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PETALUMA VALLEY
GROUNDWATER
SUSTAINABILITY AGENCY

Petaluma Valley Groundwater Sustainability Agency

Rate and Fee Study

SCIConsultingGroup
Public Finance Consulting Services

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science | policy | solutions

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I. Executive Summary

Background

The California Legislature enacted the Sustainable Groundwater Management Act ("SGMA") in 2014, marking the first Statewide effort to manage its groundwater basins. The goal of this historical legislation is to ensure that groundwater is sustainably managed and protected for all beneficial users, both now and in the future. Although it was enacted at the State level, SGMA was envisioned to be carried out locally. As such, it mandates that local Groundwater Sustainability Agencies be formed in medium and high-priority basins in order to develop and implement Groundwater Sustainability Plans ("GSPs").

The Petaluma Valley Groundwater Sustainability Agency ("GSA" or "Agency") was formed in 2017 to develop and implement a GSP for the Petaluma Valley Basin ("Subbasin"). The Agency submitted its GSP to the Department of Water Resources ("DWR") in January of 2022. While the State may take up to two years to assess the GSP and determine if it complies with SGMA, the Agency is tasked with implementing the tasks laid out by the GSP immediately.

To this point the Petaluma Valley GSA has been funded by a combination of grants and Member Agency Contributions. The Agency has received more than $2 million in grant funding since 2017, helping to offset costs borne at the local level. The Agency's Joint Powers Agreement established the initial agency funding commitments of member agencies, between $20,000 and $117,233.

In 2017, the Board initiated a Rate and Fee Study, conducted by Raftelis Financial Consultants, to develop a Groundwater Sustainability Fee. For nearly a year the GSA conducted various public meetings and workshops. However, due to uncertainty associated with a broad-based parcel tax and the high rates associated with a pumping fee, the Board decided at their August 23, 2018, meeting to halt the Raftelis Fee Study and agreed to a new member funding arrangement to fund the Agency through the development and adoption of the GSP. In the five fiscal years since FY 2017-18, contributions have been by Sonoma Water ($601,416), Sonoma County ($394,141), City of Petaluma ($344,491), Sonoma Resource Conservation District ($65,000), and the North Bay Water District ($65,000). This allowed the Agency to put full fee implementation on hold while it continued its community outreach and GSP development.

In the Fall of 2020, the Agency engaged a consultant team led by SCI Consulting Group ("SCI Team") to develop rural community engagement strategies, polling, and revenue recommendations. To develop these strategies and recommendations, the SCI Team conducted a survey of rural well owners in the Petaluma Valley Basin in January 2021. This survey included an invitation to participate in a focus group conducted by SGA Marketing. This community

engagement project helped to better define the perspective of the community and guide community outreach efforts as the Agency has worked to update its fee structure.

In November of 2021, the GSA engaged SCI to develop a Rate and Fee Study for the Basin. This effort has included comprehensive data analysis, review of funding options for groundwater sustainability agencies, evaluation of rate structure alternatives, and the development of rate and fee schedules. Additional input and modification were provided by staff of the GSA. The scope of work also included a series of community meetings in order to incorporate community perspective and engagement into the Rate and Fee Study. The GSA has conducted one community virtual meeting and one in-person community meeting in Petaluma.

This Study outlines the fee options for funding GSA operations through the first five years of GSP implementation. It summarizes the efforts of the GSA, Member Agencies, and consultants in determining the financial, legal, and policy decisions best suited to funding groundwater management the Petaluma Valley Basin. This summary includes considerations of legal authority, various funding mechanisms, public outreach efforts, and fee methodology.

Objectives

The objectives of this Study include the following:

- Development of a five-year budget
- Development and refinement of parcel-scale data and extraction estimates
- Development of fee methodology and rates
- Documentation of community outreach related to the updated fee structure

Agency Characteristics

The Petaluma Valley Groundwater Sustainability Agency was created by a Joint Powers Agreement in May of 2017 to serve as the official Groundwater Sustainability Agency for the Petaluma Valley Groundwater Basin, as required by the Sustainable Groundwater Management Act. The Joint Powers Agreement consists of five Member Agencies: The City of Petaluma, the Sonoma Resource Conservation District, Sonoma County Water Agency (“Sonoma Water”), the County of Sonoma, and the North Bay Water District. The Agency is governed by a Board of Directors (“Board”) consisting of one Director from each of the five agencies. Each Member Agency also appoints an Alternate Director. Additionally, The Agency maintains an Advisory Committee for the purpose of providing input and recommendations to the Board and encouraging community participation in the GSA.

Basin Characteristics

The Petaluma Valley Basin encompasses approximately 46,000 acres underlying southern Sonoma County. The population of this area is approximately 60,000 and includes the City of Petaluma as well as unincorporated rural communities.

Groundwater Use in the Petaluma Valley Basin

The Basin 's GSP includes detailed discussion of groundwater use in the Petaluma Valley Basin and includes a water budget which describes inflows and outflows to the Basin during the current period. Included in the water budget is an estimate of annual groundwater pumping.

The groundwater extraction estimates for this Rate and Fee Study, while similar to that in the GSP, varies slightly. This is largely due to the approach utilized in determining unmetered groundwater use. While the GSP takes into account the Basin as a whole, this Study utilizes a parcel-scale approach, which is necessary in order to allocate costs at the parcel level. The GSP estimated annual extraction to be between 2,200 and 2,850 acre-feet per year, while this Rate Study estimated groundwater extraction at 2,794 acre-feet per year. Further discussion of this estimate is included in Section III of this Study in the description of methodology.

Basin Prioritization

The Department of Water Resources assigns each of California's 515 groundwater basins a prioritization rating. The Basin Prioritization rating dictates whether a basin is designated very low, low, medium, or high priority as shown in Table 1.

Table 1 – SGMA Priority Ranking Criteria

Priority	Total Priority Point Ranges			
Very Low	*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 17.5, the Petaluma Valley Basin is classified by DWR as a medium-priority basin. The Basin's priority point allocation is illustrated in Table 2.

Figure 1 – Basin Boundary and Well Density

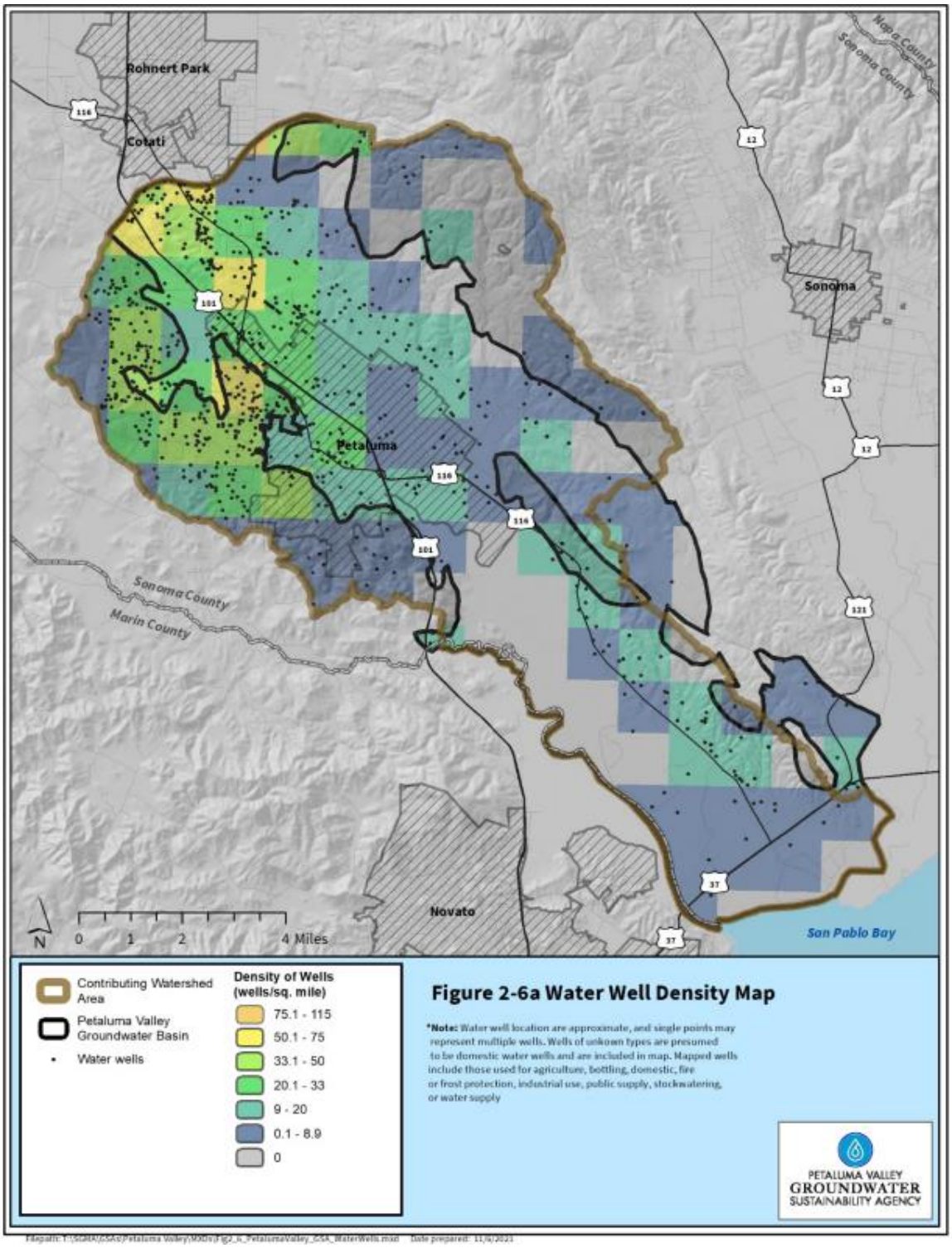


Table 2 - Petaluma Valley Basin Priority Points

	Criteria	PV Priority Points
1	Population	2
2	Population Growth	3
3	Public Supply Wells	3
4	Total Wells	4
5	Irrigated Acres	2
6	Reliance on GW	1.5
7	Basin Impacts	2
8	Habitat & Other Information	0
	TOTAL PRIORITY POINTS	17.5

Groundwater Fees

As noted above, the GSA was initially expected to be self-funded by FY 2018-19. Although a Rate and Fee Study was begun in 2017 by Raftelis Financial Consultants, that effort was halted in August 2018 due to the high costs and uncertainties associated with a parcel tax and the high rates associated with a pumping charge. Instead, the Board agreed to continue a member contribution arrangement through FY 2021-22. Accordingly, the Board engaged the services of SCI Consulting Group in 2021 to begin a new Rate and Fee Study.

Just as SGMA envisions groundwater basins being locally governed, it also envisions GSAs to be locally funded. The intent of this Fee Study is to recommend a groundwater fee mechanism for the Petaluma Valley Basin, providing a reliable stand-alone revenue source to ensure the Agency's ability to implement its GSP. While the Agency has received grant funding in the past, and will actively pursue future grant solicitations, additional revenue will be needed to fund non-grant eligible activities.

A Groundwater Fee Program for the Petaluma Valley Basin

Public agencies such as the Petaluma Valley GSA have available numerous revenue mechanisms under current California law. These range from taxes and assessments to various regulatory fees, some of which are specifically authorized by SGMA. The most common mechanism, and the one put in place in the nearby Santa Rosa Plain GSA in 2019, is a regulatory fee based on estimated groundwater extraction for each parcel within the Basin. As such, the primary focus for this study was to apply the same methodology for the Petaluma Valley Basin including the parcel attributes that support a groundwater extraction estimate.

In addition, this Study also explored many other options for a revenue mechanism. These included a parcel tax across all parcels in the Basin, a benefit assessment for all parcels in the basin, a flat-rate well head fee for all parcels using groundwater, and a hybrid fee that blended a regulatory fee component based on groundwater extraction plus a parcel-based component for all parcels in the basin.

While a simple regulatory fee was the primary focus of this Study, the financial needs combined with extraction estimates resulting in extraordinary high rates per acre-foot of groundwater extracted (between $230 and $400 per AF per year). Because of this high rate, the Board chose to examine other revenue possibilities more fully. As of the writing of this Study, the Board has not agreed to a single path forward. Therefore, this Study is not making a final recommendation for a fee structure or mechanism. Instead, several options are presented along with pros, cons, and practical considerations. These are summarized in Table 3 and described in more detail in subsequent sections. It is worth noting that the flat well head fee was discarded from consideration by the Board, so it is not shown in Table 3.

The only option shown below that is vetted well enough for immediate adoption is the regulatory fee. All other options would require either a ballot measure process including preparatory analysis and public opinion polling (tax and assessment) or further study by the Board, Advisory Committee, member agencies, other stakeholders, and the community at large (hybrid), thereby putting implementation beyond the Year 1 (FY 2022-23) deadline for funding. As any of those alternate options are considered, the Board will need to consider an interim Year 1 funding option such as continued member agency support, a one-year regulatory fee, or funding assistance from an outside source like the County.

Although the alternate funding options are not yet ready for deployment, the preliminary rates and considerations contained in this Study are adequate for ongoing public dialogue and stakeholder engagement as well as public opinion polling.

Regulatory Fee Components: Groundwater Usage and Revenue Requirements

The primary focus of this Study was the regulatory fee. As such, the data and analysis are now complete and are summarized below. In general, there are two primary components of such a fee: Groundwater usage and revenue requirements.

Precise groundwater extraction data is largely unavailable or non-existent. Public water agencies and certain private entities operating wells are required to report extraction data to the California Department of Drinking Water, which data are publicly available to the Agency. These publicly-available data account for approximately 12% of all water extracted in the Basin. However, the remaining 88% of the extraction comes from wells whose extraction data is not public or have no meters. Thus, precise measurement of extraction is impossible at this time. The process of installing meters on all Basin wells introduces financial, legal, and policy

complexities that prohibit such an approach in the near future. Therefore, this Study will estimate extraction for those non- public wells through a process that is described herein. The total groundwater extraction for the Basin is estimated to be 2,794.3 acre-feet per year.

Table 3 – Funding Options & Considerations for First Five Years of GSP Implementation

	Regulatory Fee	Parcel Tax	Benefit Assessment	Hybrid
Who Pays	Groundwater Users (cities, farmers, businesses, rural residences)	All parcels	All parcels	**GW Users pay Usage portion **All parcels pay non-usage portion
Adoption	Adoption by Board through an ordinance process	**Ballot Measure **Requires 2/3 majority	**Prop 218 procedures **Landowner weighted voting **Requires 50% approval	Adoption by Board through an ordinance process
Pros	**Proportionate to GW used **Similar to SRP Fee (2019) **Credit for recycled or surface water used	Spreads costs wider = lowest rates	Proportionate to GW usage Lower rates	**Usage portion is proportionate **Non-usage is justified by DWR Scoring **Spreads costs wider = lower rates
Cons	**Very high rate **Private GW use not metered (estimated only)	**Voter approval required **Cannot be implemented until Year 2 or 3 **Public opinion polling recommended **High cost to implement (~$180,000)	**Landowner balloting **Cannot be implemented until Year 2 or 3 **Public opinion polling recommended **High cost to implement (~$110,000)	**Requires more legal review **Would require wider community engagement **Much debate about splitting costs likely
Rate Range	$225 to $400 per AF per year	$28 - $55 per parcel	$55 to $96 per AF per year	**Usage rates @ half of regulatory fee **Non-usage rates $16 to $18 per parcel

It is worth noting that, while the proposed fees are based on groundwater extraction, the fees are not intended to charge for groundwater extraction itself. Instead, the use of extraction estimates is intended to equitably allocate the benefits of the Agency's groundwater sustainability plan across all groundwater extractors.

The other primary component of the fee program outlined in this Study is the projected budget of the GSA through the first five years of GSP implementation. This budget was scrutinized by

Agency staff and the SCI Team, with crucial input by the Board ultimately deciding several factors. Chief among these factors is the inclusion of potential future grant funding in the revenue budget, a decision that reduced the revenue required from a local fee structure. Based on an average annual budget over the next five years of $1,065,900 reduced by an annual average grant funding amount of $426,400 (approximately 40% of total budget), the average annual revenue requirement from a regulatory fee structure is $639,500.

The final calculation of the regulatory fee is a simple equation, as shown below.

$$\frac{\textit{Revenue Requirement (\$\$)}}{\textit{Total Extraction (AF)}} = \textit{Rate (\$\$ / AF)}$$

By applying the estimated extraction and revenue requirement, a *full-budget, durable rate* is $228.90 per AF per year (rounded to the nearest 10¢) as shown below.

$$\frac{\$\ 639{,}500}{2{,}794.3\ \ AF} = \$\,228.90 \quad \textit{per AF per Year}$$

While the total extraction estimate is relatively fixed at this time, the revenue requirement part of this equation was discussed by the Board. Pursuant to Board direction, the GSA staff determined what a *"bare bones" Year-1 budget* would be to support basic operations and remain in compliance with SGMA. This analysis resulted in a Year-1 revenue requirement of approximately $410,000, which would result in a Year-1 rate of $146.70 per AF (rounded to the nearest 10¢) as shown below.

$$\frac{\$\ 410{,}000}{2{,}794.3\ \ AF} = \$\,146.70 \quad \textit{per AF per Year}$$

It is worth noting that this reduced budget assumes some reductions in levels of service and some deferred expenses that will need to be incurred in later years. Appendix D – Year 1 Reduced Budget contains a detailed report about this one-year budget reduction.

On June 17, 2022, the Sonoma County Board of Supervisors approved a budget that included a FY 2022-23 appropriation of $500,000 to be split between the Petaluma Valley GSA and the Sonoma Valley GSA. This will enable those GSAs to charge rates for groundwater extractors (not including the municipalities and major public water service providers) equal to those adopted by the Santa Rosa Plain GSA (expected to be $40 per AF) for Year 1. The goal was to "even the playing field" while the two former GSAs utilize the coming year to explore more funding options including grants.

This Rate and Fee Study provides a detailed outline of the efforts to establish a reliable revenue source to fund GSP implementation in the Petaluma Valley Basin and represents the culmination of years of effort by the Petaluma Valley GSA Board, staff, and consultants.

II. Context

Many factors contribute to an effective fee methodology and a successful fee implementation. Staff and consultants worked together with legal counsel to establish a comprehensive understanding of the applicable legislative and legal factors and the viability of various funding mechanisms. The Board and Advisory Committee played integral roles in guiding this process, placing priority on equity, fairness, and fiscal responsibility. Additionally, a priority has been placed on community engagement throughout the process, with public outreach efforts playing an important part in developing the groundwater sustainability fee.

Legislative and Legal Understanding

Water Code § 10730

Groundwater Sustainability Fees

Within SGMA, two revenue paths are specifically described as a means to fund a groundwater sustainability agency. Water Code § 10730 describes the fee established by this Rate and Fee Study:

> *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 fee developed for this Study is based on estimated groundwater extraction and is intended to primarily fund program administration, 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.

Public Meeting Requirements

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.

In addition to the required public meeting (tentatively scheduled for July 28, 2022), the Petaluma Valley GSA held two additional community meetings during the process of developing this fee program. More detail regarding these meetings is provided below.

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 § 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 according to their GSP.

For the Petaluma Valley GSA, the regulation of de minimis users will be included in the draft ordinance currently being developed. This will be identical to the requirement for the Santa Rosa Plain Ordinance No. 19-02, Article 2, Section 1, Registration, and Section 3, De minimis Extractors:

Section 1, Registration

All groundwater extraction facilities within the boundaries of the Agency shall be registered with the Agency within thirty (30) days of notice given to the operator.

The Operator of an Extraction Facility will be registered by the Agency and provide at a minimum the following information on a form provided by the Agency. The Agency form may ask for, and the Operator may supply additional information if requested.

A. Name, mailing address, and email address of the operator.

B. Name and address of the owner of the land upon which the Extraction Facility is located.

C. A description of the equipment associated with the Extraction Facility.

D. Location of the water Extraction Facility.

Section 3, De minimis Extractors

A. It is the intent of the Agency to regulate De Minimis Extractors by this Ordinance, as provided for in Water code section 10730(a).

To aid in the exchange of registration information, the Groundwater Users Information Data Exchange ("GUIDE") Program is proposed. This program is an extension of the GUIDE program currently implemented (and being updated) in the neighboring Santa Rosa Plain Subbasin[1]. The GUIDE Program offers community members the opportunity to determine whether their parcel is within the Basin boundaries, to view the current data held by the GSA regarding their parcel, and to complete a survey requesting alteration of this data if applicable. By initiating the regulation of de minimis users supplemented by the GUIDE Program, the Agency would regulate these users pursuant to Water Code § 10730. This assures that the fee program outlined by this Rate and Fee Study maintains compliance with § 10730.

Fee Collection

Another stipulation of Water Code § 10730 authorizes a GSA to collect fees pursuant to this section of the Water Code on the property tax bills furnished by the County in which its jurisdiction lies. If passed and adopted, the agency intends to utilize the tax bill method of collection to the extent possible.

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. Proposition 26 is best understood in the context of Propositions 13 and 218.

Proposition 218 was passed by California voters in 1996, adding Articles XIII C and XIII D to the State Constitution. The purpose of this legislation was primarily to address the effects of Proposition 13, passed in 1978, which limited the ability of local governments to impose 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 are:

(1) 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

[1] https://santarosaplaingroundwater.org/user/

reasonable costs to the local government of conferring the benefit or granting the privilege to the payor.

(2) A charge imposed for a specific government service or product provided 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 providing the service or product to the payor.

(3) A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.

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.

Regulatory Fees

The three exceptions listed above provide the basis for a regulatory fee on estimated groundwater extraction. Implementation of the Petaluma Valley GSP provides a benefit or service to groundwater users in the Basin. Additionally, costs incurred by the GSA's groundwater sustainability program are regulatory costs, as they represent the regulation of groundwater in the Basin.

This Fee Study provides the rationale for how the fee program for the Petaluma Valley GSA will comply with the requirements of Article XII A, including 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.

Funding Methods Considered

There are a number of funding mechanisms available to local agencies in California, several of which were thoroughly explored in compiling this Rate and Fee Study. Although SGMA does provide some guidance on funding GSAs, this guidance is not particularly detailed. Additionally, given the relatively short timeline since the passage of SGMA, there is not a significant amount of legal precedent for GSA funding mechanisms. A lack of clarity on how to proceed is common among GSAs across the State. For these reasons, it was important to vet several potential options for funding the Petaluma Valley GSA.

Well Head Fees

A well head fee program would charge a flat rate for each parcel in the Basin that relies wholly or partially on groundwater, regardless of whether a well is present on the site. While all groundwater extractors would have been charged between $490 and $850 per parcel per year, the amount charged would be disproportionate to the quantity of water extracted by each user. This dynamic does not contribute to the concept of an equitable fee program. While a well head fee would be more easily implemented, charges for smaller extractors would be the same as those for larger extractors. For this reason, well head fees were discarded by the Board as a viable option for the GSA.

Benefit Assessments

A benefit assessment was considered by the Agency as an alternative to taxes or fees. Article XIII D of the California Constitution provides the process through which assessments are established, including strict requirements of benefit proportionality, an all-mail election, and an Engineer's Report establishing the legal justification of the assessment. One advantage of a benefit assessment is that it could potentially increase the amount of Basin residents that are charged, thus lowering the rates for some payors.

To comply with the proportionality requirements of Proposition 218 would lead to a "per acre-foot" approach to the assessment. This is similar to the regulatory fee process, and much of the data developed could be applied to the assessment analysis. The rationale for applying a water usage approach to all parcels in the Basin is based on the notion that groundwater is a critical part of the overall water portfolio of all water users in the Basin. By ensuring sustainability for the groundwater supply, the GSA is bolstering the sustainability of other water sources. In other words, if the groundwater supply shrinks or disappears, the demand on other water sources would increase.

The preliminary analysis, using the same revenue requirement of $632,300 per year and the expanded water usage (not just groundwater usage) of 13,254 AF per year, results in a $49.78

per AF per year rate. That would translate to a residential rate of approximately $25 per year (or $2.08 per month).

Several challenges exist in pursuing a benefit assessment.

- The lack of a clear underlying act authorizing the use of an assessment for groundwater management complicates the pursuit of this mechanism.
- Being subject to landowner approval, the risk of being rejected by voters was significant.
- Additional cost of approximately $110,000 to conduct polling and to print, mail and tabulate the ballots.
- A benefit assessment would not be implemented in time to secure funding for fiscal year 2022-23.
- Since this would apply to all 19,500 parcels in the Basin, the community engagement process would need to be expanded greatly.
- More detailed data analysis would be required. This might include consideration of two zones of benefit (direct groundwater users and non-groundwater users) resulting in a two-tiered rate structure with some paying more and paying less than the rates stated above.

Special Taxes

Several advantageous factors caused the Agency to consider a special tax as an alternative to a fee program. A special tax would allocate the costs of GSP implementation to as wide a pool of payors as possible, lowering the rates paid by groundwater extractors. As a tax, there are no proportionality or benefit analysis requirements. The proposed tax rates would simply need to garner more than two-thirds support of voters.

Although the framers of SGMA seem to have envisioned GSP implementation to be paid for by groundwater extractors alone, an argument can be made that all members of the community benefit from a well-managed groundwater basin by virtue of groundwater being a significant portion of the overall water supply portfolio for all water users in the Basin. The caveat of this perspective is that those who do not rely directly on groundwater may not support such a measure.

Two tax rate structures were considered in the preliminary analysis: A flat rate for all 19,061 taxable parcels; and a tiered rate with non-residential parcels taxed at 2.5 times the residential rate. Using the same revenue requirement of $632,300 per year plus the $180,000 extra costs spread over four years, the two resulting annual tax rates for a typical residential parcel are $35.53 and $31.84, respectively.

Some challenges exist in pursuing a parcel tax measure.

- Being subject to voter approval with a two-thirds threshold, the risk of being rejected by voters was significant.
- Most successful tax measures are supported by a sector of the community acting in a advocacy role, which, by law, cannot be done by the GSA. Without such grass roots support (and associated funding), a successful ballot measure is unlikely.
- Additional cost of approximately $180,000 to conduct polling and paying the County elections office to conduct the election (included in the tax rates stated above).
- The amount of time it would take to place a parcel tax on the ballot would not be in time to secure funding for fiscal year 2022-23 (or possibly fiscal year 2023-24).
- Since this would apply to most of the 19,500 parcels in the Basin, the community engagement process would need to be expanded greatly.
- More detailed data analysis (including polling results) would be required.

Regulatory Fees

A regulatory fee in accordance with Water Code § 10730 and Proposition 26 was the primary focus of this Study, and therefore the data compilation and analysis are complete and actionable. This type of fee is the same mechanism used by the nearby Santa Rosa Plain GSA in 2019 and being considered currently by their Board for updating and renewal.

As such, the methodology of the fee program established by the focus of this Study is based on apportioning costs according to the amount of groundwater extraction estimate for each groundwater-reliant property or public water system. Several factors contributed to a regulatory fee program being the primary focus for this Study:

- Proportional: The fee is equitable in that properties that extract more groundwater (and have more at stake in ensuring a sustainable groundwater supply) would pay more while properties that extract less would pay less.
- Easy to Administer: Once extraction amounts are estimated, there will be few changes from year to year making the fee calculation and implementation easier.
- Easy to Understand: Proportionality based on estimated groundwater extraction is easy for the average property owner to understand.
- Common: This type of fee is the most common one seen among groundwater sustainability agencies across the State.
- Legally Compliant: This type of fee conforms with Water Code § 10730 as well as Proposition 26.

The primary drawback of the regulatory fee is the high rates derived from the simple math of calculating it. Based on the revenue requirement of $639,500 and the annual extraction

estimate of 2,794.3 AF, the resulting rate is $228.90 per AF per year (rounded to the nearest 10¢) as shown below.

$$\frac{\$\ 639{,}500}{2{,}794.3\ AF} = \$\ 228.90 \quad per\ AF\ per\ Year$$

The Board has expressed interest in possibly adopting an interim fee for Year 1 while they continue to evaluate long-term funding opportunities based on a bare-bones budget of $410,000. Based on that, the one-year, bare-bones fee computes to $146.70 per AF (rounded to the nearest 10¢) as shown below.

$$\frac{\$\ 410{,}000}{2{,}794.3\ AF} = \$\ 146.70 \quad per\ AF\ per\ Year$$

The process of arriving at these rates is described in detail in Section III of this Study.

Hybrid Approach

The hybrid approach is the name given to a fee structure that has been used by at least one other GSA in the State. It has two components: 1) a fee based on annual groundwater extraction amounts that is levied on all groundwater users in the Basin; and 2) a fee that is spread evenly to all parcels in the Basin. This fee structure grew from the realization that all parcels in the basin, regardless of groundwater usage, benefit from the GSA's governance and basin management. The approach also recognizes that parcels that are reliant on groundwater receive additional benefits from groundwater management and compliance with SGMA.

In order to allocate benefits between all parcel owners and groundwater users, the approach relies on the eight DWR basin prioritization criteria are based on various factors; some of which are related to groundwater extraction (GW), some of which are related to non-groundwater factors (non-GW), and some of which are a blend of the two. The concept is to start with the actual basin prioritization points for each criterion, then allocate those points to either GW or non-GW category (or split between the two). The points in each category are totaled, and the annual revenue requirement is then prorated between the two categories and the fees are allocated based on the proration.

As an example, the basin prioritization points for the Petaluma Basin are shown in Table 4 along with how those points might be allocated to the GW and non-GW categories.

Table 4 – Hybrid Fee Priority Point Allocation

	Criteria	Priority Points	GW	Non-GW
1	Population	2	0	2.00
2	Population Growth	3	0	3.00
3	Public Supply Wells	3	1.00	2.00
4	Total Wells	4	4.00	0
5	Irrigated Acres	2	2.00	0
6	Reliance on GW	1.5	0.75	0.75
7	Basin Impacts	2	1.50	0.50
8	Habitat & Other Information	0	0	0
	TOTAL PRIORITY POINTS	17.5	9.3	8.3
	Pro-Rated Share		53%	47%

The revenue requirement is then prorated accordingly. The GW portion of the revenue requirement ($338,021) is apportioned to parcels on the basis of annual groundwater extraction identical to the regulatory fee described above. The non-GW portion of the revenue requirement ($301,479) is spread evenly across all parcels in the Subbasin. Thus, the two-part fee in this example is $121 per AF for all groundwater extraction parcels plus $16 per parcel for all parcels in the Subbasin as calculated below.

$$\frac{\$338{,}021}{2{,}794.3\ AF} = \$121 \quad \text{per AF per Year}$$

$$\frac{\$301{,}479}{18{,}683\ parcels} = \$16 \quad \text{per parcel}$$

In this example, the groundwater extraction parcels would pay both fees.

Some challenges exist in pursuing a hybrid methodology:

- Since this would apply to most of the 19,500 parcels in the Basin, the community engagement process would need to be expanded greatly.
- The precise allocation of DWR priority points for each criterion will be the subject of debate among stakeholders (e.g., Advisory Committee members, member agencies, and community members).
- Whether the non-GW parcel fee should be applied to groundwater extraction parcels (who are also paying the GW portion of the fee) is both a policy and legal question that needs further exploration.
- Whether the parcel charge for non-GW parcels should be billed directly to the property owner or to the public water system is both a policy and legal question that needs further exploration.
- Additional legal analysis is required to ensure compliance with Proposition 26 guidelines.

Outreach Efforts

Outreach played a crucial role in the development of this Rate and Fee Study. Stakeholder outreach through the Basin's Advisory Committee, as well as direct public outreach through a series of community meetings, provided substantive guidance for GSA staff and the SCI Team in developing the fee methodology.

Public Outreach

SGMA Requirements

As noted above, SGMA requires a public meeting prior to the establishment of a fee program. Although this requirement is met by the meeting in which the fees are adopted, the Agency elected to hold additional community meetings during the Rate and Fee Study process in order to incorporate community perspective into the development of the fee program.

Community Meetings in the Petaluma Valley Basin

A total of two community meetings were held for the Petaluma Valley Basin. A virtual meeting was held via Zoom on March 30, 2022, and an in-person meeting was held at the Petaluma Community Center on May 12, 2022. Each community meeting consisted of an overview of Basin conditions and projects, including background of the Basin's prioritization and a high-level synopsis of the GSP. Consultants then provided an update to the Rate and Fee Study which consisted of the various funding options under consideration, estimated rate range, and an overview of potential fee methodology.

Virtual Meeting - March 30, 2022

At this first community meeting, 60 attended. Board Chair David Rabbitt provided opening remarks and background, with staff and consultants presenting groundwater basin conditions and rate and fee study updates. Questions were fielded through Zoom's Q&A function, with some questions answered by staff directly in the Q&A and others answered live. All questions and comments were recorded and shared with the GSA Board after the meeting.

Petaluma Community Center – May 12, 2022

Approximately 80 community members attended this meeting. Board Chair David Rabbitt provided opening remarks and background, with staff and consultants presenting groundwater basin conditions and rate and fee study updates. Attendees submitted approximately 40 comments and question, mostly expressing concern about fee levels, equity, potential metering, budget and community growth. Several questions asked for clarification on how fees would be calculated for various types of properties.

Public Meeting Adopting Rates and Fees

In accordance with Water Code § 10730 (b), a public meeting must be held at which oral or written presentations may be made. In addition, notice of the meeting must be 1) published in the local newspaper at least twice in the weeks preceding the meeting, and 2) posted on the Agency's website. The GSA must also make available all data upon which the proposed fee is based at least 20 days prior to the public meeting. The public meeting is tentatively scheduled for July 28, 2022.

Stakeholder Outreach

Stakeholder outreach was conducted in two primary ways during the Rate and Fee Study process, both through the Petaluma Valley GSA Advisory Committee and through direct outreach by Agency staff.

Advisory Committee Input

The Advisory Committee is comprised of 10 Basin stakeholders, with representatives of various interests, including agricultural, environmental, rural residential well owners, the County, and the City of Petaluma. This structure provided the opportunity to engage with a variety of stakeholders throughout the process of developing a fee program, allowing Agency staff and the SCI Team to receive valuable input and constructive feedback on a number of issues.

Consultants met with the Advisory Committee in January, March, and May to describe the fee study, provide updates and receive feedback. In general, Advisory Committee members were divided regarding fees with some members supportive of the development of an independent revenue source and other members expressing the desire for ongoing support from member agencies or the county of Sonoma. Specific feedback is provided below.

Advisory Committee Priority Polling

At the January 12, 2022 Advisory Committee meeting, a poll was conducted in order to gauge the priorities of AC members regarding the development of a funding mechanism for the Basin.

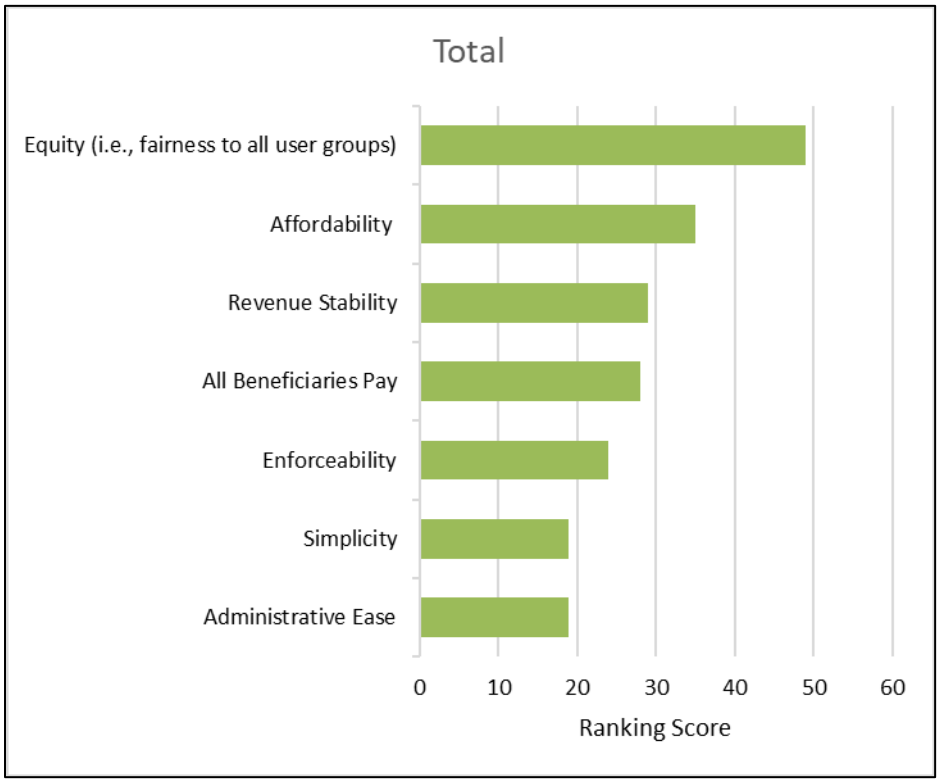
First, Advisory Committee members were asked to rank options from a list of seven priorities: Equity, Simplicity, Affordability, having All Beneficiaries Pay, Revenue Stability, Enforceability, and Administrative Ease. The results of this poll are illustrated by Figure 2.

In particular, the top three ranked priorities (equity, affordability, and revenue stability) helped to shape the direction of the Rate and Fee Study. Throughout the process, staff and consultants worked to achieve the lowest possible rates for this fee program, while still ensuring the Agency's ability to successfully implement its GSP. In terms of equity, the proportionality requirements of Proposition 26 played a key role in pursuing an equitable program that allocates cost across all groundwater users according to their estimated groundwater use. The

priority of Revenue stability was incorporated through efforts to smooth budget projections over the course of the next five years.

Furthermore, all beneficiaries paying, enforceability, simplicity, and administrative ease were all taken into account based on feedback from Advisory Committee members.

Figure 2 – Advisory Committee Priority Poll Results



Note: the ranking score was calculated by assigning priorities a value based on reverse priority ranking. For example, a priority ranked number 1 is assigned a value of 7 (the highest of the number of options). Conversely, a priority ranked number 7 is assigned a value of 1 (the lowest of the number of options).

Additionally, two general questions were asked regarding the direction of the funding mechanism selection process.

First, Advisory Committee members were asked whether the current approach (a regulatory fee based on estimated groundwater extraction) should be maintained in the Basin. Two Advisory Committee members supported maintaining this approach, while six did not.

Second, Advisory Committee members were asked if the type of funding mechanism should be the same across all three Sonoma County groundwater Basins that are subject to SGMA (Santa Rosa Plain Basin, Sonoma Valley Basin, and Petaluma Valley Basin). Three Advisory Committee members expressed that consistency in this manner should be pursued, while six did not.

Lastly, Advisory Committee members were asked what the primary concerns of their stakeholders are, and how to best communicate with them. Table 5 provides the information shared in answering these questions.

Table 5 – Advisory Committee & Stakeholder Concerns & Communication Methods

Primary Concerns of Stakeholders	Best Communication Methods
Value for Money Paid	Direct mail
Benefits of Managing GW	Meetings
Potential for Excessive Cost	
Cost	
Equity	
Fairness	
Affordability	
Future Generations	
Hightlight the Benefits	
Sustainability of GW and the GSA	
The Actual Cost	
Value for Money Paid	

Input from the Advisory Committee provided guidance for staff and consultants as they refined the approach to rate methodology, community and stakeholder outreach, and policy decisions surrounding the implementation of the fee program.

Direct Outreach

Agency staff also reached out directly to various entities including local schools and other stakeholders. While responses were not received from all stakeholders, some of this direct communication resulted in an improved understanding of groundwater use on specific parcels. These efforts are expected to be ongoing; as the fee program is continued in future years, staff will make efforts to improve the accuracy of parcel-scale data and estimated groundwater use whenever possible.

Pre-2022 Outreach

Prior to the outreach efforts noted above, the GSA conducted a thorough community outreach effort in 2018 during the Raftelis Rate and Fee Study process. In addition, the GSA continued its engagement activities in 2020 and 2021 through a Rural Community Engagement Strategies, Polling and Revenue Recommendations effort.

Board Direction

The GSA Board of directors played an integral role in refining the approach to this Fee Study. Staff and consultants provided updates at Board meetings in late 2021 and through Spring of 2022, ensuring the Board's awareness of any progress and requesting input on various decisions. This process allowed staff and consultants to narrow down funding mechanism options, clarify perspective on policy decisions, and ultimately, to build a fee program more suited to the Basin. Direction from the Board is summarized below for reference.

February 24, 2022 Board Meeting

The February Board meeting, staff and consultants provided the Board with an update on the Rate and Fee Study Process. All funding mechanism options were presented to ensure the Board had the opportunity to consider all possibilities, including options to assess a fee or tax on all parcels in the Basin (not just the groundwater extractors). Additionally, the issue of assumed future grant funding in the budget for fiscal year 2022-23 was presented to the Board for consideration. Options of no assumed grant funding, 25% future grant funding, and 40% future grant funding were identified as potential decisions. Finally, the issue of including repayment of prior member contributions into the future budgets. In general, the Board wanted to keep all funding options on the table, was supportive of the 40% grant funding assumption (to keep user rates down), and supportive on not reimbursing members for prior contributions in this five-year budget.

April 28, 2022 Board Meeting

At the April Board meeting, staff and consultants presented updates on the progress of the Rate and Fee Study. A new funding option was introduced: a hybrid option where part of the revenue would be extraction based, and part would be spread to all parcels in the Basin. In general, the Board was supportive of the hybrid option (which cut extraction fees almost in half) but was very interested in slowing the process down due to the need to explore all options more thoroughly and to possibly expand community engagement due to the possibility of a hybrid option that included all 19,500 parcels in the Basin. GSA staff also presented a bare-bones budget for Year 1 that required revenue of only $400,000 in support of slowing the process down (and thus missing the adoption deadline of late July). There was no consensus on how to fund the Year 1 budget.

May 26, 2022 Board Meeting

Continuing the discussion from the April meeting, the Board was presented with two "Slow Down" options: one where no fee was adopted in Year 1 and members extended their commitment to fund the GSA by one year; the other where a Year 1 fee was adopted based on the bare-bones $400,000 revenue need. The Board was split on the question but agreed to

continue with the Rate and Fee Study in preparation for a fee adoption on the June-July timeline.

III. Fee Determination

The Board made clear its goal of achieving financial independence for the GSA in its management of the Basin, placing priority on fairness, efficient administration, and compliance with California law in developing a funding method. The Board, however, has not made any final determination about the next steps for a revenue mechanism. Since the regulatory fee is the most fully developed in this Study, it is ready for adoption if the Board chooses. In addition, it is scalable in its application by simply substituting a new revenue requirement and computing a new rate level, which can be done "on the fly" during an upcoming Board meeting. For that reason, this Section III provides a detailed discussion of the regulatory fee basis.

As noted above, the rate calculation is dependent on two major factors: revenue requirements and groundwater extraction estimates. The development of these two factors is outlined below.

Revenue Requirements

The GSA administrative and technical staff developed a five-year budget of expenditures based on the findings and projections found in the 2021 Groundwater Sustainability Plan (GSP). Some minor updates were done in early 2022 to arrive at a five-year total estimated expenditure of $5,685,000. From this, the average annual expense is $1,065,900 as shown in Table 6.

Revenue Sources

In forming the Agency in 2017, the Board determined that the Agency would be self-funding in the future. However, Agency staff estimated that approximately $2,223,000, or approximately 40% of the total budget, represent items that could be well-positioned and eligible for grant funding over the coming five years. If grant funding is received, it would mean that the revenue requirement for a fee structure would be less – an attractive scenario for the Agency and groundwater users alike. But the award of these competitive grant funds will not be known until early 2023; much too late for the FY 2022-23 rate setting process. The Board deliberated about how much, if any, grant funding should be included in the revenue estimates at this time and directed that up to 40% of total revenue be used. Therefore, the net annual revenue requirement used for this study is approximately 60% of total average annual costs, or $639,500. This is shown in Table 6. A more detailed budget is included Tables 14 and 15 in Appendix A – Budget Details.

As can be seen in Table 6, the annual costs fluctuate significantly from year to year. However, to keep annual rates consistent, these costs have been averaged over the five-year period (shown in the right-hand column). Assuming a fund balance of $100,000 at the beginning of Year 1, an analysis of cash flow shows a deficit of $109,800 would result in Year 4, as shown in Figure 3. It

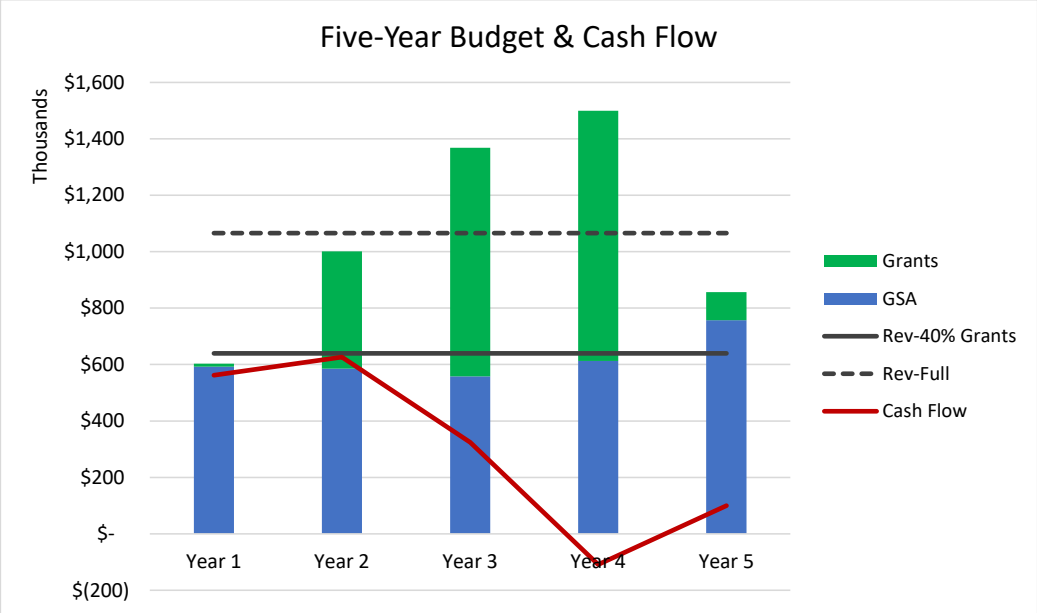
is presumed that the Agency will be able to pace the workflow and expenditures adequately to avoid

Table 6 – Annual Costs and Revenue Requirement

Costs shown thousands	Year 1	Year 2	Year 3	Year 4	Year 5	5-Year	Average Annual
Item	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	Total	Cost
Operational	$ 483.5	$ 457.5	$ 452.5	$ 441.5	$ 478.5	$ 2,313.5	$ 462.7
Data Gaps	45.0	353.0	656.0	676.0	-	1,730.0	346.0
Projects & Actions	20.0	70.0	85.0	45.0	30.0	250.0	50.0
GW Model Updates	-	30.0	50.0	100.0	70.0	250.0	50.0
5-yr GSP Update	-	-	-	100.0	200.0	300.0	60.0
10% contingency	55.0	91.0	125.0	137.0	78.0	486.0	97.2
	$ 603.5	$ 1,001.5	$ 1,368.5	$ 1,499.5	$ 856.5	$ 5,329.5	$ 1,065.9
						~40% from Grants	(426.4)
						Net Revenue Requirement	$ 639.5

this deficit in Year 4. In fact, the cash flow is much more sensitive to the grant funding element which could be higher or lower than predicted. Much more will be known as the budget for Year 2 is developed – two years before the shortfall is predicted.

Figure 3 – 5-year Budget and Cash Flow



Groundwater Extraction

As noted above, the methodology of the regulatory fee for the Petaluma Valley Basin is based, in part, on estimated groundwater extraction. This is necessitated by the lack of data available for groundwater extraction across most user classes. There are approximately 1,248 parcels in the Basin reliant on groundwater as their primary water source; none of which make their extraction data public (and many of which are not metered). Of this number, there are approximately 1,066 residential parcels reliant on groundwater.

There are several factors that inhibit the improvement of data by increasing metering of the Basin's wells. While California Water Code § 10725.8 authorizes the GSA to require meters for non-de minimis users, it specifically prohibits it from requiring meters on de minimis users.[2] Furthermore, requiring installation of meters on all non-de minimis wells could be costly, time-consuming, and likely unwelcomed by groundwater users. Timing is a key issue, as any efforts to increase the number of meters in the Basin would likely prevent the GSA from securing funding for fiscal year 2022-23. At this time, there are no plans to embark on a metering program.

Public water systems are the exception to this approach of estimation, as they are required to document and report groundwater extraction. All public water systems in the Basin will be charged according to the average reported groundwater use. This is discussed in more detail below.

Data Sources

The estimates used in this Fee Study rely on data from the State, technical studies, and available local data. At this time, using the best available sources to guide estimation of groundwater use is the most optimal path forward for funding the Agency's efforts to implement its GSP. Elements of GSP implementation, include the closing of data gaps, may contribute to a better understanding of groundwater use in the Basin. As better data becomes available fee calculations may be altered to incorporate any potential improvements to groundwater use data.

A variety of data sources were used to develop the parcel model. Below is a complete list of data used, followed by the source of the data in parenthesis, and a short description of the data. In the sections that follow, detailed descriptions of each data source are provided with explanations of how the data are used.

- Sonoma County parcel spatial database (Sonoma County): GIS-based spatial database of polygons that delineate parcel boundaries in Sonoma County as of October 2021

[2] De minimis users are defined in the SGMA as properties using, for domestic purposes, less than 2 acre feet of groundwater per year. Most users in this classification are rural residential users.

- Petaluma Valley Basin boundaries (Bulletin 118 Groundwater Basin Boundary Assessment Tool): Basin boundary spatial polygons that delineate boundaries of the three Sonoma County GSAs as of October 2021
- Recycled water deliveries (City of Petaluma): recycled water deliveries to select APNs from 2016-2021
- Surface water diversions (eWRIMS): Annual reported surface water diversions from 2011-2021; points of diversion from eWRIMS
- Water system boundary information (State Water Resources Control Board): spatial polygons that delineate water system service boundaries as of October 2021
- Well locations (Sonoma County): refined spatial well database more accurate than the California Department of Water Resources (CA-DWR) Online State Well Completion Report Database, accessed October 2021
- Explicit connection data from the City of Petaluma
- Crop mapping (CA-DWR): Crop layer polygons from the Department of Water Resources as of 2018
- Land Use mapping (CA-DWR): Land use layer polygons from the Department of Water Recourses as of 2013 for mapping of irrigated turf areas
- Public Water System Use (Division of Drinking Water): reported groundwater extraction per PWSID, between 2013-2021

Administrative Data

The database includes general parcel characteristics including parcel area (acres), County Assessor information (i.e., Use Code Description, Use Code Category), and owner information (i.e., Current Owner's Name and Mailing Address). These administrative datasets are associated with each parcel and were obtained from the Sonoma County Assessor's Office.

GSA Jurisdiction and Basin Boundary Parcels

Basin boundary parcels are parcels that intersect the Basin boundary. Parcels that intersect the Basin are included in the Fee Study and subject to regulation by the Agency; however, a limited subset of basin boundary parcels (75 parcels) intersect both the Petaluma Valley Basin and the Santa Rosa Plain Subbasin. For these parcels, the parcel was assigned to the GSA that a larger fraction of the parcel resides within. For example, if 7 acres of a 10-acre parcel lies in the Petaluma Valley Basin, and 3 acres lies in the Santa Rosa Plain Subbasin, then the parcel is assigned to the Petaluma Valley GSA.

Ultimately, Agency regulation is based on the location of the water well(s) on the parcel. If a boundary parcel does not have a water well within the Basin, then the parcel will not be subject to Agency regulation or the regulatory fee for groundwater extracted from a well outside the Basin.

Water Sources

Water source data are composed of the following:

- Groundwater from the Basin
- Recycled water deliveries
- Surface water diversions
- Public water systems provide water from a mix of groundwater and surface water sources, unique to each system. Many major public water systems provided lists of parcels with a connection to their system.

Recycled Water and Surface Water Deliveries

Best available information for per-parcel recycled water deliveries come from 2022, and were provided by the City of Petaluma. Best available data for per-parcel surface water deliveries are reported by eWRIMS for the period spanning 2011-2022.

Parcels that receive recycled water or surface water deliveries tend to be zoned "agricultural." All recycled and surface water data units were converted to AF/year per parcel and assigned to the respective parcels. Surface water use is estimated by processing the annual reported uses for the period from 2011 to 2021. The average value for years in which diversions are reported is used as the surface water available for parcel use. Though the data is commonly incomplete, an attempt was made to identify the place of use for each water right and apportion the diversion volume to the appropriate parcel or parcels.

These recycled and surface water deliveries count as a credit towards estimated groundwater use for agricultural or turf irrigation because it is assumed that these water deliveries offset water demand otherwise met by groundwater extraction.

Water Service Areas

Water service boundary areas for public water systems were obtained from the State Water Resources Control Board and intersected with the parcel database to label parcels with a public water system connection. It is assumed that residential and commercial water use demand determined from Assessor codes are met by the parcel's water system connection if one is present, otherwise, it is assumed this water demand is met by groundwater. In other words, we assume that parcels outside of water system boundaries or without an explicit water system connection use groundwater to meet residential and commercial water demand. Furthermore, certain Use Codes (e.g., "Condominium Unit", "City Building", "Municipal Utility Property", and so on) were assumed to be connected to public water. A full list of Use Codes that are assumed to be connected to public water are provided in Appendix B – Use Codes and Groundwater Assumptions.

Urban Wells

The City of Petaluma provided a list of parcels within their service areas that are connected to public water, but also known or suspected of having a private water well. To calculate urban irrigation (a negligible fraction of the overall groundwater budget), we assume that if an urban well and public water connection are present, urban irrigation is 0.1 AF/year, in-line with prior assumptions from Raftelis, 2019.

Future Data Updates

Throughout this process the Agency has maintained an openness to improve data wherever possible. This perspective will provide avenues in the future to alter estimates, when possible, to better estimate groundwater use. The GUIDE Program is one example of this potential, as it may be used to improve the Agency's understanding of groundwater use on individual parcels and in user classes overall.

Another avenue for updating data is through the appeals process included in the Agency's proposed rate ordinance. This process allows for property owners to furnish additional data that can be incorporated into future extraction estimates and fee levels for specific parcels.

Groundwater User Classes

In order to optimally organize groundwater use estimation, groundwater users are grouped into five primary rate classes in the Basin. Different approaches were used to estimate groundwater use for each rate class to achieve the most accurate estimation possible as discussed below.

Municipal and Other Public Service Providers

Public water supply systems are the only user class in the Basin for which reported data is available regarding groundwater extraction. The Division of Drinking Water (DDW) collects and reports annual surface and groundwater extraction for public water systems (DDW, 2021). These data, summarized in Table 7, were obtained and analyzed to obtain groundwater extraction from the period from 2013-2021 per water system. The full dataset of annual municipal extraction per public water system that was used to generate aggregate statistics are provided in Appendix C – Public Water System Extraction Data.

Importantly, reported public water system uses are not typically captured at the parcel scale, and are hence added to overall basin extraction estimates in the results. This two-step process (i.e., calculate parcel-based groundwater use, then add reported public system extraction) is preferred for two reasons: (1) we lack a sensible approach to spatially disaggregate reported DDW municipal extraction to individual parcels, and (2) within a fee and rate billing structure, public water systems will be directly charged for groundwater use rather than the parcels connected to those systems, which in turn pay the water purveyor.

As the methodology of this fee program was developed, the question remained of how to utilize these ongoing annual data to charge municipal and other public groundwater extractors. The municipal extraction can vary greatly in the Basin, dependent on rainfall, surface water availability, and other factors. Ultimately, a five-year average[3] was selected as the optimal method for allocating charges in this case. There are several benefits to this approach. First, using an average smooths out charges so that public water service suppliers do not incur large charges relative to previous years. Second, this contributes to revenue stability for the GSA, as changes in the cost allocation for this user class would not change as drastically from year to year as they would if a shorter range was used. As used in this report, "major" public systems are those that are either GSA member agencies or entities that extract more than 150 AF per year. Other public systems are grouped into the "minor" public system category.

Table 7 – Public System Extraction

Public System Extraction (AF)

NAME	2013	2014	2015	2016	2017	2018	2019	2020	2021	5-Year Average
City of Petaluma	163.60	129.62	351.35	327.63	114.22	0.00	0.00	37.26	369.96	258.6
Minor Public Extractors	155.08	138.44	142.30	169.79	189.56	173.80	165.59	197.25	0.00	179.6
PUBLIC SYSTEM TOTAL	318.68	268.06	493.65	497.41	303.77	173.80	165.59	234.51	369.96	438.2

Table Notes:
- - Green highlight: years used for 5-year average; anomolous years omitted
- - Beige highlight: 5-year average is taken individually for each small system, then totaled. Value shown is not the average of the five recent years aggregate totals shown.

Agricultural and other Irrigation Users

Crop irrigation use represents a substantial portion of the total groundwater extraction in the Basin. The best available crop map (CA-DWR, 2018) information was used to assign crop-specific acreage to each parcel. Groundwater extraction rates for crops are assumed to be equivalent to published values of crop consumptive demand for each crop. Crop consumptive demand parameters are based on agricultural practices specific to Sonoma County. Crop-specific consumption rates are shown in Table 8 including examples of the types of crops in each category. These consumption rates are multiplied by the acreage of each crop to arrive at the annual crop demand per parcel per crop (in AF/year). Note that pasture irrigation rates are negligible, and grain rates are zero because grain tends to be dry farmed in Sonoma County. Vine, grain, and pasture predominate crops in Sonoma County.

[3] A review of the municipal extraction data showed some anomalies. For instance, municipal wells may be shut down for a year or two for servicing, repairs, or rehabilitation. To better represent the ongoing demand on the groundwater basin by municipal users, the rolling five-year average omitted anomalous years.

Table 8 – Sonoma Crop Types and Applied Water per Acre

Crop Classifications	DWR Definition	Sonoma Average Applied Water (AF / Acre)
Citrus & Subtropical	Grapefruit, lemons, oranges, dates, avocados, olives, kiwis, jojoba, eucalyptus and miscellaneous subtropical fruit	1.85
Deciduous Fruits & Nuts	Apples, apricots, cherries, peaches, nectarines, pears, plums, prunes, figs, walnuts and miscellaneous deciduous	1.83
Grain	Wheat, barley, oats, mescellaneous grain and hay, and mixed grain and hay	0
Pasture	Clover, mixed pasture, native pastures, induced high water table native pasture, miscellaneous grasses, turf farms, bermuda grass, rye grass and klein grass	0.04[A]
Truck Nursery & Berry Crops	Artichokes, asparagus, beans (green), carrots, celery, lettuce, peas, spinach, flowers nursery and tree farms, bush berries, strawberries, peppers, broccoli, cabbage, cauliflower and brussel spouts	1.78
Vinyard	Table grapes, wine grapes and raisin grapes	0.60[B]
Cannabis Outdoor[C]		2.00
Cannabis Indoor[C]		4.00

Table Notes:

A - This estimate applies for most pastures in the Subbasdin. Pasture land that is irrigated is irrigated with recycled water. However, some Dairies in the subbasin use small amounts of groundwater for their operations. This amount is estimated at 0.04 AF per acre per year. This number was provided by a study completed by UC Co-Op Extension. This study is included as an appendix to [the Raftelis 2019 Study].

B - GA s and staff from U.C. Cooperative Extension Staff consulted with a workgroup comprised of area vineyard owners and discussed whether this was a reasonable estimate of irrigation need for vineyards. While actual use varies from year to year, there was a consensus that this figure was within reason.

C - Cannabis crops were not included in the Raftelis 2019 Study and they are not yet mapped or defined by DWR. These categories have been included and acreage information is being compiled by GSA staff.

Parcels with large, irrigated turf or lawns were identified and incorporated into the Rate Study. This includes uses such as golf courses, schools, cemeteries, and other large landscape uses. The rural residential assumptions include irrigation of turf areas, and so small turf areas were not included as part of the turf calculations. This is accomplished by including no additional turf irrigation demand to rural parcels with mapped lawn areas smaller than 0.2 acres. Similarly, there is no additional turf irrigation for urban parcels with mapped lawn areas less than 0.5 acres. The 2012 DWR land use data was used to map irrigated turf areas. Mapped Irrigated turf polygons with recycled water or surface water sources were removed. These estimates were refined by Agency staff contacting many of these parcel owners to confirm our assumptions of

groundwater use. This information was incorporated into the extraction estimates on an individual parcel basis.

Offsets for the use of recycled water or surface water (discussed above) for agricultural and turf irrigation purposes are also presented in Table 9. These offsets were deducted from the crop/turf demand estimates to determine the net extraction. For parcels with more than one type of crop, it was not known to which crop the offset should be applied, so those offsets are presented in a separate "Multi-Crop Parcels" line item in Table 9.

Table 9 – Agricultural and Turf Irrigation Extraction

Irrigation Demand Estimates

CROP TYPE	Acres	Irrig Rate (AF/acre)	Irrig Demand (AF)	Offset (AF)	Net GW Demand (AF)
Citrus & Subtropical	35.4	1.9	65.4	(0.1)	65.3
Deciduous Fruits & Nuts	0.5	1.8	1.0	0.0	1.0
Grain	4,368.8	0.0	0.0	0.0	0.0
Pasture	1,555.6	0.0	62.2	(10.2)	52.0
Truck Nursery & Berry	101.1	1.8	180.0	0.0	180.0
Vinyard	2,396.8	0.6	1,438.1	(79.9)	1,358.2
Cannabis (outdoor)	na	2.0	4.3	0.0	4.3
Cannabis (indoor)	0.0	4.0	0.0	0.0	0.0
Idle or Unknown	619.0	0.0	0.0	0.0	0.0
Multi-Crop Parcels	*(included above)*			(480.9)	(480.9)
Turf Irrigation	113.4	3.5	397.0	0.0	397.0
IRRIGATION TOTALS	9,190.6		2,148.0	(571.1)	1,576.9

NOTES: Offsets for Turf are built into the Demand

Rural Residential, Commercial and Urban Well Users

Residential and Commercial water demand was determined by analyzing all unique Assessor Use Codes in the Sonoma County parcel database and assigning reasonable water uses (provided in Appendix B – Use Codes and Groundwater Assumptions). These determinations were made by Permit Sonoma agency staff and informed by prior fee and rate studies (Raftelis, 2019).

For residential uses, the primary assumption is that a single residence has a demand of 0.5 AF/year. This is based on the Raftelis Rate and Fee Study (June 11, 2019) for the Santa Rosa Plain GSA. That report states in Section 5.2.4:

> *Raftelis and staff used an estimate of 0.5 AF of water use per year for each developed rural residential parcel. This estimate is consistent with estimates for rural residential from several published sources and studies, as show [below].*

- *0.19 AFY per capita (assuming 2.5 residents per household = 0.48 AFY): Simulation of Groundwater and Surface Water Resources of the Santa Rosa Plain Watershed, Sonoma County, California (U.S. Geological Survey, 2014)*
- *0.5 to 0.75 AFY: County of Napa Water Availability Analysis Guidance Document (County of Napa, 2015)*
- *0.53 AFY: Canon Manor West Subdivision Assessment District Groundwater Study (Todd Engineers, June 2004)*
- *0.40 to 0.55 AFY (average of 0.47 AFY): Reported Groundwater usage per connection for nine public water suppliers, including mutual water companies, within Santa Rosa Plain Groundwater Basin (California State Water Resources Control Board – Division of Drinking Water, 2011 to 2017)*

For parcels containing more than one residential unit, additional units were assigned 0.25 AF/year (e.g., duplexes are assigned 0.75 AF/year of water use, 100-unit buildings are assigned 25 AF/year of water use, and so on).

Examples of commercial uses range from warehouses at 0.5 AF/year, to churches at 2.0 AF/year, dairies at 5.0 AF/year and hospitals at 10.0 AF/year. Similar assignments were made for all residential and commercial use codes and applied across the parcel database. It is assumed that parcels connected to a water system meet their demand via the water system. For parcels not connected to a water system, water demand for commercial and residential water use is assumed to be provided by a private water well. Note, unlike water demand for agricultural irrigation, surface water diversions or recycled water deliveries are not assumed to offset residential and commercial water use.

As discussed previously, for parcels with urban wells (parcels with a public water connection and a known or suspected private well) a small water use of 0.1 AF/year is assigned for landscape irrigation. This is consistent with the assumption made in Section 5.2.5 of the Raftelis Report:

> *The urban residential groundwater user class represents residential properties in areas served by water service providers that also have a well on the property. Raftelis and staff assumed that these wells would primarily be used for irrigation purposes. Based on the City of Santa Rosa's most recent water rate study, average residential winter usage is roughly 4,000 gallons per month. It is generally assumed that winter water usage correlates to indoor water demand due to the reduced irrigation needs in winter months. Santa Rosa's average residential year-round use is roughly 7,000 gallons per month. Indoor residential use is assumed to be constant rear-round, so the difference between average year round usage and average winter usage extrapolated to an annual amount of usage can be assumed to be average irrigation demand. This amount, roughly 36,000 gallons, corresponds to roughly 0.1 AF. Thus, it is assumed the urban residential groundwater users extract an average 0.1 AF per parcel per year for irrigation purposes.*

While the cited study was performed in the City of Santa Rosa, this adequately serves as a regional estimate of urban well usage.

Table 10 summarizes the Rural Residential, Commercial, and Urban Well extraction.

Table 10 – Residential, Commercial and Urban Well Extraction

Other Classes		
Class	Parcels	Demand (AF)
Rural Residential	1066	621.5
Commercial	109	457.3
Urban Irrigation	110	11
TOTALS	1,285	1,089.80

Summary of Estimated Groundwater Extraction

Table 11 shows a summary of estimated groundwater extraction from the Basin by classification. In addition to the data shown in earlier tables, the overall extraction estimate includes an allowance for a reduction in overall extraction based on anticipated appeals by property owners and other updates and corrections to data that are likely to occur in the coming months and years. This allowance is estimated to be 10% of overall extraction.

Table 11 – Summary of Estimated Basin Extraction

Extraction Summary (AF)	
Large Public Extraction	258.6
Small Public Extraction	179.6
Agriculture	1,179.9
Turf Irrigation	397.0
Rural Residential	621.5
Commercial	457.3
Urban Wells	11.0
Appeal Allowance (10%)	(310.5)
TOTAL BASIN DEMAND	2,794.3

Fee Calculation

The final rate calculation is the following:

$$\frac{\textit{Revenue Requirement (\$\$)}}{\textit{Total Extraction (AF)}} = \textit{Rate (\$\$ / AF)}$$

Including the revenue requirement and extraction data noted above, the full-budget, durable rate (rounded to the nearest 10¢) is calculated to be $228.90 per acre-foot per year, as shown below.

$$\frac{\$\ 639{,}500}{2{,}794.3\ \ AF} = \$\,228.90 \quad per\ AF\ per\ Year$$

Rates are Scalable

The Board at its April meeting asked for a bare-bones budget for Year 1 (FY 2022-23) as a way of reducing the first year's rates while allowing for another year to work on long-term funding solutions. GSA staff returned with a greatly reduced budget for Year 1, including using carryover fund balance of approximately $100,000, that required a revenue of only $410,000. However, in doing so, certain cost-cutting was simply a deferral to subsequent years. A detailed accounting of that budget is included in Appendix D – Reduced Year 1 Budget.

That reduced Year 1 budget resulted in a one-year, bare-bones rate of $146.70 per AF (rounded to the nearest 10¢) as shown below.

$$\frac{\$\ 410{,}000}{2{,}794.3\ \ AF} = \$\,146.70 \quad per\ AF\ per\ Year$$

This would only be applicable to Year 1 since that level of revenue cannot sustain the GSA in its pursuit of implementing the GSP and remaining in compliance with SGMA. However, it could tide the GSA over for one year while other long-term funding solutions are explored and implemented. It is worth noting that any deferred costs will cause future rates to be incrementally higher.

Other potential reductions in rates could come in the form of additional outside funding. One such source could be the County of Sonoma. Supervisor David Rabbitt, who also serves as Board Chair for the GSA, requested that the County of Sonoma contribute funding to the Petaluma Valley and Sonoma Valley to 'equalize' rates for two years for non-municipal groundwater users with the rates that will likely be adopted in Santa Rosa Plain ($40 an acre-foot rate). The County approved this request on June 17, 2022.

The calculation of rates is relatively simple at this point because the estimated groundwater extraction is complete at 2,794.3 AF per year. Any new rate can be computed simply by dividing the desired revenue by that extraction estimate. For that reason, the rates stated in this report can be modified quickly and easily in future deliberations.

Fee Impacts

In the two following tables, three fee examples are shown; one for each of the two rates stated above (in round numbers, $229/AF and $147/AF) plus a $40/AF rate pursuant to the Sonoma County Board of Supervisors actions of June 17, 2022 referenced above.

Some examples of how this fee will impact property owners are shown in Table 12. Some rural properties may include a combination of agricultural irrigation and commercial or residential uses.

Table 12 – Annual Rate Examples

Annual Rate Examples		*@ $229/AF*	*@ $147/AF*	*@ $40/AF**
50-Acre Vineyard	*30 AF =*	*$6,867*	*$4,401*	*$1,200*
100-Acre Pasture	*4 AF =*	*$916*	*$587*	*$160*
100-Acre Grain	*0 AF =*	*$0*	*$0*	*$0*
5-Acre Food Crop (Truck)	*8.9 AF =*	*$2,037*	*$1,306*	*$356*
Rural Residential	*0.5 AF =*	*$114*	*$73*	*$20*

** The $40 rate would only apply to Year 1 (and possibly Year 2)*

A summary of fees is shown in Table 13 for major groundwater users and other user classes.

Table 13 – Rate Impacts on Large Groundwater Users and Other Classes

User / Class	**Extraction**	**% of Total**	**Fees**		
			@ $229/AF	*@ $147/AF*	*@ $40/AF**
City of Petaluma	258.6 AF	9 %	$ 59,184	$ 37,930	$ 37,930
Minor Public Extractors	179.6 AF	6 %	$ 41,116	$ 26,351	*$ 7,185*
Agricultural Irrigation	1,179.9 AF	42 %	$ 270,068	$ 173,084	*$ 47,194*
Turf Irrigation	397.0 AF	14 %	$ 90,873	$ 58,240	*$ 15,880*
Rural Residential	621.5 AF	22 %	$ 142,261	$ 91,174	*$ 24,860*
Commercial	457.3 AF	16 %	$ 104,676	$ 67,086	*$ 18,292*
Urban Wells	11.0 AF	0 %	$ 2,518	$ 1,614	*$ 440*
Appeal Allowance	(310.5) AF	(11) %	$ (71,070)	$ (45,548)	*$ (12,419)*
TOTAL (before Appeals	2,794.3 AF	100 %	$ 639,626	$ 409,931	*$ 139,362*

** The $40 rate would only apply to Year 1 (and possibly Year 2) and does not include the City of Petaluma*

Appendices

Appendices include the following:

A. Budget Details

B. Use Codes and Groundwater Assumptions

C. Public Water System Extraction Data

D. Reduced Year 1 Budget

Appendix A – Budget Details

The following tables show a greater detail for the estimated costs of operating the GSA and implementing the Groundwater Sustainability Plan.

- Table 14 is the five-year GSP Implementation costs, which also include the operational costs. Table 13 is color-coded as follows:
    - Green rows indicate costs that are likely to be eligible for grant funding
    - Blue rows indicate costs that are not likely to be eligible for grant funding.
- Table 15 shows more details for the operational costs.

Table 14 – Summary Five-Year Implementation Budget

PETALUMA VALLEY GSA SUMMARY FIVE-YEAR IMPLEMENTATION BUDGET

GSA Implementation Budget Category/Task (GSP Implementation Plan Section)	Year 1 2022-2023	Year 2 2023-2024	Year 3 2024-2025	Year 4 2025-2026	Year 5 2026-2027	5-Year Total	Annualized 5-Year Total	Notes
GSA Operational Budget (7.2.1, 7.2.2 & 7.2.3)	**$ 483,500**	**$ 457,500**	**$ 452,500**	**$ 441,500**	**$ 478,500**	**$ 2,313,500**	**$ 462,700**	*GSA administration, finance, legal, community and stakeholder engagement, annual monitoring and reporting (see separate Summary Operational Budget spreadsheet for details)*
Addressing Data Gaps (7.2.4) - GSA funding	**$ 35,000**	**$ 35,000**	**$ 30,000**	**$ 5,000**	**$ -**	**105,000**	**$ 21,000**	
Studies and Information Gathering (7.2.4.1)								
Improve Data on Existing Water Wells	$ 15,000	$ 10,000	$ 20,000	$ -	$ -	$ 45,000	$ 9,000	*Integration of parcel-specific information obtained through GUIDE with existing well log databases and assessment/refinement of extraction estimates.*
Seawater Intrusion Studies	$ 5,000	$ -	$ -	$ -	$ -	$ 5,000	$ 1,000	*Planning for voluntary water quality monitoring*
ISW/GDE Studies	$ 10,000	$ 10,000	$ 10,000	$ 5,000	$ -	$ 35,000	$ 7,000	*Improve mapping of surface water diversions, planning for GDE remote sensing and review of existing or new habitat studies*
Monitoring Network Improvements (7.2.4.2)								
GWL Network (voluntary wells)	$ 5,000	$ 15,000	$ -	$ -	$ -			*Outreach and coordination for voluntary monitoirng program (assume up to 20 voluntary private wells)*
Addressing Data Gaps (7.2.4)- Grant or other funding	**$ 10,000**	**$ 318,000**	**$ 626,000**	**$ 671,000**	**$ -**	**1,625,000**	**$ 325,000**	
Studies and Information Gathering (7.2.4.1)								
Aquifer System Properties Assessment	$ -	$ 20,000	$ 25,000	$ 100,000	$ -	$ 145,000	$ 29,000	*Evaluate AEM data, perfrom up to 3 aquifer tests to assess aquifer properties and boundary conditions*
Seawater Intrusion Studies	$ -	$ 30,000	$ 30,000	$ -	$ -	$ 60,000	$ 12,000	*Outreach, performance and evaluation of voluntary water quality monitoring at up to 25 private wells*
ISW/GDE Studies	$ -	$ 20,000	$ 50,000	$ 50,000	$ -	$ 120,000	$ 24,000	*Perform focused surface water/groundwater interaction studies*
Monitoring Network Improvements (7.2.4.2)								
GWL Network	$ 10,000	$ 80,000	$ 309,000	$ 309,000	$ -			*Install 3 new dedicated multi-level wells and perform video logging and surveying of existing RMPs*
Seawater Intrusion Monitoring Network	$ -	$ 80,000	$ 212,000	$ 212,000	$ -	$ 504,000	$ 100,800	*Install 4 new dedicated multilevel wells*
ISW Monitoring Network	$ -	$ 88,000	$ -	$ -	$ -	$ 88,000	$ 17,600	*Install 4 new dedicated shallow wells*

GSA Implementation Budget Category/Task (GSP Implementation Plan Section)	Year 1 2022-2023	Year 2 2023-2024	Year 3 2024-2025	Year 4 2025-2026	Year 5 2026-2027	5-Year Total	Annualized 5-Year Total	Notes
Planning for Projects and Management Actions (7.2.5) - GSA funding	**$ 20,000**	**$ 40,000**	**$ 25,000**	**$ 10,000**	**$ 10,000**	**$ 105,000**	**$ 21,000**	
Water-use efficiency/alternate water sources	$ 10,000	$ 15,000	$ -	$ -	$ -	$ 25,000	$ 5,000	*Perform initial assessment of WUE and other demand management projects*
Recycled water expansion - coordination	$ -	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 20,000	$ 4,000	*Coordination with recycled water purveyors on expanding or improving recycled water use efficiency*
Policy options development	$ 5,000	$ 15,000	$ -	$ -	$ -	$ 20,000	$ 4,000	*Study and develop potential policy options for GSA consideration or recommendation*
Farm Plan coordination	$ 5,000	$ 5,000	$ 20,000	$ 5,000	$ 5,000	$ 40,000	$ 8,000	*Coordinate with growers on integrating Farm Plans with GSP implementation*
Planning for Projects and Management Actions (7.2.5) - Grant or other funding	**$ -**	**$ 30,000**	**$ 60,000**	**$ 35,000**	**$ 20,000**	**$ 145,000**	**$ 29,000**	
Water-use efficiency/alternate water sources	$ -	$ 5,000	$ 15,000	$ 10,000	$ 10,000	$ 40,000	$ 8,000	*Implementation of WUE and other demand management projects*
ASR - studies and investigations	$ -	$ 10,000	$ 5,000	$ 5,000	$ 5,000	$ 25,000	$ 5,000	*Co-fund update to regional groundwater banking feasibility study and perform investigations and pilot studies in favorable areas*
Stormwater capture and recharge	$ -	$ 15,000	$ 30,000	$ 15,000	$ -	$ 60,000	$ 12,000	*Co-fund study of stormwater capture and recharge project opportunities and implement pilot studies*
Policy options coordination	$ -	$ -	$ 10,000	$ 5,000	$ 5,000	$ 20,000	$ 4,000	*Coordination for potential policy options*
Groundwater Model Updates (7.2.6)	**$ -**	**$ 30,000**	**$ 50,000**	**$ 100,000**	**$ 70,000**	**$ 250,000**	**$ 50,000**	
Five-Year GSP Update (7.2.7)	**$ -**	**$ -**	**$ -**	**$ 100,000**	**$ 200,000**	**$ 300,000**	**$ 60,000**	
Subtotal - GSA funding	**$ 538,500**	**$ 532,500**	**$ 507,500**	**$ 556,500**	**$ 688,500**	**$ 2,823,500**	**$ 564,700**	
10% Contingency- rounded to nearest	*$ 54,000*	*$ 53,000*	*$ 51,000*	*$ 56,000*	*$ 69,000*	*$ 283,000*	*$ 56,600*	
Total - GSA funding	**$ 592,500**	**$ 585,500**	**$ 558,500**	**$ 612,500**	**$ 757,500**	**$ 3,106,500**	**$ 621,300**	
Subtotal - Grants or other funding	**$ 10,000**	**$ 378,000**	**$ 736,000**	**$ 806,000**	**$ 90,000**	**$ 2,020,000**	**$ 404,000**	
10% Contingency- rounded to nearest $1000	*$ 1,000*	*$ 38,000*	*$ 74,000*	*$ 81,000*	*$ 9,000*	*$ 203,000*	*$ 40,600*	
Total - Grants or other funding	**$ 11,000**	**$ 416,000**	**$ 810,000**	**$ 887,000**	**$ 99,000**	**$ 2,223,000**	**$ 444,600**	
Grand Total	**$ 603,500**	**$ 1,001,500**	**$ 1,368,500**	**$ 1,499,500**	**$ 856,500**	**$ 5,329,500**	**$ 1,065,900**	

Table 15 – Summary Five-Year Operational Budget

PETALUMA VALLEY GSA SUMMARY FIVE-YEAR OPERATIONAL BUDGET

GSA Operational Budget Category/Task (GSP Implementation Plan Section)	Year 1	Year 2	Year 3	Year 4	Year 5	5-Year Total	5-Year Annualized Total	Notes
	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027			
GSA Administration Finance & Legal (7.2.1)	**$255,500**	**$245,500**	**$240,500**	**$230,500**	**$245,500**	**$ 1,217,500**	**$243,500**	
Administration	$145,500	$145,500	$145,500	$145,500	$145,500	$ 727,500	$145,500	*Staffing for administrator, grant management, and fee implementation*
Insurance	$ 4,000	$ 4,000	$ 5,000	$ 5,000	$ 6,000	$ 24,000	$ 4,800	
Accounting and auditing Services	$ 22,000	$ 22,000	$ 25,000	$ 25,000	$ 25,000	$ 119,000	$ 23,800	
GUIDE program maintenance	$ 30,000	$ 20,000	$ 10,000	$ 10,000	$ 10,000	$ 80,000	$ 16,000	
Office supplies, materials, misc. expenses	$ 4,000	$ 4,000	$ 5,000	$ 5,000	$ 6,000	$ 24,000	$ 4,800	
Legal	$ 50,000	$ 50,000	$ 50,000	$ 40,000	$ 53,000	$ 243,000	$ 48,600	
Communication & Stakeholder	**$ 80,000**	**$ 80,000**	**$ 80,000**	**$ 80,000**	**$100,000**	**420,000**	**$ 84,000**	
Community engagement	$ 35,000	$ 35,000	$ 35,000	$ 35,000	$ 35,000	$ 175,000	$ 35,000	*Monthly newsletters, response to community inquiries, community meetings, press communications, etc.*
Advisory Committee coordination	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 100,000	$ 20,000	*Preparation and participation in quarterly advisory committee meetings*
Agency coordination and consultations	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 45,000	$ 145,000	$ 29,000	*Consultation and coordination with land-use planning agencies, resource agencies, stakeholder interest groups*
Annual Monitoring, Evaluation &	**$125,000**	**$110,000**	**$110,000**	**$110,000**	**$110,000**	**$ 565,000**	**$113,000**	
Groundwater-level data collection	$ 30,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 130,000	$ 26,000	*Field measurements and download of groundwater level data*
Data management, compilation, evaluation	$ 45,000	$ 35,000	$ 35,000	$ 35,000	$ 35,000	$ 185,000	$ 37,000	*Compilation and analysis of groundwater level, groundwater quality, groundwater storage, interconnected surface water, subsidence, and groundwater extraction datasets. Evaluation of SMCs.*
Annual reporting	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 250,000	$ 50,000	*Preparation of draft and final versions of text, tables and figures for annual report and data uploads to DWR's SGMA Portal*
Subtotal	**$460,500**	**$435,500**	**$430,500**	**$420,500**	**$455,500**	**$ 2,202,500**	**$440,500**	
Reserve - rounded to nearest $1000	**$ 23,000**	**$ 22,000**	**$ 22,000**	**$ 21,000**	**$ 23,000**	**$ 111,000**	**$ 22,200**	*3 months of operational expenses*
Member Agency Reimbursement						**$ -**	**$ -**	TBD
Total	**$483,500**	**$457,500**	**$452,500**	**$441,500**	**$478,500**	**$ 2,313,500**	**$462,700**	

Appendix B – Use Codes and Groundwater Assumptions

The following two tables show County Tax Assessor use codes, use code descriptions, groundwater use assumptions for each use code, the number of parcels to which those assumptions apply, and the total groundwater use applied to each use code.

Some of the use codes may be duplicated. This is due to the use code descriptions being entered into the County's database using different syntax and spelling.

Table 16 is for residential groundwater use, and Table 17 is for commercial groundwater use. For use codes that indicate agricultural land uses, the agricultural groundwater use is not included; it is included in the agricultural use calculations shown in previous tables.

Table 16 – Residential Use Codes and Groundwater Assumptions

Petaluma Valley - Residential Use Codes and Groundwater Assumptions				
Use Code	Residential Use Code Desctiption	Use Assummptions (AF)	Parcels	Use (AF)
	TOTAL - All Categories		**1,066**	**621.5**
4	Wildcat subdivision lot	0.5	0	0
10	Single family dwelling	0.5	49	24.5
11	Condominium unit	0.5	0	0
13	Sfd non-conforming use	0.5	0	0
14	Sfd secondary use	0.5	1	0.5
15	Attached unit	0.5	0	0
16	Manufactured home on urban lot	0.5	1	0.5
17	Detached unit in a pud	0.5	0	0
18	Duet	0.75	0	0
19	Enforceably restricted dwelling	0.5	0	0
21	One duplex (one structure)	0.75	4	3
22	Two sfd on single parcel	0.75	1	0.75
23	Sfd w/granny unit	0.75	2	1.5
31	Single triplex 3 units/1 structure	0.75	0	0
32	3 units/2 or more structures	0.75	1	0.75
34	Single fourplex	1	0	0
35	4 units/2 or more structures	1	1	1
41	5-10 res units/1 structure	2.5	0	0
41	5-10 residential units/1 structure	2.5	0	0
42	5-10 res units/2+ structures	2.5	0	0
42	5-10 residential units/2+ structures	2.5	0	0
43	11-20 residential unit/1 structure	5	0	0
44	11-20 res unit/2+ structures	5	0	0
44	11-20 residential unit/2+ structures	5	0	0
45	21-40 units	10	0	0
46	41-100 units	25	0	0
47	Over 100 units	25	0	0
49	Enforceably restricted apts	5	0	0
51	Rural res/single res	0.5	634	317
51	Rural res/single residence	0.5	0	0
52	Rural res/2 or more res	1	156	156
52	Rural res/2 or more residences	1	0	0
54	Rural res w/misc res imp	0.5	16	8
54	Rural residential w/misc residential imp	0.5	0	0
55	Rural res/secondary use	0.5	0	0
56	Rural res/manufactured home	0.5	21	10.5
57	Rural res sfd w/granny unit	0.75	32	24
57	Rural residential sfd w/granny unit	0.75	0	0
63	Motel/50 units or less w/kitchen	10	0	0

Use Code	Residential Use Code Desctiption	Use Assummptions (AF)	Parcels	Use (AF)
65	Motel/50 units or less w/shops	5	0	0
66	Bed & breakfast inn	2	0	0
80	Common area w/o structures	0.5	0	0
80	Common area without structures	0.5	0	0
90	Manufactured home park	5	0	0
92	Manufactured home park w/overnite facilities	5	0	0
93	Trailer park (resort type)	5	0	0
95	Taxable manufactured home/rented site	0.5	0	0
401	Land converting to vineyard/orchard w/residence	0.5	0	0
411	Irrigated orchard w/residence	0.5	0	0
421	Irrigated vineyard w/residence	0.5	1	0.5
423	Irr vineyd/premium w/res	0.5	13	6.5
423	Irr vineyd/premium w/residence	0.5	0	0
425	Irrigated vineyard w/manufactured home	0.5	0	0
426	Irr vineyd/premium w/manufactured home	0.5	1	0.5
441	Irrigated truck crops w/res	0.5	1	0.5
461	Irrigated pasture w/residence	0.5	0	0
471	Dairy w/residence	0.5	24	12
476	Dairy w/manufactured home	0.5	1	0.5
481	Chicken ranch w/residence	0.5	8	4
483	Other poultry ranch w/residence	0.5	0	0
485	Chicken ranch w/manufactured home	0.5	0	0
501	Horse ranch w/res	0.5	3	1.5
501	Horse ranch w/residence	0.5	0	0
502	Horse ranch w/2 or more res	0.5	1	0.5
502	Horse ranch w/2 or more residences	0.5	0	0
506	Horse ranch w/manufacturedhome	0.5	1	0.5
511	Non-irrigated orchard w/res	0.5	1	0.5
511	Non-irrigated orchard w/residence	0.5	0	0
521	Non-irrigated vineyard w/res	0.5	0	0
521	Non-irrigated vineyard w/residence	0.5	0	0
523	Non-irr vineyd/varietals w/res	0.5	0	0
523	Non-irr vineyd/varietals w/residence	0.5	0	0
531	Field crops w/residence	0.5	0	0
531	Field crops with residence	0.5	22	11
541	Pasture w/residence	0.5	0	0
541	Pasture with residence	0.5	64	32
546	Pasture w/manufactured home	0.5	0	0
546	Pasture with manufactured home	0.5	6	3
555	Mixture w/residence or manufactured home	0.5	0	0
561	Hardwoods & chaparral w/residence	0.5	0	0
561	Hardwoods and chaparral w/res	0.5	0	0
940	School district property	0	0	0

Table 17 – Commercial Use Codes and Groundwater Assumptions

Petaluma Valley - Commercial Use Codes and Groundwater Assumptions				
Use Code	Commercial Use Code Desctiption	Use Assummptions (AF)	Parcels	Use (AF)
	TOTAL - All Categories		**109**	**457.3**
110	Single story store	2	1	2
111	Multiple story store	2	0	0
112	Multiple stores in 1 structure	2	0	0
113	Store w/res unit or units	2	4	8
114	Convenience store	2	0	0
119	Alternate use stores	2	0	0
121	Multiple combo/stores & office	2	1	2
122	Single live/work unit	2	0	0
123	Live/work units	2	0	0
129	Alternate use store/off combo	2	0	0
140	Grocery store	2	0	0
141	Supermarket	2	0	0
142	Liquor store	2	0	0
150	Regional shopping center	2	0	0
151	Community shopping center	2	0	0
152	Neighborhood shopping center	2	2	4
155	Indiv parcel/neighborhd shop ctr	2	0	0
170	One story office building	2	2	4
171	Two story office building	2	1	2
172	3-or-more story office bldg	2	0	0
177	Multi-offices/residential units	2	0	0
179	Alternate use office bldgs	2	0	0
190	Medical offices	5	0	0
191	Dental offices	5	0	0
193	Veterinary hospitals	5	1	5
199	Alternate use prof bldgs	2	0	0
201	Misc multiple use/none dominat	2	2	4
201	Misc multiple use/no dominate	2	1	2
202	Com'l use/no other category	2	3	6
210	Restaurant	2	0	0
211	Drive-in restaurant	2	1	2
213	Cocktail lounge bar	2	0	0
219	Alternate use	2	0	0
250	Full service station	2	1	2
251	Self service sta/no repair facilities	2	0	0
253	Truck terminal	2	1	2
254	Bulk plant	2	2	4
255	Service station/mini-mart	2	0	0
259	Alternate use service stations	2	0	0
260	Auto sales w/service center	2	0	0
261	Auto sales w/o service center	2	0	0

Use Code	Commercial Use Code Desctiption	Use Assummptions (AF)	Parcels	Use (AF)
262	Used car lot	2	0	0
263	Other sales: trailers, mbh, rv	2	0	0
270	Farm or const mach sales/serv	2	0	0
280	Auto & truck repair & maint	2	2	4
280	Auto and truck repair & maint	2	0	0
281	Specialty shop (tires, brakes)	2	0	0
281	Specialty shop (tires,brakes)	2	0	0
290	Retail nursery	5	3	15
291	Wholesale nursery	5	2	10
310	Light manuftg & industrial	2	1	23.9
311	Light manufctrg & warehousing	2	1	2
320	Warehousing/active	0.5	4	2
321	Warehousing/inactive	0.5	0	0
323	Warehousing yard	0.5	0	0
329	Mini-warehouse	0.5	1	0.5
330	Lumber mill	2	0	0
331	Retail lumber yard	2	1	2
332	Specialty lumber products	2	0	0
351	Meat products	2	2	138.9
352	Winery	2	0	0
353	Winery w/vineyards	2	0	0
353	Winery with vineyards	2	0	0
354	Other food processing plants	2	0	0
360	Feed and grain mill	2	2	4
361	Retail feed and grain sales	2	0	0
370	Heavy industry	2	0	0
380	Mineral processing	10	0	0
381	Sand & gravel, shale	10	0	0
381	Sand and gravel, shale	10	0	0
390	Airport/private	2	0	0
391	Industrial common area	2	0	0
393	Industr'l in no other category	2	1	2
470	Dairy	5	2	10
471	Dairy w/residence	5	24	120
476	Dairy w/manufactured home	5	1	5
480	Chicken ranch	2	3	6
481	Chicken ranch w/residence	2	8	16
482	Other poultry ranch	2	0	0
483	Other poultry ranch w/residence	2	0	0
485	Chicken ranch w/manufactured home	2	0	0
500	Horse ranch	2	2	4
501	Horse ranch w/res	2	3	6
501	Horse ranch w/residence	2	0	0

Use Code	Commercial Use Code Desctiption	Use Assummptions (AF)	Parcels	Use (AF)
502	Horse ranch w/2 or more res	2	1	2
502	Horse ranch w/2 or more residences	2	0	0
506	Horse ranch w/manufacturedhome	2	1	2
602	Health spa or club	2	1	2
611	Recreational center	2	1	2
631	Arcades & amusement center	2	0	0
640	Club/lodge hall	2	0	0
660	18 hole public golf course	2	2	4
662	Country club	2	0	0
690	Privately owned park	2	1	2
710	Religious building	2	2	4
711	Prop used along w/rel bldg	2	1	2
721	Parochial school	2	0	0
750	Sfd converted to residential care facility	2	0	0
750	Sfd converted to res care fac	2	0	0
751	Rest home	2	1	2
752	Home for handicapped (physical, mental, etc.)	2	0	0
753	Assisted care facility	2	0	0
770	Cemetery	0.5	0	0
771	Mortuary/funeral home	0.5	0	0
780	Volunteer fire department	0.5	0	0
810	Sbe-valued utility	0.5	5	2.5
811	Utility water company	0.5	1	0.5
812	Mutual water company	0.5	0	0
813	Cable tv	0.5	0	0
814	Radio & tv broadcast site	0.5	0	0
903	Miscellaneous federal property	2	0	0
911	State building	2	0	0
913	State pk/other recreation fac	2	1	2
916	Miscellaneous state property	2	1	2
921	County building	2	0	0
923	County park/other rec facility	2	0	0
924	County hospital	10	0	0
931	City building	2	0	0
933	City park/other rec facility	2	0	0
934	Municipal utility property	2	4	8
941	Fire district	2	0	0

Appendix C – Public Water System Extraction Data

Table 18 contains a list of all public water systems and their groundwater extraction data from 2013 to 2021. The major system providers have been tabulated in a separate 5-year average column from the minor systems. The totals for all columns are shown at the bottom.

Table Notes:

- The City of Petaluma system is shown with certain entries highlighted in green. These are the years that were included in the 5-year average for each system.
- Minor public systems are shown with all zero entries highlighted in tan. In those cases, the 5-year average omitted those years to the extent possible.
- No 2021 data was available for minor water systems.

Table 18 – List of Public Water Providers

PWSID	Public System Name	2013	2014	2015	2016	2017	2018	2019	2020	2021	Minor System 5-yr Ave	Major System 5-yr Ave
CA4901214	ADOBE CHRISTIAN CHURCH	0.71	0.82	0.69	0.44	0.56	0.79	0.65	0.43		0.58	
CA4910022	CANON MANOR WATER SYSTEM	61.99	57.28	51.86	65.97	77.05	74.87	77.81	94.08		77.96	
CA4901027	CINNABAR THEATER	0.61	0.76	0.48	0.49	0.33	0.73	0.40	0.41		0.47	
CA4900667	COLLEGE PARK MUTUAL WATER COMPANY	52.87	44.44	41.71	43.79	55.26	43.69	47.12	60.60		50.09	
CA4910304	CSP-PETALUMA ADOBE STATE HISTORIC PARK	1.00	0.81	0.83	1.03	0.76	3.67	2.07	0.94		1.70	
CA4901262	FRANCISCAN VINEYARDS DBA QUARRY WINERY	12.18	11.12	9.23	9.69	8.20	6.70	0.00	4.99		5.92	
CA4901286	KELLER ESTATE WINERY		1.02	1.03	1.13	0.88	0.65	0.89	1.12		0.93	
CA4900737	KOA - PETALUMA	20.28	13.34	18.20	23.09	27.24	26.25	24.70	28.20		25.89	
CA4901094	LOMBARDI'S DELI & BBQ	0.00	0.36	2.14	0.65	0.69	0.76		0.80		1.01	
CA2110003	NORTH MARIN WATER DISTRICT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	
CA4910003	PENNGROVE WATER COMPANY (PUC)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	
CA4901079	PETALUMA LIVESTOCK AUCTION YARD		0.85	0.72	0.88	0.91	0.90	0.85	0.50		0.81	
CA4910006	PETALUMA, CITY OF	163.60	129.62	351.35	327.63	114.22	0.00	0.00	37.26	369.96		258.56
CA4901297	PORT SONOMA MARINA	2.23	2.95	10.15	2.15	1.74	1.20	1.55	1.42		1.61	
CA4901120	RAM'S GATE WINERY	2.40	2.49	0.16	2.43	0.00	0.00	1.49	0.97		0.98	
CA4901080	SPEEDWAY SONOMA LLC	0.32	0.67	3.41	5.91	4.72	3.78	4.03	0.00		3.69	
CA4901408	WESTSIDE STORAGE WATER SYSTEM	0.42	0.58	0.76	1.02	0.71	0.26	0.25	0.46		0.54	
CA4901139	WILLOWBROOK ALE HOUSE	0.07	0.07	0.03	0.04	0.04	0.04	0.00	0.24		0.07	
CA4901300	WINDY HILL WINERY	0.00	0.88	0.88	11.08	10.46	9.51	3.76	2.08		7.38	
	TOTALS	**318.68**	**268.06**	**493.65**	**497.41**	**303.77**	**173.80**	**165.59**	**234.51**	**369.96**	**179.63**	**258.56**

Appendix D – Reduced Year 1 Budget

On the following pages is a Staff Report from the May 26, 2022, Petaluma Valley GSA Board meeting, Agenda Item 6b. This report provides the background for potentially reducing the revenue needs for Year 1 (FY 2022-23) to $400,000. However, since the issuance of this Staff Report, an additional cost for Year 1 (and subsequent years, too) is the cost of placing the fees onto the property tax bills. That amount is estimated to be $10,000 in the first year. Therefore, the amount of $410,000 is what is seen in the main body of this Report, differing from the May 26 Staff Report shown on the following pages.

Agenda Item: 6B
Meeting Date: May 26, 2022

Petaluma Valley Groundwater Sustainability Agency

Information Item

TO: BOARD OF DIRECTORS
FROM: Ann DuBay, Administrator
SUBJECT: Feedback on Fiscal Year 2022-23 Budget Policy Questions

Summary: This item requests Board feedback on policy options to reduce FY 2022-23 expenses. Potential Board action on the FY 2022-23 budget (Item 8C) will occur after the rate and fee discussion (Item 8B).

Background

At the February Board meeting, Directors provided feedback regarding the FY 2022-23 budget, in light of the fee study. Some members expressed a desire to reduce expenditures with the goal of reducing fees. At its April meeting, the Board agreed to move forward with a "bare bones" budget as the basis for a potential one-year groundwater sustainability fee. Staff was directed to provide the Board with spending reductions for discussion.

At the advice of the Chair and legal counsel, this discussion of budget policy options is agendized as a separate item to receive feedback that will help inform the Board discussion and decision-making on the fee-study action item (Item 8B). The Board direction on the fee study will provide important information for the Board as it considers adoption of the FY 2022-23 budget (Item 8C).

Possible Spending Reductions

Technical, current administrative and future administrative staff discussed possible options for reducing the GSA spending in FY 2022-23. Table 1 describes options for reducing the budget, cost savings (or increases) and potential policy ramifications. Total savings would be $129,000.

Table 2 illustrates the original budget, based on full Year 1 GSP implementation. The budget also includes $633,000 in fees, based on the average annual five-year income needed to implement the GSP (assuming the GSA receives 40% of its future revenues from grants).

Table 3 illustrates a budget that includes all the proposed spending cuts, and the fee amount ($457,000) needed for one year. Because of grant funding and reimbursement cycles, it is difficult to determine how much actual funding will be available at the close of the current fiscal year. To be safe, staff recommends that the Board assume that no more than $60,000 will be carried forward. In essence, the GSA must fill a funding gap of approximately $400,000 for the first year of implementation.

Table 1. Possible Funding Reductions, FY 2022-23

Budget Item	Current budget	Possible reductions	Policy Issues
One Community Meeting	$ 20,000	$ (10,000)	Hold 1 virtual comm meeting, possible combination with other basins. (If developing fee alternative may need at least 1 meeting)
Regulatory Community engagement (Interconnected surface water SMC)	$ 25,000	$ (10,000)	By reducing number of meetings with stakeholder group, the process may take longer, and SMC development will be slower.
Five Board meetings	$ 40,000	$ (10,000)	Reduce to 4 meetings.
Fee assessment/study	$ 20,000	$ 30,000	If move forward with full fee, funds will be needed for appeals and administration. If delay or reduce fee, staff/consultant will need to work on alternative options and development of appeals process is still needed.
Annual Monitoring & Maintenance	$ 55,000	$ (20,000)	Reduced groundwater level monitoring by $5K; reduced annual report costs by $10K; reduced groundwater quality processing by $5K. Made these changes based on experience with work that is underway. May need to adjust upward next year.
Closing data gaps	$ 45,000	$ (45,000)	Defer until Year 2. Tasks include integration of well log and GUIDE databases; voluntary WQ monitoring near Baylands; improvements to stream mapping and surface water diversion estimates; GWL network development.
Planning for projects & management actions	$ 20,000	$ (20,000)	Defer until Year 2. Will make minimal or no progress on policy options and management actions, including voluntary conservation and metering programs; ASR/GW banking coordination; Farm Plan coordination; well permitting, etc.
Trainings, publications, supplies, memberships, rent	$ 3,000	$ (4,000)	
Appropriation for contingencies	$ 40,000	$ (40,000)	Increase risk of not meeting contractual obligations without contingencies
TOTAL POSSIBLE SAVINGS		**$ (129,000)**	

Table 2. Summary FY 2022-23 Budget for full Year 1 Implementation

	Petaluma Valley Groundwater Sustainability Agency	
		FY2022-3
		Final
Account	Account Description	Budget
42360	State Grant Revenue (Proposition 1 and 68)	200,000
42000	**Total Intergovernmental Revenues**	**200,000**
45221	Sewer/Water Usage Fees	633,000
46029	In-Kind Member Fees (Sonoma Water)	0
46000	**Total Miscellaneous Revenues**	**833,000**
	Grand Total Revenues	**$ 833,000**
51021	Communication Expense (outreach)	80,000
51041	Insurance - Liability	4,000
51201	Administration Services	112,000
51204	Property Tax/Assessment Admin (fee study)	20,000
51206	Accounting/Auditing Services	10,000
51207	Client Accounting Services (County)	10,000
51211	Legal Services (Kronick)	50,000
51213	Engineer Services (Technical, monitoring wells)	390,000
51226	Consulting Services (grant admin)	40,000
51244	Permits/License/Fees (well registration)	30,000
51421	Rents and Leases - Bldg/Land	2,000
	Publications and Legal Notices	2,000
51916	County Services Chgs	2,000
	Appropriations for contingencies	40,000
	Subtotal Services	**792,000**
52031	Food	500
52091	Postage	500
	Subtotal Supplies	**1,000**
51000	**Total Services and Supplies**	**$ 793,000**
	Grand Total Expenditures	**$ 793,000**
	Increase/(Decrease) to Fund Balance	**$ 40,000**

Table 3. FY 2022-23 Budget, including proposed reductions

Petaluma Valley Groundwater Sustainability Agency		
		FY2022-3
		Proposed
Account	**Account Description**	**Budget**
42360	State Grant Revenue (Proposition 1 and 68)	200,000
42000	**Total Intergovernmental Revenues**	**$ 200,000**
45221	Sewer/Water Usage Fees	457,000
46029	In-Kind Member Fees (Sonoma Water)	0
46000	**Total Miscellaneous Revenues**	**$ 457,000**
	Grand Total Revenues	**$ 657,000**
51021	Communication Expense (outreach)	60,000
51041	Insurance - Liability	4,000
51201	Administration Services	100,000
51204	Property Tax/Assessment Admin (fee study)	50,000
51206	Accounting/Auditing Services	10,000
51207	Client Accounting Services (County)	10,000
51211	Legal Services (Kronick)	50,000
51213	Engineer Services (Technical, monitoring wells)	300,000
51226	Consulting Services (facilitation and grant admin)	40,000
51244	Permits/License/Fees (well registration)	30,000
51421	Rents and Leases - Bldg/Land	1,000
51916	County Services Chgs	2,000
	Appropriations for contingencies	0
	Subtotal Services	**$ 657,000**
52031	Food	0
52117	Mail and Postage Supplies	0
	Subtotal Supplies	**0**
51000	**Total Services and Supplies**	**$ 657,000**
	Grand Total Expenditures	**$ 657,000**
	Increase/(Decrease) to Fund Balance	**$ -**

Agenda Item: 6B
Meeting Date: May 26, 2022

Requested Board Action

Provide feedback on policy options.

Fiscal Information

Policy options related to FY 2022-23 budget.

List of Attachments

Contact

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