Paso Robles Area Subbasin

Paso Robles Area Groundwater Authority

Rate & Fee Study Report

May 2026

SCIConsultingGroup
Public Finance Consulting Services

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I. Executive Summary

Purpose

This Rate and Fee Study Report (**"Report**") provides the basis for the Paso Robles Area Groundwater Authority ("**PRAGA**" or "**Authority**") proposed groundwater management fee, which will be used to fund the costs of managing groundwater resources and implementing the Groundwater Sustainability Program in compliance with SGMA. To provide context, this Report also presents a description of groundwater conditions in the Paso Robles Area Subbasin ("**Paso Robles Subbasin**" or "**Basin**"), background information regarding the Authority, and an overview of the requirements of the Sustainable Groundwater Management Act ("**SGMA**").

Background

In 2014, the California Legislature enacted SGMA, which is the first statewide law to regulate groundwater. 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. SGMA mandates that local Groundwater Sustainability Agencies ("**GSAs**") be formed in medium and high-priority basins to develop and implement Groundwater Sustainability Plans ("**GSPs**").

The Paso Robles Subbasin is a significant groundwater resource in San Luis Obispo County that supports municipal, agricultural, and environmental uses. The California Department of Water Resources ("**DWR**") designated the Paso Robles Subbasin as a high priority basin subject to critical conditions of overdraft. Given that designation, SGMA required the establishment of a GSA or GSAs on or before June 30, 2017. Five agencies have become GSAs to oversee and sustainably manage specific regions within the Basin: The City of El Paso de Robles ("**City**"), the County of San Luis Obispo ("**County**"), the San Miguel Community Services District ("**SMCSD**"), the Shandon-San Juan Water District ("**SSJWD**"), and later, the Estrella-El Pomar-Creston Water District ("**EPCWD**"). These agencies, collectively referred to as the "**Paso Subbasin GSAs**," are responsible for ensuring sustainable groundwater management and regulatory compliance while addressing long-term water resource challenges.

On or around September 2017, the City, County, SMCSD, and SSJWD as GSAs entered into a *Memorandum of Agreement Regarding Preparation of a Groundwater Sustainability Plan for the Paso Robles Groundwater Basin* ("**MOA**") to form the Paso Robles Cooperative Committee ("**PBCC**"). The PBCC's purposes were to prepare a single GSP for the Basin and to facilitate cooperative management of the Basin pending the development of a long-term governance structure in or around September 2017. EPCWD became a party to the MOA, and a member of the PBCC, in or around June 2023.

The GSAs, with the exception of EPCWD which was not yet a GSA, jointly developed and separately adopted a single GSP to sustainably manage the Basin and submitted it to DWR on January 30, 2020. In response to comments provided by DWR, the GSAs worked collaboratively to refine the GSP and separately adopted a single updated GSP which was approved by DWR in 2023. When EPCWD became a party to the MOA, it agreed to implement the GSP within its service area. The adopted and approved GSP establishes a roadmap for long-term groundwater sustainability and regulatory compliance within the Basin.

As anticipated by the MOA, the GSAs went on to consider long-term management and governance options to follow the adoption and approval of the GSP. Ultimately, four of the GSAs – the City, the County, SSJWD, and EPCWD entered into a joint exercise of powers agreement (the "**JPA Agreement**") that formed the Paso Robles Area Groundwater Authority (the "**Authority**"), a separate joint powers authority established to perform GSP and SGMA administrative and regulatory compliance functions specifically identified in the JPA Agreement, and to pursue the funding necessary to support these actions within their combined service area within the Basin. The Authority replaced the PBCC. Although the members of the Authority are limited to the City, the County, SSJWD, and EPCWD (collectively "**Members**"), there are provisions in the JPA that would permit SMCSD to join the Authority in the future if certain conditions are met. In the meantime, the Authority provides a Basin governance structure for the Members to work collaboratively to implement the GSP, meet regulatory obligations, and pursue sustainability goals.

The approved GSP outlines a framework of Projects and Management Actions ("**PMAs**") designed to mitigate groundwater decline, stabilize water levels, and achieve sustainability objectives. The Authority, on behalf of the Members, is responsible for overseeing the implementation of many of these actions, ensuring compliance with SGMA, and securing necessary funding to support ongoing groundwater management efforts within their combined service area within the Basin. More specifically, and as set forth in Section 4.5 of the JPA Agreement, the following are some of the initial powers granted to the Authority:

- Completion of the regulatory requirements under SGMA, including preparing and submitting annual reports, five-year GSP evaluations and serving as the GSP plan manager.
- Development and implementation of a communication and engagement plan and to otherwise undertake stakeholder outreach.
- Development and implementation of a data gap plan and to otherwise develop and implement an enhanced groundwater level measuring program.
- Development and implementation of a voluntary groundwater demand reduction program, which may include fallowing and other water demand reduction or land repurposing strategies; and development of a mandatory demand reduction program should the voluntary program prove inadequate.

- Development and adoption of an annual budget.
- Development and adoption of a plan to fund the exercise of the granted authorities.

In April 2024, the County engaged a consultant team consisting of SCI Consulting Group, GSI Water Solutions, and Confluence Engineering Solutions (the "**SCI Team**") to develop a cost-of-service study for the Subbasin. This effort included engagement with Member staff and other stakeholders, community outreach efforts, and public workshops. In a parallel effort, the County also engaged Land IQ, a firm specializing in land mapping and remote sensing technology.

In August 2025, the cost-of-service study effort was halted after a majority protest was achieved by affected property owners. In subsequent months, the Authority evaluated alternative funding options and considered reduction of the annual budget. Ultimately, a regulatory fee consistent with Water Code § 10730 and Article XIII C of the California Constitution was selected as the optimal approach for funding the Authority for Fiscal Year ("**FY**") 2026-27 and possibly beyond. A reduced budget focused on SGMA compliance and Program Administration was adopted by the Board on March 25, 2026. SCI Consulting Group and Confluence Engineering Solutions were retained to develop a fee program based on this direction.

Consistent with the above, this Report is intended to support the Authority's development and implementation of a fee pursuant to Water Code § 10730 based on consumptive groundwater use (referred to throughout as the "**Groundwater Sustainability Fee**" or "**Fee Program**"), beginning in FY 2026-27. This proposed Groundwater Sustainability Fee is intended to fund Program Administration in accordance with the GSP and JPA.

This Report was prepared to:

- Describe the cost of the Authority's Groundwater Sustainability Program and the benefits that would be funded by the proposed Groundwater Fee to maintain compliance with SGMA and contribute to Basin sustainability.
- Describe a projected budget for administering the Authority's Groundwater Sustainability Program to be funded by the Groundwater Sustainability Fee in 2026-27 and possibly into the future.
- Determine the benefits provided by the Authority's Groundwater Sustainability Program to groundwater extractors / parcels within the Authority;
- Determine the appropriate allocation of Groundwater Sustainability Program costs across groundwater users;
- Describe the method of apportionment / allocation of Groundwater Fees to parcels / payers that receive benefits within the Authority; and
- Establish a rate and Groundwater Sustainability Fee schedule to fund the costs of Program Administration needed to achieve Basin sustainability.

As explained more fully in Section II, the proposed Groundwater Sustainability Fee is being imposed in a way that proportionally allocates costs among all Basin users that have a "consumptive use" of groundwater (a net withdrawal of water from the groundwater basin) and directly benefit from the Groundwater Sustainability Program. The Report proposes that the Member GSAs fund the proportional costs attributable to "de minimis extractors" from the Basin (defined in Water Code § 10720.1 as those who extract, for domestic purposes, two AF or less per year) with funds not derived from the proposed Fee or with "in-kind" services. This approach is proposed because de minimis extractors have little-to-no consumptive use due to return flows to the aquifer and would likely be excluded from State Water Board regulation under SGMA. This Report proposes that the remaining cost of the Groundwater Sustainability Program be charged to the consumptive users of the groundwater basin - commercial extractors, water system extractors, and agricultural extractors – proportionately based on their consumptive use of groundwater, through a charge placed on the property tax roll.

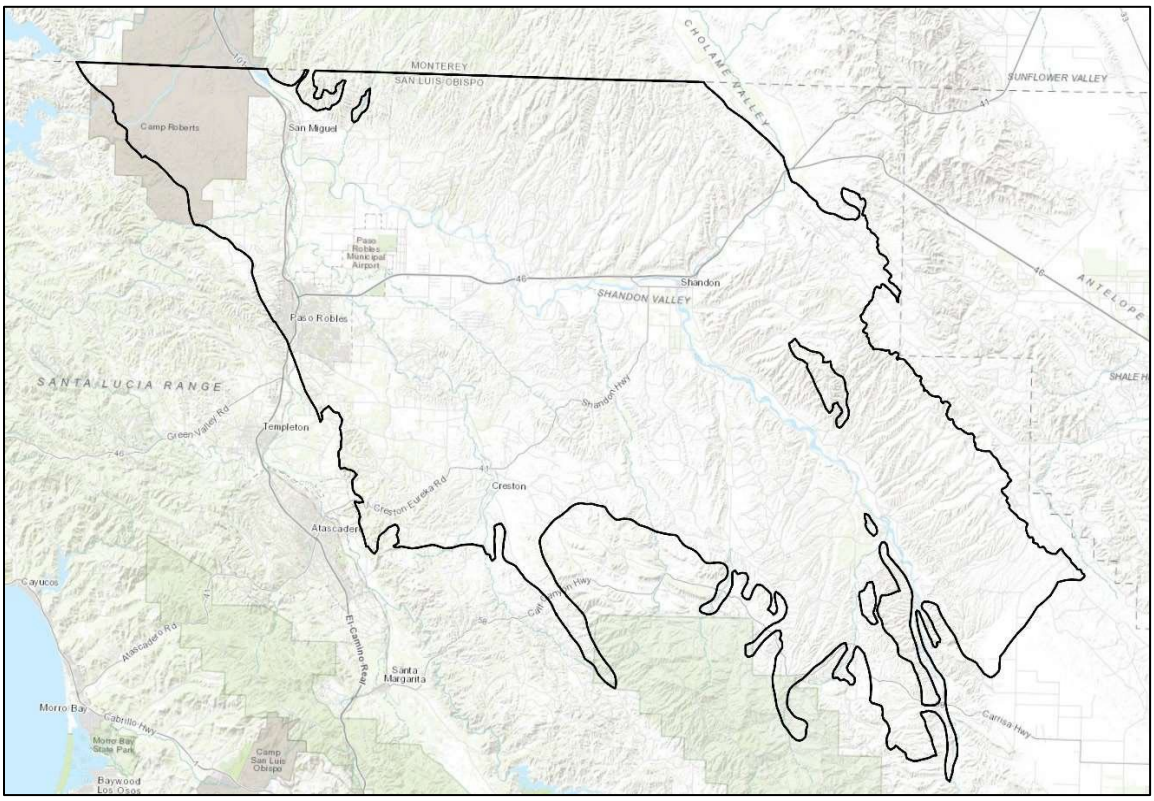
The proposal for the Groundwater Sustainability Fee detailed in this Report ensures that the funds collected are used exclusively for programs and projects that support and sustain the Paso Robles Subbasin and that directly serve those who pay the Groundwater Sustainability Fee.

Subbasin Characteristics

As described in the GSP[1], the Paso Robles Subbasin spans approximately 436,240 acres and forms part of the Salinas Valley Basin. The Paso Robles Subbasin is entirely located within the County and includes the incorporated City and the unincorporated communities of Shandon, San Miguel, Creston, Cholame, and Whitley Gardens. As shown in Figure 1, it is bordered to the west by the Santa Lucia Mountain Range, to the north by the San Luis Obispo-Monterey County line, to the east by the Temblor Mountain Range, and to the south by the La Panza Mountain Range.

[1] https://sgma.water.ca.gov/portal/gsp/preview/35

Figure 1 - Paso Robles Area Subbasin Boundary

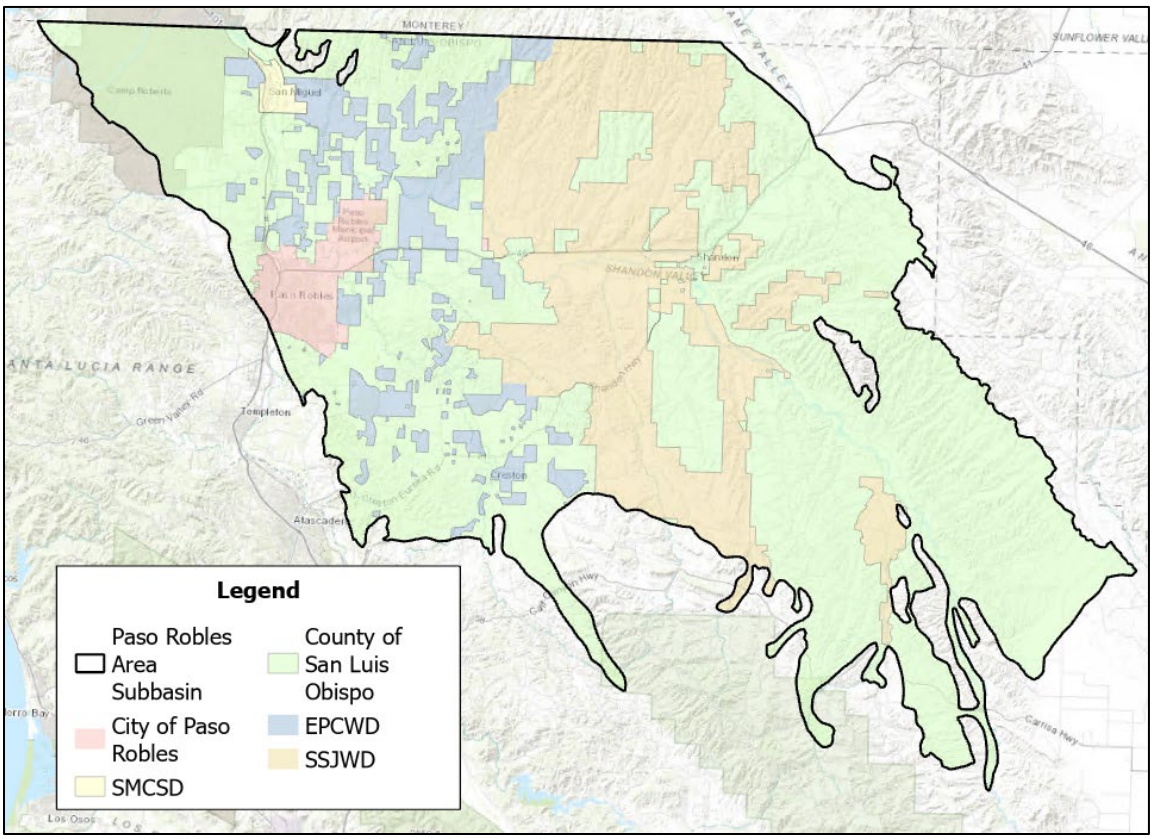


Water use in the Basin is primarily characterized as agricultural. Approximately 90% of annual groundwater extraction can be attributed to agricultural activity (GSP 6-11). Other uses include municipal use, small public water system use, rural domestic use and environmental use.

Agency Characteristics

The Authority was formed in March 2025 as a joint powers authority between four of the five GSAs: the City, County, EPCWD, and SSJWD. SMCSD, while not an initial member, may join in the future. The Authority is governed by a Board of Directors consisting of one Director appointed by each Member. As discussed above, the Authority was delegated certain initial powers. Each Member retains its GSA status, and additional powers cannot be exercised by the Authority without further Member action as described in Section 4.7 of the JPA Agreement. Subbasin GSA boundaries are shown below in Figure 2.

Figure 2 - Paso Area Subbasin GSA Boundaries



Financial Context and Background

To date, development and implementation of the GSP has been funded by a combination of GSA contributions and grant funding. GSA contributions have been determined annually in accordance with annual budgetary needs and shared proportionally among all GSAs in accordance with provisions set forth initially in the MOA and upon creation of the Authority, in the JPA. GSP development and implementation costs have largely been funded by grant awards from DWR.

Implementation of the GSP and maintaining SGMA compliance in the coming years will require continued funding in support of Program Administration. While the Authority will continue to pursue grant funding as it becomes available, it will require a reliable, stand-alone funding mechanism to perform its State-mandated functions.

Subbasin Conditions

The GSP provides an in-depth analysis of Subbasin conditions and the sustainability indicators that drive groundwater management efforts in the Basin. These indicators provide the context and rationale behind the need for PMA implementation by the Authority.

The Paso Robles Subbasin sustainability goal, as stated in the GSP (GSP 8-5), is as follows:

> *The goal of this GSP is to sustainably manage the groundwater resources of the Paso Robles Subbasin for long-term community, financial, and environmental benefit of Subbasin users. This GSP outlines the approach to achieve a sustainable groundwater resource free of undesirable results within 20 years, while maintaining the unique cultural, community, and business aspects of the Subbasin. In adopting this GSP, it is the express goal of the GSAs to balance the needs of all groundwater users in the Subbasin, within the sustainable limits of the Subbasin's resources.*

Basin Prioritization

DWR assigned a prioritization rating to each of California's 515 groundwater basins. 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	*over*	zero	*up to*	7
Low	*over*	7	*up to*	14
Medium	*over*	14	*up to*	21
High	*over*	21	*up to*	42

Medium and high priority basins are required to establish a groundwater sustainability agency and develop a groundwater sustainability plan. With a priority ranking score of 40, the Paso Robles Subbasin is classified by DWR as a high-priority basin.

SGMA also directs DWR to identify groundwater basins in conditions of critical overdraft. As outlined in DWR Bulletin 118, "[a] basin is subject to critical overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts." DWR has designated the Basin as subject to critical conditions of overdraft. The Basin's priority point allocation is illustrated in Table 2.

Table 2 - Paso Robles Subbasin Priority Points

	Criteria	Priority Points
1	Population	1
2	Population Growth	4
3	Public Supply Wells	1
4	Total Wells	1
5	Irrigated Acres	2
6	Groundwater Reliance	4
7	Impacts	7.5
8	Habitat and Other Information	2
	Adjustment for Critical Overdraft	17.5
	Total Priority Points	40

Sustainability Indicators

SGMA establishes six sustainability indicators that guide GSAs in their efforts to achieve sustainability. Avoidance of undesirable results related to these indicators is a core tenet of SGMA. The primary sustainability indicators that are expected to drive sustainable groundwater management in the Paso Robles Subbasin are chronic lowering of groundwater levels and reduction of groundwater in storage. Minimum thresholds for degraded water quality, depletion of interconnected surface water, and land subsidence have also been noted in the GSP, although these issues are not as prevalent. The final sustainability indicator, seawater intrusion, is not present in the Basin. Significant and unreasonable conditions, undesirable results, and adverse impacts related to these indicators are discussed in detail in the GSP.

Significant and unreasonable conditions related to chronic lowering of groundwater levels are described in the GSP as being caused by a water budget imbalance with pumping in excess of recharge (GSP 8-9). Undesirable results stemming from such conditions include potential limitation of water availability for groundwater pumpers in the Paso Robles Subbasin (GSP 8-25). Any such limitation can produce significant adverse impacts on groundwater extractors within the Authority, who rely heavily, and in most cases exclusively, on groundwater resources. The implications of such impacts for agricultural groundwater use, the vast majority of pumping in the Basin, would include economic impact to employees and suppliers of production as well as a reduction in local and state tax roll revenue (GSP 8-25).

Significant and unreasonable conditions related to reduction in groundwater storage are defined in the GSP as those that lead to long-term reduction in groundwater storage (GSP 8- 29) caused by expansion in pumping or extensive drought (GSP 8-34). The GSP provides a detailed analysis of reduction in groundwater storage, estimating a future annual loss of approximately 14,000 acre feet per year ("AFY") if conditions do not change (GSP 6-25). Similar to chronic lowering of groundwater levels, undesirable results stemming from such conditions include a reduction of water availability for groundwater pumpers, particularly impacting those with shallow wells (GSP 8-35). Limited access to groundwater would impact agricultural groundwater extractors in particular, as they make up approximately 90% of groundwater pumping in any given year. The GSP indicates a need to protect against a reduction in groundwater storage by achieving no net change in groundwater elevations and storage during average hydrologic conditions and over the long-term (GSP 8-35). While drought and other short-term impacts are anticipated, the GSP highlights a need for management actions to provide sufficient flexibility to accommodate these impacts by ensuring they are offset by increases in groundwater levels or storage during normal or wet periods (GSP 8-35).

The GSP notes several concerns surrounding degraded water quality. Significant and unreasonable conditions are defined as increases in a chemical constituent that either results in groundwater concentrations in a public supply well that are above an established primary or secondary Maximum Contaminant Level ("MCL"), or that lead to reduced crop production (GSP 8-35). For agricultural wells, these concerns center around the presence of chloride and boron; for public supply wells, the presence of total dissolved solids, chloride, sulfate, nitrate, and gross alpha radiation are relevant (GSP 8-36). The GSP notes that poor quality groundwater may be drawn into wells in the Subbasin and degrade the groundwater quality if groundwater levels are allowed to fall too low (GSP 5-55).

Significant and unreasonable conditions related to land subsidence are defined in the GSP as rates of permanent subsidence of surface level elevations that impact infrastructure (GSP 8-46). During the development of the GSP, land subsidence within the Basin was found to be minimal, with the majority of land area elevation changes measured within the margin of error (0.1 feet) (GSP 5-24). However, land subsidence in certain areas was measured between -0.125 and -0.1, illustrating the need to continue to monitor this issue. Undesirable results stemming from land subsidence are defined as pumping-induced subsidence of greater than 0.1 foot in any single year and a cumulative 0.5 foot in any five-year period that could substantially interfere with surface land use (GSP 8-51). Such results would threaten the use of existing infrastructure in the Basin.

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Significant and unreasonable conditions related to inter-connected surface water are defined in the GSP as reduced surface flow in streams and a lowering of the water table next to streams (GSP 8-51). These conditions have adverse effects on groundwater recharge and the ability of native riparian vegetation and animal species to use riparian habitat. Undesirable results stemming from these conditions include unreasonable adverse effects on beneficial users and uses of water (GSP 8-55). The GSP calls for an improved understanding of this issue through groundwater monitoring in order to better address any potential undesirable results (GSP 8-57).

Implementation of the GSP will require the Authority to address these five sustainability indicators through ongoing Basin monitoring, reporting, and implementation of PMAs. The cost of the Groundwater Sustainability Program described in Section III of this Report is directly necessitated by these conditions.

Groundwater Sustainability Fees

Just as SGMA envisions groundwater basins being locally governed unless State intervention is necessary to ensure that local agencies manage groundwater in a sustainable manner, it also envisions that GSP implementation will be locally funded. The purpose of this Report is to establish the rate and fee schedule for the Authority's Program Administration Budget, providing a reliable stand-alone revenue source to ensure the Authority's ability to implement the GSP.

Numerous discussions with Member GSA staff, the PBCC (prior to its dissolution), PRAGA, and the SCI Team contributed to the determination of an optimal funding approach for the Authority's Groundwater Sustainability Program.

A Groundwater Sustainability Fee Program for PRAGA

Consistent with Water Code § 10730 et seq. which authorizes local agencies to fund SGMA implementation through a charge imposed on groundwater use, including volumetric charges, the Groundwater Sustainability Fee detailed in this Report is based on apportioning the cost of Basin management according to the amount of groundwater consumed by each extractor served. For purposes of this Report and the proposed Fee Program, consumption is measured in acre feet ("AF"). Groundwater consumed (referred to throughout as "**consumptive use**") differs from groundwater extracted in that it refers only to the portion of water that is consumed by the extractor and not returned to the aquifer. In many cases, a portion of groundwater extracted is returned to the aquifer (or, for agricultural extractors, remains in the root zone for future consumption). More detail on the characteristics of consumptive use, as well as how it is measured, is included in Section III, below.

Several factors make this approach the optimal basis on which to apportion the costs of the Groundwater Sustainability Program:

- Proportional: A fee based on consumptive groundwater use is equitable in that parcels that consume more groundwater (and thus have more at stake in ensuring a sustainable groundwater supply) and receive a higher degree of benefit from the Authority would pay more while parcels that consume less and require a lower degree of benefit from the Authority would pay less. Furthermore, by basing a fee on consumptive use, groundwater extractors are charged only for the portion of their extraction that is actually consumed. Agricultural groundwater use is the most prevalent use in the Subbasin. For agricultural properties, consumptive groundwater use can be measured on a field by field, and parcel scale, in a comprehensive and objective manner using evapotranspiration (ET) calculated using satellite data.
- Easy to Understand: a consumption-based fee charged to extractors based on the amount of groundwater consumed is easy to understand and clearly allocates the proportionate cost of benefits provided to those parcels to the appropriate landowners / groundwater extractors within the Authority.
- Legally Compliant: The proposed Groundwater Fee is being imposed pursuant to and in accordance with Water Code § 10730 to fund the costs of sustainable groundwater management by the Authority consistent with the delegation in the JPA.

Rate Components: Revenue Requirements and Groundwater Consumption

GSA staff worked with the SCI Team to develop projections of the Authority's Budget for FY 2026-27. These projections serve as the basis for the cost of the Groundwater Sustainability Program and the benefits it provides to groundwater extractors.

As stated above, the optimal basis of this proposed Fee Program is consumptive groundwater use. One of the challenges faced in identifying agricultural groundwater use on a parcel / extractor scale stems from a lack of reliably available metered extraction data. In order to improve understanding of groundwater use within the Paso Robles Subbasin, Land IQ was retained to provide land mapping and remote sensing technology. This has enabled the Authority to obtain ET measurements of water use on agricultural fields within the Basin. By assigning the ET for specific fields to the parcels on which they are located and accounting for precipitation, the Authority is able to determine consumptive groundwater use on a field by field, and parcel basis.

In lieu of reliably available metered groundwater extraction data, ET measurements provide the most accurate, comprehensive, and practical means of measuring consumptive groundwater use available. These measurements will form the basis of many of the Authority's regulatory efforts and are used in this Report to apportion the cost of Basin management on a parcel / extractor scale. Consistent with this Report, the Authority has developed an approach to the calculation of consumptive groundwater use and the application of Groundwater Sustainability Fees that may be adopted.

II. Statutory Basis and Characteristics of the Proposed Fee

Under the authority of Water Code § 10730, the Authority proposes to levy Fees on groundwater extractors within the combined service area of its Members who will directly benefit from program administration and management actions authorized by the JPA. The Groundwater Sustainability Fee is being imposed for the specific benefit of having local government adopt and implement a groundwater sustainability program for the Subbasin so that the Subbasin, and those who consume water therefrom, do not become subject to State intervention. The proposed Fee is no more than necessary to cover the reasonable costs of the Groundwater Sustainability Program.

The Authority may only use revenue from the Fee to fund the groundwater sustainability activities authorized by the JPA and described in this Report, all of which benefit groundwater extractors in the Members' combined service area and serve the purpose of implementing programs and activities required to achieve Basin sustainability and SGMA compliance. Importantly, the Paso Robles Subbasin is a high priority basin subject to critical conditions of overdraft. If the Authority does not secure a funding source to implement the administrative and management activities necessary to comply with SGMA, the SWB would declare the Basin "unmanaged" or "probationary" and intervene. Unmanaged or probationary basins are subject to regulatory actions, including annual fees and reporting requirements.

The SWB sets its fees for unmanaged and probationary basins annually without a vote of or input from the regulated community. The current SWB fees are set forth below in Table 3. Unlike the proposed Groundwater Fee, groundwater pumpers would pay these fees to the State and the funds would not help pay for any local groundwater management activities or programs. Rather, the SWB fees would be used for SWB administration, regulation, and possible implementation and enforcement of pumping restrictions in the Basin.

Table 3 - State Water Board Intervention Rates[2]

SWB Reporting and Fees (For Basins Managed by the State)		
Charge	**Cost**	**Notes**
Base Filing Fee	$300 per well	Excludes De Minimis Extractors
Unmanaged Area Rate (Metered)	$10 per AF	Excludes De Minimis Extractors
Unmanaged Area Rate (Unmetered)	$25 per AF	Excludes De Minimis Extractors
Probationary Rate	$20 per AF	Excludes De Minimis Extractors
Interim Plan Rate	$55 per AF	Excludes De Minimis Extractors
De Minimis Fee	$100 per well	Optional; Subject to SWB determination
Automatic late fee	25% per month	Extraction Reports Not Filed By Due Date

[2] https://www.waterboards.ca.gov/sgma/reporting_and_fees.html

Proportionality of the Proposed Fee

This Report serves as a part of the legal basis for the establishment of a Fee Program in support of GSP implementation within the Authority. Within SGMA, two revenue paths are specifically described to fund a groundwater sustainability agency: Water Code § 10730 describes fees that align with general GSA management and GSP implementation excluding major capital investments for improvements; and Water Code § 10730.2 describes fees at the full spectrum of GSA costs including major capital investments and facility operations and requires more rigorous and lengthy adoption procedures. These code sections are the legal apparatus that provide GSAs with the authority to charge fees, and they detail specific requirements related to fee structure and implementation. The descriptions of fees in each of these two sections provide guidance for the constitutional "pathways" that are applicable for their respective fee types.

Water Code § 10730

As noted above, Water Code § 10730 is intended to fund general GSA management and GSP implementation excluding major capital investments. The proposed Fee Program is intended to fund costs stemming from Program administration, including general administrative costs and State-mandated monitoring and reporting. The Scope of Water Code § 10730 fully embraces the activities described in the current budget. For this reason, the Authority has chosen to implement a Water Code § 10730 fee, as described below:

> *A groundwater sustainability agency may impose fees, including, but not limited to, permit fees and fees on groundwater extraction or other regulated activity, to fund the costs of a groundwater sustainability program, including, but not limited to, preparation, adoption, and amendment of a groundwater sustainability plan, and investigations, inspections, compliance assistance, enforcement, and program administration, including a prudent reserve.*

The proposed Fee described in this Report accounts for the benefit provided to groundwater extractors by administering the Groundwater Sustainability Program, and as such falls within the categories described by this code section. Nonetheless, any fee imposed by a government agency must comply with the California Constitution. Further discussion of compliance with Proposition 26 is included below.

Proposition 26

Proposition 26 was passed by voters in 2010, providing a broad constitutional definition of the term "tax", which was necessary in the wake of Proposition 218's limitations on local taxes. While Proposition 218 outlined substantive and procedural guidelines for the imposition of taxes, benefit assessments, and property related fees, the definition of the term "tax" was not succinctly defined.

Proposition 26, as included in Article XIII C of the California Constitution, defines a tax as "any levy, charge, or exaction of any kind imposed by a local government," with certain exceptions. Among these exceptions is the most appropriate basis for the proposed Groundwater Sustainability Fee, as described below:

> *A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege to the payor.*

Article XIII C goes on to stipulate that the governing agency must establish that any charges imposed by a government agency are not taxes:

> *The local government bears the burden of proving by a preponderance of the evidence that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity.*

Groundwater Sustainability Fees

The exception listed above provides the basis for a regulatory fee in support of PRAGA's Groundwater Sustainability Program. Implementation of the Paso Basin GSP and maintaining SGMA compliance provides a benefit to all groundwater users in the Basin. Additionally, costs incurred by the Authority's Groundwater Sustainability Program are regulatory costs, as they represent the regulation of groundwater in the Subbasin.

This Report provides the rationale for how the Authority's Groundwater Sustainability Fee will comply with the requirements of Article XIII C, in that the Fees charged to groundwater extractors in the Basin:

1. Are not taxes.
2. Will not generate more revenue than the reasonable cost of the governmental activity.
3. Are allocated to the payor in a manner that bears a reasonable relationship to the benefits received from the governmental activity.
4. Are allocated based on a benefit provided to the payor that is not provided to those not charged.

As addressed more fully in Section III below, the manner in which the costs are apportioned and allocated to groundwater extractors also bears a fair or reasonable relationship to the payor's burdens on, or benefits received from, these governmental activities and will not exceed the proportional cost of the benefit attributable to each parcel charged. The Groundwater Fee is apportioned to groundwater extractors based on the benefit provided to each parcel where consumptive use occurs. This was accomplished by conducting a benefit analysis to determine the service (and associated cost) that is required based on the amount of groundwater use.

Volumetric fees provide an optimal ability to establish a reasonably proportional cost burden across Subbasin groundwater extractors. By apportioning the Groundwater Sustainability Program on a volumetric basis, the proposed Groundwater Fee establishes the appropriate proportional benefit or service provided to each extractor. This approach is based on the concept that those who consume more groundwater have more at stake in maintaining compliance with SGMA and ensuring a sustainable groundwater supply. It also acknowledges that the amount of extraction in the Subbasin correlates to the cost of providing Groundwater Sustainability Program.

Recent case law out of the Sixth District Court of Appeal (*Great Oaks Water Company v. Santa Clara Valley Water District*, 2025 WL 969510) supports the notion that volumetric charges to fund groundwater management services align with the California constitutional requirements surrounding revenue generation on the part of public agencies. This case further establishes that the right to extract groundwater is a specific benefit that is supported by the sustainable management of groundwater as a resource, and that a volumetric fee produces charges that provide a proportional allocation of the cost of providing the Groundwater Sustainability Program, which is necessary for groundwater management under SGMA.

Finally, revenue derived from the proposed Groundwater Sustainability Fee will not exceed the amount required to provide the services to be funded and will not be used for any purposes other than those services for which the fee is imposed. The Budget, discussed in Section III, details the scope and cost of services to be provided by the Authority to comply with SGMA and administer the Groundwater Sustainability Program. These efforts are paramount to the Authority's ability to achieve Basin sustainability.

Public Meetings

Water Code § 10730 also provides requirements regarding a public meeting prior to imposing a fee program:

> *Prior to imposing or increasing a fee, a groundwater sustainability agency shall hold at least one public meeting, at which oral or written presentations may be made as part of the meeting. Notice of the time and place of the meeting shall include a general explanation of the matter to be considered and a statement that the data required by this section is available. The notice shall be provided by publication pursuant to Section 6066*

of the Government Code, by posting notice on the Internet Web site of the groundwater sustainability agency.

At least 20 days prior to the meeting, the groundwater sustainability agency shall make available to the public data upon which the proposed fee is based.

De Minimis Extractors

De minimis extractors are defined by Water Code § 10721 as those who extract, for domestic purposes, 2 acre feet (AF) or less of groundwater per year. An important distinction is made by Water Code § 10730 regarding de minimis extractors:

A groundwater sustainability agency shall not impose a fee pursuant to this subdivision on a de minimis extractor unless the agency has regulated the users pursuant to this part.

This indicates that in order to charge de minimis extractors, a GSA must have regulated these users. This requirement is relatively vague, as regulation of de minimis users is open to interpretation.

However, the inherent challenge in implementing a fee that excludes de minimis users stems from Article XIII C's requirement that a regulatory fee be based on a benefit provided to the payor that "is not provided to those not charged." One can argue that the Groundwater Sustainability Program benefits all groundwater users in the Basin, proportional to their amount of use. Regardless, throughout the process of developing a fee for the Basin, Board members, staff, and community members have consistently expressed the perspective that de minimis users should not be charged.

This Report proposes including de minimis users in the consideration of benefit, allocating a minimal amount of costs based on their minimal groundwater use and minimal benefit, but *not charging these users*. Instead, these costs will be apportioned separately to PRAGA Member Agencies, which will cover these costs either directly or through "in-kind" services provided to support the Authority's Groundwater Sustainability Program. This approach ensures that costs attributable to de minimis users are not shifted to other fee payers.

Duration of the Fee Program

The proposed Groundwater Fee Program is based on a projected Budget for FY 2026-27. PRAGA anticipates the need for more extensive costs related to projects and management actions ("**PMAs**") in future years. However, if the Groundwater Fee is adopted, the Authority may elect to continue the Fee Program beyond FY 2026-27 – provided the budget and maximum rate justified in this Report remain viable.

III. Groundwater Sustainability Fees

The proposed Groundwater Sustainability Fee calculations are primarily dependent on two major factors: revenue requirements and consumptive groundwater use. The following Section provides context and details for how the elements of the Fee are established.

Programs to be Funded

The Budget was developed with the intention of providing adequate revenue to pay for the Groundwater Sustainability Program. These efforts are paramount to the Authority's ability to maintain SGMA compliance and contribute to Basin sustainability.

Consistent with the initial authorities granted to the Authority under the JPA, the services / activities to be funded by the proposed Fee Program include:

- Program Administration, including SGMA-required costs and administrative costs;
- A Well Verification / Registration Program; and,
- A prudent reserve.

More details on these programs are provided below.

Program Administration

The Authority's Program Administration Budget is divided into two primary categories: SGMA-required costs and administrative costs. Both cost categories support the overall effort of administering the Groundwater Sustainability Program. SGMA-required costs stem from the direct responsibilities of SGMA, while administrative costs relate to overall public agency administration and facilitation of SGMA requirements.

SGMA-required costs include development of the annual report, the GSP five year evaluation, and ongoing Basin groundwater monitoring. These costs are directly tied to the responsibilities Members have under SGMA. Also relating to these responsibilities is the cost of the Evapotranspiration Agriculture Water Usage Program. This Program refers to the collection and analysis of evapotranspiration data by Land IQ, which the Authority has determined to be the most effective means of tracking agricultural groundwater use. More information on this program, as well as a discussion of evapotranspiration data, is provided below under the heading "Consumptive Groundwater Use."

Administrative costs include all costs related to administration of the Authority. These costs are projected to include an executive director and support staff, legal counsel, general agency administrative costs (insurance, audit, accounting, etc.), grant development, technical consultant(s) to provide administrative support, public education and outreach, and website creation and management. Also included here is funding for Fee Program billing and collection efforts. These costs are intended to fully finance the ability of the Authority to operate in an efficient and optimal manner.

While Program Administration costs are necessary for any public agency, these costs are directly linked to the Authority's ability to maintain SGMA compliance and implement the GSP. Fulfilling SGMA requirements and administering activities included in the Budget will be directly supported by these costs.

Well Verification and Registration Program

The Well Verification and Registration Program will improve the accuracy of the Authority's data on groundwater use by increasing understanding of the location and distribution of groundwater producing wells throughout the Basin. While well records currently exist, their accuracy and scope are limited. By registering wells, the Authority can establish a more reliable inventory and spatial location of all active wells in the Basin.

Prudent Reserve

The Prudent reserve (10% of total costs) is intended to support the financial resiliency of the Authority. These funds may be used in the event that a shortfall occurs related to a specific cost or may be used to explore the feasibility of future Program efforts. The Board directed staff to utilize this 10% contingency in August 2025 – in accordance with Water Code § 10730's provision of a GSA's maintaining a prudent reserve.

Budget and Revenue Requirement

GSA staff worked with the SCI Team to develop a budget projection for FY 2026-27 in order to inform the proposed Fee Program. This projection involves considerations of Authority operations based on past expenses and Program scope. Potential variables of these Programs include changes in groundwater use, changes in economic factors, climatic variability, and changes in Subbasin conditions, all of which can affect the cost of managing the Basin. In order to create more robust budget projections, GSA staff and the SCI Team provided expertise related to GSP implementation planning and management, geology and hydrogeology, local community preferences and perspective, and other key factors related to the Basin.

Authority Budget Projection

The Program Administration Budget was iteratively refined in order to achieve a projected expense plan that can maintain Authority solvency during FY 2026-27. The Authority's goal is to maintain compliance with SGMA and ensure that the groundwater sustainability goals in the GSP can be achieved while minimizing impacts on the local economy (which relies heavily on groundwater use). The GSA staff group discussed this at length during meetings in Spring 2026 and provided feedback that informed budget recommendation presentations to the Board.

The Authority has developed a spending plan which concludes that the appropriate level of services related to Program Administration requires approximately $1,095,446. This spending plan represents the minimum budget amount needed to maintain SGMA compliance.

The full Budget is shown below in Table 4.

Table 4 - Projected Expense Budget

Budget Components	FY 26-27
Program Administration	
SGMA-Required	
Annual Report	$100,000
GSP Fifth Year Evaluation	$10,000
Basin Monitoring Operations & Maintenance, DWR Upload	$140,860
Establish Sustainable Management Criteria & Investigate Minimum Threshold Exceedances	$20,000
Evapotranspiration Agriculture Water Usage Program (LandIQ)	$100,000
SGMA-Required Subtotal	$370,860
Administrative	
Executive Director & Support Staff	$216,000
Legal Counsel	$144,000
Insurance	$22,000
Grant Development	$60,000
Technical Consultant(s)	
Funding Mechanism Development/Implementation for FY 26-27 (Fee Consultant)	$50,000
Evapotranspiration Data Management (Land IQ)	$15,000
Administration of Fee (Prop 26 or 218)	$30,000
Public Education and Outreach Program	$35,000
Website Management	$6,000
GW Fee Billing & Collection	$40,000
Administrative Subtotal	$618,000
Program Administration Subtotal	**$988,860**
Management Actions	
Regulatory Programs	
Well Verification & Registration Program	$7,000
Management Actions Subtotal	**$7,000**
Total Costs	**$995,860**
Contingency (i.e. Prudent Reserve)	$99,586
Total Budget	**$1,095,446**

Method of Apportionment

As noted previously, the cost of the Authority's Groundwater Sustainability Program (and the benefits it provides) are apportioned to groundwater extractors based on their individual volume of consumptive groundwater use on a parcel scale. Greater groundwater consumption volumes impose a greater demand on groundwater management activities, making a volumetric methodology optimal as the basis for a method of apportionment.

Four primary groundwater extractor classes are included in this analysis: agricultural extractors, commercial extractors, water system extractors, and rural domestic (de minimis) extractors. A summary of these classifications and cost apportionment for each of these extractor classes is provided below.

Agricultural Groundwater Extractors

Agricultural groundwater use makes up the largest portion of extraction in the Basin. Historically, approximately 90% of annual groundwater extraction can be attributed to agricultural activity (GSP 6-11). The Water Year 2025 Annual Report[3] estimates that approximately 93% of 2025 extraction was agricultural. This Report determines that agricultural groundwater use represents approximately 95.8% of total consumptive groundwater use. In this sense, the sustainability indicators described in the GSP, along with the priority point ranking assigned to the Basin, are largely the result of agricultural groundwater use. Agricultural groundwater use represents the primary driver of groundwater demand and associated management requirements in the Subbasin. As such, the majority of consumptive use is agricultural, and the majority of PRAGA costs are allocated to agricultural extractors on this basis.

Water System Groundwater Extractors

Water System groundwater use occurs in eight different public systems within the combined service areas of the Members within the Basin. These systems include small water systems (a lodge and an elementary school), small residential service systems, and the City.

Public water systems represent a relatively small percentage of groundwater use in the combined service areas of the Members within the Basin (approximately 2.1%). However, as water purveyors that provide communities with drinking water for residential and commercial purposes, their groundwater use constitutes an important element of Subbasin sustainability planning. As previously noted, the number of public supply wells in a groundwater basin is one of the priority point criterion used to determine whether a basin is subject to SGMA.

While many domestic customers within the Subbasin's water systems are indirect groundwater users who consume two AF or less per year, these users do not represent the nature of groundwater use occurring at the water system level. The systems themselves are the primary users as groundwater extractors. These systems provide a public benefit and service to their customers and operate under a different framework than rural domestic well owners. Additionally, public water systems are regulated by the California Division of Drinking Water, which requires that they report extraction and, in some cases, employ water quality testing programs. In addition, as discussed above, these extractors would be subject to SWB extraction fees and regulation should the SWB intervene in the Basin.

[3] WY 2025 Annual Report, 10. https://www.pasoroblesaga.org/annual-reports

Commercial Groundwater Extractors

Commercial groundwater extractors make up a small portion of Basin groundwater use (approximately 0.1%). Furthermore, many small commercial operations are likely to have minimal, if any, consumptive groundwater use. However, there are commercial parcels within the Basin that have been identified as consuming groundwater, including wineries, manufacturing facilities, and sand and gravel facilities. By using groundwater for commercial purposes, these extractors have a notable stake in Basin sustainability and receive a benefit from the Authority's Groundwater Sustainability Program.

Rural Domestic Groundwater Extractors

Rural domestic extractors are those that SGMA classifies as de minimis extractors, in that they use two AF or less per year for domestic purposes. Domestic groundwater use makes up a small portion of groundwater use within the Subbasin. Consumptive groundwater use by rural domestic extractors makes up approximately 2% of total Subbasin consumptive use. As mentioned previously, the cost of providing benefits to this extractor class will be borne directly by the Member GSAs using funds separate from the proposed Fee, and rural domestic extractors will not be charged.

SGMA specifically excludes de minimis users from certain GSA authorities, which lends itself to the concept that they do not receive the same benefits as other users. For example, Water Code Section 10725.8 exempts de minimis extractors from the authority granted to GSAs to require the use of water-measuring devices or meters. Additionally, pursuant to the GSP, de minimis extractors are not regulated by the Authority (GSP, 8-34). For these reasons, and because rural domestic extractors represent such a small portion of consumptive use in the Subbasin, their costs will be paid for through other means and they will not be charged.

Consumptive Groundwater Use

As described above, the proposed Groundwater Sustainability Fee is based on consumptive groundwater use; specifically, the amount of groundwater consumed on properties within the Authority's jurisdiction. The manner in which this use is measured, categorized, and used as a basis for charges is different depending on the type of use in question. These methods are described in detail below.

Evapotranspiration Measurements

Evapotranspiration ("**ET**") refers to the process by which water is both transferred from land to the atmosphere by evaporation and from plants to the atmosphere by transpiration. Measuring this process can produce the total amount of consumed water that takes place on a parcel of agricultural land.

As noted above, a consultant was retained to develop an ET measurement program for the Basin. Utilizing a combination of satellite data, precipitation data, meteorological stations deployed in agricultural fields and ground truthing, the consultant provides parcel- and field-specific consumptive groundwater use measurements for all agricultural operations. This data collection began in August 2024 and provides the basis for the proposed Fee. Agricultural groundwater use accounts for the vast majority of groundwater use in the Basin.

One of the benefits of basing a fee on consumptive groundwater use is that landowners / extractors are charged only for the amount of groundwater they consume. Conversely, fees are often based on applied water, which refers to the total amount of water applied to a parcel. However, some amount of this water is not consumed; a portion of it is lost to runoff or percolates back into the water table, where it is held in the root zone for later absorption, or it returns to the aquifer. The amount lost depends on a variety of factors that vary from site to site.

In order to calculate consumed groundwater, several elements of water use must be understood. First, total consumed water must be calculated. This is accomplished by adding ET from applied groundwater, ET from applied surface water, and ET from precipitation. This equation is shown below in Figure 3 for reference.

Figure 3 - Consumptive Water Calculation

Total Consumed Water (ET) = ET from **Applied Groundwater**
+ ET from **Applied Surface Water**
+ ET from **Precipitation (Effective Precipitation)**

From this equation, total consumed groundwater (also referred to as ET from applied groundwater) can be calculated. Subtracting ET from precipitation and ET from applied surface water from the total consumed water provides the total consumed groundwater amount. This equation is shown below in Figure 4.

Figure 4 - Consumptive Groundwater Calculation

Consumed Groundwater = **Total Consumed Water (ET)**
− ET from **Precipitation (Effective Precipitation)**
− ET from **Applied Surface Water**

Note: surface water use in the Subbasin primarily occurs on the part of public water systems.

Through this process, the Authority determines the amount of groundwater that is consumed on a given agricultural parcel. This is the basis of charges for the proposed Groundwater Sustainability Fee Program. Landowners / extractors will also have the option to appeal the calculation of their consumptive groundwater use and submit metered extraction data instead. This process will require calculation of consumptive use stemming from any metered data submitted, which entails determining the irrigation efficiency of their irrigation system. More details regarding this process are provided in Section IV.

Agricultural Consumptive Groundwater Use

Irrigated Crops and Golf Courses

The ET data collection program began in August 2024. For the purpose of rate calculation for FY 2026-27, ET data for Water Year 2025 is used for all managed agricultural fields and golf courses (Water Year 2025 consists of October 2024 – September 2025). The use of this time frame for ET data provides the necessary time to collect, analyze, and make adjustments to consumptive use calculations prior to making them available to the public for review purposes. Additionally, the use of water year data aligns the fee with the hydrologic cycle and with a specific irrigation season.

Note that ET of effective precipitation is removed from total ET so that irrigators are only being charged for ET of their applied water use. Land IQ's methodology for calculating ET of effective precipitation is described below:

> *Effective precipitation is defined as the amount of precipitation contributing to total evapotranspiration (ET) on a given area. Effective precipitation was calculated on a field by field and annual basis, utilizing Land IQ's spatial precipitation product. This spatial precipitation data is analyzed monthly using a robust network of rain gauges throughout Paso Robles subbasin from Land IQ, Western Weather Group, and the California Irrigation Management Information System (CIMIS). Land IQ performs quality control on all data sources monthly to ensure accurate results.*
>
> *During the 2025 Water Year (October 2024 to September 2025), total precipitation ranged from 5.7 to 8.9 inches within the Paso Robles Subbasin, resulting in an effective precipitation ranging from 5.4 to 8.1 inches. The table below shows the effective precipitation percentage of total rainfall and was developed from a literature review with references available below. Effective precipitation was subtracted from each field's total ET, resulting in an estimate of total ET of applied water.*

The Memorandum regarding effective precipitation, including this excerpt and the table referenced above, is included as Appendix A.

Land IQ's ET data and analysis for Water Year 2025 establishes that 47,775.78 AF were consumed by agricultural irrigators and golf courses.

Agricultural Ponds

Additional consideration is also required for groundwater-fed agricultural ponds, which are used within the Basin to provide water supply for planted crops. While this water is eventually used to irrigate, evaporation occurs while water is stored, which must be accounted for as consumptive use.

Evaporative losses associated with agricultural storage ponds are estimated based on the assumption that ponds are full for April and May and one-quarter full between June and March. The wetted area of the ponds at one-quarter full is approximately 50% of the wetted area when the ponds are full. A review of recent aerial photography was completed to identify agricultural storage ponds in the Subbasin. From this review it was determined that approximately 200 acres of wetted area are present in the Subbasin when the ponds are full (April and May) and approximately 100 acres of wetted area is present when the ponds are one-quarter full (June through March). Groundwater extractors who utilize ponds will be charged based on the size of specific ponds that overlie their parcel(s).

The total annual evaporative loss from agricultural storage ponds was calculated based on pan evaporation data from the Nacimiento Dam Station[4] (due to its proximity to the Subbasin) and the variable wetted acreage on a monthly time step. The estimated total annual evaporative loss from agricultural storage ponds is 470 AFY. This total is added to the agricultural consumptive use amount in Table 5 below.

Table 5 - Agricultural Consumptive Groundwater Use

Data	Water Year 2025 (AF)
Consumptive Use of Irrigation[1]	47,775.78
Pond Evaporation[2]	470
Total Consumptive Use of Irrigation[3]	**48,246**

(1) Total estimated consumptive use of irrigation as measured by Land IQ.
(2) Total estimated annual evaporation of agricultural ponds. Note that any pond water not lost to evaporation is later used to irrigate and will be captured by ET measurements.
(3) The sum of consumptive use of irrigation and pond evaporation.

Cattle Ranchers

One additional extractor type worth evaluation in the Subbasin are cattle ranchers. While grass that supports cattle grazing in the Subbasin is generally assumed to rely on precipitation only, cattle themselves do consume water. However, there is no clear data to support exact calculations of how many cattle are raised, and how much water they consume.

In discussion with local agricultural stakeholders, the SCI Team determined it is likely that the potential groundwater consumption of cattle is negligible; furthermore, because it is likely negligible, calculating this use on a parcel scale would present significant challenges. Nonetheless, CES engaged stakeholders to attempt to establish an approach to confirm the insignificance of this use.

[4] NOAA 1982. Mean Monthly, Seasonal, and Annual Pan Evaporation for the United States. NOAA Technical Report NWS 34. Washington DC. December 1982.

Based on the following assumptions, the SCI Team developed an estimate of total groundwater consumption of cattle ranchers:

- **County Average Baseline:**
  - San Luis Obispo County supports an average of 1 cow per 29 acres.
- **Adjustment for Arid Conditions:**
  - For the Paso Robles basin, which lies in the arid portion of the county with no coastal influence, the land-per-cow ratio is increased by 30%:
  - 29 × 1.30 = 37.7 acres per cow.
- **Land Area:**
  - The basin spans 436,000 acres, with 80% used for rangeland:
  - 436,000 × 0.80 = 348,800 acres.
- **Cattle Total:**
  - Agricultural land is divided by the adjusted land-per-cow ratio:
  - 348,800 ÷ 37.7 ≈ 9,253 cattle.
- **Daily Water Consumption:**
  - Each cow consumes 13.1 gallons per day:
  - 9,253 × 13.1 = 121,213.3 gallons daily.
- **Annual Water Consumption:**
  - Daily usage is multiplied by 365 days:
  - 121,213.3 × 365 = 44,297,907 gallons per year.
- **Conversion to Acre-Feet:**
  - Using the conversion factor of 1 acre-foot = 325,851 gallons:
  - 44,297,907 ÷ 325,851 = 135.92 AF.
- **Conversion to Consumptive Use:**
  - It is assumed that approximately 75% of water provided to cows for drinking is consumed (and the remaining 25% returns to the aquifer through urination):
  - 135.92 x .75 = 101.88 AFY.

While the total consumptive use stemming from groundwater provided to cattle for drinking relies heavily on assumptions and discussion with local stakeholders, it provides insight into the likely order of magnitude of this use. Approximately 101 AFY of consumptive groundwater use equates to 0.20% of total consumptive use in the Subbasin. This analysis supports the assertion that groundwater provided as drinking water for cattle is negligible and does not meaningfully drive the costs of the Groundwater Sustainability Program. Furthermore, the effort and cost associated with identifying variable cattle-grazing groundwater use on a parcel scale would far exceed the revenue generated by charging these users.

Groundwater Use on Non-Agricultural Properties

Certain types of non-de minimis groundwater use cannot be measured using evapotranspiration readings. There are several types of facilities within the Authority's jurisdiction that utilize groundwater for uses other than irrigating agricultural fields. These include public water systems and commercial groundwater extractors. These entities require a different approach to calculating consumed groundwater use. The approach for calculating this use is described below.

Rural Domestic Groundwater Use

To support the development of this Report, the SCI Team conducted an analysis of rural domestic water use. There are two components to estimation of rural groundwater use. The first, indoor water use, is based on assumptions from the 2014 Paso Robles Groundwater Basin Model Update Report[5] ("2014 Modeling Report" or "Report"), which estimates that indoor domestic water use is 0.29 AFY per dwelling unit (DU) (GSSI ES-6). Additionally, this Report estimates that 100% of rural domestic groundwater use is returned to the aquifer via septic systems. This assumption is used in this Report to establish that the consumptive use of indoor water use for rural domestic extractors is 0%, and that 100% of this use is returned to the aquifer via septic systems.

The second component, outdoor water use, requires further analysis. The first step was to identify estimated *applied* water use on a parcel scale, which can then be converted to consumptive use. A spatial analysis conducted by Confluence Engineering Solutions ("**CES**") explored outdoor water use for rural residential parcels. Of 3,980 parcels, CES isolated 10% using a random selection tool, and aerial photography from summer months was used to review outdoor irrigation practices. CES determined that 172 of the sample parcels have no discernible irrigated landscaping. Including these parcels with zero irrigated acreage, inspection of the sample dataset allowed for the organization of average irrigated acres by parcel size for all rural domestic parcels (as shown below in Table 6).

Table 6 - Rural Residential Sample Parcels Outdoor Irrigation Summary

Parcel Size (Acres)	Average of Irrigated Acres	Count of Parcels
<1 - 2.5	0.03	139
2.5 - 20	0.07	177
20 - 40	0.1	36
>40	0.19	46
	0.07	398

CES then applied the average irrigated acreage by parcel size derived from this sample dataset to the rural residential parcel dataset to estimate the acreage of outdoor landscaping present on each rural residential parcel. It was determined that that approximately 75% of the irrigated landscaping is turf (e.g., grass) versus 25% garden (e.g., plants, trees). Reference ET ("**Eto**") data from two nearby California Irrigation Management Information System ("**CIMIS**") stations were used to estimate an applied water amount based on irrigated acreage[6].

[5] https://www.slocounty.ca.gov/departments/public-works/forms-documents/committees-programs/integrated-regional-water-management-(irwm)/grant-funded-planning-documents/paso-robles-groundwater-model-update/2015-01-13-prgb-final-model-report

[6] https://cimis.water.ca.gov/Default.aspx

The average Eto between these two CIMIS stations is 4.9 feet/yr. The crop coefficient for turf is 1.0 and the crop coefficient for garden is assumed to be 0.65. The weighted average crop coefficient for the 75% / 25% crop type split is 0.91. Therefore, the estimated average applied water for rural residential landscape irrigation is 4.9 x 0.91 = 4.48 feet/yr. Based on this analysis, the total estimated applied water for rural residential outdoor use in an average water year was determined to be 0.33 AF per DU, as presented in Table 7.

Table 7 - Estimated Outdoor Applied Water for Rural Domestic Parcels

Parcel Size (Acres)	Count of Parcels	Estimated Outdoor Water Use (AFY)	AFY / Dwelling Unit
<1 - 2.5	1,468	203	0.14
2.5 - 20	1,678	541	0.32
20 - 40	340	154	0.45
>40	494	431	0.87
	3,980	1,329	0.33

To calculate the portion of outdoor rural domestic that is consumed, the SCI Team utilized an analysis from the 2012 County of San Luis Obispo Master Water Report.[7] The Master Water Report estimates that the average irrigation efficiency for sprinkler irrigation is 75% and micro-drip irrigation is 85%, respectively.[8] Furthermore, the SCI Team assumes that turf (e.g., grass) is irrigated with sprinklers and that garden (e.g., plants, trees) is irrigated with micro-drip.

Irrigation efficiency refers to the percentage of irrigation water that is used by the plant – meaning the remainder is lost to evaporation or runoff. Performing a weighted average calculation utilizing the domestic parcel sample from Table 6, we calculate a weighted irrigation efficiency of 77.5%, as shown in Table 8 below. This number serves as our coefficient for the percentage of applied water that is consumed.

Table 8 - Consumptive Coefficient for Outdoor Domestic Irrigation

Use	% of Area	Average Irrigation Efficiency	Overall Weighted Irrigation Efficiency
Turf / Sprinkler	75%	75%	77.5%
Garden / Micro-drip	25%	85%	

[7] https://www.slocounty.ca.gov/departments/public-works/services/plans-reports/master-water-report
[8] 2012 Master Water Report, Volume III, 12.

The calculated outdoor applied use per dwelling unit (0.33 AFY from Table 7) multiplied by 77.5% produces an outdoor *consumptive* use per dwelling unit of 0.26 AFY. Because indoor rural domestic groundwater use is considered 0% consumptive, 0.26 AFY represents the total estimated annual consumptive use of a rural domestic extractor.

Lastly, the SCI Team multiplied this use by the total number of residential parcels in the Subbasin that lie outside of water systems (0.26 AFY x 3,947 = 1,009.45 AFY). This total amount represents the total estimated annual consumptive rural domestic groundwater use in the Subbasin, as shown in Table 9. The total Fee amount associated with this groundwater use – approximately $23,000 – will be covered by PRAGA Member Agencies, either with direct funds or "in-kind" contributions.

Table 9 - Rural Domestic Consumptive Groundwater Use

Rural Domestic Parcels	Consumptive Water (AFY / DU)	Total Rural Domestic Consumptive Water Use (AFY)
3,947	0.26	1,009.45

Public Water System Consumptive Groundwater Use

Public Water Systems ("PWS") are required to report their extraction to the California Division of Drinking Water. As such, this data is publicly available. Furthermore, several PWS within the Subbasin (including the City) share their extraction data with the Authority, streamlining the process of data collection. The process of converting PWS extraction data to consumptive use data varies based on the system in question.

Small Public Water System Consumptive Use

Seven of the eight systems within the Authority share several characteristics that justify grouping them together for the purposes of consumptive use calculation. These small rural systems (referred to as "small public water systems" or "small PWS") all serve parcels that are on septic systems as opposed to sewer, and all of them serve mostly (if not only) residential parcels. The few commercial properties within these systems represent small retail or similar entities, as opposed to large-scale commercial or industrial.

The analysis of rural domestic consumptive groundwater use (as detailed above) improved the understanding of small PWS consumptive use, as these systems are largely rural. The percentage of water use that is consumptive for each of these systems is comparable and relates to a typical rural domestic household's consumptive water use.

To this end, the total estimated applied rural residential water use can be analyzed to develop a percentage of total applied water use that can be considered consumptive. For rural domestic extractors, indoor use is estimated at 0.29 AFY per DU and outdoor use is estimated at 0.33 AFY per DU, making the total estimated applied use per DU 0.62 AFY.

As calculated above, the total estimated consumptive use per DU is 77.5% of 0.33 AFY – or 0.26 AFY. This consumptive use amount is approximately 41% of the total estimated applied water use (0.62 AFY per DU). A multiplier of 41% is then used to determine the amount of applied groundwater extracted by Small PWS that is consumptive; conversely, approximately 59% of applied groundwater extracted by Small PWS is assumed to return to the aquifer via septic systems.

Table 10 - Consumptive Use Coefficient for Small PWS

Use Type	Applied Water (AFY / DU)1	Consumptive Water (AFY / DU)[2]	Consumptive Percentage[3]
Indoor Use	0.29	0	0%
Outdoor Use	0.33	0.26	77.5%
Total	0.62	0.26	41%

(1) Applied water is determined through the analysis described above.
(2) Consumptive water (AFY / DU) is calculated by multiplying the applied water by the consumptive percentage.
(3) Consumptive percentage describes the percentage of extracted groundwater that is consumptive; indoor is assumed to be 0%, and outdoor is derived from the 2012 San Luis Obispo County Master Water Report and a weighted average of the rural domestic parcel sample analysis.

Municipal Public Water System – City of Paso Robles

The remaining water system within the Members' collective service area, the City of Paso Robles, is larger and has several characteristics that differentiate it from the small PWS. The City maintains a sewer system and serves a mix of both residential and commercial parcels. Additionally, water use on a parcel scale in this system is often quite different from the small PWS, which serve larger, more rural parcels. Another differentiating factor is that the City maintains a recycled water facility.

Calculation of a percentage of applied water use that is consumptive was determined by comparing influent flows and water production of the City's wastewater treatment facility. A consumptive use coefficient was determined by subtracting influent flows from the sum of production to determine a consumptive use amount. This consumptive use was then divided by the sum of production of that year to identify a consumptive use percentage of total water production. Water use data was analyzed for Water Year 2025. The selected percentage of water production for the City is 62%, as shown in Table 11 below.

Table 11 - Consumptive Use Coefficient for Municipal PWS

City of Paso Robles Water Use				
Water Year	Total Use (AF)[1]	Waste Water Effluent (AF)[2]	Consumed Water (AF)[3]	Consumptive Percentage[4]
2025	5,710	2,182	3,528	62%

(1) Total water use as reported by the City of Paso Robles.
(2) Waste water effluent (or discharge) as reported by the City of Paso Robles.
(3) Consumed water, calculated by subtracting wastewater effluent from total use.
(4) Consumptive percentage, calculated by dividing consumed water by total use.

Table 12 below summarizes all PWS extraction, consumptive use percentages, and consumptive use amounts used in this Report. Note that extraction data for small water systems is sourced from the California Division of Drinking Water, which publishes only on a calendar year basis. CSA 16 and the City of Paso Robles report extraction directly to the Authority, making Water Year 2025 data available. Where possible, this Report therefore uses Water Year 2025 data to align with the measurement of agricultural groundwater use; Calendar Year 2025 data is used for the remaining systems. The total consumptive use of public water systems is 1,068.67 AF.

Table 12 - Summary of Public Water System Groundwater Extraction and Consumption

Public Water System Extraction and Consumptive Use (Values Shown are AF)								
	Small Public Water Systems							Municipal Public Water System
Year	ADA'S LODGES [C]	GREEN RIVER MUTUAL WATER CO. [C]	MUSTANG SPRINGS MUTUAL WATER [C]	PLEASANT VALLEY ELEMENTARY [C]	RANCHO SALINAS MBWC [C]	SPANISH LAKES MUTUAL WATER CO [C]	CSA 16 [W]	CITY OF PASO ROBLES [W]
2024	10.3	67.9	1.1	0.2	18.8	42.5	84.0	690.0
2025	12.6	67.6	0.7	0.2	21.1	42.3	81.1	1,579.0
Most Recent Data[1]	12.6	67.6	0.7	0.2	21.1	42.3	81.1	1,579.0
Consumptive Multiplier[2]	41%	41%	41%	41%	41%	41%	41%	62%
Consumptive Conversion[3]	**5.2**	**27.9**	**0.3**	**0.1**	**8.7**	**17.4**	**33.5**	**975.6**

= Indicates data Used to calculate charges
C = Indicates Calendar Year 2025 data used
W = Indicates Water Year 2025 data used

(1) The most recent data indicates the most recent available extraction data for each water system – either sourced directly from the system or from the California Division of Drinking Water.
(2) The consumptive multiplier represents the portion of applied (or extracted) groundwater use that is considered consumptive (as detailed above).
(3) The Consumptive conversion is calculated by multiplying the most recently available extraction data by the consumptive multiplier.

Commercial Consumptive Groundwater Use

Commercial groundwater extraction represents a small portion of groundwater use in the Basin. However, small commercial operations and wineries do extract groundwater within the Authority's jurisdiction.

Small Commercial Operations

Using spatial analysis, the SCI Team identified all parcels within commercial County use codes within the Subbasin that lie outside of water system boundaries. These parcels are assumed to rely on groundwater. Only 31 parcels were identified in this analysis (note that wineries are analyzed separately, below). Of these 31 parcels, the majority are assigned County use codes associated with water use that is assumed to be 0% consumptive. Similar to rural domestic indoor use, water use for businesses such as retail sales, bars, and rest homes can be assumed to be returned to the aquifer through septic systems.

Several County use codes were identified as likely having some degree of consumptive groundwater use. These use codes are associated with manufacturing, and sand & gravel production. For manufacturing and sand & gravel production, a general assumption of 0.25 AFY of consumptive use was used. This may need to be refined, potentially through outreach to specific property owners. All commercial use codes, along with parcels counts, descriptions, and consumptive water assumptions are summarized below in Table 13.

Table 13 – Consumptive Groundwater Use for Commercial Parcels

County Use Code	Parcel Count	Primary Description	Secondary Description	Consumptive Water Assumption (AFY)	Total Consumptive Use (AFY)
310	1	Retail Sales	NA	0	0
310 856	1	Retail Sales	Government Post Office	0	0
321	1	Restaurant - Small Sit-Down	NA	0	0
325	1	Bar / Cocktail Lounge	NA	0	0
333	1	Office 1-5 Units	NA	0	0
380	3	Automotive Uses	NA	0	0
381	3	Automotive - Service Station	NA	0	0
385	6	Commercial Service	NA	0	0
404	1	Rest Home	NA	0	0
511	2	Manafacturing - Light	NA	0.25	0.5
511 139	1	Manafacturing - Light	Mobilehome as Secondary	0.25	0.25
515	3	Mini Storage	NA	0	0
520 310	1	Warehousing	Retail Sales	0	0
531 512	1	Mining Sand / Gravel	Manafacturing - Heavy	0.25	0.25
810	1	Church	NA	0	0
810 022	1	Church	NA	0	0
810 820	1	Church	School	0	0
820	2	School	NA	0	0
Total	31				1

Wineries

Many wineries operate within the Subbasin. While agricultural irrigation of vineyards is determined using ET measurements, wine production itself also requires water. In order to establish consumptive water use amounts for wineries, the SCI Team relied on data from the California Regional Water Quality Control Board[9] ("RWQCB") and consultation with local wine industry experts. As of 2017, all wineries producing more than 160 tons of grapes crushed, at least 10,000 cases, or 26,000 gallons of wine must file reports with the RWQCB.[10]

Based on review of RWQCB records, Paso Robles Wine Country Alliance, and Paso Robles Wineries, there are a number of wineries located in the Paso Basin outside of a public water system. Ten of these wineries have RWQCB reporting associated with them, specifying a total annual production volume of wine. The remaining 84 wineries are assumed to be at the 'small winery' threshold annual wine production volume of 26,000 gallons. Based on consultation with local wine industry experts, for wineries without specific information available from RWQCB, the number of gallons of water used per gallon of wine production is assumed to be four gallons water for each gallon of wine produced. Using these assumptions and the available RWQCB reporting it is estimated that a total of 215 AF of water is used annually for wine production in the Basin (either groundwater or other sources), with the average winery using less than 2 AFY. Considering that the water use during wine production is primarily for washing down grape crush pads, vessels and containers, and other working surfaces, it is assumed that a majority of the water returns to the Subbasin via direct percolation or is repurposed as irrigation water. It is estimated that only 25% of the total water used in wineries is consumptive use.

The SCI Team calculated the total estimated AF of applied water per year by multiplying the sum of wine production (in gallons) by the required gallons of water per gallon of wine produced. This number is then converted from gallons to AF. Based on these data and assumptions, the total estimated consumptive use for wineries in the Paso Basin is 38.3 AFY, as summarized in Table 14, below. A more detailed table, including all wineries within the Subbasin, RWQCB data, and assumptions is provided in Appendix B.

Table 14 – Summary of Wine Production and Water Use

Total Wineries (Outside of PWS)	Volume of Wine Produced (Gallons per Year)	Estimated Total Gallons of Water per Year	Estimated Total Water per Year (AF)	Estimated Consumptive Water per Year (AF)
94	13,945,155	49,969,837	153.4	38.3

(1) Total wineries within the Subbasin outside of public water systems was derived from review of RWQCB records, Paso Robles Wine Country Alliance, and Paso Robles Wineries.

[9] https://www.waterboards.ca.gov/centralcoast/

[10] https://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2017/winery_general_order/general_wdr_order_r3-2017-0020.pdf

(2) Volume of wine produced is derived from RWQCB reports when available. If unavailable, production is assumed to be the maximum amount under the reporting requirement per winery (26,000 gallons per year).
(3) Estimated total gallons of water per year is calculated by multiplying volume of wine produced by gallons of water per gallon of wine. For most entities, gallons of water required per gallon of wine was not reported. In these instances, based on consultation with local wine industry experts, an assumption of four gallons of water per gallon of wine produced is used.
(4) Estimated total AF of water per year is calculated by multiplying volume of wine produced by gallons of water per gallon of wine and converting gallons to AF.
(5) Estimated consumptive AFY is calculated by multiplying the total applied AFY by 25%. The assumption that approximately 25% of water used in wine production is consumptive is based on consultation with industry experts.

Table 15 below summarizes all commercial groundwater consumption, including small commercial and wineries.

Table 15 - Total Commercial Consumptive Groundwater Use

Projected Consumed Commercial Groundwater Use	
Use Type	Groundwater Use (AFY)
Small Commercial	1.0
Wineries	38.3
Total	**39.3**

Summary of Projected Consumed Groundwater Use

In Table 16 below, a summary of consumptive groundwater use across all categories is provided.

Table 16 - Total Consumed Groundwater Use

Groundwater Extractor Class	Consumptive Groundwater Use (AF)
Agricultural / Irrigation	48,246
Water Systems	1,069
Commercial	39
Rural Domestic (De Minimis)	1,009
Total Groundwater Use	50,363

Appeals Allowance

The Authority anticipates the need for groundwater extractors to review consumptive use calculations prior to finalizing Fee Program charges. To address this need, consumptive use data will be released for public review in May 2026. A formal process for extractors to appeal their consumptive groundwater use calculations will be formalized, and pending adequate evidence, changes may be made to consumptive use data.

In order to account for a potential reduction in total consumptive groundwater use, the total used to calculate the Fee rate includes an allowance for a reduction in overall groundwater consumption based on anticipated appeals by extractors and other updates and corrections to data that may occur in the coming months. This allowance is estimated to be 5% of overall groundwater consumption.

By using the appeals allowance, slight reductions in groundwater consumption due to appeals will not prevent the proposed Fee from generating the necessary revenue to support SGMA compliance and GSP implementation in the Basin. This effectively increases the rate by $1.14 per AF. If appeals in spring 2026 do not necessitate this increase, the final rate will be reduced accordingly prior to imposing charges on 2026-27 tax bills. This approach reduces the risk of under-collection while preserving the ability to adjust the final rate prior to billing.

Table 17 below illustrates how the appeals allowance reduces the total estimated extraction by 5%.

Table 17 - Effective Consumptive Groundwater Use Calculation

Category	Amount
Total Consumptive Use (AF)	50,363
Appeals Allowance (%)	5%
Appeals Allowance (AF)	2,518
Total Effective Consumptive Use (AF)	47,845

Rate Calculation

The Fee Program rate is calculated by dividing the revenue requirement by the total effective consumed groundwater. Applying the revenue requirement and groundwater consumption data established in this Report, the FY 2026-27 rate is calculated to be $22.90 per AF per year, as shown below.

Figure 5 – Rate Calculation

$$\frac{\$1,095,446}{47,845\ AF} = \$22.90 \text{ per AF}$$

IV. Groundwater Fee Implementation

Notice of the Proposed Fee Program

In accordance with Water Code § 10730, The Authority will provide a 20-day posted notice and corresponding public meeting to review the proposed Fee. The posted notice will include notice of access to the data that serves as the basis of the proposed fee. In this case, this Rate and Fee Study Report provides this data.

Water Code § 10730 Fee Implementation Procedures

- Provide notice of public meeting along with Fee Study (20 days prior to meeting).
- Hold public meeting; provide overview of the Rate and Fee Study Report and data supporting the fee structure and amount.
- Fees may be imposed by ordinance or resolution.

Appeals Process and Metered Extraction Data

As noted above, property owners / extractors will have the opportunity to appeal their calculated consumptive groundwater use for their parcel(s). Specific requirements for appeals based on meter data are under development and will be established with the release of consumptive groundwater use data for public review. However, the below represents an example of the potential process:

Appeals must be submitted with metered extraction data for all wells that serve the parcel(s) in question. The Authority will investigate the claim and request additional information as needed. Conversion of data from applied groundwater to consumed groundwater may be necessary in order to determine a resolution. This would include consideration of other relevant factors, including irrigation efficiency.

Government Code § 53759

In accordance with Government Code § 53759, any judicial action, challenge, or proceeding related to the establishment of the proposed Groundwater Sustainability Fee Program shall be commenced within 120 days of the effective date of the final adoption of the Program. Pending the results of the protest tabulation, this final adoption is expected in May 2026.

Appendix A – Effective Precipitation Methodology

TECHNICAL MEMORANDUM

EFFECTIVE PRECIPITATION 2025 WATER YEAR METHODOLOGY

PREPARED FOR:	Ryan Aston/SCI Consulting Group
PREPARED BY:	Adriana Joosep/Land IQ Cody Fink/Land IQ
DATE:	May 6, 2026

METHODOLOGY

WATER YEAR 2025

Effective precipitation is defined as the amount of precipitation contributing to total evapotranspiration (ET) on a given area. Effective precipitation was calculated on a field by field and annual basis, utilizing Land IQ's spatial precipitation product. This spatial precipitation data is analyzed monthly using a robust network of rain gauges throughout Paso Robles subbasin from Land IQ, Western Weather Group, and the California Irrigation Management Information System (CIMIS). Land IQ performs quality control on all data sources monthly to ensure accurate results.

During the 2025 Water Year (October 2024 to September 2025), total precipitation ranged from 5.7 to 8.9 inches within the Paso Robles Subbasin, resulting in an effective precipitation ranging from 5.4 to 8.1 inches. The table below (Table 1) shows the effective precipitation percentage of total rainfall and was developed from a literature review with references available below. Effective precipitation was subtracted from each field's total ET, resulting in an estimate of total ET of applied water.

Table 1. Effective Precipitation Percentages of Total Rainfall.

Water Year 2025 Total Rainfall (inches)	Effective Precipitation Percentage
0 - 6	96%
>6 - 7	94%
>7 - 8	93%
>8 - 9	91%

WATER YEAR 2026

Moving forward into the 2026 water year, effective precipitation will also be estimated using a similar approach, but will occur on a timescale focusing on the rainy season. The effective precipitation target for the 2026 water year will be based on the total precipitation received between October – May and the amount of vegetation cover. A small true-up and retrospective changes for October – May will occur in June/July 2026 following the rainy season, but well in advance of the end of the water year.

REFERENCES

Williamson, A., Prudic, D., and Swain, L. 1989. Ground-Water Flow in the Central Valley, California. Regional Aquifer-System Analysis- Central Valley California. U.S. Geological Survey Professional Paper 1401-D.

Hagan, R. 1967. Problems and Procedures in Determining Water Supply and Requirements. Washington, D.C. Bureau of Reclamation, U.S. Department of the Interior.

Maxey, G. and Eakin, T. 1949. Groundwater in the White River Valley, White Pine, Nye, and Lincoln counties, Nevada. Water Resources Bulletin No. 8, State of Nevada, Office of the State Engineer.

Appendix B – RWQCB Winery Data and Assumptions

Table 18 - Wineries in the Paso Robles Subbasin

Winery Name	Grapes Crushed (Tons per Year)[1]	Cases Produced per Year[2]	Volume of Wine Produced (Gallons per Year)[3]	Gallons of Water per Gallon of Wine[4]	Estimated Total Gallons Water per Year[5]	Total Applied AFY[6]	Estimated Consumptive AFY[7]
CALIPASO WINERY LLC	362	21,300	53,509	4	214,036	0.66	0.16
CASS WINERY	223		34,844	4	139,375	0.43	0.11
CASTORO CELLARS - SAN MIGUEL	10,706		1,672,813	4	6,691,250	20.53	5.13
J. LOHR WINERY PASO ROBLES	10,189	728,536	1,732,459	**1.8**	3,118,425	9.57	2.39
LIBERTY VINEYARD	50	2,500	6,000	4	24,000	0.07	0.02
PEACHY CANYON WINERY	316	20,429	46,446	4	185,784	0.57	0.14
ROBERT HALL WINERY	1,878		309,000	4	1,236,000	3.79	0.95
SV PARTNERS WINERY	6,398		999,688	**2**	1,999,375	6.14	1.53
TREASURY WINE ESTATES WINERY	30,235	0	4,746,206	4	18,984,824	58.26	14.57
TRINCHERO CENTRAL COAST WINERY	11,926	908,407	2,160,192	4	8,640,767	26.52	6.63
3IN WINERY INC.			26,000	4	104,000	0.32	0.08
AMBYTH ESTATE			26,000	4	104,000	0.32	0.08
AUGUST RIDGE VINEYARDS			26,000	4	104,000	0.32	0.08
AW1040 B&E VINEYARD			26,000	4	104,000	0.32	0.08
BARR ESTATE WINERY - WAIVER			26,000	4	104,000	0.32	0.08
BIANCHI VINEYARDS			26,000	4	104,000	0.32	0.08
BRANDON MICHAEL SIMONDS CELLARS			26,000	4	104,000	0.32	0.08
BROHAUGH WINERY			26,000	4	104,000	0.32	0.08
BURBANK RANCH WINERY			26,000	4	104,000	0.32	0.08
CAPARONE WINERY			26,000	4	104,000	0.32	0.08
CHATEAU MARGENE WINERY			26,000	4	104,000	0.32	0.08
TERRA & LTD CELLARS			26,000	4	104,000	0.32	0.08
CHRISTIAN LAZO WINES - WAIVER			26,000	4	104,000	0.32	0.08
CLAUTIERE VINEYARD			26,000	4	104,000	0.32	0.08
DEMETER FAMILY VINEYARD AND WINERY			26,000	4	104,000	0.32	0.08
DOMAINE DEGHER			26,000	4	104,000	0.32	0.08
EBERLE WINERY			26,000	4	104,000	0.32	0.08
ESTRELLA WINERY			26,000	4	104,000	0.32	0.08
FOUR SISTERS RANCH			26,000	4	104,000	0.32	0.08
GELFAND VINEYARDS			26,000	4	104,000	0.32	0.08
GEORGIO VINEYARD			26,000	4	104,000	0.32	0.08
GLUNZ FAMILY WINERY AND CELLARS			26,000	4	104,000	0.32	0.08
HANSEN VINEYARDS			26,000	4	104,000	0.32	0.08
HIDDEN OAK WINERY			26,000	4	104,000	0.32	0.08
J. PAUL WINERY			26,000	4	104,000	0.32	0.08
JAMES JUDD AND SONS WINERY			26,000	4	104,000	0.32	0.08
KEEZER WINERY			26,000	4	104,000	0.32	0.08
KENNETH PAUL WINERY			26,000	4	104,000	0.32	0.08
NAGENGAST ESTATE VINEYARD			26,000	4	104,000	0.32	0.08
PEAR VALLEY WINERY			26,000	4	104,000	0.32	0.08
PENMAN SPRINGS VINEYARD			26,000	4	104,000	0.32	0.08
POMAR JUNCTION WINERY			26,000	4	104,000	0.32	0.08
POZZUOLI WINERY			26,000	4	104,000	0.32	0.08
RABBIT RIDGE WINERY			26,000	4	104,000	0.32	0.08
RANCHITA CANYON VINEYARD - WAIVER			26,000	4	104,000	0.32	0.08
RASMUSSEN WINERY			26,000	4	104,000	0.32	0.08
RAVA WINES - WAIVER			26,000	4	104,000	0.32	0.08
RIO SECO VINEYARD AND WINERY			26,000	4	104,000	0.32	0.08
RIVERSTAR WINERY			26,000	4	104,000	0.32	0.08
ROCKIN R WINERY			26,000	4	104,000	0.32	0.08
SAN MARCOS CREEK VINEYARDS			26,000	4	104,000	0.32	0.08
SARZOTTI WINERY			26,000	4	104,000	0.32	0.08

Table 18 – Continued

Winery Name	Grapes Crushed (Tons per Year)[1]	Cases Produced per Year[2]	Volume of Wine Produced (Gallons per Year)[3]	Gallons of Water per Gallon of Wine[4]	Estimated Total Gallons Water per Year[5]	Total Applied AFY[6]	Estimated Consumptive AFY[7]
SAXBY WINERY			26,000	4	104,000	0.32	0.08
SCULPTERRA WINERY			26,000	4	104,000	0.32	0.08
STEINBECK WINERY - WAIVER			26,000	4	104,000	0.32	0.08
STILL WATERS VINEYARDS			26,000	4	104,000	0.32	0.08
TOBIN JAMES CELLARS			26,000	4	104,000	0.32	0.08
VILLA SAN JULIETTE WINERY			26,000	4	104,000	0.32	0.08
VINES ON THE MARYCREST			26,000	4	104,000	0.32	0.08
VINO VARGAS WINERY			26,000	4	104,000	0.32	0.08
WASSERMAN VINEYARDS AND WINERY			26,000	4	104,000	0.32	0.08
ALEKSANDER WINE			26,000	4	104,000	0.32	0.08
ASUNCION RIDGE			26,000	4	104,000	0.32	0.08
BON NICHE			26,000	4	104,000	0.32	0.08
BOVINO			26,000	4	104,000	0.32	0.08
BROPHY CLARK CELLARS			26,000	4	104,000	0.32	0.08
CHRONIC			26,000	4	104,000	0.32	0.08
CINQUAIN			26,000	4	104,000	0.32	0.08
CIRCLE B			26,000	4	104,000	0.32	0.08
COPIA			26,000	4	104,000	0.32	0.08
DEFIANCE			26,000	4	104,000	0.32	0.08
DRESSER			26,000	4	104,000	0.32	0.08
EDEN HOUSE AT CARRIAGE VINEYARDS			26,000	4	104,000	0.32	0.08
ELLA'S VINEYARD			26,000	4	104,000	0.32	0.08
FABLEIST			26,000	4	104,000	0.32	0.08
GRAVEYARD			26,000	4	104,000	0.32	0.08
HEARST RANCH			26,000	4	104,000	0.32	0.08
HIGH CAMP			26,000	4	104,000	0.32	0.08
J&J			26,000	4	104,000	0.32	0.08
LAZARRE WINES			26,000	4	104,000	0.32	0.08
LE VIGNE			26,000	4	104,000	0.32	0.08
MITCHELLA			26,000	4	104,000	0.32	0.08
OPTIO VINEYARDS			26,000	4	104,000	0.32	0.08
PARIS VALLEY ROAD			26,000	4	104,000	0.32	0.08
RAILS NAP			26,000	4	104,000	0.32	0.08
RN ESTATE			26,000	4	104,000	0.32	0.08
SANTELLAN VINEYARDS			26,000	4	104,000	0.32	0.08
STANGER			26,000	4	104,000	0.32	0.08
TACKITT			26,000	4	104,000	0.32	0.08
THIBIDA			26,000	4	104,000	0.32	0.08
VAHALI VINEYARDS			26,000	4	104,000	0.32	0.08
VIA VEGA			26,000	4	104,000	0.32	0.08
VINYL			26,000	4	104,000	0.32	0.08
VISTA DEL REY			26,000	4	104,000	0.32	0.08
Totals	NA	NA	NA	NA	**50,177,837**	**154.0**	**38.5**

Notes:

- All wineries within the Subbasin outside of water systems are included in this table. Wineries within water systems are assumed to be water customers, not extractors.
- Cells in tan indicate no data available in RWQCB Reports.
- Text in orange indicates assumption(s) used.
- A majority of wineries within the Subbasin are not subject to RWQCB reporting due to their small production size.

(1) Grapes crushed (tons per year) is derived from RWQCB reports when available.

(2) Cases produced each year is derived from RWQCB reports when available.
(3) Volume of wine produced is derived from RWQCB reports when available. If unavailable, production is assumed to be the maximum amount under the reporting requirement (26,000 gallons per year).
(4) Gallons of water per gallon of wine is derived from RWQCB reports when available. If unavailable, an assumption of 4 gallons of water per gallon of wine is used based on consultation with industry experts.
(5) Estimated total gallons of water per year is calculated by multiplying volume of wine produced by gallons of water per gallon of wine.
(6) Total applied AFY converts total gallons of water per year to AF (dividing gallon amount by 325,851 – the amount of gallons in one AF).
(7) Estimated consumptive AFY is calculated by multiplying the total applied AFY by 25%. The assumption that approximately 25% of water used in wine production is consumptive is based on consultation with industry experts.