

RE: **GROUNDWATER PUMPING “CAP” POLICY**

County of Kings
City of Hanford
Kings County
Water District

AN MKR GSA POLICY TO LIMIT GROUNDWATER PUMPING AND SIGNIFICANTLY REDUCE UNDESIRABLE RESULTS. The policy hereby contains as follows:

BACKGROUND

Barry McCutcheon
Chair

Michael Murray
Vice-Chair

Diane Sharp

Steven P. Dias

Dennis Mills
Secretary

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I. The Mid-Kings River GSA (MKR GSA) is committed to sustainably managing groundwater in its jurisdictional area, consistent with views of significant and unreasonable undesirable results as set out in the Tulare Lake Subbasin’s Groundwater Sustainability Plan (TLS GSP).

II. MKR GSA is tasked with improving the conditions of all groundwater users over GSP Implementation Period (2020-2040) by modifying conditions such that undesirable results are eliminated and groundwater use is reliably sustainable by the end of the period.

III. Kings County Water District has observed through their groundwater monitoring network in the GSA area that local groundwater levels have declined by roughly two (2) feet per year on average since the 1950s. This is what the MKR GSA generally considered the pre-SGMA area groundwater conditions.

IV. The MKR GSA understands that it is charged with eliminating long-term declining groundwater levels and subsidence through the SGMA Implementation Period. There are three primary aquifers in the area, however not all are present at every location. In the far northeast, there is generally just one aquifer. Further southwest, the Corcoran Clay is present and creates an unconfined/semiconfined aquifer above it (B-zone) and a confined aquifer below (C-zone). On the west side of the MKR GSA there is a very shallow perched aquifer (A-zone), then deeper down there is the previously mentioned semiconfined aquifer above the Corcoran Clay (B-zone) and the confined aquifer below the Corcoran Clay (C-zone).

V. Over pumping from, or pumping that causes groundwater levels to reach new low levels, in the shallow perched aquifer (A-zone, generally west of the railroad) and the unconfined/semiconfined aquifer above the Corcoran Clay (B-zone) is understood to be the most significant cause of dry shallow rural domestic wells in the MKR GSA.

VI. Over pumping from, or pumping that causes groundwater levels to reach new low levels, in the confined aquifer below the Corcoran Clay (C-zone) is understood to be the most significant cause of subsidence in the MKR GSA area. It is also understood that there is a small component associated with groundwater storage reductions (overdraft) in the semiconfined aquifer above the Corcoran Clay (B-zone).

VII. For many years, there used to be surface water that was available for local use from the State Water Project (SWP) and the Friant-Kern Canal (FKC) for use in above average years. This supply seemed to diminish over time and now is rare. Also for many years, KCWD tried to obtain a contract from the SWP for a planned facility called the Mid-Valley Canal. However, this 20-30 year effort was abandoned around 2015 when it became clear that the State would never make such supplies available.

VIII. Many years ago, the MKR GSA area was once known for cotton production. However, this changed as many dairies moved into the area and crops shifted. Over the last two decades, many local agricultural businesses have transitioned to more profitable permanent crops that require more water to grow and have hardened water demand so that fallowing in dry years is less frequent. Also, it should be mentioned that during the transition to dairies and permanent crops, local businesses chose to put historically marginal properties into production with a hardened water demand regardless of surface water availability.

IX. In recent years the MKR GSA understands that annually there is roughly 30,000 acre-feet of combined rural domestic and municipal (Hanford, Armona and Home Garden) groundwater pumping, while having roughly 218,000 acre-feet of agricultural pumping. This has led to an annual overdraft of roughly 50,000-70,000 acre-feet per year in dry to critical dry years.

X. During recent droughts, the MKR GSA has observed that the need to deepen wells has been very expensive for local well owners and the need to drill deeper wells has overwhelmed the capacity of available local drillers during drought periods. Both the California Department of Water Resources (DWR) and the State Board (State agencies involved in Groundwater Sustainability Plan (GSP) compliance) are very focused on this issue and how it can be resolved in the Tulare Lake Subbasin. Agricultural pumping is viewed as the most significant contributor to groundwater overdraft during droughts. However many of the shallowest wells in the area are rural domestic wells.

XI. In the MKR GSA the largest surface water supply is from the Kings River. These surface water supplies from through Peoples Ditch Company, Last Chance Water Ditch Company, Lemoore Canal & Irrigation Company and Alta Irrigation District. Lakeside Ditch Company also delivers surface water from the Kaweah River in a portion of the MKR GSA. These supplies mostly offset agricultural demands when they are available, but they also go to intentional groundwater recharge.

XII. In the MKR GSA area there are agricultural groundwater pumpers that are using surface water to offset their total agricultural demand, and there are groundwater pumpers that are only using groundwater for their total agricultural demand. Some groundwater only pumpers are choosing to not use surface water and others are having difficulty developing facilities that would allow them to contract for surface water supplies. Also there are some areas, like Last Chance Water Ditch Company's southern area and Lakeside Ditch Company, that do not receive any surface water in the driest years.

XIII. The MKR GSA views that it is not in the jurisdiction of the GSA to define groundwater rights or somehow transform surface water amounts into groundwater rights. The MKR GSA views its responsibility as estimating the amount of groundwater that can sustainably be pumped

in the area given current conditions. The current policy goal is to begin the transition towards sustainable groundwater use in the area by eliminating a significant amount of overpumping. As conditions change throughout the area and more is learned about groundwater responses to management strategies, the GSA's view of sustainable pumping will be refined.

XIV. In several south valley GSAs there are evapotranspiration (ET) based transitional pumping plans or pumping allocations. Several of these plans have been reviewed and each of them seems to build in significant assumptions and views on surface water and groundwater components in order to avoid monitoring pumping directly. Often the views on surface water and groundwater are simplified so much that all inputs and outputs are considered in a "black box" which doesn't reflect the properties of local geology or aquifer systems. Some examples of such simplification are ignoring whether recharge and recovery are happening in the same aquifer, whether allocations that apply across multiple aquifers will avoid the pumping issues in each aquifer (shallow dry wells, or subsidence), whether the lateral distance between recharge and recovery is significant (lateral velocity of groundwater flow), the general direction of groundwater flow and whether components like precipitation should be viewed as additive to local groundwater or not.

XV. The MKR GSA views that totalizing groundwater flowmeters are helpful management tools for all landowners, and provide valuable direct measurement information that is very difficult to estimate through other indirect means.

EXCLUSIONS

XVI. Groundwater pumping from groundwater banks.

XVII. Groundwater pumping related to GSA permitted recharge efforts.

XVIII. Wells that are primarily rural domestic and pump less than two (2.0) acre-feet/year.

XIX. Lands outside of the MKR GSA cannot be used as justification for allowable pumping inside the MKR GSA area, as those lands are under the jurisdiction of another GSA and may also be in another subbasin.

GROUNDWATER PUMPING "CAP" POLICY

A. ALLOCATION TIMEFRAME

The MKR GSA staff will attempt to develop annual allocations on or before April 1 of each year. Allocations may need to change as additional information is obtained, in ongoing efforts to transition toward sustainability. The "cap" amount will apply to the period of April 1 of one year, to March 31 of the next year. This period is being selected to allow for the evaluation of fall to fall groundwater contours for the previous year (estimate of annual overdraft), as well as the observation of the precipitation through the winter's wettest months.

B. MEASUREMENT

The Groundwater Pumping "Cap" will be measured using a totalizing groundwater flow flowmeter, consistent with the requirements in the MKR GSA Groundwater Well Flowmeter

Policy. If an issue develops with any flowmeter, Land IQ ET information along with several conservative assumptions on use, will be used to fill in volumetric pumping gaps.

C. PUMPING CAPS PER AQUIFER ZONE

In 2024, there will be no differentiation between surface water area and groundwater only areas. To be clear these zones are not additive on a per acre basis.

- 1) A-Zone = 0.50 acre-feet per acre per year (AF/AC/yr)
- 2) B-Zone = 3.00 AF/AC/yr
- 3) C-Zone = 2.00 AF/AC/yr

For wells that are screened across multiple zones, if 80% of perforations or more are in one zone, the well's groundwater pumping "cap" will reflect that zone. The most common occurrence of this will likely be screening in both the B & C zones. In this case the total "cap" shall reflect a percentage of each zone (40% of perforations in the B-zone & 60 % of perforations in the C-zone = $(40\% \times 3.00) + (60\% \times 2.00) = 2.4$ AF/AC/yr) and shall not be greater than largest zone "Cap" involved.

Also, the MKR GSA is aware of some properties where there are a mixture of shallow wells and deep wells.

- An example might be a 40-acre property with one shallow well in the A-zone, one well in the B-zone and a third well in the C-zone. If the B-Zone well is used to irrigated the entire 40 acre field, then 120 AF/yr is available $3.0 \text{ AF/AC} \times 40 \text{ AC}$ through that well, but the A and C-zone wells cannot be pumped.
- Another example might be a 40-acre property with one shallow well in the A-zone, one well in the B-zone and a third well in the C-zone. In this example 20 acres of the field is dedicated to the B-zone well and 20 acres of the field is dedicated to the C-Zone. In this case, the two B-zone wells could be used to recover a total of $(3.0 \text{ AF/AC} \times 20 \text{ AC}) 60 \text{ AF/yr}$, while the C-zone well could recover $(2.0 \text{ AF/AC} \times 20 \text{ AC}) 40 \text{ AF/yr}$, but the A-zone well cannot be pumped.

D. CARRYOVER

Under this kind of groundwater pumping "Cap", unused portions of pumping below the "Cap" will not carried over. They will reflect a maximum amount of pumping allowed. The "cap" reflects the estimated amount of groundwater that can sustainably be pumped in a critical dry year. It is assumed that in years outside of the critical dry year, that landowners will use less groundwater as more surface water will be available. However, if landowners choose to use the full "Cap" amount every year, the "Cap" amount will have to be reduced accordingly in the future.

E. GROUNDWATER PUMPING FEES

Landowners with flow meters will be charged a per acre-foot for all groundwater pumped consistent with the aquifer zones the wells draw from consistent with the yearly Board approved fee rates as authorized through the Prop 218 proceedings. Landowners without flow meters on

their wells (direct measuring devices) will require additional staff efforts and information from the landowner to calculate groundwater pumping. Due to this, landowners without flow meters will be charged an additional 5% on their estimated pumping to recover agency costs. Also, if landowners do not provide surface water use information to the GSA in a timely fashion, bills will be generated based on the total use of the field will be issued.

If groundwater pumping fees are not paid in a timely way to the GSA, a penalty will be levied on the individual related to collection of funds, or an injunction will be sought to prohibit groundwater pumping until the outstanding fees are paid.

Both DWR and the State Board have expressed concerns about the financial viability of local GSAs to accomplish the commitments made in their GSPs. The pumping fee will be the primary financial tool to fund portions of the efforts of the local GSA. Without a viable revenue stream for the local GSA, the State may find the area probationary and eventually start leveeing their own fees and eventually an Interim GSP that would manage groundwater pumping.

F. GROUNDWATER PUMPING PENALTIES

If a groundwater pumper exceeds his/her annual pumping “Cap”, the amount of exceedance will be used to reduce the following year’s “Cap” amount. The amount of exceedance will also have a penalty of \$500/AF, as it is understood that this kind of pumping may create undesirable results that require mitigation.

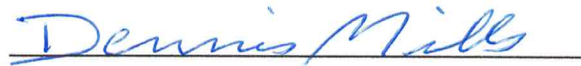
SEVERABILITY

If any section, sub-section, sentence, clause or phrase of this Policy is held by a court of competent jurisdiction to be invalid, such decision shall not affect the remaining portions of this Policy. The MKR GSA Board of Directors hereby declares that it would have passed this Policy, and each section, sub-section, sentence, clause, and phrase hereof, irrespective of the fact that one or more sections, sub-sections, sentences, clauses and phrases be declared invalid.

EFFECTIVE DATE

The Policy shall take effect as of April 1, 2024, and shall be published by title and summary on the MKR GSA’s website together with the names of members of the MKR GSA Board of Directors voting for and against the same.

Respectfully submitted for your consideration,


Dennis Mills, General Manager

Vote of all Directors at the regular March 26, 2024 meeting:

AYES: Barry McCutcheon, Ernest A. Taylor, Diane Sharp

NOES: None

ABSTAINED: None

ABSENT: None

Cc: Ray Carlson, MKR GSA Attorney