

## **Native Groundwater Allocation Policy Framework for Agricultural Land within the Merced Subbasin GSA**

**[For Public Discussion Purposes Only]**

**- February 2024 -**

### Strategic Planning Ad-Hoc Committee

*The Strategic Planning Ad Hoc Committee includes Michael Gallo, Gino Pedretti, and Eric Swenson. Recommendations are for discussion purposes only and do not reflect Board action. This committee has provided and will continue to provide recommendations to the MSGSA Board to further refine and determine an appropriate native groundwater allocation policy. The Strategic Planning Ad-Hoc Committee is working on recommendations for establishing an allocation approach for irrigated agriculture that would take effect by or before water year 2026.*

### Policy Framework Recommendations

Non-agricultural land uses that use groundwater (such as domestic, small public systems, commercial, industrial) will be addressed in separate policy conversations.

#### Irrigated Land

Allocations for irrigated agricultural lands are available on an annual basis. Initially, allocations will include two-tiers: (1) a long-term per-acre quantity of Sustainable Yield, and (2) an additional temporary per-acre quantity referred to as an Additional Pumping Allowance (APA). The APA is water landowners may pump in excess of the average Sustainable Subbasin Yield to allow landowners to transition from current pumping levels to lower pumping to achieve the goals of the adopted Groundwater Sustainability Plan (GSP). The APA is expected to decrease to zero no later than 2035 in most zones unless 2015 groundwater elevations are maintained.

#### Sustainability Zones

Sustainability Zones have been established recognizing the spatial variance of groundwater conditions throughout the MSGSA. Each Sustainability Zone will receive both tiers of allocations:

- Sustainable Yield values will be consistent for all eligible acres regardless of the Sustainability Zones.
- The APA values will be uniquely identified for each Sustainability Zone based on groundwater conditions for each Sustainability Zone relevant to GSP objectives, and will be equally allocated to each eligible acre in the Sustainability Zone.

## Allocation Approach

The allocation approach will use a 5-year rolling bucket concept to provide flexibility for growers to manage change across time. For example, a participant will receive an annual Sustainable Yield value aggregated into a single value for a 5-year period. The Sustainability Zone-specific projected declining APA will similarly be aggregated into one 5-year value. The combination of these allocations will be available to a participant in Year 1. Year 2 will be determined by subtracting actual Year 1 use of the allocation from the aggregated allocation value, then adding the pre-determined “Year 6” Sustainable Yield and APA values to create a new 5-year rolling bucket. This process will continue year-after-year, with the “Year 6” value added at the end of each “current year”. This approach will accommodate hydrologic variations and participant-specific transition planning.

## Land Use Category

There are three primary types of agricultural land uses designated by the County Assessor’s Office that have fundamental differences in their historic function and use of groundwater: irrigated agriculture, managed wetland habitat (including duck clubs), and non-irrigated agriculture.

Because of variances in these land use functions, coupled with the MSGSA’s intent to achieve significant reduction in the consumptive use of native groundwater as represented in the Merced Subbasin GSP, the framework includes a different allocation approach for each land use function. At the time of initial allocation, land use designations would be set to the actual land use that existed between January 2015 and January 1, 2023, as designated by the Merced County Assessor’s Office.

## Allocation Framework by Sustainability Zone

- If groundwater levels<sup>1</sup> in any given Sustainability Zone are above the GSP’s 2015 groundwater level minimum threshold (MT) and average conditions have remained stable, as determined by the Board, for a period of five (5) years:
  - A stable APA for the specific Sustainability Zone will be determined to reflect historic levels of groundwater consumption, adjusted for the effect of long-term average surface water use within the Sustainability Zone, to continue as long as groundwater levels do not decline below 2015 groundwater levels<sup>1</sup> and MTs in other Sustainable Management Criteria (SMC) are not exceeded.
  - Consistent with the groundwater level undesirable results established in the GSP, if groundwater levels drop below the 2015 groundwater level MT, or other SMC MT are exceeded, for two (2) consecutive years, the “Year 6” APA will be adjusted to decline to the Sustainable Yield by 2035 or until groundwater levels in the Sustainability Zone return to levels above the 2015 groundwater level MT.
  - If groundwater levels increase to above the 2015 groundwater level MT for a period of at least two (2) years, and other SMC are above the MT, the “Year 6” APA will be adjusted to allow for increased pumping while ensuring the Sustainability Zone groundwater levels reach the interim milestones and measurable objective identified in the GSP.
  - The APA quantity available for “year 6” to place into each participants five (5) year rolling bucket of available allocation will be determined at the end of the current year and will reflect groundwater conditions and historic/forecast trends for each Sustainability Zone. This analysis

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<sup>1</sup> Methodology will be based on technical analysis of monitoring well data.

may result in an APA value higher or lower for any particular “year 6” compared to that originally forecast.

- If groundwater levels in any Sustainability Zone are currently and have been significantly below the 2015 groundwater level MT:
  - A declining APA would be calculated so that the APA would reach zero by the end of 2035 (e.g. WY 2036 APA would be zero) and continue at that level until groundwater elevations exceeded 2015 groundwater levels, and other SMC are above the MT.
  - If groundwater levels increase to above the 2015 groundwater level MT for a period of at least two (2) years, and other SMC are above the MT, the “Year 6” APA will be adjusted to allow for increased pumping while ensuring the Sustainability Zone groundwater levels reach the interim milestones and measurable objective identified in the GSP.
  - The APA quantity made available for “year 6” to place into each participants five (5) year rolling budget of available allocation would be determined at the end of the current year and will reflect groundwater conditions and historic/forecast trends for each Sustainability Zone. This analysis may result in an APA value higher or lower for any particular “year 6” compared to that originally forecast.
- Additional limitations to pumping any tier of the allocation above and below the Corcoran Clay layer may be required based upon technical evaluation of conditions in the Sustainability Zone in order to achieve the adopted GSP’s groundwater subsidence objectives.
- APA and Sustainable Yield will be revised in future years, consistent with GSP 5-year updates, to reflect data gathered during implementation.

### Allocation Framework by Land Use Categories

The following is the currently proposed framework for each agricultural land use category:

- For irrigated lands designated by the Assessor’s Office as either *Farming, Trees and Vines, Poultry, or Dairy*:
  - A per-acre allocation of both Sustainable Yield and APA will be made.
  - Allocation quantities will apply to the entire gross parcel acres.
  - Grouping of or sharing among like-designated parcels would be allowed under to be developed rules.
- For irrigated lands managed as wetlands (such as *Non-Contract Duck Clubs* or lands with wildlife Easements):
  - A per-acre allocation will be offered only to parcels that choose to Opt-in to the Allocation Framework, which will follow to-be-developed procedures and associated fees. Opting in would provide definable allocations to the included parcels.
  - Three (3) month windows to Opt-in will be available during the initial allocation process, and then offered again once every 5 years, in coordination with the GSP update timing.
  - Sustainable Yield allocation quantities would apply to the entire gross parcel area.

- An APA Water allocation would be granted only for parcels that recently (between January 2015 and January 2020) or currently pump groundwater for habitat purposes and only to the acres historically irrigated with groundwater as a form of managed wetland habitat.
- No APA Water would be available for parcels that have not recently or currently pumped groundwater.
- Alternatively, a Managed Wetland Water Allocation would be available only for parcels that recently (between January 2015 and January 2020) or currently pump groundwater for habitat purposes and only to the acres historically irrigated with groundwater to sustain the managed wetland habitat. Such a quantity would reflect historic annual average groundwater use of the managed wetland footprint that occurred between 2015 and 2020 within the parcel.
  - An interested party would need to apply to the MSGSA with documentation defining the historic or current footprint of managed habitat within the parcel, and historic groundwater production used to meet the habitat's water needs during the designated period.
  - When this special allocation is sought, the Sustainable Yield calculated for the remainder of the parcel will be modified to reflect the acres included as the designated managed wetland footprint.
  - This special allocation would not be available to meet other irrigated agricultural needs on the parcel or grouped parcels.
  - The party would be expected to maintain the managed habitat in a manner equivalent to its historic condition, at a minimum, or would forfeit the special allocation and access to any APA, and the equivalent Sustainable Yield limit would be redetermined for the entire parcel.
- Grouping of or sharing among like-designated parcels would likely be allowed under to be developed rules, except for any such Managed Wetland Water Allocation designated for a defined managed habitat footprint.
- For non-irrigated lands designated by the Assessor's Office as *Grazing*:
  - Historic use of groundwater for stock watering practices will be allowed to continue in quantities equivalent to historic practices.
  - A per-acre allocation will only be offered to parcels that choose to Opt-in, which will follow to-be-developed procedures and associated fees. Opting in would provide definable allocations to the included parcel(s).
  - Only Sustainable Yield would be offered, no APA Water would be available.
  - An Opt-in option will be open during the initial allocation process that will not exceed three (3) months in duration, and then offered once every five (5) years, in coordination with the GSP update timing.
  - Allocations could not be shared with any other parcel and any well to extract the Sustainable Yield must be located on the Opted-in parcel.

## Appeal

- The GSA will establish a process to appeal allocation determinations for consideration of special circumstances. This process may consider, but not be limited to, conditions such as:
  - Existing irrigation systems that cross Sustainability Zones or GSA boundaries whereby the Sustainable Yield or APA value may be adversely impacted.
  - The land use category as determined by the Assessor's Office.
  - A change in ownership and effect on the allocation and limitations on the subject parcel(s).
  - The application of historic groundwater conditions when compared to then current groundwater conditions.

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