



Cuyama Basin Groundwater Sustainability Agency

Cuyama Basin Groundwater Sustainability Newsletter

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Groundwater Sustainability Plan for Cuyama Basin is Underway, Everyone is Encouraged to Participate

Groundwater is one of our most critical resources. It is a source for drinking water, it is used for irrigation to grow crops, and wildlife need it to survive. Groundwater is a little tricky because we can't see it. We know that groundwater supplies are less today than they were back in the 1970s. We know that both farming and populations centers across the state have increased over the last few decades, increasing groundwater use significantly.

In 2014, recognizing that groundwater supplies and the communities that depend on them were being affected by increased use, California enacted the **Sustainable Groundwater Management Act**, referred to as SGMA.

After SGMA was enacted, the California Department of Water Resources then developed a list of 21 "critically overdrafted" basins in California – and the Cuyama Basin is one. Critically overdrafted means that more water is being pumped from underground aquifers, where groundwater is stored, than is being replaced by rainfall and surface water recharge (water that percolates from the surface down into an aquifer). Groundwater levels have declined to the point that

water users and natural resources are affected or threatened.

In 2017, the Cuyama Basin Groundwater Sustainability Agency (CBGSA) was formed. The CBGSA is responsible for developing a Groundwater Sustainability Plan (GSP) for the Cuyama Basin. The GSP must be completed by January 31, 2020.

The goal of the GSP is to identify management actions and projects that will bring groundwater use in the Cuyama Basin into balance by 2040. The GSP will be updated every five years through 2040 to ensure that progress is being made toward this goal.



Photo courtesy of Sunridge Nurseries

Decisions needed for the GSP development will be made by an eleven-member Board of Directors (Board) for the CBGSA. The Board established a Standing Advisory Committee (SAC) of community members to advise the Board. For a listing of Board and SAC members, visit www.cuyamabasin.org.

The Cuyama Basin is at a critical juncture where change in groundwater management is vital to the economic welfare and quality of life in the area. As a resident, business owner, or employee, your participation in the GSP development is important for the future of the Valley. We look forward to seeing you at the next community workshops (English and Spanish language) on September 5, 2018, 6:30 pm to 8:pm, Cuyama Valley Recreation District. For more information:

www.cuyamabasin.org.

Jim Beck, Executive Director, CBGSA, jbeck@hgcpm.com

Progress Made with GSP

The Plan Area Description presents the water resource experts understanding of the lay of the land in the Cuyama Basin.

The Hydrogeologic Conceptual Model provides the context to develop water budget, the numerical model, and the monitoring network.

Considerable progress has been made – both on the technical aspects and community outreach. The water resource technical experts at the firm of Woodward & Curran have completed the **Plan Area Description** section of the GSP and are nearing completion of the **Hydrogeologic Conceptual Model** portion of the **Basin Settings** section. As sections of the GSP are completed, they will be posted online at <http://cuyamabasin.org/resources.html>

The Plan Area Description is a detailed description of the Cuyama Basin, including major streams and creeks, geologic faults and formations, soil types, groundwater monitoring wells, groundwater production wells, precipitation data, surface water data, land use designations, Cuyama River flows, and groundwater level trends. The Plan Area also describes existing surface water and groundwater monitoring programs, existing water management programs, and land use plans in the Plan Area.



Discussion at the Spanish Language workshop on June 6.

The Hydrogeologic Conceptual Model (HCM) is a simplified, descriptive, conceptual representation of the Cuyama Basin's physical characteristics. The HCM provides the geologic information needed to understand how water moves through the Cuyama Basin. It describes the geology of the area, the water quality of the main aquifers, the topography, surface water, and current recharge options.

The HCM section is part of the **Basin Settings** section of a GSP which has three subsections:

1. Hydrological Conceptual Model
2. Groundwater Conditions. This section describes and presents a) groundwater trends, levels, hydrographs and level contour maps, b) estimates changes in groundwater storage, c) identifies groundwater quality issues, d) addresses subsidence and surface water interconnection.
3. Water Budget: This subsection includes a) the data used in water budget development, b) discusses how the budget was calculated, c) provides water budget estimates for historical conditions, current conditions and projected conditions.

The Groundwater Conditions and the Water Budget sections are under development now and will be discussed at future meetings and posted online when they are available.

Frequently Asked Questions

1. What is a Groundwater Sustainability Plan (GSP)?

The GSP is a “roadmap” for how the Cuyama Basin will achieve long-term groundwater sustainability. The GSP sets long-term goals and targets for the groundwater basin and begins to measure progress towards those goals. The GSP will also identify projects and management actions that will be needed to achieve or maintain sustainable groundwater conditions in the Cuyama Basin by 2040.

2. What is a Groundwater Monitoring Plan?

The monitoring of groundwater in key locations in the Cuyama Basin will be an essential tool for achieving long-term groundwater sustainability. A network of monitoring wells will be identified to track what is happening with groundwater levels through to 2040.

3. What is a Water Budget?

A water budget estimates all of the water movement and uses in the Cuyama Valley, just as a household budget looks at the money coming in and the money being spent. The water budget includes information about rainfall, surface water flows, groundwater pumping and recharge, and water use for crops and human consumption. The water budget is used to identify and evaluate what actions are needed to get the water budget back in balance by 2040.

Message from the Standing Advisory Committee (SAC)

One of the key goals of the CBGSA is to encourage the active involvement of diverse social, cultural, and economic elements of the population within the basin during the development and implementation of the GSP. The GSP stakeholder outreach process is aimed at inviting and encouraging input from local farmers, ranchers, businesses, and residents.

At the June 6 workshops, the primary topic was about sustainability and what it means for the Cuyama Valley. The discussion was interactive, as attendees were asked to share their vision for the future of the Cuyama Valley. And what sustainability means to them. There was considerable agreement among the attendees that the future has to be different.

When asked to discuss what is important to the future of the Cuyama Valley, attendees generally shared agreement in these areas:

- ✓ Balanced water use is critical. We need to stop the overdraft.
- ✓ Water is linked to jobs and a healthy environment.
- ✓ Improved water quality is important.
- ✓ Farmers need to use water efficiently. Farming practices must adjust to bring the water use into balance.

Not all of the concerns expressed about the future of water in the Cuyama Basin will be solved by the GSP. It was important that community members shared their vision for the future as this will aid the technical team in identifying groundwater management actions and projects that include community perspectives.

I invite you to join us at a future SAC meeting and the September 5 workshops (English and Spanish), 6:30 to 8:30 pm at the Cuyama Valley Recreation District. For a schedule of upcoming Board, SAC, and workshop topics, visit www.cuyamabasin.org/resources.

I encourage you to add your voice to this important planning for the future of the Cuyama.

Robbie Jaffe, Standing Advisory Committee Chair



Interactive discussion about groundwater sustainability at the English Language workshop on June 6.

SGMA Sustainable Groundwater Management 101

SGMA defines **sustainable groundwater management** as the management and use of groundwater in a

manner that can be maintained without causing undesirable results. The GSP must describe how the Valley will achieve sustainable groundwater management by 2040. The CBGSA Board, SAC, and landowners, farmers, ranchers, and residents will work together over the next few months to assist the technical experts in developing sustainable criteria for managing groundwater in the Cuyama Basin.

The sustainable criteria include the following:

Identifying Undesirable Results: SGMA defines five indicators of sustainability applicable to the Cuyama Basin:

1. **Land subsidence**
2. **Further lowering of groundwater levels**
3. **Reduction of groundwater storage**
4. **Surface water depletions**
5. **Water quality degradation**

Undesirable results occur when conditions related to any of the five sustainability indicators become significant and unreasonable. Undesirable results are defined for each sustainability indicator.

Setting Minimum Thresholds: The lowest acceptable level for each sustainability indicator without significant and unreasonable undesirable results for the Valley.

Setting Measurable Objectives: A management target that provides a usable buffer above the minimum threshold for droughts and other variables in the Valley. Sustainable conditions within a basin are achieved when the CBGSA meets the sustainability criteria and demonstrates that the basin is being operated within its *sustainable yield*. Sustainable yield can only be reached if the basin is not experiencing undesirable results. Undesirable results must be eliminated through the implementation of projects and management actions.



Figure 1 Above: Hypothetical example shows how the Minimum Threshold, Measurable Objective, Undesirable Results relate to one another over a 20 years during which the GSP is targeted to bring groundwater into balance in a given region.

Get Involved, Help Shape Your Future

1. Visit www.cuyamabasin.org for more information about GSP developments and reports
2. Attend a monthly meeting of the Board of Directors, 1st Wednesday, 4 p.m.
3. Attend a monthly meeting of the Standing Advisory Committee, Thursday preceding the first Wednesday of the month at 4 p.m.
4. Attend the next community workshops (English and Spanish language) are September 5, 6:30 to 8:30 pm, Cuyama Valley Recreation District, 4885 Primero St, New Cuyama.
5. Send an Email: tblakslee@hgcpm.com or write a letter: Cuyama Basin GSA, 4900 California Ave, Tower B, 2nd Floor, Bakersfield, CA 93309 or call during normal business hours, Monday - Friday, 9 am to 4 pm: (661) 477-3385

Attend an Upcoming Meeting

Board of Directors: **August 1, September 5, October 3**

Standing Advisory Committee: **August 30, September 27, October 25**

The Board of Directors and Standing Advisory Committee meetings are held at the Cuyama Family Resource Center, 4689 CA-166, New Cuyama. Meetings are open to the public and public comments are welcomed. Agendas, minutes, and meeting materials are available 72 hours before the meetings at www.cuyamabasin.org.