



MEMORANDUM

TO: Merced GSP Coordinating Committee
FROM: Alyson Watson, Merced GSP Project Manager
DATE: October 15, 2018
RE: Merced Subbasin GSP Status Update

The purpose of this memo is to provide a status update on development of a Groundwater Sustainability Plan (GSP) for the Merced Groundwater Subbasin (Subbasin). The development and implementation of a GSP is a core requirement of California's new Sustainable Groundwater Management Act (SGMA).

The three newly formed Groundwater Sustainability Agencies (GSAs) covering the Subbasin have made significant progress cooperatively developing a single GSP for Subbasin. The GSAs hired the consultant team of Woodard & Curran to begin GSP development in late 2017. The consultants have conducted technical work, facilitated outreach, and established a robust stakeholder outreach/input process to ensure adequate representation throughout the Subbasin.

Technical work on the GSP has progressed to the stage of quantifying the extent of overdraft through developing preliminary water budgets, reaching agreement on indicators to be used for setting minimum thresholds to prevent undesirable results from occurring, and preparing initial estimates of the sustainable yield of the Subbasin.

The GSA boards will be briefed on development and progress of the water budgets in November 2018. Continued engagement from the GSA boards and stakeholders will be critical to ensure completion and adoption of a Subbasin GSP by the January 31, 2020 deadline.

Background

SGMA requires GSPs be adopted for the high priority, critically-overdrafted groundwater basins in California (including the Merced Subbasin) by January 31, 2020. The plans must detail how basins will become sustainable over a 20-year timeframe and must be submitted to the California Department of Water Resources (DWR) for approval. In accordance with SGMA, water management and land management agencies in the Merced Subbasin formed three GSAs:

- Merced Irrigation-Urban Groundwater Sustainability Agency (MIUGSA),
- Merced Subbasin Groundwater Sustainability Agency (MSGSA), and
- Turner Island Water District-1 Groundwater Sustainability Agency (TIWDGSA-1)

The three GSAs in the region are collaborating on the creation of one GSP for the entire Merced Subbasin. The GSAs applied for and have been awarded a \$1.5M grant from DWR to support the costs of developing the GSP.

The consultant team's scope includes the activities necessary to complete and submit a SGMA-compliant GSP including groundwater Subbasin modeling work, identifying a sustainability goal for the Subbasin, and evaluating options and alternatives support the development of sustainability criteria and thresholds. The GSP process will also set minimum thresholds, measurable objectives, interim milestones, and the



margin of operational flexibility for sustainability indicators in avoiding undesirable results identified in SGMA. A water accounting framework is being developed to help partner agencies and groundwater management areas track the effects of projects and groundwater management strategies. Through the GSA development, stakeholder and public meetings are being held to provide information, report progress, and gather feedback.

Accomplishments to Date

The GSP consultant team has made significant progress on both technical work and community engagement in 2018. The team has prepared the foundational sections of the GSP (Basin setting, Plan Area, Hydrogeological Conceptual Model), updated the computational groundwater model for the Subbasin, evaluated available groundwater, and started using the modeling tool to develop water budgets. In early 2018, the three GSAs formed a Coordinating Committee of senior staff and governing board members to coordinate day-to-day planning activities and public outreach. The three GSAs also approved the formation of a Stakeholder Committee of community representatives to provide input. Both committees meet monthly. More detailed discussion of the initial results of the technical work and progress on community engagement is provided below.

Initial Results

There are two focus areas for SGMA – one is halting critical overdraft (bringing the Subbasin into balance) and the other is establishing minimum thresholds to be monitored over time to prevent undesirable results from occurring as the Subbasin moves towards sustainability. Per SGMA the Subbasin has to address the following undesirable results, if determined significant and unreasonable: chronic and sustained lowering of groundwater levels, reductions in groundwater storage, degradation of water quality, land subsidence, and depletions of interconnected surface water.

The consultant team has made progress in both of these areas. The Coordinating Committee and Stakeholder Committee have provided input on groundwater sustainability indicators to avoid undesirable results and an approach to establishing minimum thresholds based on groundwater level as a surrogate sustainability indicator.

To better understand the overdraft conditions in the Subbasin, the consultant team has developed preliminary historical and projected water budgets for the Subbasin based on modeling results and available information about current and projected groundwater use. The Coordinating Committee and Stakeholder Committee have provided input on this analysis and preliminary estimates of the Subbasin's sustainable yield have been prepared. Sustainable yield is the amount of groundwater extracted from the Subbasin over time without causing undesirable results and is calculated independently from surface water inflows and associated imported surface water seepage to groundwater during conveyance. Preliminary results show, absent groundwater projects and management actions increasing groundwater recharge to the Subbasin, total groundwater pumping from the Subbasin would need to be reduced on the order of 25% from current extractions over the next twenty years to reach sustainability. These preliminary numbers do not reflect potential future changes to Merced Irrigation Districts (MID) surface water rights or conjunctive water management practices. Future changes to MID's water rights or conjunctive water management operations will need to be addressed in real time as they occur.

The team is now working on refining the sustainable yield estimate, developing alternatives to achieve the estimated groundwater pumping reductions needed, and identifying projects and management actions that would reduce total demand and/or increase water available to meet demand (such as urban conservation programs, water markets, groundwater recharge projects, and other actions that would increase supply or water use efficiency in the region).



Community Engagement

A key part of the outreach strategy is open and transparent communication during the GSP development. Through the GSP development process, technical information and data is being summarized, simplified, and presented at workshops, online, via email, and in newsletters. The GSP has a dedicated website (www.MercedSGMA.org) and an interested parties email list. The GSP's Coordinating Committee (CC), composed of representatives appointed by each of the GSA, began meeting monthly in March 2018. One of their first steps was to recommend establishment of a Stakeholder Committee (SC) of over twenty Subbasin representatives selected through an open application process. The Stakeholder Committee was approved by each GSA, and has been meeting each month on the same day as the Coordinating Committee, beginning in May 2018. Both committees have had good consistent attendance, with engaged members providing valuable input. The CC and SC meetings are all open to the public. The first informational public workshop for the Merced GSP was held in early August 2018. In addition, two non-governmental organizations (Self Help Enterprises and Leadership Counsel), both of which received DWR SGMA grant funding, have conducted additional community outreach in disadvantaged communities throughout the Subbasin.

Two public workshops are expected to be scheduled during the first week of December 2018.

Overall, the community engagement process for the GSP has been robust, and continued and increased engagement is expected as the GSP progresses towards discussions of sustainable yield and management actions.

Next Steps

Over the coming months, the following high priority actions will be completed in support of GSP development.

- Briefings to GSA Boards on GSP development progress, focusing on water budgets and sustainable yields
- Request for approval of water budgets and sustainable yields by GSA Boards
- Coordination with neighboring Subbasins on topics including interbasin groundwater flows and subsidence issues, including actions consistent with the Interbasin Agreement with the neighboring and downslope Chowchilla Subbasin
- Meeting and coordination with DWR to brief staff on progress completed to-date and receive preliminary feedback on activities completed to-date
- Identification of options to reduce groundwater pumping and increase recharge and / or surface water availability in the Subbasin