Groundwater Allocation Program

GREATER KAWEAH GROUNDWATER SUSTAINABILITY AGENCY

GROUNDWATER ALLOCATION PROGRAM WORKSHOP | OCT 12, 2022
Spanish Interpretation / Traducción española

Reyna Rodriguez, *Linguistica Interpreting & Translation*
Housekeeping

Welcome & Introductions

Restroom & Refreshments

Questions & Comments
  • Following the presentations, please step up to the microphone stand to ask your question
  • You can also fill out one of our comment cards and request GKGSA staff follows up with you via phone or email
What we will cover

<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:05 – 4:25 PM</td>
<td>GKGSA Rules &amp; Regulations, Groundwater Allocation Program</td>
</tr>
<tr>
<td>4:25 – 4:40 PM</td>
<td>Kaweah Water Dashboard Overview and Demo</td>
</tr>
<tr>
<td>4:40 – 5:00 PM</td>
<td>Q&amp;A Panel</td>
</tr>
<tr>
<td>5:00 – 6:00 PM</td>
<td>Dashboard account set-up support</td>
</tr>
</tbody>
</table>
GKGSA Rules & Regulations, Groundwater Allocation Program

Eric Osterling,
Greater Kaweah GSA
SGMA 101

California law signed in September 2014

SGMA mandates groundwater sustainability by 2040

Grants local control to Groundwater Sustainability Agencies or “GSAs”
Kaweah Subbasin (Priority Basin)

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

AGENCY MAP
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.

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

- **Tier 2 Temp GW Supply**: Possibility of limited “Carryover” (i.e. from year to year), limited spatial transferability of use from one property to another and at diminished volumes.

- **Tier 1 Temp GW Supply**: 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 Supply**: Sustainable Yield groundwater supply (currently 10" as adopted in Kaweah GSPs) at **NO COST**.

- **Surface Water Supply**: Access to surface water only through districts and ditch companies - must coordinate with those entities directly.

* Managed Aquifer Recharge (MAR) accounted for separately.
Groundwater Pumping Cap Detail  (1 of 8)

• 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

• Webinar happening TOMORROW from 12:00 – 1:00 PM
• Set up your account on the Water Dashboard to visualize your farm’s water use data
• Stay engaged!
  • Visit our webpage www.greaterkaweahgsa.org/allocation
  • Sign up for email notices & updates on our website
  • Call/text questions at (559) 302-9987
• Help get the word out about GKGSA activities
Kaweah Water Dashboard

Savannah Tjaden, Provost & Pritchard
Kaweah Water Dashboard

- Your Kaweah Subbasin SGMA portal
- Field and parcel water use data
- Inform business and family decisions
Phase 1 Goal

Help landowners understand their ET data in the context of their farming operations

We asked landowners to help us understand what they need to be successful

Two key questions to answer:

- What are the rules?
- How much water am I using?
Key Questions

- What are the rules? (GSA)
- How much water am I using? (Water Dashboard)
LAND IQ ESTIMATES TOTAL CONSUMED WATER

**Applied/Received Water**
The amount of water applied to the field can be measured by gauges or meters.

- Surface Water
- Groundwater
- Precipitation

**Consumed Water**
The amount consumed is what is used by the crop.

The remaining is usually returned to the groundwater system and is a function of the efficiency of the irrigation management.
Groundwater allocation (AF) = \( xx \text{ af/parcel acre} \times \text{ parcel acres (assessed/deeded)} \) of Parcel 1

Total ETa (AF) of Parcel 1 = (Field A ETa \( \text{ af/ac} \) \times Field A acres) + (Field B ETa \( \text{ af/ac} \) \times Field B acres)…
REQUIRED STEPS

1. Create a user profile
2. Create a water account
   a) Add parcels to the water account
   b) Verify spatial data is correct

OPTIONAL STEPS

1. Build your farm map
   a) Create fields
   b) Group fields

https://www.gsawd.com
Water Dashboard Demo
A Reminder of Next Steps

• Set up your account on the Water Dashboard
• Field boundary modifications ETA November
• We are working with surface water providers to get your surface water data into the Dashboard
Thank you!
Greater Kaweah GSA
www.greaterkaweahgsa.org
(559) 302-9987
info@greaterkaweahgsa.org

Q&A PANEL

Leave your feedback and comment card at the sign-in table before you go