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July 31, 2025

VIA ELECTRONIC MAIL AND U.S. MAIL
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RE: Modesto Subbasin Groundwater Management Program - Allocation Framework

Dear GSA Member Agencies and Consultants:

We prepared this letter in response to the materials presented at the STRGBA GSA's Management Actions Workshop for the Modesto Subbasin (Subbasin) on July 16, 2025. While the workshop displayed noticeable progress in laying the foundation for the Subbasin's Groundwater Management Program's groundwater allocation framework, it appears the process remains behind schedule, considering the tentative items yet to be discussed, such as:

- More proactive allocation strategies that account for additional "Bank Account deposits" or groundwater sustainability contributions made by each Management Area into their respective Bank Accounts (i.e., deep percolation of applied irrigation water, surface water, stormwater retention basins, on-farm retention/recharge basins and rockwells, and at urban wastewater treatment areas);
- Implementation costs or allocation fees, which, if the GSA determines they are necessary, should be allocated in different amounts to each Management Area, with the greatest allocation to the Non-District East (NDE) Management Area;
- Determination of triggers, impacts, and/or conditions to mitigate or intensify Projects/Management Actions (PMAs);
- The extent of any limitations that will be imposed on water trading; and
- The authority granted to the Stewards and required oversight by each Management Area's governing body(ies) to ensure the Stewards exercise their authority in accordance with the law and in an equitable and appropriate manner.

Our understanding of the "Bank Account Theory" based on the information presented by the GSA's consultants during the July 16, 2025 Workshop, is that the Subbasin's "Bank" is based on the inflows/outflows of a water budget, where groundwater recharge from "natural sources", including deep percolation from rain, gain/discharge from river and stream, and net subsurface inflows that cross basin

boundaries, provides a baseline "deposit" to balance groundwater pumping and support what is considered "Sustainable Yield". In contrast, recharge from managed human made systems, including direct and indirect (in-lieu) recharge, canal and reservoir seepage, deep percolation of applied groundwater for irrigation, recharge from stormwater retention basins, on-farm retention/recharge basins and rockwells, and recharge from urban wastewater treatment areas are considered Management Area-induced "deposits". Groundwater pumping represents "withdrawals" from the Subbasin Bank. Under this framework, accounting is done by the "Stewards" and the Stewards' consultants on a property-by-property and agency basis. Balances are tracked by Management Area with no beginning balance prior to tentative implementation of an allocation program.

Sustainable Yield is only one of the inflows and outflows in the Subbasin's water budget, and is determined on a basin-scale (Section 354.18 (b)(7)). It is not GSA-specific or what each person gets to extract. Sustainable Yield is defined as how much groundwater the basin as a whole can pump sustainably, or "the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result." While SGMA only requires sustainable yield to be estimated at the basin scale, the current allocation framework only considers canal and reservoir seepage contributed by OID and MID, ignoring those areas that have already taken action to minimize groundwater "withdrawals". A more equitable approach would consider the additional contributions noted above when distributing allocations for each Management Area. Further, this approach would appropriately acknowledge those areas that have actually contributed to the Subbasin Bank Account since SGMA implementation by prioritizing surface water use and sustainable pumping. While some may view this concept as a penalty for the Management Areas (the NDE in particular) that have not yet taken sufficient steps to reduce groundwater withdrawals, to engage in mitigation efforts, and/or purchase of surface water, we view this as a critical opportunity for the NDE to be required to take proactive measures over the next year (prior to the allocation program's implementation in January 2027) by reducing groundwater pumping, increasing surface water use, and contributing to groundwater recharge.

A few additional thoughts relating to the current framework of the Bank Account Theory:

- The consultant's presentation of the draft Management Actions Plan did not provide numbers for some of the recharge components we believe are likely in their groundwater model. Their presentation only showed the following components: Sustainable Yield, canal and reservoir recharge, and pumping, excluding recharge from the following sources that should be accounted as "deposits" in the respective Management Area Bank Accounts:
    - Deep percolation of applied groundwater for irrigation water.
    - Recharge at stormwater retention basins, rockwells, urban wastewater treatment ponds and on-farm retention/recharge basins.
    - Note that discharge to rivers or streams from groundwater is factored as a "withdrawal" that cancels out some of the seepage "deposits."
    - Migration of groundwater across Management Area boundaries and seepage from rivers and streams that has historically been induced by groundwater pumping in the NDE is being "grandfathered in" without compensation (unlike in the Turlock Subbasin where compensation from the East Turlock Subbasin is occurring through a transitional fee paid to the West Turlock Subbasin).
- 23,600 AFY of seepage from Modesto Reservoir is credited to the Modesto Management Area even though a portion of it is physically immediately pumped from the groundwater system by the NDE and City of Waterford.
- Use of groundwater by non-agricultural plants outside of farms and urban areas was not discussed during the workshop but should be accounted for in the Bank Account Theory.

- The NDE property owners should be required to provide access to their property and be required to report groundwater use to the GSA's consultants so the GSA can have a more accurate accounting of the use of groundwater in the NDE.

In addition, we believe that we need to encourage the following simple solutions to increase "deposits" to the Subbasin Bank:

1) Reduce unnecessary well pumping.
    a. To do this, MID will need to further modernize its distribution system (i.e., smart flow meters, automated gates and weirs, SCADA, etc.) to better regulate the canals and reduce use of deep groundwater wells to balance the operation of its distribution systems.
    b. MID must commit to reduce pumping of MID's deep groundwater wells by 50% during normal to wet years (similar to what has occurred in OID) and to improve management of MID's distribution system, ditch tender operations, and the accuracy of irrigation water delivery so MID does not simply use deep groundwater wells as a convenience. By doing so, the growers' failure to properly notify the District about turnout flow changes, as well as ditch tender mistakes, are not initially addressed by turning on the deep groundwater wells, but rather ditch tenders will be required to better balance supplies and demands within the distribution system and an appropriate amount of spill is allowed. Since MID's system is a gravity flow system, allowing the system to function with spill water is actually beneficial, spills are mostly recaptured for use within the Subbasin and contribute to environmental water uses, and can be accounted as such, which is a far better use of MID's resources than unnecessary and excessive pumping of deep groundwater wells.
2) Increase surface water use.
    a. Allow growers who need to add booster pumps and filter stations in order to take their surface water allocations to make deals with others within their Management Area or other Management Areas to finance those improvements and their operation and maintenance in exchange for groundwater recharge credits.
    b. Incentivize and/or provide credits for flood irrigation and winter flooding with surface water.
    c. MID along with the City of Modesto should explore serving Waterford, and possibly Salida and Riverbank, with treated surface water from MID's under-utilized City of Modesto treatment plant and pipelines.
    d. Since it is clearly necessary for the NDE to reduce groundwater pumping, the NDE growers need to be strongly encouraged to take advantage of the programs that MID and OID have already implemented which allow the NDE to purchase surface water to be used instead of groundwater.

To conclude, we recommend the Groundwater Management Program require a more complete accounting of all recharge components and take a proactive approach that recognizes and addresses the NDE's significantly disproportionate cause of the Undesirable Effects in the Modesto Subbasin (deficit of approximately 70,000 AF in 2023 and approximately 58,500 in 2024) and that the Program follow the principal of allocating Management Action costs and imposition of management actions within the Management Areas in proportion to their responsibility for causing Undesirable Effects. Finally, we kindly request that future workshop materials be shared with enough lead time, so the public and GSA representatives have adequate time to review with their constituents and boards, and there can be more constructive workshop discussions.

Respectfully,

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