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Eric Osterling  
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VIA EMAIL: [eosterling@greaterkaweahgsa.org](mailto:eosterling@greaterkaweahgsa.org)

### **Re: Comments on Draft Rules and Regulations**

Dear Mr. Osterling,

Lindsay Strathmore Irrigation District (LSID) appreciates the opportunity to comment on the draft rules and regulation for the Greater Kaweah Groundwater Sustainability Agency (GKGSA). Given the minimal hydrology since 2020, the plummeting groundwater levels, and the recent Incomplete Determination of the Kaweah Subbasin Groundwater Sustainability Plans (GSPs) time is of the essence to quickly move towards reducing the overuse of groundwater within the Kaweah Subbasin (KS).

Article II, Section 2.01 – Well Registration.

1. LSID believes Tulare County should modify their well ordinance to add the well registration requirements the GKGSA is seeking as part of the well permitting process.
2. LSID recommends that even if meters are required in the future to participate in a permanent market, that individual entities be allowed the choice to continue utilizing the Land IQ method for determining total irrigation demand for any calculation of water available for carryover or marketing.

Article II, Section 2.02 – Groundwater Use Measurement

1. To better coordinate with the EKGSA, the ET data provided by Land IQ should be the default method for the calculation of crop demand until such time that a metering program can be proven to be a reliable way to determine groundwater use. There are numerous opportunities to manipulate water meter data to show reduced deliveries.
2. LSID disagrees with the requirement that a well be registered and metered to qualify to assign groundwater credits as provided for in Section 4.03(c). (E.G. LSID owns approximately 1,200 acres of property within the GKGSA the majority of this property is non-irrigated pasture with little to no groundwater use other than for livestock water provided by small submersible wells in certain year types. Some of the parcels have no operable wells, but LSID fully intends to utilize our Native allocation which may include potential assignment or exchanges and the rules as currently written would deny LSID that ability). LSID recommends GKGSA revise this requirement to include the use of Land IQ ET data to verify usage on the landowner wishing to assign groundwater credits.
3. To allow time for the on-going Fresno State led Groundwater meter and well monitoring program study to be completed, in addition to allowing time for Land IQ to complete their current citrus and non-

irrigated land studies to increase accuracy, LSID offers the following suggestions to the Rules and Regulations.

- a. The metering method should not be required to be part of a transfer market until at least the 2025 update of the GSP is completed unless a landowner desires to challenge the Land IQ ET data.
  - b. A landowner who can verify they do not have an existing operational well on a parcel whether irrigated or not should be exempted from the metering requirement and allowed to participate in the transfer market.
  - c. A landowner who can verify their parcel is fallowed or non-irrigated in the current water year should be allowed to participate in the transfer market until at least the 2025 update.
4. Well Registration can be reviewed as part of the 2025 GSP update and/or may be required as part of any permanent transfer market that might be established after the Groundwater Marketing Study and/or permanent plan is completed.

#### Section 3.02 On-line Accounting Dashboard

1. The dashboard being developed needs to be utilized by all three GSAs in a common format in the Kaweah Subbasin.

#### Section 3.03 Categories of Water

1. To better coordinate with EKGSA, LSID suggests adding a rainfall credit to the Categories of Water. In developing the rules and regulations for the EKGSA, the technical committee developed an initial method to account for the ET that may occur on a parcel due to the actual rainfall received on that parcel throughout the water year. Currently the EKGSA is providing for a credit of 80% of the actual rainfall on each irrigated parcel with data provided by Land IQ. The other 20% of actual rainfall is currently already accounted for in the Native Supply calculation of the KS. LSID suggests that this credit be available to cover ET only on the parcel on which it is credited to and should not be allowed to be moved or assigned to another parcel, but if a rainfall credit occurs in a month that is larger than the calculated ET for that month, then the credit should carry forward to the next month and be the first water used against the ET in the following month. (E.G. Over 5 inches of rain fell near the end of December 2021. More than enough to cover the ET of the citrus demand in LSID. No significant rainfall occurred in January and the month was dry and warmer than normal. LSID landowners made little to no irrigation deliveries by surface water or well water in January, but Land IQ will show ET occurred. The ET was generated from direct evaporation and/or the crop utilizing the soil moisture caused by the late rainfall in December.)
2. LSID requests that the GKGSA consider an additional groundwater credit category that can be generated by the return flow of irrigation water that is from a surface water source. (I.E. If a landowner is irrigating to meet demand solely with a surface water supply the applied water should be greater than the overall ET on the field and would create a positive balance or credit to the landowner. To account for metering inaccuracies or other unknown factors a small loss percentage may be appropriate as a basin safety factor. This credit should be the third priority of water used after rainfall and actual surface water delivered when the landowner returns to pumping groundwater to meet their irrigation demand. At the end of the water year if any credit remains it should be allowed to be carried over as a credit).

Intentional over irrigation from surface water or direct intentional recharge should be accounted for separately.

#### Section 3.04 Priority of Use

1. As described above, the rainfall credit, actual surface water deliveries and surface water credits (if any) generated from the potential return flow from surface water delivered should be the first water used in a month and not subject to modification by the landowner. Also, the rainfall credit should not be transferrable to other landowners, and the surface water credit from return flows should not be transferrable until after the end of the water year. All other categories except Tier 3 that derive from groundwater pumping should be up to the landowner to determine the priority.

#### Section 3.05(a)

1. As mentioned above, LSID anticipates several difficulties with GKGSA receiving timely accurate well meter information and an Engineer determining an estimated return flow to accurately account for the Net Consumed Groundwater. GKGSA should utilize the Land IQ data until the meter option can be proven to be effective.

#### Section 3.06 Surface Water Reporting

1. More clarification is needed on the reporting required by the surface water entity in regard to “diversion of surface water to direct irrigation”. As GKGSA is undoubtedly aware the infrastructure on many KS appropriators is not metered at the field level. More discussion is required on what will be acceptable reporting.

#### Section 4.03(a.1.) Sustainable Yield Allocation

1. Please verify that the rainfall mentioned in the sustainable yield definition is return flow of rainfall to groundwater and that the GSA is not contemplating allocating additional rainfall as part of the sustainable yield that is not based on actual rainfall.

#### Section 4.03(b) Temporary Tier 1 and Tier 2 Allocations

1. LSID requests that prior to any allocation of Temporary Tier 1 or Tier 2 water that the GKGSA calculate the amount of groundwater left in storage based on the Measurable Objectives (MO’s) and/or Minimum Thresholds (MT’s). This calculation also should deduct the amount of overdraft that was allowed to occur unrestricted during water year 2020 and 2021 (this number is approximately 500,000 acre-feet for the two water years for GKGSA per the draft annual report). GKGSA should also determine the amount of Sustainable Yield (if any) that was potentially saved for carryover by In-lieu recharge from surface water deliveries since the 2016 water year. Also, potential groundwater credits from intentional recharge of surface water should be calculated as well. Care should also be taken to account for any potential changes in the MO’s or MTs based on the additional coordination between the three GSAs in response to the incomplete determination by DWR. Currently the pumping cap proposed by the GKGSA does not account for the water potentially owned by others that would be allocated for use.

#### Section 4.03(c.i.1) Carryover of Sustainable Yield

1. LSID recommends coordinating with the EKGSA and adjust the GKGSA proposed rules to allow for carryover of sustainable yield with no loss for up to five years after the credit is generated. To arbitrarily

assign a yearly loss to water carried over is detrimental to the goal of achieving sustainability within the subbasin. (E.G. A surface water appropriator utilizing surface water supplies during a multiple wet year that could potentially have limited groundwater pumping, would be forced to pump a portion of their sustainable yield, or assign a portion of their sustainable yield to avoid a potential multiple year loss. Both of these actions would lead to increased pumping and potentially lower the amount of surface water delivered to the KS. It could also lead to an additional burden on the surface water appropriator that would potentially overuse water in a subsequent year that could have been saved without the arbitrary loss).

#### Section 4.03(c.i.2) Transfer of Sustainable Yield

1. LSID has comments on the four conditions listed to allow for transfer of water. LSID recommends the GKGSA move quickly to establish Management Areas (MA) that can aid in regulating the transfers as currently proposed. LSID also recommends defining trades as assignment of allocated supply or credits instead of transfer to avoid any confusion that movement of physical water or permanent trades are occurring.
  - a. 1. LSID recommends that the GKGSA allow for more flexibility on assignment of native “sustainable” supply. to allow some allowance between the boundaries of the three Kaweah GSAs to allow for common farm units or Surface Water appropriators to best manage their available supplies. Care must be taken to ensure no UR’s due to the currently varying allocation amounts available between the GSA’s. Potentially add a loss factor if crossing a GSA boundary line.
  - b. 2. LSID recommends that no distance limits within the GKGSA be placed on assignment of native “sustainable” supply. GKGSA should consider adding a loss factor that would increase based on distance until MA’s can be established that would act as a safety factor to the basin.
  - c. 4. LSID disagrees with the metering requirement. Please refer to our earlier comments.
  - d. LSID Recommends that all assignments must be recommended for approval by the Technical Committee or ad-hoc thereof after determining that no Undesirable Results (UR) will occur with the proposed assignment, with final approval being granted by the board of directors.

#### Section 4.03(c.ii.1) Carry over of Temporary Tier 1 or Tier 2

1. LSID recommends that the GKGSA takes into account the amount of Temporary Tier 1 or 2 being carried over prior to any further allocations of Temporary Tier 1 or 2 water.
2. EKGSA is currently not allowing carryover of Temporary water that is transferred from one landowner to another.

#### Section 4.03(c.ii.2) Transfer of Temporary Tier 1 or Tier 2.

1. See above comment 1 as a general comment on this section. In addition, LSID would recommend coordinating with the EKGSA on this item and require that any transfer of Temporary Tier 1 or 2 water must be used within that year. LSID has different comments listed below on the conditions for Transfer.
  - a. 1. LSID recommends that limits maybe established on assignment of Temporary Tier 1 or Tier 2 supply after review by the Technical Committee that UR would occur or are occurring in specific

areas of the GKGSA. LSID recommends some allowance between the boundaries of the three Kaweah GSAs to allow for common farm units or Surface Water appropriators to best manage their available supplies. Care must be taken to ensure no UR's due to the currently varying allocation amounts available between the GSA's. Potentially add a loss factor if crossing a GSA boundary line.

- b. See comment c. & d. on transfer of sustainable yield above.

#### Section 6.01 Groundwater Recharge

1. This section does not discuss potential losses during the recharge process (i.e., evaporation, metering error, etc.) and severely restricts the use of the credit obtained. LSID recommends this section be modified and does not conflict with recharge policies that may be developed by Districts within the GKGSA boundaries. In addition, any credit generated from the recharge of surface supplies should not be limited for use or assignment to the boundaries of the GKGSA.
2. LSID also recommends as discussed that the surface water appropriators in the GKGSA be allowed to present information that allow for a potential starting credit to be allowed for their individual landowners going back to the 2016 Water Year.

LSID would also take this opportunity to reference its letter submitted during the public comment period of the GKGSA GSP that highlighted the coordination differences between the MO's and MT's set on the boundary between the GKGSA and EKGSA. Allowing water levels that may not be considered Significant or Unreasonable in one area of the KS that potentially causes another area of the KS to experience Undesirable Results should be considered and appropriate action taken to avoid this. LSID is one of the first areas that will be severely impacted by the continued overdraft above sustainable yield that is being contemplated and allowed by all the GSAs in the KS. Water levels in some of the Friant Division Irrigation Districts are approaching pre-project levels.

In closing, with the probability of a third far below average year and as a District in the Kaweah Subbasin that imports far more surface water supplies than it extracts from groundwater sources, LSID recommends that the GKGSA look to adopt an emergency ordinance to limit the unrestricted groundwater use that is currently in place. We look forward to the continued coordination of the subbasin.

Please contact the undersigned should you have any questions or need additional clarification.

Sincerely,



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Craig N. Wallace  
General Manager  
Lindsay-Strathmore Irrigation District

CC: Mike Hagman, East Kaweah Groundwater Sustainability Agency  
Aaron Fukuda, Mid-Kaweah Groundwater Sustainability Agency