Groundwater Pumping Cap Allocation

GREATER KAWEAH GROUNDWATER SUSTAINABILITY AGENCY

GROUNDWATER ALLOCATION REGULATION WEBINAR, MAY 4, 2022
Spanish Interpretation / Traducción española

*Linguistica Interpreting & Translation*

To listen to the presentation in Spanish, click the globe icon at the bottom of your screen and select Spanish.

Para escuchar la presentación en español, haga clic en el ícono del globo terráqueo en la parte inferior de la pantalla y seleccione Español.
Zoom housekeeping

- Video and microphone is OFF for participants
- Webinar is being recorded and will be available online
- **Questions & Answers**
  - Use the Q&A to type a question at any time
  - We will address questions at the end of the presentation
- **Technical difficulties**
  - Use the Chat feature for Zoom technical assistance
What we will cover

• Brief refresher:
  • What is California’s groundwater law the Sustainable Groundwater Management Act?
  • Who is the Greater Kaweah Groundwater Sustainability Agency?
• Update on concepts currently being considered with respect to limiting groundwater pumping
• How to participate in the development of this regulation
• Update on Kaweah Water Dashboard rollout
AUDIENCE POLL
SGMA 101

- California law signed in September 2014
- SGMA mandates groundwater sustainability by 2040
- Grants local control to Groundwater Sustainability Agencies or “GSAs”
Form Agencies June 2017
Develop Plans January 2020
Implement Plans 20 years
Achieve Sustainability 2040

COMPLETED
IN PROGRESS
COMPLETED
GSA Authorities

- Implement Groundwater Sustainability Plan
- Procure surface water for replenishment
- Regulate, limit or suspend groundwater production
- Well registration, metering, reporting, monitoring
- Adopt rules, regulations, & ordinances
- Enforcement actions
- Administrative fees and assessments
The Cost of Local Groundwater Management

The Greater Kaweah GSA is the voice for our landowners, complying with SGMA and interacting with State agencies including Department of Water Resources and State Water Resources Control Board.

$ Unfunded mandate

Groundwater Sustainability Plan implementation

Assist in mitigating an estimated ~80,000 acre-feet of annual overdraft basin-wide by 2040
Groundwater Sustainability Plan (GSP)

- Physical description of groundwater management area
- Water budget
- Monitoring program and projects
- Sustainability in 20 years
- Measureable objectives / thresholds
- Annual reporting
- State evaluations for compliance – every 5 years
Sustainability Challenges

*Sustainability is defined as management and use that can be maintained during the planning and implementation horizon without causing “undesirable results,” based on “significant and unreasonable” standard.*

- Chronic lowering of groundwater levels
- Reductions in groundwater storage
- Degraded water quality
- Land subsidence
- Surface water depletions with adverse impacts on beneficial uses
- Seawater intrusion
Kaweah Subbasin
(Priority Basin)

- 3 GSAs
  - East Kaweah GSA
  - Greater Kaweah GSA
  - Mid Kaweah GSA
Greater Kaweah GSA

• Formed on August 23, 2016
• Joint Powers Agreement (JPA) of six members and partners
  • Kaweah Delta Water Conservation District, Kings County Water District, Lakeside Irrigation Water District, St. Johns Water District, Tulare County, California Water Service Company
• Led by the Board of Directors and several Committees
  • Stakeholder, Rural Communities, Technical Advisory and Basin
Greater Kaweah GSA
BOARD OF DIRECTORS

LAKESIDE IRRIGATION WATER DISTRICT
Don Mills, Chair

TULARE COUNTY
Peter Vander Poel

KAWEAH DELTA WATER CONSERVATION DISTRICT
Chris Tantau, Vice Chair

KAWEAH DELTA WATER CONSERVATION DISTRICT
Brian Watte

ST. JOHNS WATER DISTRICT
Eric Shannon

KINGS COUNTY WATER DISTRICT
Ernie Taylor

CALIFORNIA WATER SERVICE COMPANY
Stephen Johnson

STAKEHOLDER COMMITTEE
Joe Cardoza

RURAL COMMUNITIES COMMITTEE
Paul Boyer
Greater Kaweah GSA

SOME ADDITIONAL PARTICIPATING AGENCIES

City of Exeter
City of Farmersville
City of Woodlake
Consolidated Peoples Ditch Company
Farmers Ditch Company
Fleming Ditch Company
Foothill Ditch Company
Ivanhoe Public Utility District
Lemon Cove Ditch Company
Lemon Cove Sanitary District
Mathews Ditch Company
Patterson Tract Community Services District
Tract 92 Community Services District
Wallace Ranch Water Company
Get Involved

- Check the calendar and join the interested persons list for meeting details at [www.greaterkaweah.org](http://www.greaterkaweah.org)
- Quarterly Technical Advisory, Stakeholder Rural Communities and Basin Management Team committees meetings
- Board meets monthly
  - Usually 2\textsuperscript{nd} Monday of the month at 1:00 PM
- Participate in GSP implementation of projects, programs and policies
www.greaterkaweahgsa.org
Visit our website to sign up for email notices, download the Groundwater Sustainability Plan, and more.
Groundwater Pumping Cap Proposal

IDEAS AND CONCEPTS CURRENTLY BEING CONSIDERED FOR INCLUSION IN RULES AND REGS

DRAFT
Introduction

The following is a summary of PUBLIC DRAFT CONCEPTS to address the current downward groundwater trends and help achieve Sustainability in the GKGSA’s portion of the Kaweah Subbasin. This presentation contains many concepts the Board, technical and stakeholder committees, and interested persons have weighed in on over the past many months. Any part of this proposal is subject to change during the outreach and public comment period ending May 12, 2022. Please see a current draft of the Rules & Regs on our website for more detail.

Comments, questions, changes, additions and deletions are welcomed and expected.
What’s The Plan?

- Continue direct public outreach and communication
- January Board meeting issuance of a public review draft Rules & Regs for a 90-day comment period. Extended 2 weeks to May 12, 2022.
- Held several webinars, workshops, committee and Board meetings to discuss concepts and public comments received.
- Final public webinar (today), one more stakeholder committee meeting and Board meeting
- Adopt Rules & Regs which include the groundwater pumping cap in late May or early June 2022. Full implementation starting October 1, 2022.
- Emergency action was considered if monitoring showed risk of state intervention resulting in moving up implementation to Spring 2022 but the Board did not take action to do so.
Summary of Board Position Changes as a Result of Public Comments Received to Date

• The Board will direct Legal Counsel to perform non-substantive clean-up of the document to address comments received from Mark Larsen.

• The Board is supportive of transfers of groundwater between GSAs by the same entity or enterprise on a case-by-case basis through negotiation of form of agreement deemed acceptable by Legal Counsel.

• The Board’s new position on Sustainable Yield leave behind when carryover occurs is that 10% (or ~1”) be left behind in the first year and to no longer require a leave behind percentage for carryover in multiple years.

• The Board maintains its intent to implement the allocation regulations effective October 1, 2022.
Summary of Board Position Changes as a Result of Public Comments Received to Date

• Section(s) pertaining to public water systems and other special user categories will not be included in the document and will instead be addressed through separate policy documents and/or agreements.

• The Board is supportive of using a report by 4-Creeks and Milk Producers that estimates dairy facility net groundwater use.

• The Board has set the Pumping Cap at 2.75 af/ac of ET based upon technical evaluation and the GSP goal of 5% addressment of overall overdraft in first 5 years.
Groundwater Pumping Cap At A Glance

- Prohibited Tier 3
- Tier 2 Temp GW Supply
- Tier 1 Temp GW Supply
- Sustainable Yield Supply
- Surface Water Supply

Monitory penalty as well as severe reduction in future access to SY and Tiers 1 & 2 Temporary Groundwater Supplies.

Possibility of limited “Carryover” (i.e. from year to year), limited spatial transferability of use from one property to another and at diminished volumes.

Tiers 1 & 2 voluntary and priced in increasing cost per acre-foot of temporary tier groundwater pumped. Max tier volumes to decrease over 20yr sustainability period.

Sustainable Yield groundwater supply (currently 10” as adopted in Kaweah GSPs) at NO COST.

Access to surface water only through districts and ditch companies - must coordinate with those entities directly.

* Managed Aquifer Recharge (MAR) accounted for separately.
• Intentional groundwater recharge activities to be accounted for separately and credited

• Anticipates an **annual allocation** of groundwater on a gross assessed acreage basis, however allocation in multi-year blocks (possibly temporary) is still being evaluated and considered.

• Does not (yet) apply to public water systems. Have a plan.

• Landowners allocated the Sustainable Yield – Currently about **10 inches** (based on 1997 to 2017 average water year) without any charges.

• Tiered groundwater is being offered as **temporary** and **optional**

• Total pumping caps (SY plus Tier 1 and Tier 2) of **2.75 af/ac** being evaluated. Increases and reductions to be split equally between Tier 1 and Tier 2.

• All assessed acreage under this regulation is treated equally with the exception being undeveloped land. Some non-assessed acreage will require special agreements with landowners.
Groundwater Pumping Cap Detail (2 of 8)

• Proposed “Tier” System
  • **Tier 1**: the first half of the temporary Tier Pumping. $75 per AF to start. Amount set annually by the Board. Carryover and transferability have restrictions (next slide)
  • **Tier 2**: the second half of the temporary Tier Pumping. $125 per AF to start. Amount set annually by the Board. Carryover and transferability have restrictions (next slide)
  • **“Prohibited Tier”**: is when pumping occurs in excess of the cap. $500 per acre-foot, and an aggregate 1:1 reduction in future allocation in the following year(s).
  • Tier Pumping will be reduced over time for all users consistent with the 5-year interim period percentages adopted by the Board and described in the GSP
  • Managed Aquifer Recharge (MAR) credits to be allowed in a separate tier or accounting bucket. Same with recycled water.
“Carryover” of GW: how long can you keep the allocation?

• Need to be sensitive to surface water users and not force them to pump.

• Maximum of 5-years rolling for Sustainable Yield supply with a one-time 10% leave behind of whatever the current balance is.

• Maximum of 5-years rolling for Tier 1 & 2 supply with an annual 10-20% leave behind.

• >2015 previously undeveloped lands no access to Tier water
"Transferability" of GW: moving it from one place to another

- SY and both tiers may be transferred.
- Online water dashboard monitored.
- Allowable within a 3 to 5-mile radius (case by case) from a well. Properties without wells calculated by centroid of the parcel.
- All transfers may require installation and reporting of metered data.
- After 5 years, loss of transferability of Tier 2 will occur. Tier 1 loss of transferability will occur in future years.
Groundwater Pumping Cap Detail  (5 of 8)

**Measuring Pumping & Credits:**

Strive for rapid movement towards meters with remote sensing oversight, but will measure and invoice on ET. Voluntary action (C&T) may require reporting metered data.

- ET is not necessarily equal to Pumping but an immediate solution necessary to early implementation.
- Measuring actual pumping addresses all undesirable results and encourages efficient use of groundwater.
- Well fields/Dairy/Industrial/Netted Orchards, etc. will be prioritized for installation of well meters/estimated differently as remote ET monitoring is problematic.
Groundwater Pumping Cap Detail  (6 of 8)

**Measuring Pumping & Credits:**

Accounting and burden of proof in all cases should primarily be the responsibility of surface water providers (MAR and other credits) and overlying pumpers of groundwater. Credits will require additional surface water instrumentation.

- Developing an online Water Dashboard (leveraging ILRP systems) – initial launch scheduled for Summer 2022
- An appeals process (via Technical Group) will be established to dispute ET and pumping estimates, among other disputable issues
Groundwater Pumping Cap Detail (7 of 8)

**Drinking Water Pumping:**

- Local public water systems are estimated to use on average 1.2 to 1.4 af/ac

- Still working with stakeholders to ID equitable options for public water systems to have financial skin in the game and incentive to conserve.

- None of the GSAs are contemplating immediate oversight or regulation of domestic wells, although the GKGSA’s GSP does describe a well mitigation program that has yet to be defined and the GSA continues to evaluate domestic pumping demand.
Possible Uses of Extraction Fees:

• Tier pricing requires careful consideration in order to not generate more revenue that there is a need for

• GSP Projects & Management Actions (Section 7) is the first place to look for expenditure of funds

• Public process will define other uses

• Some specific ideas under discussion include temporary/permanent land retirement, water conservation incentive programs, possible purchase of surface water and coordinated activities with other efforts such as ILRP
A Reminder of Next Steps

• Final public webinar (today), one more stakeholder committee meeting and Board meeting

• Adopt Rules & Regs which include the groundwater pumping cap in late May or early June 2022. Full implementation starting October 1, 2022.
Your Next Steps

• Participate in upcoming meetings and workshops
• **Submit formal written comments** for consideration during the official 90-day (extended) public comment period. Email info@greaterkaweahgsa.org
• Stay engaged!
  • Visit our webpage [www.greaterkaweahgsa.org/pumpingcap](http://www.greaterkaweahgsa.org/pumpingcap)
  • Sign up for email notices & updates on our website
  • Call/text questions at (559) 302-9987
• Help get the word out about activities of the GSA
• Create your account in the Kaweah Water Dashboard this summer
Kaweah Water Dashboard

The Kaweah Water Dashboard is a tool that empowers landowners to strategically respond to SGMA. The Dashboard delivers key water use insights at the farm level while tracking owner-specific water information associated with SGMA compliance.
Kaweah Water Dashboard

**PHASE 1**
View historical evapotranspiration (ET) at the field level.

- Landowners can understand ET in the context of your farm operations and groundwater use
- GSAs can track ET in relation to new groundwater allocation and pumping cap policies

**COMING SUMMER 2022**

**PHASE 2**
Landowner water bank account.

- Landowners can actively and efficiently manage groundwater and surface water supplies within the context of SGMA
- GSA managers access full accounting of water in the subbasin and groundwater billing

**PHASE 3**
Water trading.

- Landowners can maximize profitability and optimize long-term asset planning
- Maximum flexibility for landowners under SGMA
- Achieve sustainable groundwater use
Kaweah Water Dashboard

PHASE 1 BENEFITS

Water Use Insights
Landowners who create an account can view current and historical evapotranspiration (ET) data. Growers can compare their measured ET data relative to the Greater Kaweah GSA’s pumping cap.

Accurate Evapotranspiration Measurements
Land IQ data used to measure consumed water is highly accurate. The data is collected using remote sensing images paired with robust ground station data and direct image analysis. Remote sensing data is ground-truthed using localized field stations, rain gauges, and soil moisture sensors, measuring within 5-7% of actual use.

Flexible Account Set-Up
A dedicated landowner engagement process is ongoing during the development of the Kaweah Water Dashboard to ensure its features best suit the needs of local landowners. The Dashboard is being developed with the diversity of farm company structures in mind, providing flexibility with account set-up and information sharing between user groups.
Request to Join Early Enrollment Group for Phase 1 in May!  

Kaweah Water Dashboard

Kaweah Water Dashboard Early Access

Sign up to request early access to Phase 1 of the Water Dashboard. The development team will email you mid-May with further instructions.

* Email

* First Name

* Last Name

By submitting this form, you are consenting to receive marketing emails from: Provost & Hoard Consulting Group, 208 W. Corrington Ave, Fresno, CA 93711. You can revoke your consent to receive emails at any time by using the SafeUnsubscribe link found at the bottom of every email. 

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Water Dashboard

Kaweah Water Dashboard

The Water Dashboard is a tool that empowers Kaweah Subbasin landowners to strategically respond to the Sustainable Groundwater Management Act (SGMA). The Dashboard delivers key water use insights at the farm level while tracking owner-specific water information associated with SGMA compliance.

www.gsawd.com
AUDIENCE POLL
Thank you!
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info@greaterkaweahgsa.org

QUESTIONS?