

East Turlock Subbasin Groundwater Sustainability Agency SGMA Operational Assessment

DRAFT PRELIMINARY ENGINEER'S REPORT



Pursuant to California Water Code § 10730 et seq.,
California Government Code § 6502, and Articles XIII C
and XIII D of the California Constitution.



East Turlock Groundwater Sustainability Agency

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Introduction

Background

The California Legislature enacted the Sustainable Groundwater Management Act (“SGMA”) in 2014, marking the first Statewide effort to manage its groundwater basins. The goal of this historic legislation is to ensure that groundwater is sustainably managed and protected for all beneficial users, both now and in the future. Although it was enacted at the State level, SGMA was envisioned to be carried out locally. As such, it mandates that local Groundwater Sustainability Agencies (“GSAs”) be formed in medium and high-priority basins to develop and implement Groundwater Sustainability Plans (“GSPs”). It is the responsibility of each GSA to develop funding to pay for the tasks, projects and management actions described in its’ GSP.

The East Turlock Subbasin Groundwater Sustainability Agency (“GSA,” “ETSGSA,” or “Agency”) was formed in November 2021 for the purpose of managing the east side of the Turlock Subbasin (“Subbasin”) pursuant to SGMA. In cooperation with the West Turlock Subbasin Groundwater Sustainability Agency (“WTSGSA”), one GSP was developed to cover the entire Turlock Subbasin. The Turlock Subbasin Groundwater Sustainability Plan was adopted in January 2022 and submitted to the California Department of Water Resources (“DWR”). On January, 18, 2024, DWR made an incomplete determination regarding the Joint GSP and outlined certain corrective actions. The DWR determination identified certain deficiencies that must be addressed by preparing a revised and updated GSP by the GSA’s within six months. ETSGSA is working diligently, in coordination with WTSGSA, to address the identified deficiencies. Despite the incomplete determination, ETSGSA is immediately responsible for implementing the GSP, and adequate revenue is needed for operations and implementation.

In the Summer 2023, ETSGSA engaged a consultant team led by SCI Consulting Group (“SCI Team”) to develop a new funding mechanism for ETSGSA. This effort has included comprehensive data analysis, review of funding options, evaluation of rate structure alternatives, benefit analysis, and the development of proposed rate schedules. Input was provided by the GSA Board and staff, as well as members of the public. Community meetings were held to incorporate community perspective and engagement into the process. If successfully implemented, the proposed assessment would replace the GSA’s current fee program.

This Engineer's Report ("Report") is intended to support ETSGSA's development and implementation of an "assessment" (referred to throughout as the "SGMA Operational Assessment," "assessment," or "assessments") beginning in Fiscal Year ("FY") 2023-24. This proposed assessment is intended to replace the Agency's current fee program, which was established to pay for development of the GSP, increase overall revenue to fund management of post-GSP adoption activities by the GSA, and support implementation of the Turlock Subbasin GSP. This Report details the methodology for levying an assessment upon parcels that receive a special benefit from ETSGSA's groundwater management services.

This Report and the proposed assessment were developed pursuant to California Water Code section 10730 *et seq.*, California Government Code section 53750, and Articles XIIC and XIID of the California Constitution.

This Report was prepared to:

- Describe the groundwater sustainability services that would be funded by the proposed assessments (GSA Administration and GSP Implementation Services or "the Services");
- Establish a budget for GSA Administration and GSP Implementation that would be funded by the assessment in 2023-24 and into the future;
- Determine the special benefits received by lots and parcels within ETSGSA from GSA Administration and GSP Implementation; and
- Describe the method of apportionment to lots and parcels within ETSGSA.

This Engineer's Report and the proposed assessments have been made in compliance with California Government Code Sections 50078 *et seq.* and Article XIID of the California Constitution.

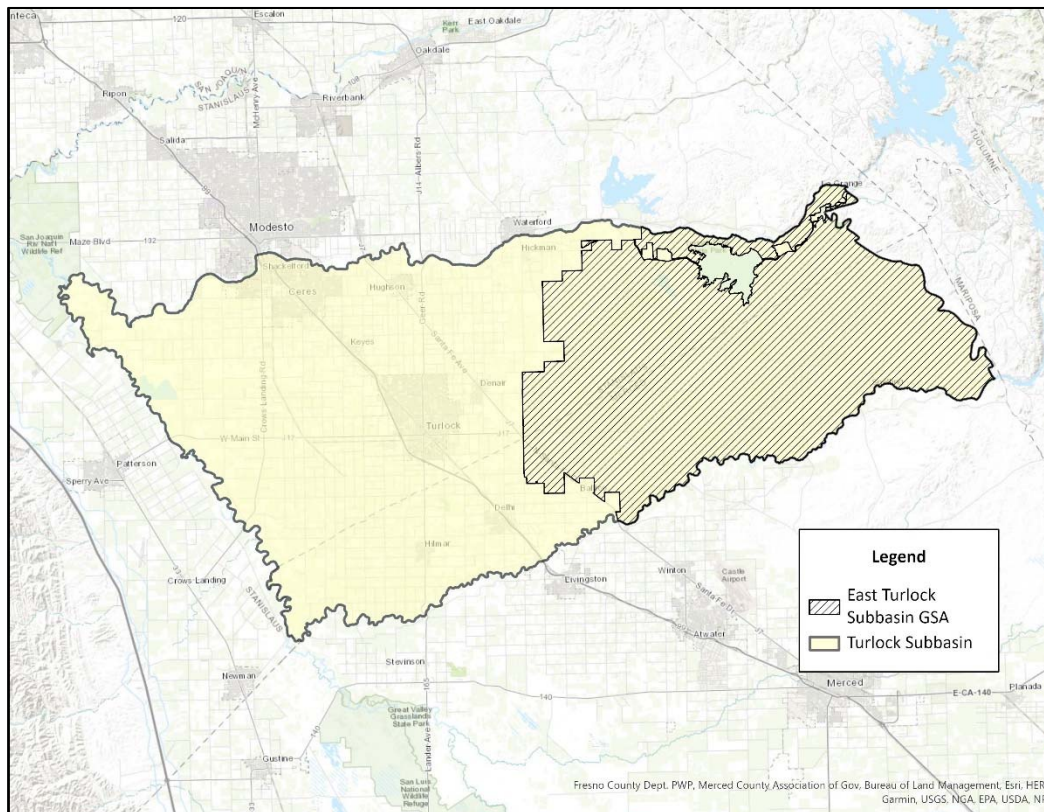
Only parcels that directly receive the benefit of GSA Administration and GSP Implementation to be funded by the proposed assessment, are included in the proposed assessment.

Subbasin Characteristics

The Turlock Subbasin underlies approximately 348,160 acres in the northern San Joaquin Valley Groundwater Basin. Notable boundaries include the Tuolumne River to the north, the Merced River to the South, the Sierra Nevada foothills to the East, and the San Joaquin River to the west. The Subbasin boundary is shown below in Figure 1.

In collaboration with WTSGSA, a single GSP was developed for the Turlock Subbasin to guide groundwater management in the Subbasin with the goal of achieving sustainability by 2042. The two GSAs in the Subbasin are tasked with managing groundwater in their respective jurisdictions and are jointly responsible for GSP implementation across the Subbasin.

Figure 1 – Turlock Subbasin Boundary

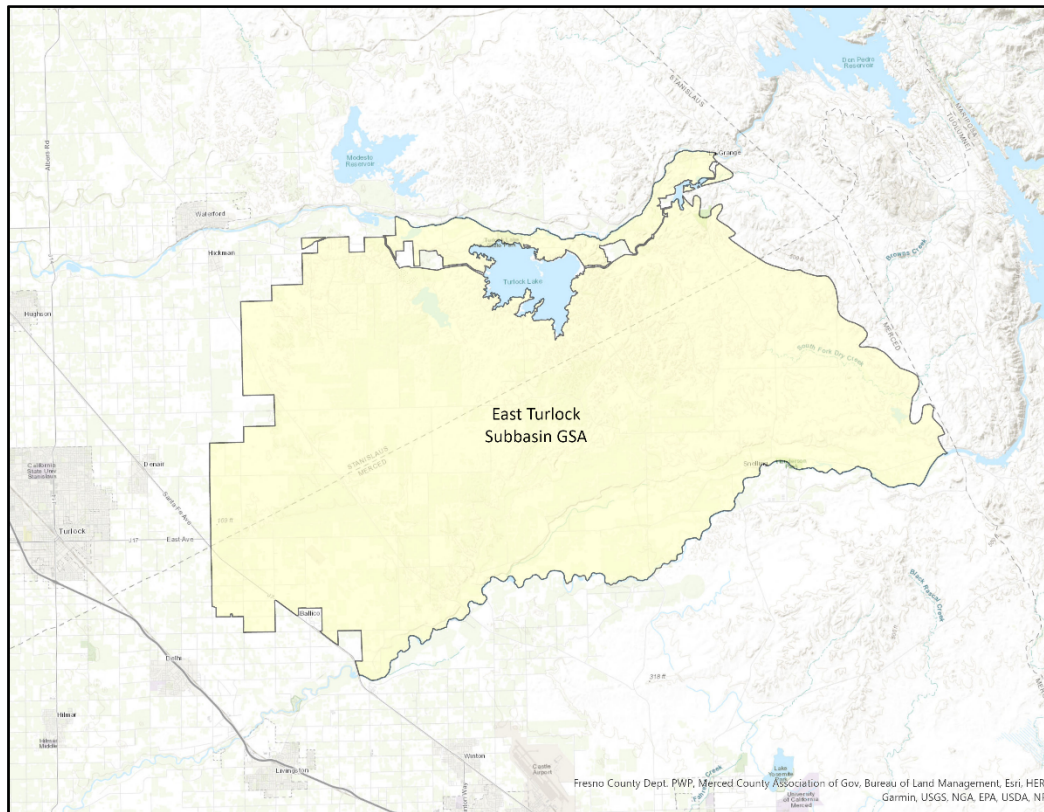


Agency Characteristics

The East Turlock Subbasin GSA is a joint powers authority formed in November of 2021, and is comprised of five member agencies: Eastside Water District (“EWD”), Merced Irrigation District (“MID”), Ballico-Cortez Water District (“BCWD”), Merced County, and Stanislaus County. The GSA comprises approximately 137,000 acres in the eastern portion of the Subbasin and is approximately forty percent (40%) of the total Subbasin area. The ETSGSA boundary is shown below in Figure 2.

ETSGSA is governed by a five-member Board of Directors (“Board”). There is a designated Board member and an alternate for each of the five member agencies. Additionally, ETSGSA maintains a Technical Advisory Committee (“TAC”), which advises the Board and meets monthly.

Figure 2 – East Turlock Subbasin GSA Boundary



Financial Context

Just as SGMA envisions groundwater basins being locally governed, it also envisions GSAs to be locally funded. In 2021, the GSA established a fee program to fund the cost of Agency administration during development of the GSP. Along with member agency contributions and grant awards, the current fee program has funded the continued operations of the GSA to date. The current fee program does not provide any funding for the implementation of projects and management actions described in the GSP and did not contemplate the increased expenses associated with GSA administration and SGMA compliance after adoption of the GSP.

Implementing the Turlock Subbasin GSP and continued compliance with the requirements of SGMA will require additional resources, and therefore require additional revenue in the coming years. Although ETSGSA previously secured grant funding and will continue to actively seek future grants, the necessity for reliable, annual, and predictable revenue is evident.

The current ETSGSA fee program applies to all parcels within the GSA greater than one acre in size, except parcels within the EWD boundary, and includes two types of charges: a charge per irrigated land acre and a lesser charge per general land acre. Parcels within EWD pay a separate assessment with similar distinctions. In turn, EWD contributes a proportional share of funding to the GSA.

Note On Recent Funding:

A grant award of Proposition 1 funding helped to support the development of the Turlock Subbasin GSP. The GSA applied for the most recent DWR's Sustainable Groundwater Management ("SGM") Program grant, but was not awarded any funding. In June 2023, ETSGSA was awarded an \$8.89 Million block grant from the California Department of Conservation's Multibenefit Land Repurposing Program ("MLRP"). The MLRP grant will support the development and initial implementation of ETSGSA's land repurposing objectives to decrease groundwater demand and increase recharge while providing other environmental and community benefits. This program is intended to incentivize a menu of strategically-targeted agricultural land repurposing options to land owners that can be integrated into ongoing agricultural operations.

To address a revenue shortfall, EWD provided a loan to ETSGSA in January 2023 in the amount of \$431,532. ETSGSA management anticipates an additional loan may be required in early 2024 to maintain ETSGSA's operational capacity until the proposed assessment can be implemented. If an additional loan is secured, portions of the revenue from this assessment will cover repayment of the original loan and additional loan in the amount of \$400,000, to be paid over the course of four years.

The proposed assessment includes funding for ETSGSA operational costs, including administration, management actions related to SGMA compliance, and other implementation support activities during GSP implementation. It does not include funding for projects described in the GSP to increase recharge or for management actions intended to decrease groundwater demand. The Agency expects a second funding mechanism to be implemented in 2024, consisting of a fee based on amount of groundwater use, to fund project and management action costs.

Subbasin Conditions and Approach

The conditions of the Turlock Subbasin are discussed in detail in the Turlock Subbasin GSP.¹ Land use in the Subbasin is predominantly characterized by agricultural activities, with major crop varieties including almonds and other deciduous trees, corn, grains, pasture, vines, citrus, and truck crops. According to the GSP, approximately 230,000 acres, sixty-six percent (66%) of the Subbasin, was dedicated to irrigated agriculture as of 2017. The remainder of the Subbasin comprises urban development and various other land uses, including undeveloped areas and surface water. The bulk of undeveloped land is situated in the easternmost region of the Subbasin. Notably, there was a substantial expansion of irrigated agriculture in the eastern Subbasin during the GSP study period, with groundwater being the primary source of water supply in this area.

Beneficial uses of groundwater in the Subbasin as a whole include agricultural, industrial, municipal, small water systems, and domestic water supply. Groundwater also supports environmental habitats in the Subbasin, including groundwater-dependent ecosystems and interconnected surface water habitats. As discussed in the GSP, groundwater use in the eastern portion of the Subbasin is largely agricultural. Additionally, there is limited domestic and community groundwater use in this area — all large public supply wells in the subbasin are in WTSGSA, outside of the jurisdiction of ETSGSA. The primary use of water resources, including groundwater, within the GSA is agricultural.

SGMA identifies six sustainability indicators, which are the effects caused by groundwater conditions occurring throughout the Subbasin that, when significant and unreasonable, become undesirable results. These include: chronic lowering of groundwater levels, groundwater storage, land subsidence, water quality, depletion of interconnected surface water, and seawater intrusion. As detailed in the GSP, it was determined that five out of the six sustainability indicators are potentially applicable to the Turlock Subbasin, with seawater intrusion being the exception because the Subbasin is land-locked and hundreds of miles from the Coast. (GSP, 6-4.) The GSP elaborates on the technical considerations associated with each applicable sustainability indicator in the Turlock Subbasin, and these considerations served as the foundation for establishing the criteria for sustainable management.

¹ <https://sgma.water.ca.gov/portal/gsp/preview/110>

The primary sustainability indicators identified within ETSGSA's jurisdiction that are expected to drive sustainable groundwater management include chronic lowering of groundwater levels, reduction of groundwater in storage, and depletion of interconnected surface water. Degraded water quality has been documented in communities outside of ETSGSA's jurisdiction (Turlock and Ceres) and near the western margin of ETSGSA, though it could become more prevalent within ETSGSA if no action was taken to manage the aquifer. (GSP, 6-5.) Land subsidence, though not currently present in the Subbasin, could cause future impacts if sustainability is not achieved. (GSP, 6-5.) Each of these indicators can be connected to "undesirable results," which are defined in the GSP as "significant and unreasonable adverse conditions" related to the Subbasin. (GSP, 6-1.)

Undesirable results related to chronic lowering of groundwater levels are defined in the GSP as "significant and unreasonable groundwater level declines such that water supply wells are adversely impacted during multi-year droughts in a manner that cannot be readily managed or mitigated." (GSP, 6-12). This result would have dire effects on groundwater users within ETSGSA, who rely heavily, and in many cases exclusively, on groundwater resources. Additional surface water availability is limited in ETSGSA, and during periods of drought, even the limited quantities of surface water that are available are generally curtailed. If significant and unreasonable groundwater level declines were to occur, groundwater would be less available or unavailable as a backup to parcels that rely on surface water.

Reduction of groundwater storage presents the possibility of undesirable results in the form of "a significant and unreasonable reduction of groundwater in storage that would occur if the volume of groundwater supply is at risk of depletion and/or may not be accessible for beneficial use...an undesirable result is also defined as long-term overdraft, based on projected water use and average hydrologic conditions." (GSP, 6-26.) Similarly, this result would have lasting negative effects on ETSGSA parcel owners' ability to obtain necessary water resources. If a significant and unreasonable reduction of groundwater storage were to occur, groundwater would be less available or unavailable as a backup to parcels that rely on surface water.

Depletion of interconnected surface water has the potential to cause "significant and unreasonable adverse impacts on the beneficial uses of surface water caused by groundwater extractions." (GSP, 6-64.) Management of various water sources are related to each other, and this result has the potential to reduce availability of surface water throughout the subbasin. This would likely create more demand for groundwater, which in turn would produce a cyclically negative effect on water availability within ETSGSA and make sustainable groundwater management more difficult.

Though degraded water quality is currently limited to a relatively small area in the easternmost portion of ESTSGA, it has been designated as a possible concern in the future. The GSP defines undesirable results from this indicator as “significant and unreasonable adverse impacts to groundwater quality caused by GSA projects, management actions, or management of water levels or extractions such that beneficial uses are affected and well owners experience an increase in operational costs.” (GSP, 6-35.) This result could present serious challenges related to water availability if it were to occur.

Land subsidence is not currently occurring within ETSGA. Nonetheless, concerns over potential undesirable results related to this indicator are relevant. The GSP defines these results as “significant and unreasonable inelastic land subsidence, caused by groundwater extraction and associated water level declines, that adversely affects land use or reduces the viability of the use of critical infrastructure.” (GSP, 6-51.) Property within the Subbasin would be negatively affected by such results, if they were to occur.

Basin Prioritization

DWR assigned each of California’s 515 groundwater basins a prioritization rating. The Basin Prioritization rating dictates whether a basin is designated very low, low, medium, or high priority as shown in Table 1.

Table 1 – SGMA Priority Ranking Criteria

Priority	Total Priority Point Ranges			
Very Low	<i>over</i>	zero	<i>up to</i>	7
Low	<i>over</i>	7	<i>up to</i>	14
Medium	<i>over</i>	14	<i>up to</i>	21
High	<i>over</i>	21	<i>up to</i>	42

Medium and high priority basins were required to establish a groundwater sustainability agency and develop a groundwater sustainability plan. With a priority ranking score of 26, the Turlock Subbasin is classified by DWR as a high-priority basin. The Subbasin’s priority point allocation is illustrated in Table 2.

Table 2 – Turlock Subbasin Priority Points

Criteria	Priority Points
1 Population	2
2 Population Growth	4
3 Public Supply Wells	3
4 Total Wells	4
5 Irrigated Acres	5
6 Groundwater Reliance	4
7 Impacts	2
8 Habitat and Other Information	2
Total Priority Points	26

Turlock Subbasin Sustainability Goal

The sustainability indicators described in the GSP guide ETSGSA's efforts to achieve sustainability by 2042. As such, GSA Administration and GSP Implementation efforts to be funded by the proposed assessment relate directly to addressing current Subbasin conditions within ETSGSA. Page 6-2 of the GSP describes the Turlock Subbasin Sustainability Goal:

The Sustainability Goal for the Turlock Subbasin is to ensure a reliable and sustainable groundwater supply that supports population growth, sustains the agricultural economy, and provides for beneficial uses, especially during drought. This goal is supported by and includes the following actions:

- *Manage the Subbasin within its sustainable yield and arrest ongoing long-term water level declines.*
- *Support interconnected surface water to avoid adverse impacts to surface water uses.*
- *Manage groundwater extractions and water levels to avoid impacts from future potential land subsidence.*
- *Optimize conjunctive use of surface water, recycled water, and groundwater.*
- *Support efficient water use and water conservation.*
- *Coordinate with GSAs in neighboring subbasins to avoid undesirable results along shared Subbasin boundaries.*
- *Adaptively manage the Subbasin over time to improve operational flexibility and to ensure sustainability of the groundwater resources.*

Assessment Approach

The proposed SGMA Operational Assessment will cover the entirety of ETSGSA's jurisdiction, which includes approximately 137,057 total parcel acres and 94,699 irrigated parcel acres (in whole or in part). A key component of developing the proposed assessment is considering the benefit provided by ETSGSA's Administration and GSP Implementation to various parcel types. The degree of benefit between irrigated and non-irrigated lands varies greatly due to the difference in water use. As discussed in detail in the section titled "Benefit Factors" below, whether or not a parcel is irrigated for agricultural or commercial purposes designates clear differences in the amount of benefit received from GSA Administration and GSP Implementation efforts to be funded by the proposed assessment. Irrigated parcel acres represent approximately sixty-nine percent (69%) of total acreage within ETSGSA.

Groundwater pumping for agricultural purposes represents the vast majority of water use within this portion of the Subbasin. However, even parcels that utilize other water sources, such as surface water, often use groundwater in dry years when surface water availability is limited. Additionally, sustainable management of groundwater resources within ETSGSA contributes to improved regional water resource management in general, which will positively affect availability of all water sources. Due to this dynamic, the special benefit of ETSGSA's Administration and GSP Implementation conferred to all irrigated parcels can be considered uniform. This proposed assessment will fund ETSGSA's operational budget, which will support administrative revenue needs and compliance actions in support of GSP implementation. As noted above, a fee based proportionally on groundwater use is expected to be established in spring 2024 to generate revenue needed to implement projects focused on increasing recharge and management actions focused on demand reduction.

ETSGSA's primary operational costs include State-mandated monitoring and reporting, compliance actions in support of GSP implementation, and administration and coordination. These services are discussed in greater detail below, in the section titled "Description of Improvements."

ETSGSA is currently funded by a Proposition 218-compliant property-related fee, in accordance with Water Code Section 10730.2. This fee is charged to ETSGSA properties greater than one acre in size, except those within the EWD boundary. The current fee program was intended to support general GSA administration during the GSP development phase and does not generate the revenue required for GSP implementation. Recognizing the need for increased revenue, ETSGSA Board members have considered funding alternatives including the formation of a new benefit assessment consistent with Proposition 218 and Water Code Section 10730, *et seq.*

It should be noted that parcel owners within EWD are currently charged separately as part of an existing benefit assessment within EWD. While it is the intent of this proposed assessment to replace existing funding mechanisms, if the proposed assessment is adopted, EWD will pay this proposed assessment on behalf of its parcel owners until its current assessment expires in 2025. Upon the expiration of their current assessment, EWD parcel owners will be charged by ETSGSA directly for this proposed assessment. EWD parcel owners will be included in the balloting for this proposed assessment.

To attain its service goals for operations and maintenance, the GSA needs to establish a reliable, annual funding source that will generate approximately \$1,764,537 per year on average over the next eight years. The Agency needs to ensure funds are available to support long-term sustainable service and GSP implementation. This Engineer's Report supports the establishment of such a revenue source through the formation of a Proposition 218-compliant balloted assessment. If approved by parcel owners, this assessment would replace the existing fee program.

For FY 2023-24, the proposed ETSGSA SGMA Operational assessments are:

Irrigated Land	\$ 17.75 per acre
Non-Irrigated Land	\$ 1.54 per acre

Throughout the state, the amount of per-acre charges and/or assessments collected to support the operational efforts of GSAs varies greatly. ETSGSA's proposed assessments are within the range of typical rates in other GSAs and do not exceed the reasonable cost of the proportional special benefit conferred on each parcel, in compliance with Articles XIII C and D of the California Constitution.

Legal Authority

SGMA provides authority for GSAs to impose charges in Water Code Sections 10730, *et seq.* Water Code Section 10730 describes fees for funding general GSA management and GSP implementation, which are often interpreted as regulatory fees subject to Proposition 26 and Article XIIC of the California Constitution. Water Code Section 10730.2 describes fees that more broadly fund the full spectrum of GSA costs, including capital expenses. These fees are often interpreted as property related fees subject to Proposition 218 and Article XIID of the California Constitution.

However, Water Code Section 10730.8 explicitly states, "nothing in this chapter shall affect or interfere with the authority of a groundwater sustainability agency to levy and collect taxes, assessments, charges, and tolls as otherwise provided by law." This code section provides the legal framework behind the decision to impose a Proposition 218-compliant special benefit assessment to fund ETSGSA's operational costs.

As a joint powers authority, ETSGSA holds the authority to jointly exercise “any power common to the contracting parties, including, but not limited to, the authority to levy a fee, assessment, or tax,” as outlined by California Government Code § 6502. Because all ETSGSA member agencies hold the authority to impose a benefit assessment, this authority is held by ETSGSA itself.

All benefit assessments must comply with Articles XIII C and XIII D of the California Constitution (often still referred to as “Proposition 218”), and the Proposition 218 Omnibus Implementation Act (Government Code, § 53750, *et seq.*). Proposition 218 allows for special benefit assessments to be levied to fund the cost of providing services and improvements, as well as maintenance and operational expenses of a public improvement that provides a special benefit to the assessed property.

Proposition 218 imposes a number of requirements to implement a special benefit assessment, including property-owner balloting, and the process by which ETSGSA is developing and proposing these assessments complies with those requirements.

Assessment Process and Future Continuation of Assessment

Following submittal of this Report to ETSGSA for preliminary acceptance, the Board may call for an assessment ballot proceeding and public hearing on the proposed establishment of a SGMA Operational Assessment.

If the Board approves such action, a notice of assessment and assessment ballot shall be mailed to each parcel owner who will be subject to the proposed assessment. Such notice will include a description of GSA Administration and GSP Implementation efforts to be funded by the proposed assessment, the total amount of the proposed assessment chargeable to the parcels within ETSGSA, the amount chargeable to the specific owner’s parcel, the reasons for the proposed assessment, the basis upon which the assessment was calculated, and an explanation of the process for submitting a ballot. Each notice will include a postage prepaid return envelope and a ballot on which the parcel owner may mark their approval or disapproval of the proposed assessments as well as affix their signature.

After the ballots are mailed to parcel owners in ETSGSA, a minimum 45-day time period must be provided for the return of the assessment ballots. ETSGSA has elected to use a 60-day balloting period to ensure parcel owners have the opportunity to submit their ballots. Following this balloting time period, a public hearing must be held for the purpose of allowing public testimony regarding the proposed assessments. At the public hearing, the public will have the opportunity to speak on the issue. The Public Hearing will be held in early 2024 on a date to be announced.

At that public hearing, all ballots returned (and not withdrawn) will be tabulated in accordance with the requirements of Proposition 218 and the Proposition 218 Omnibus Implementation Act and will not be opened or tabulated before the close of the public input portion of the hearing. At the conclusion of the public hearing, an impartial person designated by ETSGSA who does not have a vested interest in the outcome of the proposed assessment shall tabulate the assessment ballots. Ballots will be unsealed and tabulated in public view. If it is determined that the assessment ballots submitted in opposition to the proposed assessment do not exceed the assessment ballots submitted in favor of the assessment (weighted by the proportional financial obligation of the parcel for which ballots are submitted), the Board may take action to approve the imposition of assessments for fiscal year 2023-24 and each fiscal year thereafter. The levy and collection of the assessments would continue year-to-year until terminated by the Board.

As outlined in Government Code Section 53739, the Board may levy the assessment in future years without conducting a new vote procedure, as long as the assessments are less than or equal to the assessment rates authorized in the original balloting procedure. The Board will not assess the full authorized amount unless justified by actual required budget costs or reasonably foreseeable budget costs. At the annual public hearing, members of the public can provide input to the Board prior to the Board's decision on continuing the GSA Administration and GSP Implementation efforts, and assessments for the next fiscal year.

Description of Improvements

ETSGSA provides a range of sustainable groundwater management services (related to GSA Administration and GSP Implementation) within its boundary. Costs related to Agency operations support the continued work of the GSA to ensure compliance with SGMA and the ability to administer and implement the GSP.

The operational budget to be funded by this proposed assessment includes expenses for Agency administration, SGMA compliance, and compliance actions in support of GSP implementation. Agency administration includes costs related to Subbasin coordination, outreach, legal services, and other administrative efforts. SGMA compliance includes costs related to groundwater level monitoring, annual reporting, GSP updates, groundwater model updates, and other efforts related to State-mandated requirements. Operational expenses also include costs related to administrative functions needed to prepare for and begin implementation of actions in support of GSP implementation. These include planning and management of GSP implementation, management responses to changing conditions identified during the monitoring program, development and implementation of the Pumping Management Framework, and other efforts to support the sustainable management of groundwater resources in the Subbasin.

The primary purpose of ETSGSA's planned management and compliance actions is to support efforts to measure and regulate groundwater extraction. While these actions do not include implementation of the projects themselves or cover the costs of land repurposing to decrease groundwater demand, they do include developing and operating the management infrastructure to measure and regulate groundwater pumping, as well as feasibility studies and efforts to improve understanding of project applicability and optimal approach. They also strive to establish a framework by which sustainability goals can be tracked, calibrated, and achieved.

The GSA Administration and GSP Implementation Services proposed to be undertaken by ETSGSA and the cost thereof paid from the levy of the annual assessment provide special benefits to parcels within ETSGSA as defined in the Method of Assessment described herein. In addition to the efforts defined by California Water Code Sections 10730, *et seq.*, the activities are generally described below.

This proposed benefit assessment would fund GSA Administration and GSP Implementation services, which provide a direct special benefit to the assessed parcels within ETSGSA's jurisdiction and help the GSA achieve its goals pursuant to SGMA, including:

- State-mandated monitoring and reporting.
- Improved regional water supply management.
- Improved understanding of Subbasin conditions.

- Refinement of sustainability goals described in the GSP.
- Adjustment and calibration of approaches as part of an adaptive management strategy to achieve the sustainability goals described in the GSP.
- Agency administration and coordination.
- Establishment of financial reserves for improved fiscal management, risk reduction and to respond to changing conditions.

The formula below describes the relationship between the final level of service, the baseline level of service if the assessment is not instituted, and the enhanced level of service funded by the assessment.

Final Level of Service	=	Baseline Level of Service	+	Enhanced Level of Service
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GSA Administration and GSP Implementation services to be funded by the proposed assessment include all operational services needed to ensure that the level of sustainable groundwater management is maintained within ETSGSA's boundaries.

Specifically, the improved groundwater sustainability operational and maintenance activities include:

- Groundwater level monitoring.
- Groundwater level monitoring network maintenance and expansion.
- Annual reporting.
- Groundwater model updates.
- Data management.
- Five-year GSP update.
- Identification and fulfillment of data gaps.
- Water supply accounting.
- Pumping management and regulatory framework development and implementation.
- Land repurposing program planning.
- Groundwater recharge master planning.
- Domestic well mitigation program.
- Identification and implementation of management actions in the event of minimum threshold ("MT") exceedances.
- Well registration, metering, and management.

- Development of financing strategies, including potential grant funding pursuits and pursuit of funding for projects related to East Stanislaus Integrated Regional Water Management (“IRWM”).
- Groundwater recharge assessment tool (“GRAT”) refinement and use to identify optimal recharge project locations.
- Proposition 218 fee and assessment program development.
- Community and stakeholder outreach and engagement.
- Inter-basin coordination and planning.
- Administration, including coordination, Board secretary, legal services, and other services and supplies.

State-Mandated Monitoring and Reporting and Related Efforts

Many aspects of ETSGSA’s operational efforts are in place to maintain compliance with SGMA. The State mandates groundwater level monitoring and annual reporting. These efforts support expanded knowledge of Subbasin conditions, which informs the GSA’s development of projects and management actions and increases its ability to monitor and adjust efforts to achieve sustainability. In addition to the continued monitoring efforts conducted by ETSGSA, a planned expansion of the monitoring network system will help to increase the GSA’s ability to track and act on Subbasin conditions.

Other operational activities also support these efforts, including groundwater modeling, which allows the Agency to better understand groundwater flows, interconnected surface water, water budgets, and other detailed information needed to manage the aquifer. Data management refers generally to the administration of data collected by these efforts, the capacity to qualify and report it to the State, and the ability to interpret and apply data to direct sustainability efforts.

In addition to the submittal of annual reports to the State, GSAs must update their GSP every five years to ensure that changes in groundwater conditions and improved knowledge of the aquifer are considered as part of an adaptive management strategy to maintain compliance and achieve the Subbasin sustainability goals. ETSGSA is currently planning for this milestone, in cooperation with WTSGSA.

State-mandated monitoring and reporting and related efforts provide special benefit to the parcels within ETSGSA, because maintaining compliance with SGMA helps the GSA move toward its goal of sustainable management and helps avoid the loss of local control and cost of state intervention.

Compliance Management Actions in Support of GSP Implementation

As noted above, sustainable management of the eastern portion of the Turlock Subbasin revolves largely around improved regional water resource management. ETSGSA seeks to primarily address three sustainability indicators described in the GSP: chronic lowering of groundwater levels, reduction of groundwater storage, and depletion of interconnected surface water. These three sustainability indicators and their potential undesirable results have important implications for the availability of groundwater resources as a primary of backup water supply, particularly in support of agricultural activities. These actions also work toward avoidance of other potential undesirable results stemming from degraded water quality and land subsidence. The compliance management actions to be funded by the proposed assessment are intended to address the relevant sustainability indicators and achieve the Turlock Subbasin Sustainability Goal.

A key aspect of sustainable groundwater management is first determining and then achieving the sustainable yield of the Subbasin. Many compliance management actions to be funded as a part of the services of this proposed assessment are intended to improve understanding of, and work towards achieving, the sustainable yield of the Subbasin. Sustainable yield is defined by California Water Code Section 10721 (w) as “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.” Sustainable yield can be achieved through both decreasing groundwater extraction and increasing groundwater storage.

Determining the sustainable yield is a dynamic process that will evolve over the course of GSP implementation. Based on preliminary groundwater monitoring conducted during development of the GSP, ETSGSA estimates the current baseline groundwater extraction to be approximately 241,425 acre feet (“AF”) annually. The GSP projects a future groundwater demand of approximately 249,000 AF annually. Preliminary modeling indicates a net groundwater demand reduction of approximately 96,000 AF annually will be needed to achieve the Sustainable Yield. Current plans call for a ten percent (10%) reduction goal from baseline extraction through 2027 and a twenty percent (20%) reduction goal from baseline extraction from 2028 through 2032 as the initial steps toward the GSA’s goals of achieving sustainable yield by 2042. Reduction goals between 2033 and 2042 will be established based on additional information available at that time and the successfulness of recharge projects and land repurposing strategies implemented to that time. These preliminary numbers represent the best current understanding of the Subbasin.

Compliance management actions intended specifically to improve understanding of sustainable yield and increase groundwater levels and storage include water supply accounting through evapotranspiration (“ET”) monitoring and well metering, assessment of monitoring data, groundwater model refinement, identification and filling of data gaps, well registration and metering, implementation of pumping tracking and management program, and implementation of management actions to address potential MT exceedances. Management actions intended to decrease groundwater extraction include the development and implementation of a pumping management framework, management of the land repurposing program, recharge master planning, and use of the GRAT model to optimize surface recharge water distribution and dispersed stormwater recharge projects.

These management actions in support of GSP implementation provide special benefits to the assessed parcels within ETSGSA by supporting efforts to improve water supply management, ensure compliance with SGMA, and avoid undesirable results.

Agency Administration and Coordination

Agency administration and coordination includes costs related to general administration, coordination of efforts to implement management actions and projects, inter-basin coordination, and tracking and pursuit of alternative financial strategies, including grant programs and alignment with the local IRWMP program. These costs include stakeholder and community outreach and engagement, legal services, other services and supplies, the tracking and development of strategies to win grant awards, and Proposition 218 assessment/fee program development (both the current effort and a potential fee of groundwater use to fund project costs). This Agency administration and coordination provides special benefit to the parcels within ETSGSA by ensuring the Agency’s ability to implement the GSP.

Cost and Budget Estimate

ETSGSA has developed a spending plan which concludes that the appropriate level of sustainable groundwater management services related to GSA Administration and GSP Implementation requires approximately \$1,746,537 per year on average. This spending plan utilizes an eight-year budget projection including both base operational costs and debt service costs. While the debt service costs are static each year, the projected base operational costs generally increase through fiscal year 2031-32. In order to develop a consistent annual cost and corresponding assessment amount, an eight-year average has been used to determine the annual revenue needed to support the Agency's operations over the analysis period.

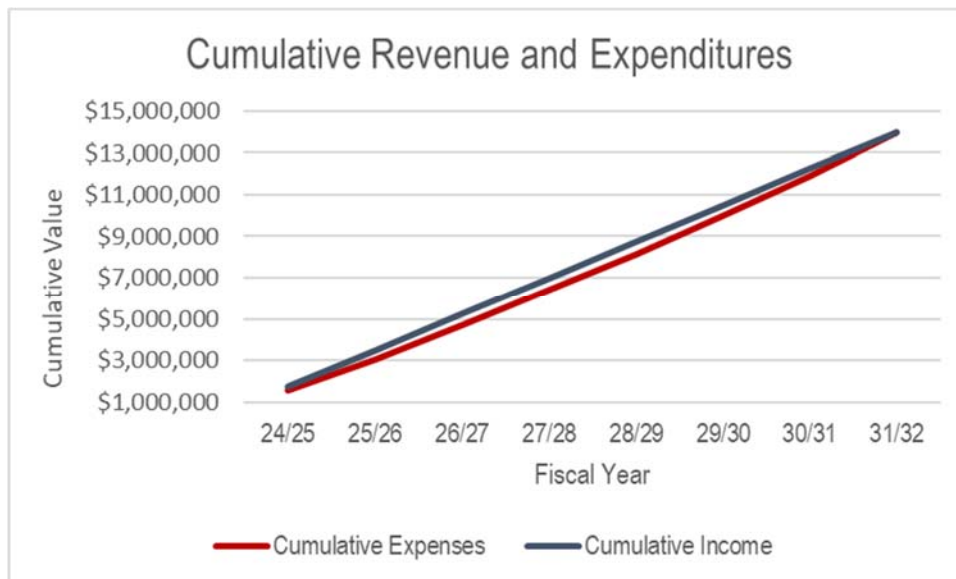
In Table 3 below, annual budget projections are shown from fiscal years 2024-25 through 2031-32:

Table 3 – Eight-Year Operational Budget Projections

ETSGSA Operational Funding Needs									
	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	FY 30/31	FY 31/32	8-Year Average
Base Operational Costs	\$1,420,508	\$1,383,513	\$1,543,412	\$1,557,579	\$1,635,458	\$1,726,636	\$1,765,752	\$1,969,829	\$1,625,336
Debt Service Costs	\$121,201	\$121,201	\$121,201	\$121,201	\$121,201	\$121,201	\$121,201	\$121,201	\$121,201
Total Operational Costs	\$1,541,709	\$1,504,714	\$1,664,613	\$1,678,780	\$1,756,659	\$1,847,837	\$1,886,953	\$2,091,030	\$1,746,537

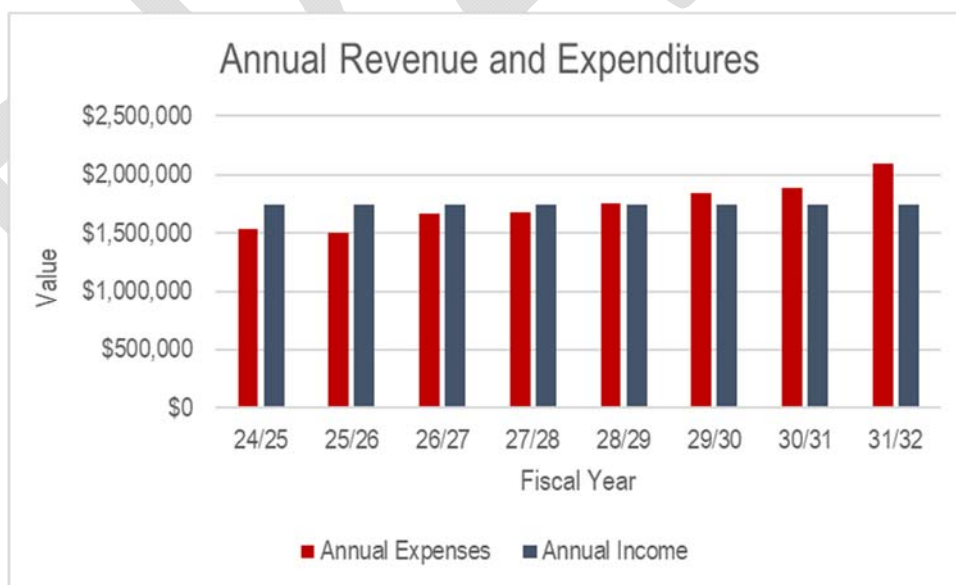
In Figure 3 below, cumulative income and expenditures are shown to illustrate the need for the annual operational budget. By fiscal year 2031-32, the projected total cumulative revenue generated by the proposed assessment will be \$13,972,295. This amount also represents the projected total cumulative expenditures during this period.

Figure 3 – Cumulative Revenue Summary



An annual analysis of revenue and expenditures also illustrates the dynamic of utilizing an eight-year average to calculate annual revenue needs. While the annual assessment revenue will not be fully utilized from fiscal year 2024-25 through fiscal year 2027-28, annual expenditures are shown to surpass annual revenue in fiscal year 2028-29. Dedicated reserves from the first four fiscal years are projected to cover the difference in expenditures during the following four fiscal years. See Figure 4 below:

Figure 4 – Annual Revenue Summary



The annual operational revenue need of \$1,746,537 is shown below in the proposed budget. Additional costs related to county collection and billing administration and an allowance for uncollectible assessments has also been included in the total annual costs. (An allowance of \$17,465 towards the general benefit contribution is included in the proposed budget as explained in the following section). Table 4, below provides a proposed budget for 2023-24:

Table 4 – Fiscal Year 2023-24 Proposed Budget

Costs		Total Amount	
Beginning Unrestricted Net Assets		\$0.00	
Annual Operations and Maintenance Costs		\$1,746,537	
Total Annual Costs		\$1,746,537	
Assessment Calculator			
Total Annual Costs		\$1,746,537	
Balance to Assessment		\$1,746,537	
	<u>Benefit Units (a)</u>	<u>Rate(b)</u>	<u>(a)*(b)</u>
Irrigated Parcel Land (acres)	94,699	\$17.75	\$1,681,117
Non-Irrigated Parcel Land (acres)	42,358	\$1.54	\$65,420
	Total Assessment Amount =		\$1,746,537

Note: Benefit Units are based upon Single Family Equivalents as explained in the following section.

Method of Apportionment

This section includes an explanation of the special benefits to be derived from the Services provided by ETSGSA operations, the criteria for the expenditure of assessment funds, and the methodology used to apportion the total assessments to properties within the proposed assessment area. ETSGSA parcels proposed to receive a special benefit assessment consists of all Assessor's Parcel Numbers that are included within the ETSGSA boundary.²

Pursuant to Proposition 218, the method used for apportioning the assessment is based upon the proportional special benefits conferred to the parcels over and above the general benefits conferred to real property in ETSGSA, or to the public at large. Special benefit is calculated for each parcel in the GSA using the following process:

- 1.) Identification of all benefit factors derived from the GSA Administration and GSP Implementation.
- 2.) Calculation of the proportion of these benefits that are general.
- 3.) Determination of the relative special benefit within different areas within ETSGSA.
- 4.) Determination of the relative special benefit per parcel type.
- 5.) Calculation of the specific assessment for each individual parcel based upon special vs. general benefit, property type, and size.

Discussion of Benefit

Maintenance, operational, and improvement activities relating to sustainable groundwater management fall within the scope of GSA Administration and GSP Implementation Services that may be funded by groundwater sustainability agencies.

Proposition 218 expressly prohibits any assessment "imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel." (Cal. Const., art. XIII.C.) The proposed assessments can only be levied based on the special benefit to those parcel(s). This benefit must be received by the parcel over and above any general benefits.

² As a reminder, the EWD parcels are included in this balloting process, but will not be assessed directly by ETSGSA until the EWD assessments for SGMA ends. EWD will pay these assessments in the interim on behalf of its landowners.

The special benefit factors below, when applied to property in ETSGSA, confer special benefits to property and ultimately protect property from undesirable results and unavailability of reliable groundwater resources, and improve the utility and functionality of such property. As shown further in this section, they do not exceed the reasonable costs of the proportional special benefit conferred on that parcel, are to be levied based upon special benefits and are over and above the current benefit level.

Sustainable GW Management Is a Special Benefit

Sustainable groundwater management services, such as ETSGSA's operations, provide special benefits. Special benefits are benefits that are "peculiar and distinct over and above general benefits located in the district or to the public at large." (Cal. Const. art. XIII D § 2(i).) Because sustainable groundwater management protects particular identifiable parcels (including residents of the parcel and any appurtenant facilities or improvements) from undesirable results and potential unavailability of reliable groundwater access, the benefits are provided directly to the proposed parcels within ETSGSA.

The Assessment Engineer finds that the GSA Administration and GSP Implementation Services are of distinct and direct special benefit to the property within ETSGSA. This Report concludes that enhanced sustainable groundwater management is a special benefit directly to the property that is being protected from undesirable results including potential unavailability of reliable groundwater access. The proposed GSA Administration and GSP Implementation Services, which would be over and above the baseline level of service, will result in the Subbasin being maintained to a much higher standard, and accordingly will reduce the risk of undesirable results and the associated effects on property, including unavailability of reliable groundwater access, State intervention, and decreased property values.

The following Benefit Factors section describes how and why the GSA Administration and GSP Implementation Services specially benefit assessed parcels. This benefit is particular and distinct from its effect on property in general or on the public at large.

Benefit Factors

One primary constitutional requirement of this Engineer's Report is to establish the special benefit received by parcels within ETSGSA from the Agency's sustainable groundwater management services. This special benefit will be the basis of the proposed SGMA Operational Assessment which will provide a reliable stand-alone revenue source in support of ETSGSA operations to ensure the Agency's ability to implement its GSP.

The primary special benefit from the GSA Administration and GSP Implementation Services is significantly improved regional water supply management, resulting in sustainable groundwater availability. This applies to both surface water and groundwater. In addition, this section describes other special benefits conferred to lots and parcels within ETSGSA resulting from the Services that will be provided. These types of special benefit are summarized below.

Improved Water Supply Management

Management of the water supply within ETSGSA's boundaries has considerable implications for the region's stability and economic output. As noted above, groundwater is overwhelmingly the primary water source within the GSA. However, sustainable management of groundwater resources within ETSGSA also affects the overall stability of water resource management. This provides special benefits to all parcels within ETSGSA by providing a more reliable and resilient water supply.

In the event that groundwater resources are not sustainably managed, regional water supply could decline, leaving parcels to deal with effects of the undesirable results described in the GSP. These include, but are not limited to, increased pumping costs related to declining groundwater levels, inability to pump enough groundwater to meet demand, and exhaustion of alternative water sources in lieu of groundwater supply. Additionally, the Subbasin's environmental resilience and ecological health would be adversely affected by a declining water supply. These results would likely decrease the viability of these parcels to be used for agricultural or other purposes, which would negatively affect property values. The efforts of the GSA to implement sustainable groundwater management will help to define the sustainable yield for all parcels, which will help to protect the ability of all landowners to exercise their water rights currently or in the future.

Water supply management relates directly to the five primary sustainability indicators present within ETSGSA's jurisdiction: chronic lowering of groundwater levels, reduction of groundwater in storage, depletion of interconnected surface water, degraded water quality, and land subsidence. Undesirable results stemming from these indicators include increased pumping costs, unavailability of groundwater or other water sources, inability to safely utilize groundwater due to water quality issues, adverse effects on beneficial water users within the GSA, and adverse effects on land use or the ability to use critical infrastructure due to land subsidence within the GSA. As the primary focus of ETSGSA, this special benefit factor has been assigned a weighting of sixty-five percent (65%).

Effective SGMA Compliance - Avoidance of “State Intervention”

Compliance with SGMA relates to specific State-mandated requirements assessed by DWR and if found deficient, referred to the State Water Resources Control Board (“State Water Board”) for enforcement. In addition to groundwater level monitoring and reporting, ETSGSA must implement the actions set forth in the Turlock Subbasin GSP and succeed in its efforts to make progress towards and achieve the Subbasin Sustainability Goals as specified in that GSP. Parcels within the State-defined Subbasin boundary are themselves also regulated by SGMA and must comply with its mandates. In the event of State intervention, they will be subjected to the imposition of fees, measurement and reporting requirements, and possibly pumping limitations.

In the event that ETSGSA fails to adhere to SGMA regulations, avoid undesirable results, and achieve the Subbasin Sustainability Goals, the State Water Board may intervene, in a process referred to as “State intervention.” If the State Water Board were to take control of managing the Subbasin, local input into the management of groundwater resources would be severely limited. Groundwater users would be required to register all wells, install meters, and submit reports to the State regarding their groundwater use. The State Water Board’s adopted schedule states that annual well registration charges are \$300 per well and pumping fees are \$40 - \$55 per AF. The State could restrict pumping and assess penalties for overdraft. All of these costs would be in addition to the continued costs incurred by the GSA to implement the GSP and correct any deficiencies.

Parcel owners within ETSGSA receive a special benefit from ETSGSA’s efforts to maintain compliance with SGMA under local direction and control and avoid the outcome of State intervention. As a key element of the GSA Administration and GSP Implementation Services provided to properties within ETSGSA, this special benefit factor has been assigned a weighting of thirty-five percent (35%).

General Versus Special Benefits

A special benefit is a particular and distinct benefit over and above the general benefits conferred on real property located outside but proximate to an assessment area, within an assessment area, or to the public at large. The total cost of the GSA Administration and GSP Implementation Services must be apportioned among the properties being assessed, based on the proportionate special benefit the properties will receive. Proposition 218 requires any local agency proposing a new special assessment to “separate the general benefits from the special benefits conferred on a parcel.” (Cal. Const. art. XIII §4.) The basis for separating special and general benefits is to ensure that certain parcel owners are not charged for GSA Administration and GSP Implementation Services provided to the general public or to property outside the assessed area. (See *Silicon Valley Taxpayers’ Assn., Inc. v. Santa Clara County Open Space Authority* (2008) 44 Cal. 4th 431, 450.)

All property that is specially benefited by the GSA Administration and GSP Implementation Services will be assessed, including the parcels used in the provision of general benefits. The Assessment Engineer conducted a parcel-by-parcel analysis and has developed an approach; described below, which has become the industry standard. Below is a description of the calculations used to separate the general benefit from special benefit, and the quantify the general benefit, in ETSGSA. In each step of this analysis, liberal assumptions and determinations have been used in order to ensure that the total calculated general benefit is maximized, and not understated.

Hence:

$$\text{Total Benefit} = \text{Special Benefit} + \text{General Benefit}$$

A well-established formula to estimate the general benefit is listed below which relies on a three-component analysis of potential general benefit:

$$\text{General Benefit} = \text{Benefit to Real Property Outside of Assessment District} + \text{Benefit to Real Property Inside of Assessment District} + \text{Benefit to Public at Large}$$

Benefit to Parcels that are Outside, But Proximate, to ETSGSA

To determine the benefit to parcels outside, but proximate to the proposed assessed acres in ETSGSA, the Assessment Engineer has analyzed parcels adjacent to ETSGSA's jurisdiction.

The area north of ETSGSA, beyond the Tuolumne River, contains parcels within the Modesto Subbasin. To the South, beyond the Merced River, lie parcels within the Merced Subbasin. Accordingly, parcels to the west of ETSGSA are within WTSGSA and inside the Subbasin. While these proximate parcels may receive some degree of benefit from the GSA Administration and GSP Implementation Services funded by this proposed assessment, the efforts of neighboring GSAs also provide some degree of benefit to parcels within ETSGSA. For this reason, the benefit provided to parcels to the north, south, and west is offset by and reciprocal to the benefit provided to ETSGSA parcel owners through similar sustainable groundwater management efforts in adjacent GSA jurisdictions.

Parcels to the east of ETSGSA lie within the Sierra Nevada foothills. These properties are largely non-irrigated rangeland parcels at higher elevations outside the Subbasin, where groundwater use is more limited. Additionally, these parcels do not benefit from compliance with SGMA, as they lie outside of any groundwater basin managed under a GSP. For these reasons, the special benefit, if any, to parcels to the east of ETSGSA is negligible.

Total General Benefit to Parcels Outside, but Proximate, To ETSGSA = ~ 0%

Benefit to Parcels within ETSGSA

The “indirect and derivative” benefit to property within ETSGSA is particularly difficult to calculate. A solid argument can be presented that all benefit within the proposed assessment area is special because the GSA Administration and GSP Implementation Services are clearly “over and above” and “particular and distinct” when compared with the baseline level of service and the unique proximity and access of the Services enjoyed by benefiting properties in ETSGSA.

For this reason, the Engineer has determined that all benefit provided to parcels within ETSGSA can be considered special benefit, and general benefit, if any, is negligible. As such, all parcels within ETSGSA will be included in the proposed assessment and charged according to the relative special benefit they receive.

Total General Benefit to Parcels Within ETSGSA = ~ 0%

Benefit to the Public at Large

This Report uses any benefit to the “public at large” as the third component of the overall general benefit quantification. In *Beutz v. County of Riverside* (2010) 184 Cal.App.4th 1516, the Court opined that general benefits from parks and recreation facilities could be quantified by measuring the use of parks and recreation facilities by people who do not live within the assessment boundaries. Therefore, the general benefit to the public at large can be estimated by the proportionate amount of time that ETSGSA’s Administration and GSP Implementation Services are used and enjoyed by individuals who are not residents, employees, customers, or parcel owners in ETSGSA.

Here, any general benefit to the public at large within the District would primarily be made up of non-resident visitors who are not associated with any parcel owners – (e.g., sightseers, etc.) of which there are very, very few. Most of ETSGSA is inaccessible to the public. The need for access (and water use) by those who do not contribute to the assessment in any way (e.g., visitors to ETSGSA who are not residents, employees, customers, or parcel owners) in ETSGSA is extremely limited. This small component of general benefits within ETSGSA, if any, is very difficult to measure and quantify, and is negligible.

Total General Benefit to Public at Large = ~ 0%

Special Note on General Benefits

In *Dahms v. Downtown Pomona Property* (2009) 174 Cal.App.4th 708, the court upheld an assessment that was 100% special benefit on the rationale that the services and improvements funded by the assessments were directly provided to property in that district. Similar to the assessments in Pomona that were validated by *Dahms*, the assessments described in this Engineer's Report fund groundwater sustainability Services and Improvements that are directly provided to property in the assessment area. Therefore, *Dahms* establishes a basis for minimal or zero general benefits from the assessments. However, in this report, the general benefit is more liberally estimated and described, and then budgeted so that it is funded by sources other than the assessment.

Total General Benefits

Using a sum of these three measures of general benefit, we find that none of the benefits conferred by the GSA Administration and GSP Implementation Services may be measurably general in nature, and no offsetting general benefit reimbursement is required. (However, it should be noted that ETSGSA receives other revenues, grants and non-monetary contributions which hypothetically could be used to offset any general benefits.)

<p>General Benefit =</p> <p>~ 0 % (Outside ETSGSA)</p> <p>+ ~ 0 % (Property within ETSGSA)</p> <p>+ ~ 0 % (Public at Large)</p> <p>= 1.0% (Total General Benefit)</p>

Method of Assessment

The next step in apportioning assessments is to determine the relative special benefit for each parcel. This process involves determining the relative benefit received by each parcel in relation to a "benchmark" parcel, a hypothetical single family detached dwelling on one parcel which, per the industry standard, is called one "Single Family Equivalent" or "SFE". This SFE methodology is commonly used to distribute assessments in proportion to estimated special benefits.

In this Report, all parcels are assigned an “SFE” value, which is each parcel’s relative benefit in relation to an acre of agricultural land. (To be clear, the SFE value is typically set to a value of 1.0 for each single-family residence – hence the term “Single Family Equivalent” – however, since agricultural acres are by far the most common property type within the Agency, the agricultural acre is used as the base datum for this analysis. In this case, one acre of an irrigated parcel has been assigned a value of one SFE.)

The next step in apportioning assessments is to determine the relative special benefit for each parcel. This process involves determining the special benefit received by each parcel in relation to a “benchmark”: a single acre of an irrigated parcel. This SFE methodology is commonly used to distribute assessments in proportion to estimated special benefits.

Fundamental Formulas

The relative special benefit to parcels from the GSA Administration and GSP Implementation Services provided by ETSGSA is best illustrated with several formulas as shown below:

Equation 1

The special benefit to a parcel is a function of factors such as land use and size:

$$\text{Special Benefit}_{\text{parcel}} = f(\text{land use and size})$$

Equation 2

The base dollar rate to be assessed to each parcel is the quotient of the sum of the costs divided by the sum of the special benefit.

$$\text{Rate} = \frac{\sum \text{Costs}}{\sum \text{Special Benefit}}$$

Equation 3

The specific dollar assessment on a parcel is the product of the special benefit and the rate.

$$\text{Assessment}_{\text{parcel}} = \text{Rate} \times \text{Special Benefit}_{\text{parcel}}$$

Methodology Approach for ETSGSA

The special benefit (measured in SFEs) for each parcel within ETSGSA is calculated based upon three primary weighted factors. These factors establish the base special benefit for each parcel under the proposed SGMA Operational Assessment.

Special Benefit Factors (See Table 6)

Improved Water Supply Management

(i.e., access to groundwater, improved availability of other water sources, avoidance of undesirable results stemming from lowering of groundwater levels, reduction in

groundwater storage, depletion of interconnected surface waters, degraded water quality, and land subsidence).

Avoidance of State Intervention through Effective SGMA Compliance

(i.e., maintenance of local control, avoidance of required metering and reporting)

Land Use Factors

As noted above, the designation of whether a parcel is irrigated or non-irrigated is a key component of determining the degree of special benefit each parcel receives from ETSGSA's Administration and GSP Implementation Services.

ETSGSA contains large amounts of deciduous trees, such as almonds, as well as walnuts, peaches, citrus, corn, grain, vines, and some truck crops. These categories can be considered irrigated, as they require more water than naturally falls from precipitation. In addition, poultry farms, dairies and food processing plants use significant amounts of water in their operations and are defined as irrigated under GSA policy. Other categories, such as non-irrigated pasture (grazing), vacant or rangeland properties, and dry farming fields use minimal water resources, and can be considered non-irrigated. Other uses, such as residential, commercial, and government or institutional, are also considered non-irrigated due to their relatively small use of groundwater.

Land use based on County use codes establishes a baseline irrigation designation for parcels. ETSGSA is currently in the process of establishing the use of satellite-derived ET readings to monitor consumptive water use, which will be used in the near future to help determine irrigation status. These readings measure the consumptive water use of a given agricultural field, helping to determine whether it is irrigated, and the amount of water used. These readings, as well as other pertinent factors, may alter the designation of a given parcel in the future. Additionally, ETSGSA plans to adopt an appeal process in which parcel owners will have the opportunity to submit claims that their parcel(s) have been incorrectly classified, and will be given the opportunity, with evidence, to categorize their property as non-irrigated. Table 5 below summarizes irrigation designation by parcel type, using county use codes as a general basis for determining land use.

Table 5 – General Irrigation Designation by Parcel Type

Land Use	Irrigation Designation
Description	Irrigated or Non-Irrigated
Trees or Vines	Irrigated
Farming	Irrigated
Dairy	Irrigated
Poultry	Irrigated
Food Processing	Irrigated
Grazing	Non-Irrigated
Dry Farming	Non-Irrigated
Government and Institutional	Non-Irrigated
Sand and Gravel	Non-Irrigated
Vacant	Non-Irrigated
Commercial	Non-Irrigated
Residential	Non-Irrigated
Miscellaneous	Non-Irrigated
Mobile Home	Non-Irrigated

It is important to note that designation of irrigation status is applied to the entirety of a parcel based on water use characteristics. For example, a parcel that is only partially irrigated is still designated as an “irrigated parcel,” and its acreage is charged as “irrigated parcel acreage.” While fluctuations in agricultural production occur, irrigators maintain the ability to irrigate their properties as they see fit. Protection of water resources underlying these parcels provides assurance that this ability is maintained. In the event a parcel owner successfully appeals to de-designate a parcel as non-irrigated pursuant to the ETSGSA’s adopted policy, no irrigation may occur on that property.

Designation of a parcel as non-irrigated applies only when no discernable irrigation is taking place. In this case, the entirety of a parcel designated as “non-irrigated” is charged according to the non-irrigated assessment amount across its total parcel acreage.

Irrigated parcels receive greater special benefit from improved water supply management, SGMA compliance, and prevention of other undesirable results than non-irrigated properties. As discussed in the section titled “Benefit Factors” above, each of these benefit factors is weighted in accordance with the special benefits they provide relative to the total benefit provided by all factors. However, each parcel type (irrigated or non-irrigated), is also assigned a Normalized Factor Value based on the relative special benefit provided by these factors.

These parcel types and benefit factors are described below and summarized in Table 6. Table 6 summarizes the relative weightings of the three primary Special Benefit factors (Improved water management and SGMA compliance) and the scores for irrigated and non-irrigated lands for each factor.

Table 6 – Land Use Factors for Parcel Types

Land Use	Improved Water Supply Management	SGMA Compliance	Total Normalized Land Use Factor
Relative Weight (%)	65%	35%	
Irrigated Parcel Land	100	100	100
Non-Irrigated Parcel Land	8	10	8.7

Note: Normalized Factor Value is determined by calculating the sum of the relative benefit provided to a property type, weighted by each benefit factor.

The scores in Table 6 for each land use and special benefit factor are discussed below:

Improved Water Supply Management

The Normalized Factor Value for improved water supply management relates to ETSGSA's Administration and GSP Implementation Services in managing regional water resources, particularly groundwater. Prevention of undesirable results stemming from chronic lowering of groundwater levels, reduction in groundwater storage, depletion of interconnected surface water, degraded water quality, and land subsidence provides special benefits to the assessed parcels because these results threaten the agricultural, economic, residential, or ecological viability of these parcels. Furthermore, the activities of the GSA to implement sustainable groundwater management will help to define the sustainable yield for all parcels, which will help to protect the ability of all landowners to exercise their water rights currently or in the future.

Irrigated Properties

Based upon an analysis of reliance on water resources, irrigated properties have been assigned a score of 100 for improved water supply management. Irrigated parcels stand to benefit greatly from continued and improved access to water resources that might otherwise be in jeopardy without ETSGSA's efforts toward sustainable groundwater management. Water availability, the continued use of critical infrastructure, and improved understanding of sustainable yield are paramount to the viability of these parcels. Other benefits include regional ecological health.

Non-Irrigated Properties

Although non-irrigated parcels use less groundwater, they still receive special benefits from ETSGSA's management of water resources as it relates to prevention of undesirable results. Long-term concern over water availability and the use of critical infrastructure would affect viability of these properties to be used for various purposes. Analysis of the benefits provided to non-irrigated parcels include several considerations. For parcels that operate domestic or stock wells, continued access to what limited water they may use will be protected. For parcels using surface water, avoidance of undesirable results related to depletion of interconnected surface water provides benefits. The protection of water resources underlying a parcel's land and prevention of other harmful effects related to undesirable results are also aspects of benefits provided to non-irrigated parcels. Protection of regional ecological health also stands to benefit these parcels. The viability (agricultural or other) of these properties is enhanced through the Services to be funded by this proposed assessment. This includes an improved understanding of sustainable yield, which will help protect the ability of property owners to exercise their water rights currently or in the future. Non-irrigated properties have been assigned a score of 8 for this factor.

SGMA Compliance – Avoidance of State Intervention

The Normalized Factor Value for SGMA Compliance relates to the special benefit provided by ETSGSA's Services in adhering to State-mandated requirements and avoiding State Intervention.

Irrigated Properties

Based upon an analysis of the potential ramifications of State Intervention, irrigated properties have been assigned a score of 100 for SGMA compliance. State Intervention presents great risk to irrigated properties in terms of loss of local input and control, metering and reporting, pumping restrictions, and State-imposed charges and penalties, all in addition to required remedial efforts to address local groundwater management deficiencies.

Non-Irrigated Properties

While non-irrigated properties are at less risk from the effects of a State Intervention, they would still be adversely affected by this outcome. The viability of these properties to be used in the future for agricultural or other purposes would be negatively affected by a loss of local input and potential long-term pumping restrictions and resulting impacts on the local agricultural economy. An analysis of these benefits provided by avoiding this outcome provides for a score of 10 for non-irrigated properties.

A Note on Publicly Owned Parcels

Article XIID, Section 4 of the California Constitution states that publicly owned properties shall not be exempt from assessments unless there is clear and convincing evidence that those properties receive no special benefit. All public properties that are specially benefited are assessed. Publicly owned parcels were individually reviewed and assigned the most appropriate property type and land use factor.

Summary of SFEs and Rates for Various Land Uses

Rate Summary

The Rate column of Table 9 is determined by dividing the total Budget amount by the total number of SFEs (adjust by zone) in order to determine an assessment rate per SFE. Rates for other types of parcels, as based upon relative replacement costs, are shown in Table 7, below.

Table 7 – Summary of SFEs and Rates for Various Land Uses

Land Use	Normalized Parcel Attribute Score (Table 6)	SFEs	\$ Rate	Unit
Irrigated Parcel Land	100.00	1.000	\$17.75	acre
Non-Irrigated Parcel Land	8.70	0.087	\$1.54	acre

Criteria and Policies

Parcel Changes

The signatory Assessment Engineer is responsible for a parcel-by-parcel analysis, to determine the special benefit and assessment amount for each parcel in ETSGSA. Each year, the Assessment Engineer will re-analyze and re-calculate individual benefits and corresponding assessments for each assessed parcel, incorporating parcel splits and combinations, land use changes, etc. The Assessment Engineer shall use the lien date roll obtained from the Counties of Merced and Stanislaus, or a third-party distributor of this data as the basis for the levy roll. Review of aerial photos and other data including real estate data, and site visits are anticipated.

Appeals of Assessments Levied to Property

Any parcel owner who feels that the assessment levied on their parcel due to incorrect information being used to apply the foregoing method of assessment may file a written appeal in accordance with the appeal process to be developed and adopted by the ETSGSA Board of Directors.

Duration of the Assessment

If approved by parcel owners in an assessment ballot proceeding conducted pursuant to the Article and Government Code Section 53750 *et seq.*, the assessments can be levied annually commencing with fiscal year 2023-24 and continuing each year at the discretion of the ETSGSA Board.

Assessment Funds Must Be Expended Within ETSGSA

The net available assessment funds, after incidental, administrative and other costs, shall be expended exclusively for the GSA Administration and GSP Implementation Services provided to parcels within the boundaries of ETSGSA.

Administration of Assessment Billing

In some cases, the proposed assessment amount may be less than the administrative costs incurred from collecting the assessment. In those cases, ETSGSA may choose to invoice those parcels every two years, instead of annually.

Assessment

The amount to be paid for said GSA Administration and GSP Implementation Services and the expense incidental thereto, to be paid by the parcels in ETSGSA for the fiscal year 2023-24 is generally as follows:

Costs	
Beginning Unrestricted Net Assets	\$0
Total Annual Costs	\$1,746,537
Less Contribution from other Sources	\$0
	\$1,746,537
Net Amount to Assessment	\$1,746,537

The Assessment Diagram attached hereto and incorporated by reference herein shows the exterior boundaries of ETSGSA. The distinctive number of each parcel or lot of land in ETSGSA is its County Assessor's Parcel Number appearing on the Assessment Roll.

Each parcel or lot of land is described in the Assessment Roll by reference to its parcel number as shown on the Assessor's Maps of the Counties of Merced and Stanislaus for the fiscal year 2023-24. For a more particular description of said property, reference is hereby made to the deeds and maps on file and of record in the office of the County Recorders of Merced and Stanislaus County.



Engineer of Work

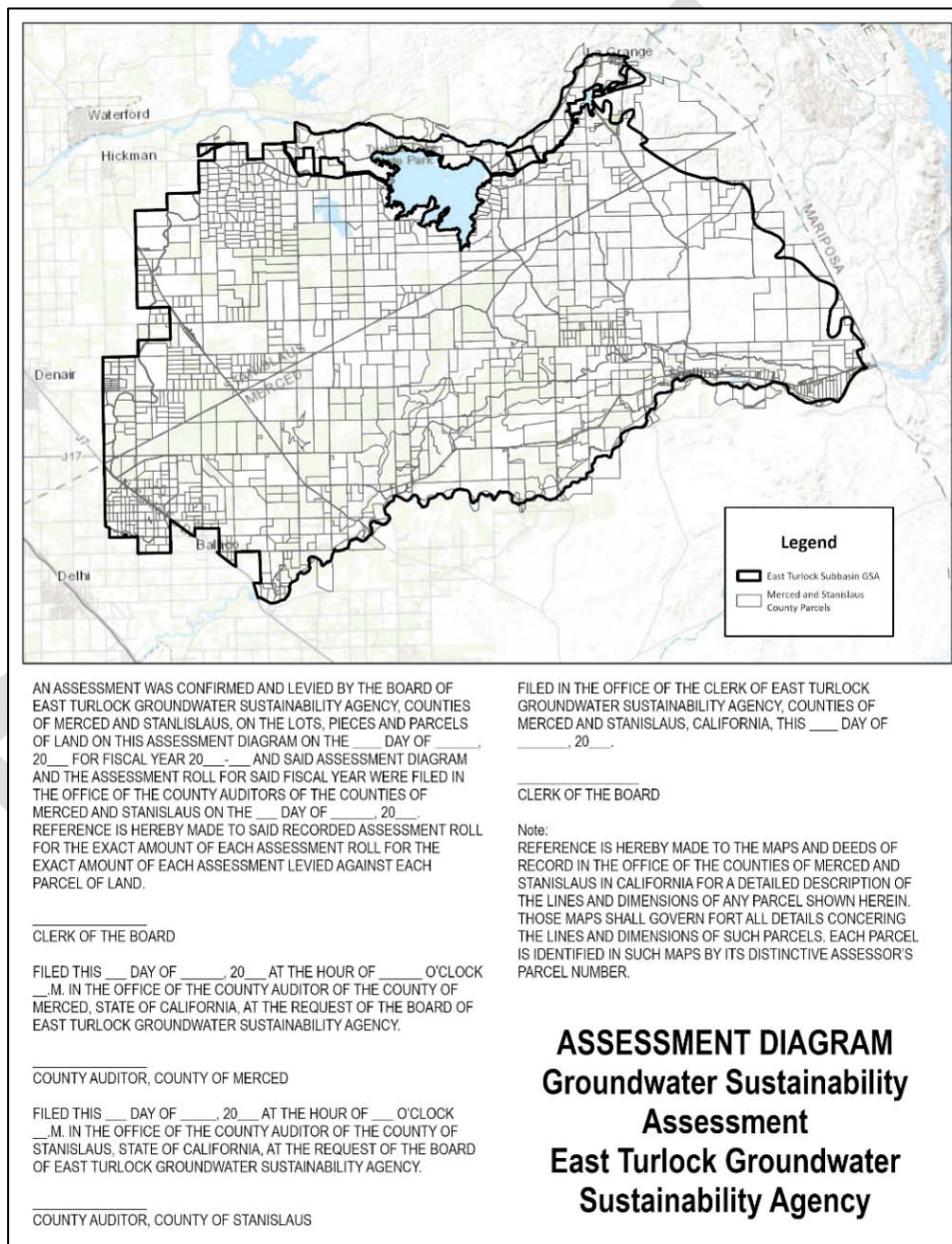
By 

John Bliss, License No. C052019

Assessment Diagram

The assessed acres include all parcels within the boundaries of ETSGSA. The boundaries of ETSGSA are displayed on the following Assessment Diagram. The lines and dimensions of each lot or parcel within ETSGSA are those lines and dimensions as shown on the maps of the Assessor of the Counties of Merced and Stanislaus, for Fiscal Year 2023-24, and are incorporated herein by reference, and made a part of this Diagram and this Report.

Figure 5 – East Turlock GSA Assessment Diagram FY 2023-24



Appendices

Appendix A – Assessment Roll, FY 2023-24

Reference is hereby made to the Assessment Roll in and for ETSGSA on file in the office of the General Manager of ETSGSA, as the Assessment Roll is too voluminous to be bound with this Report.

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