

**RESOLUTION NO.2022-05**  
**OF THE BOARD OF DIRECTORS OF THE GREATER KAWEAH GSA**

**IMPOSITION OF GROUNDWATER EXTRACTION PENALTIES**

**WHEREAS**, the Greater Kaweah Groundwater Sustainability Agency Joint Powers Authority (“GKGSA” has adopted and submitted to the Department of Water Resources a Groundwater Sustainability Plan (“GSP”) and 2022 Amended GSP pursuant to the Sustainable Groundwater Management Act of 2014 (“SGMA”) which outlines various plans and management actions to reach sustainability by 2040;

**WHEREAS**, Water Code Section 10726.4(a)(2) provides that a GSA is authorized to control groundwater extractions by limiting or regulating groundwater extractions;

**WHEREAS**, Section 7.3.9 of the 2022 Amended GSP contemplates the imposition of penalties for excessive groundwater extraction as a disincentive for pumping;

**WHEREAS**, the GKGSA has determined that the consumptive use of groundwater by water users within its boundaries in excess of the Sustainable Yield Allocation as described in the GKGSA Rules and Regulations, without mitigation, may impede GKGSA’s ability to achieve sustainability;

**WHEREAS**, in order to achieve the decrease in groundwater extraction necessary to achieve sustainability under the GSP, the GKGSA desires to (1) limit extraction and consumptive use of groundwater to the Sustainability Yield Allocation, and (2) disincentive pumping in excess of the Sustainable Yield Allocation by imposing penalties for such extractions;

**WHEREAS**, Section 5.01 of the GKGSA Rules and Regulations provides that three categories of penalties shall be imposed for groundwater extraction and consumptive use in excess of the Sustainable Yield Allocation Tier 1 and Tier 2 Penalty Allocation and Tier 3;

**WHEREAS**, Section 5.01(a) of the GKGSA Rules and Regulations further requires the GKGSA’s Board of Directors to establish a Tier 1, Tier 2 Penalty Allocation and Tier 3 penalty for the Greater Kaweah Management Area on an annual basis;

**WHEREAS**, the penalties imposed herein shall be imposed only to those irrigated parcels located within the Greater Kaweah Agricultural Management Area;

**NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE GREATER KAWEAH GROUNDWATER SUSTAINABILITY AGENCY DOES HEREBY RESOLVE, DETERMINE AND ORDER AS FOLLOWS:**

The following penalties for excessive groundwater extraction and consumptive use within the boundaries of the Greater Kaweah Management Area are as follows:

1. \$125 per acre foot for Tier 1 Penalty Allocation;
2. \$250 per acre foot for Tier 2 Penalty Allocation
3. \$500 per acre foot for Tier 3.

BE IT FURTHER RESOLVED that the General Manager shall provide notice of the above-described penalty rates as required by Section 5.04.

PASSED AND ADOPTED this 27<sup>th</sup> day of September, 2022 by the following vote:

AYES: Mills, Shannon, Tantau, Taylor, Vander Poel, Watte, Boyer, Mendoza, Mauritson

NOES:  
NONE

ABSTAIN: NONE

ABSENT:  
Johnson,  
Cardoza

APPROVED:

  
\_\_\_\_\_  
Don Mills, Board Chair

I hereby certify that the foregoing is a full, true and correct copy of the Resolution adopted by the Board of Directors of the GKGSA at its meeting held on September 26, 2022.

ATTEST:

  
\_\_\_\_\_  
Eric Osterling, Board Secretary



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## **GKGSA BOARD MEETING – SEPTEMBER 27, 2022**

### **AGENDA ITEM #9A**

#### **WATER YEAR 2023 ALLOCATIONS**

The following staff report is prepared by GKGSA staff, including its consulting engineer in combination with the consulting engineer's hydrogeologist and Land IQ. The purpose of the staff report is to announce the Water Year 2023 (October 1-September 30) Sustainable Yield, Tier 1 and Tier 2 Penalty Allocations for the Greater Kaweah Agricultural Management Area. The following is based on the GKGSA 2022 Amended GSP, the GKGSA Rules and Regulations, as well as other technical data for the Kaweah Subbasin.

- Sustainable Yield Allocation is 0.83 acre-feet/acre
- Tier 1 Penalty Allocation is 0.83 acre-feet/acre
- Tier 2 Penalty Allocation is 1.04 acre-feet/acre
- The combined total for Sustainable Yield, Tier 1 and Tier 2 is 2.70 acre-feet/acre

#### **Consumptive Allocation**

For the Water Year 2023, GKGSA will track groundwater use through a "consumptive use" model utilized by Land IQ. The foregoing allocations are based on consumptive use, and are not based on physical extractions of groundwater. For those Owners opting to use meters, as opposed to Land IQ, metered data will be reconciled as outlined in the GKGSA Rules and Regulations to account for the difference between consumption and metered data. It is estimated that the allocation of 2.70 acre-feet/acre of consumption would equal approximately 3.18 acre-feet/acre of extracted groundwater only, if assuming 85% efficiency.

#### **Sustainable Yield**

The Sustainable Yield allocation has been agreed upon throughout the Kaweah Subbasin. Further analysis can be found in the GKGSA GSP, and specifically the Kaweah Subbasin Coordination Agreement.

#### **Tier 1 and Tier 2 Penalty Allocations**

Tier 1 and Tier 2 Penalty Allocations are based on a ramp down schedule by reducing overdraft groundwater pumping gradually until reaching sustainable pumping by 2040 as required by SGMA. To

establish the GKGSA’s overdraft pumping, first the irrigated agricultural demand was calculated. To estimate the historical and approximate baseline for agricultural demand and groundwater pumping within the GKGSA data used in the development of the Basin Setting and Water Budget for the 2020 Groundwater Sustainability Plan (**GSP**) and following Annual Monitoring Reports (**AMR**) for the 2019 – 2021 water years was reviewed. The primary data sets available for use in this review are the Applied Water estimates and surface water delivered. Within the GSP, values for each of these are available back to Water Year 1981 (October 1, 1980). Much of the Applied Water estimates are based on soil moisture modeling provided by Davids Engineering. This method estimates the gross water applied intending to account for irrigation efficiencies within the area. The Davids Engineering methodology was utilized through Water Year 2020 (September 30, 2020). In Water Year 2021 (October 1, 2020 – September 30, 2021) the Kaweah Subbasin utilized data from LandIQ which reports the consumed ET value of the crop. The surface water data utilized from the GSP and AMRs is a total value made of surface water sources including the Kaweah River, Friant Division Central Valley Project (CVP), and recycled effluent. Due to the lack of granularity in the surface water data set, surface water delivery can only be averaged across estimated acreages for which it is applied.

Both the Davids Engineering and LandIQ data sets do not differentiate between groundwater and surface water to meet crop demand. The first analysis to provide an understanding of the overall agricultural demand within the GKGSA does not make an attempt to differentiate between how much of the demand was met by groundwater and the amount met through surface water. It was assumed that crop demand is relatively consistent and that absent surface water (in dry years) more of the demand would have to be met with groundwater. After this initial evaluation, incorporating surface water was done to understand total groundwater overdraft within the GKGSA.

To understand the historical and current baseline of the approximate groundwater pumping intensity within the GKGSA, utilizing surface water delivery data is incorporated over the same period of interest. The GKGSA Rules and Regulations provide for a total 10% reduction in transitional pumping for WY 2023, broken down between Tiers 1 and 2 by the following percentages as outlined in the table below. Utilizing the effective period of SGMA to date of available data, or 2015-2021, the following analysis shows:

1	2	3	4	5	6	7
	Avg. GW Pumping	Native Supply	Remaining	Tier 1 (40%)	Tier 2 (50%)	Total
1997-2017	2.91	0.83	2.08	0.83	1.04	2.70

# Summary of Fees for WY 2023

At the September 27, 2022 Special Meeting of the GKGSA Board of Directors, the following was set for Water Year 2023 (October 1, 2022 – September 30, 2023):

Tier 1 Penalty Allocation: \$125/acre-foot of ET

Tier 2 Penalty Allocation: \$250/acre-foot of ET

Penalty (pumping above 2.70 af/ac): \$500/acre-foot of ET and 1:1 loss of future allocation