



Board Agenda Item 5

DATE: January 7, 2020

TO: Board of Supervisors

SUBMITTED BY: Steven E. White, Director
Department of Public Works and Planning

SUBJECT: Groundwater Sustainability Plan for Fresno County Management Areas A and B

RECOMMENDED ACTION(S):

Adopt Resolution adopting the Groundwater Sustainability Plan for Fresno County Management Areas A and B within the Delta-Mendota Groundwater Subbasin.

Approval of the recommended action will adopt the Groundwater Sustainability Plan (GSP) for Fresno County Management Areas A and B within the Delta-Mendota Groundwater Subbasin (Subbasin), as required by the California Department of Water Resources (DWR), to maintain and manage local groundwater resources. This item pertains to locations in District 1.

ALTERNATIVE ACTION(S):

Your Board may determine not to approve the recommended action; however, it would result in delay of submitting the required GSP by the January 31, 2020 deadline, as the County would be obligated to prepare a GSP for the portion of County lands that have been included in the GSP. If the GSP is not submitted by the deadline, intervention from the State Water Resources Control Board (State) could occur, which would result in the State managing local groundwater resources in the Subbasin.

FISCAL IMPACT:

There is no increase in Net County Cost associated with the recommended action. Agreement No. 18-189 provides \$581,186 to Luhdorff and Scalmanini, Consulting Engineers for GSP preparation, offset with the receipt of \$207,505 for GSP planning and development from the Proposition 1 Grant awarded to the GSAs within the Subbasin by DWR, including the County. In addition, the Groundwater Sustainability Agencies (GSA) within the Subbasin, including the County, have applied for the Sustainable Groundwater Management (SGM) Planning Grant - Round 3, funded through Propositions 1 and 68, which the County anticipates receiving approximately \$40,000 to further offset costs. Sufficient appropriations and estimated revenues are included in the County Administrative Office's Interest and Miscellaneous Expenditures Org 2540 to fund the Sustainable Groundwater Management Act (SGMA) invoices. If there are significant implementation costs beyond the Department's allocated resources, staff will return to your Board for direction and to request additional resource allocation.

DISCUSSION:

SGMA was signed into law September 16, 2014, codified at Water Code sections 10720 to 10737.8, and established a new structure for managing California's groundwater resources at a local level by local agencies. SGMA allows the formation of locally controlled GSAs in the State's higher priority groundwater

basins. Each GSA is then required to develop and implement a GSP by January 31, 2020. Sustainability is defined as the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results. Failure to implement a GSP and meet its' sustainability goal could result in the State asserting its power to manage local groundwater resources.

Within the Subbasin, 23 GSAs have been formed by various public agencies. Six GSPs for various areas within the Subbasin have been developed by multiple GSAs coordinating with the goal of achieving sustainability for the entire Subbasin. When more than one GSP is developed to cover a subbasin, the responsible GSAs must coordinate management of the subbasin through an agreement that covers the entire subbasin, per Water Code, section 10727, subdivision (b)(3). The Board approved Coordination Agreement No. 18-502 for the Subbasin on August 21, 2018.

The County serves as the exclusive GSA for Management Areas A and B, approved by the Board on May 2, 2017, covering approximately 24,000-acre portion in the southern part of the Subbasin located roughly between the San Joaquin River east of the City of Mendota and the unincorporated community of Tranquillity, see Exhibit A. Certain noncontiguous lands (County islands) that are part of Management Area B were included in the San Joaquin River Exchange Contractors GSP, a GSA within the Subbasin. That inclusion was due to proximity of the lands to the Exchange Contractors GSA boundary, approved by your Board on December 10, 2019, and were developed to represent unique areas within the County.

The GSP includes a description of groundwater conditions and basin settings common to all six of the GSPs developed for the Subbasin. In addition, hydrogeologic conditions and management practices are included as well as achieving sustainability over the next 20 years by preventing undesirable results by monitoring sustainability indicators defined by SGMA, which include:

- Chronic Lowering of Groundwater Levels
- Reduction in Groundwater Storage
- Degraded Water Quality
- Subsidence
- Depletion of Interconnected Surface Water
- Seawater Intrusion

All apply to the GSP area with the exception of seawater intrusion, which is not subject to this area as the Subbasin is not located adjacent to the Pacific Coast. Measurable objectives along with minimum thresholds have been set for each sustainability indicator based on projected hydrologic conditions through use of a numerical groundwater flow model.

BACKGROUND INFORMATION

Management Area A is comprised of Meyers Farm Water Bank, a water storage and recovery facility, operating under agreement with the United States Bureau of Reclamation (USBR). The Water Bank serves as a beneficial recharge facility in this portion of the Subbasin and is defined as a management area due to the operation of the Water Bank, and separately; the impaired water quality underlying the adjacent former sugar plant once owned by Spreckels Sugar Company, whose historical sugar beet processing activities led to discharged waste to the surrounding areas of the plant. This discharge resulted in an increase in concentrations of salinity, the amount of dissolved salts in water. Thus, creating a plume of saline-impacted groundwater migrating in a northerly direction of the Subbasin. This plume, also known as the Steffens Plume, is under the purview of the Central Valley Regional Water Quality Control Board (Regional Board). Remediation activities are under development with continued monitoring to ensure that contamination remains contained. Due to these conditions, Management Area A will require different minimum thresholds and measurable objectives than the Subbasin as a whole in order to facilitate GSP implementation and address the groundwater quality sustainability indicator.

Management Area B is comprised of domestic parcels, agricultural, private recreational, and with a majority of its land use designated as Open Space, as represented by the Mendota Wildlife Area (MWA), owned and managed by the California Department of Fish and Wildlife (CDFW). Under California law, Open Space areas are protected for the purpose of protecting natural resources. Due to exchange programs and Open Space designation for the MWA, as well as water quality issues resulting from easterly migration of groundwater that has naturally high concentrations of total dissolved solids (TDS), this area will incorporate monitoring and different minimum thresholds and measurable objectives, compared to Management Area A.

WATER BUDGETS

Groundwater pumping during the historic water budget period of 2003-2012 is 18,000-acre feet average annual per year. For the GSP's current year (2013) water budget, groundwater pumping was estimated to be the same, 18,000-acre feet average annual per year. The projected water budgets depict that planned management actions will likely result in sustainable conditions.

SUSTAINABLE MANAGEMENT CRITERIA

The GSP establishes sustainable management criteria for each of the undesirable results required by SGMA including chronic lowering of groundwater levels, reduction in groundwater storage, land subsidence, surface water depletions, and water quality. Criteria for seawater intrusion was not included as this area is not subject to this issue.

Historic trends, planned groundwater extraction, and management actions provide a reasonable path to reaching the sustainability goal for stable groundwater elevation, as recent water levels remain above the measurable objective. Due to recent groundwater levels being higher than the measurable objective set to recent hydrological conditions, a recovery of groundwater elevation is not needed to reach the sustainability goal, as the goal is to prevent a trend of declining water levels. Based on these recent water levels and the measurable objective for groundwater elevation, the measurable objectives for groundwater storage provide a reasonable margin of safety, therefore groundwater elevations are projected to remain above the measurable objective levels as well.

Inelastic subsidence is the result of continual groundwater decline, hence long-term stable groundwater elevations should prevent additional inelastic subsidence through the management of groundwater elevation to measurable objective levels, resulting in the stabilizing of groundwater conditions.

Due to the Steffens Plume affecting Management Area A and the natural occurrence of TDS in Management Area B, groundwater quality is a primary concern in both areas. In Management Area A, sustainability will be achieved through continued monitoring and remediation action of the plume, still pending by the Regional Board. As for Management Area B, sustainability will be achieved by continued monitoring of the groundwater quality trends and utilizing wells of higher water quality, along with management actions which will likely include targeted pumping reduction to limit the use of groundwater with TDS concentrations that impact beneficial uses.

The minimum threshold for depletions of interconnected surface water shall be the rate or volume of surface water depletions caused by groundwater use that has adverse impacts on beneficial uses of the surface water and that may lead to undesirable effects. The County will ensure that significant and unreasonable depletions of interconnected surface water are avoided as well as the potential to have direct depletion of surface water by managing groundwater levels to sustainable levels.

The County will manage groundwater resources in a manner that results in the absence of undesirable results by the year 2040. Groundwater from the lower aquifer is not expected to be extracted over the projected water budget period. Lower aquifer conditions will be monitored and managed in coordination with other entities that utilize the lower aquifer as a source of groundwater. Sustainability will be accomplished

through the continuation of existing monitoring, data collection and inter-basin coordination.

PROJECTS AND MANAGEMENT ACTIONS

Based on current and projected groundwater conditions, overdraft and minimum threshold exceedances are not anticipated over the GSP implementation period. Under the continuation of existing management of groundwater use, groundwater conditions are sustainable. In the event of extremely dry conditions and groundwater extractions that exceed sustainable levels, the County will work to develop targeted pumping reductions to reduce undesirable results. This will only apply as a result of undesirable results for groundwater levels, groundwater storage, and subsidence. Sustainability will be accomplished through the continuation of existing monitoring, data collection and inter-basin coordination.

PLAN IMPLEMENTATION

Implementation will include monitoring activities and further analysis of groundwater conditions through the implementation period from 2020 through 2040. Monitoring tasks will include semi-annual to annual data collection and review of groundwater levels, water quality, and surface water elevations and annual monitoring of subsidence and groundwater storage data, as necessary. Additional tasks include data analysis and management, metering of groundwater extractions, five-year updates to the groundwater model, and annual reporting to DWR.

Upon approval of all of the GSPs prepared within the Subbasin, including Management Areas A and B GSP, the GSPs will be submitted to DWR for review and evaluation under Water Code section 10733.4. Once DWR has performed a completeness review of the GSPs, they will then post the GSPs on its website for a 60-day public comment period. Once posted, DWR will have two years to issue an assessment of the GSPs. The assessment by DWR may include an approval or may include recommended corrective actions to address any deficiencies that DWR identifies in the GSPs.

Under Water Code section 10728.6, the California Environmental Quality Act does not apply to the preparation and adoption of a GSP.

REFERENCE MATERIAL:

BAI #8 December 10, 2019
BAI #45, August 21, 2018
BAI #47, April 17, 2018
BAI #11 & #13, May 2, 2017

ATTACHMENTS INCLUDED AND/OR ON FILE:

Exhibit A
On file with Clerk - Resolution
On file with Clerk - Management Area A and Management Area B GSP

CAO ANALYST:

Sonia M. De La Rosa