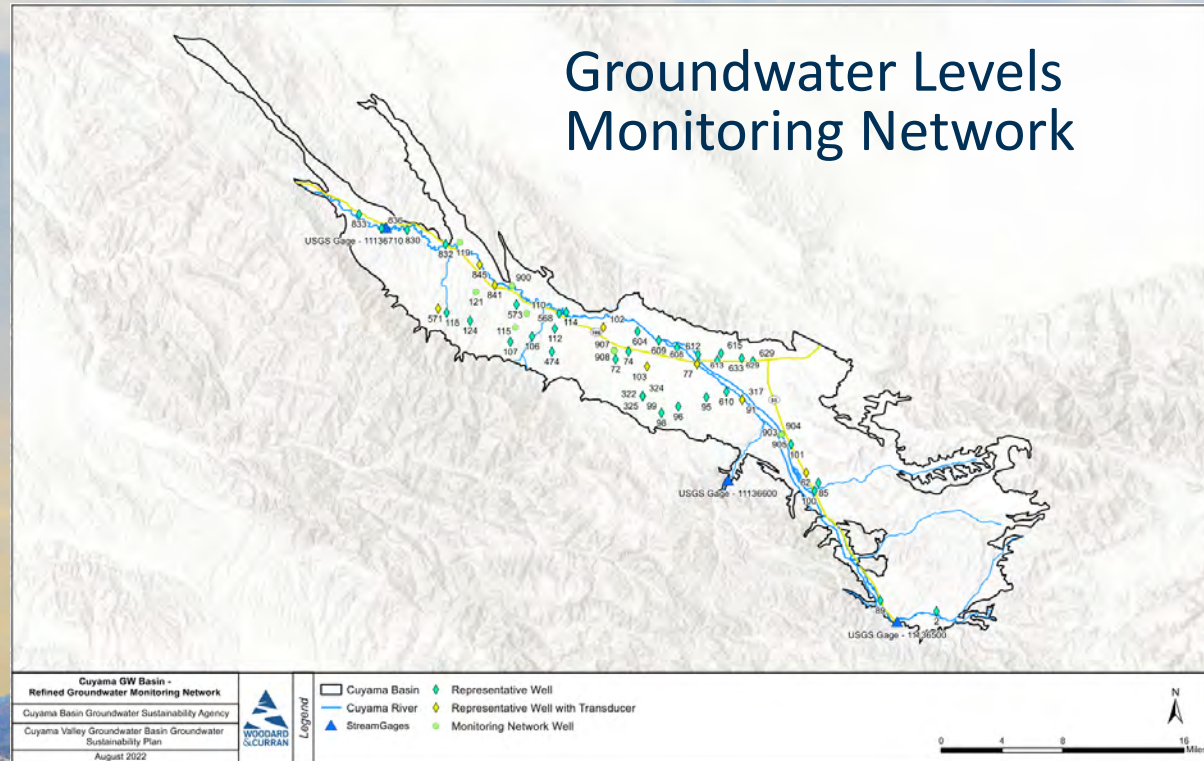
Monitoring Networks

- Monitoring networks include:

- Groundwater levels
- Groundwater quality (TDS - Salinity)
- Stream flow (USGS gages)

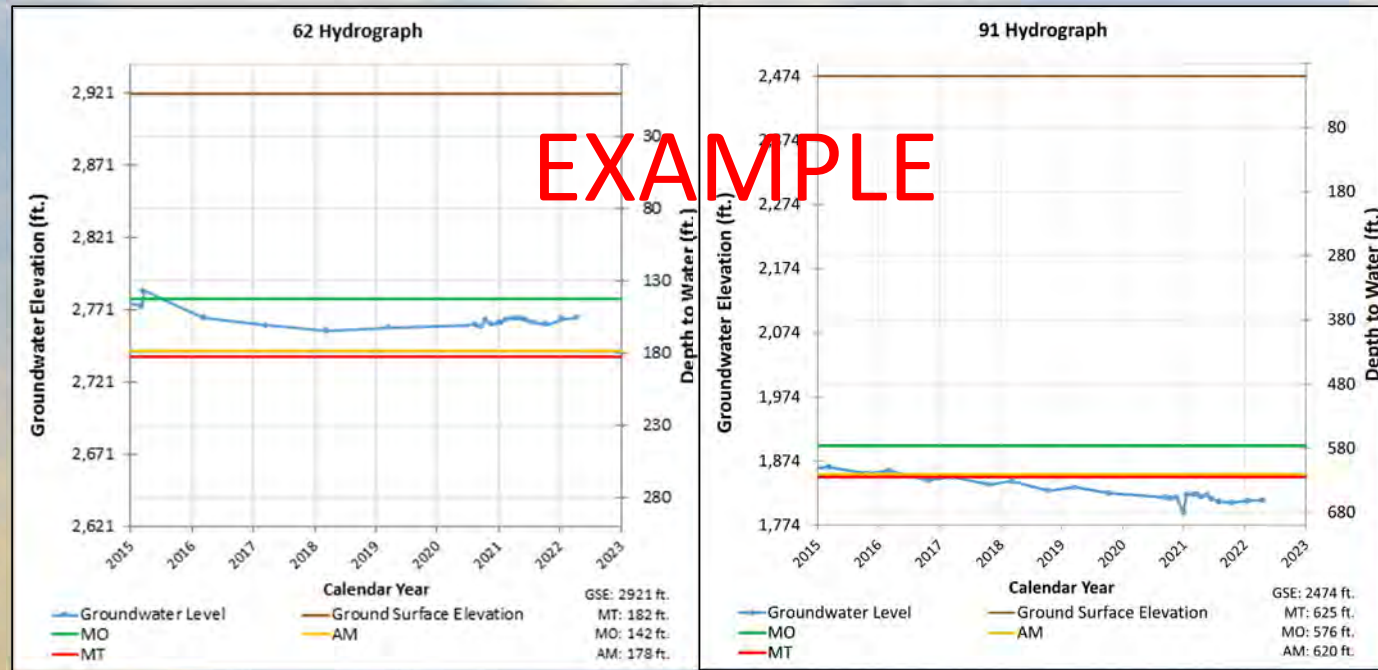
- Goals of monitoring networks:

- Monitor impacts to the beneficial uses or users of groundwater
- Monitor changes in groundwater conditions
- Demonstrate progress toward achieving measurable objectives



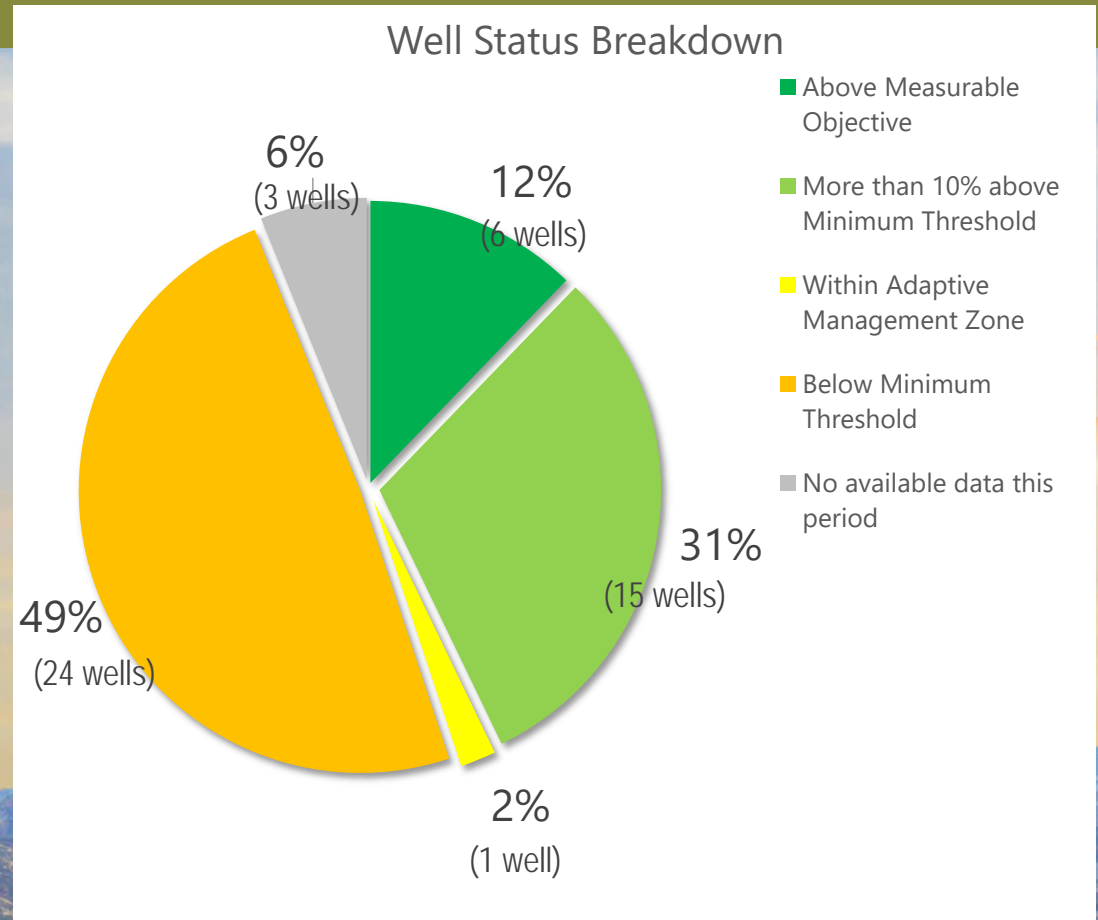
Measurable Objectives, Minimum Thresholds, and Undesirable Results

- Measurable objectives and minimum thresholds are defined at each monitoring well
- The GSP defines *undesirable results* as 30 percent of wells falling below MTs for two consecutive years



Summary of Current Groundwater Well Levels as Compared To Sustainability Criteria

- 24 of 49 wells are currently below minimum threshold (MT)
 - 30% of wells (i.e. 15 wells) below MT for 14 months
 - 8 of these were already below MT at time of GSP adoption
- Adaptive management ad-hoc committee has been formed to discuss potential options



Cuyama Basin Groundwater Sustainability Agency

What GSA Activities are Planned?



Summary of DWR Consultation Letter and Draft CBGSA Tech Memo

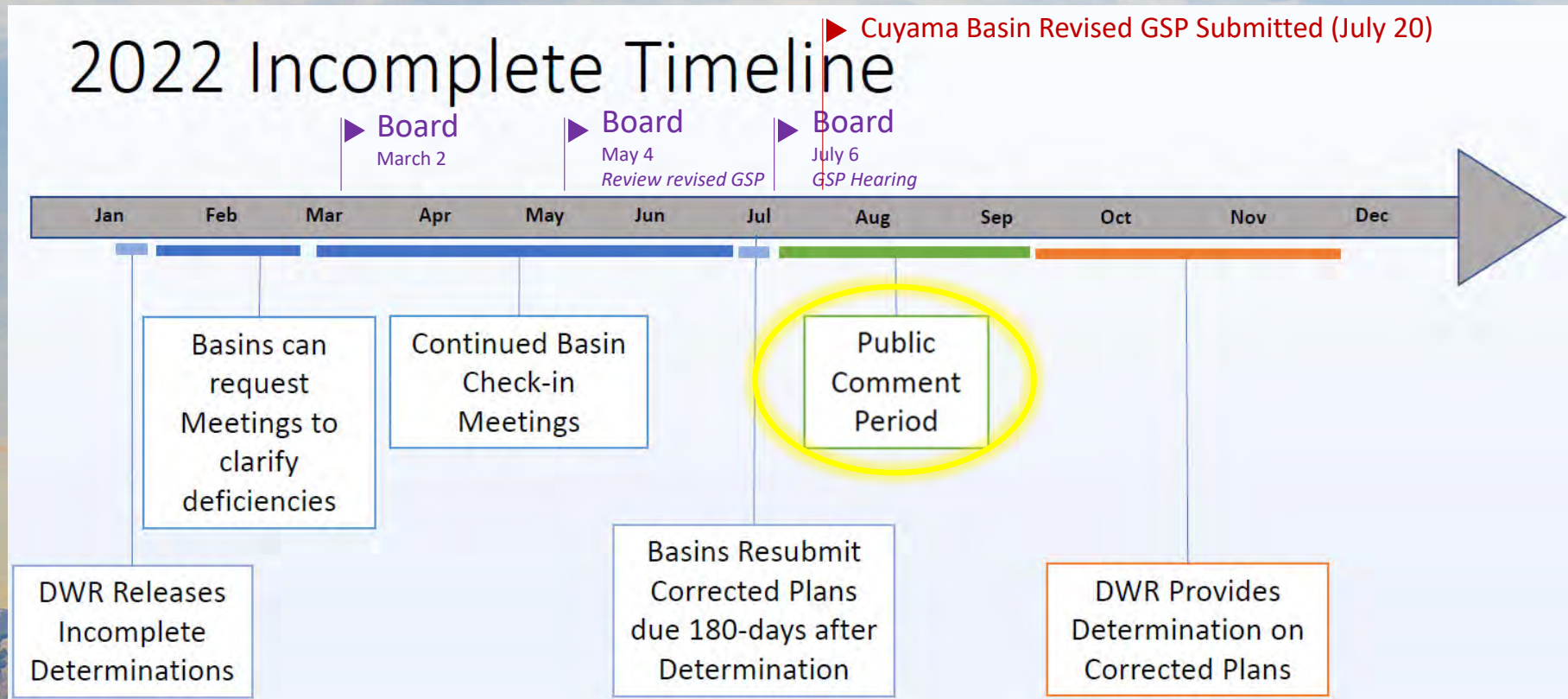
- DWR provided an incomplete determination in January 2022
- DWR's letter included four corrective actions:
 1. Provide justification for, and effects associated with, the sustainable management criteria
 2. Use of groundwater levels as a proxy for depletion of interconnected surface water
 3. Further address degraded water quality
 4. Provide explanation for how overdraft will be mitigated in the Basin
- CBGSA submitted a revised GSP on July 20, 2022, that addresses each of these corrective actions

GSP Resubmittal Process


- Revised GSP has been posted to the Cuyama Basin website here:
 - <https://cuyamabasin.org/resources>
- Revised GSP was developed using supplemental sections with blue font to show the additions
- Supplemental text is included at the end of each section (i.e., supplemental information for Section 2.2.7 appears at the end of Section 2)
- Text from the original GSP was not edited – only supplemental sections *added*



Timeline of DWR Review of Revised GSP



Grant Funding - 2021 SGMA Implementation Round 1 Grant Award

- Purpose: Support implementation of GSP to achieve sustainability with investments in groundwater recharge
- **\$7,600,000 ÷ 3 years**
- Grant Period of Performance: 
- Grant funded tasks:
 1. Grant Administration
 2. Perform Monitoring and Monitoring Network Enhancements
 3. Project and management Action Implementation
 4. GSP Implementation, Outreach, and Compliance Activities
 5. Improve Understanding of Basin Water Use

Grant Year 1: Major 2022/23 Grant Tasks

- Major Tasks to start this year:
 - Installation of Piezometers
 - Installation of Monitoring Wells
 - Updated land use survey
 - River channel survey
 - CIMIS/weather station installation
 - Precipitation enhancement feasibility study

Basin-Wide Well Information Survey

- Obtain information about all wells across the Basin, including production and domestic wells
- Purpose:
 - Incorporate info into future groundwater model updates
 - Inform future management and implementation decisions
 - Understand where beneficial users are so that they are protected in the future (such as domestic wells).
 - Update GSA records to most up to date information possible
- Email survey and mail to all parcel owners
- Due by September 30, 2022

Metering/Form Reporting

- For existing wells:
 - Flow meter required for water users using more than 25 acre-feet per year
 - Water users using less than 25 afy required to submit annual water use forms based on crop factors with a conversion to a gross number
- For all new wells:
 - Flow meter required for all new and replacement wells
- Forms can be located on the CBGSA website (www.cuyamabasin.org)



Flow Meter Installation Report

Cuyama Basin Groundwater Sustainability Agency

Thank you for filling out the Well Flow Meter Installation Report for the Cuyama GSA.

This form should be completed for EACH flow meter installed in the Cuyama Basin on all non-de minimis production (>2AFY) wells. Complete and accurate responses are critical for an equitable and data driven approach to groundwater management in the Cuyama Basin.

Any questions or concerns should be directed to TBlakslee@hgcpm.com.

Thank you for your cooperation and participation.

Landowner Information

1) Landowner name (First and Last): _____

2) Well operating company or organization: _____

Meter/Well Location

3) Well Name/number (please provide all known names/IDs separated by a semicolon (;)): _____

4) Geographical coordinates (decimal degree):

Latitude: _____ Longitude: _____

Meter Information

5) Flow meter make/manufacturer: _____

6) Meter serial number: _____

Installation Information

7) Installer name/company: _____

8) Installation date: _____

Attachments

Please attach the following to an email and send to Taylor Blakslee at TBlakslee@hgcpm.com. Please utilize the flow meter's serial number in the name of the file attachments so that attachments are filed accurately and to minimize staff time.

- Manufacturer calibration certificate/documentation
 - attachment name: "Serial-number_CalibrationDoc.pdf" (ex. "12345abc6789_CalibrationDoc.pdf")
- Pictures of well and meter
 - attachment name "Serial-number_Well/Meter_Photo_#off.jpeg" (ex. "12345abc6789_Well_Photo_2of4.jpeg")

Groundwater Extraction Fee

- GSA administration funded by a Groundwater Extraction Fee
- A public rate hearing is held in May each year to adopt the Groundwater Extraction Fee Report and set an annual groundwater extraction fee
- Payment is due by June 30th each year
- Past fees per acre-feet pumped: \$44, \$39, \$38
- Based on recent grant funding and projected cash flows the next three (3) Fiscal Years are projected to be in the \$5 acre-foot range

New Well Permit Process

- On March 28, 2022, the Governor issued Executive Order N-7-22 in response to ongoing drought conditions
- Section 9 provides requirements for new and/or modified wells
- Exclusion for:
 - De minimis users (wells that provide less than 2 acre-feet per year of groundwater for non-commercial purposes)
 - Wells that exclusively provide groundwater to public water supply systems
- Section 9a – New well permits require written authorization **from a GSA** that groundwater extraction will not be inconsistent with any sustainable groundwater management program and not decrease likelihood of achieving sustainability
- Section 9b – New well permits or alteration of existing well require a determination **by permitting agencies** that the well will (1) not likely interfere with production and functioning of existing nearby wells, or (2) not likely cause subsidence that would adversely impact or damage nearby infrastructure

New Well Permit Process

- On July 6, 2022, the Board directed staff to develop policies for compliance with the EO for replacement and new wells and will be discussed at the upcoming September 1, 2022, SAC meeting and September 7, 2022, Board meeting
- AB 2201

Cuyama Basin Groundwater Sustainability Agency

Landowner Requirements



Cuyama Landowner Requirements

Responsible Party	Required	What	Key Dates	Notes
All Pumpers	✓	Groundwater extraction fee	Jan 31st – Metered Data due to CBGSA / crop factor forms May Board – Public rate hearing and invoices distributed Jun 30th – Payment due date	Water users using less than 25 acre-feet per year will submit crop factor form with conversion to a gross water use
All Well Owners	✓	Well information survey	Sep 30, 2022 – surveys due	Provides GSA with information to assist in managing water management in the basin
	Optional	Reporting potential well impacts		
Landowners in the Central Management Area	✓	Managing water use to 2023 and 2024 allocation	Sep 1, 2022 – Variance Request From due to GSA Jan 31st – Metered water use info due to GSA	
New Well Permittee	✓	Hydrogeologic study		Required for new well permits; must demonstrate new well does not impact GSA ability to achieve sustainability

Cuyama Basin Groundwater Sustainability Agency

Adjudication Update



Adjudication Status: Pleadings

- Complaint Filed: **August 18, 2021**
- Service of Complaint: Mail, return receipt requested
- Response by Landowners to Complaint after Service:
 - Original deadline: **April 7, 2022**
 - Now: **30 days following service of Complaint**
 - Deadline for plaintiffs to file proofs of service: **November 14, 2022**
 - Consequences for not responding to Complaint

Adjudication Status: Next Steps

- Phased Trial
 - Phase 1 of the Trial will determine Basin boundaries
- Trial Setting Conference for Phase 1: **September 13, 2022**
 - All parties (including self-represented parties) must appear

Adjudication Resources

- **The Cuyama Basin GSA Website**
 - <https://cuyamabasin.org/#adjudication>
 - First Amended Compliant, Notice of Commencement, and Form Answer available here
- **The Superior Court of California; County of Los Angeles Website**
 - <https://www.lacourt.org/casesummary/ui/>
 - Case No.: BCV-21-101927

Cuyama Basin Groundwater Sustainability Agency

Q&A

