Napa County
Groundwater Sustainability Agency

Rate and Fee Study

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I. Introduction and Executive Summary

Introduction

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

The Napa County Groundwater Sustainability Agency (NCGSA or GSA) was created by a resolution of the Napa County Board of Supervisors in December of 2019 to serve as the official Groundwater Sustainability Agency for the Napa Valley Subbasin (Subbasin), as required by SGMA. The Agency is governed by a Board of Directors (Board) consisting of the Napa County Board of Supervisors. Additionally, the Agency maintains a Technical Advisory Group (TAG) for the purpose of providing input and recommendations to the Board.

The Napa Valley Subbasin represents an extremely valuable resource in Napa County (County). Groundwater management efforts in the County have been orchestrated since at least the 1960s, including monitoring of groundwater levels and efforts to conserve water resources. The health of the Napa Valley Subbasin has notable effects on its communities, economy, and culture – it is home to some of the most valuable and sophisticated agriculture in the world. Both past and current efforts to achieve sustainability in the Subbasin hold implications for all those who live or work in the County.

In the Winter of 2022, the Agency engaged a consultant team consisting of SCI Consulting Group and Larry Walker Associates (SCI Team) to develop revenue recommendations, community engagement strategies, and a Rate and Fee Study report to support the NCGSA in its efforts to implement its GSP. This Rate and Fee Study (Fee Study or Study) incorporates legal, financial, administrative, political, and policy considerations in support of revenue options. The discussion of these subjects within the context of NCGSA's needs and preferences is intended to inform the process of funding mechanism implementation.

The Napa Valley Subbasin GSP[1] was submitted to the California Department of Water Resources (DWR) in January 2022, and DWR approved the GSP in January 2023. The GSP includes goals and recommendations required for its implementation. NCGSA is required to comply with ongoing regulatory requirements related to groundwater level monitoring and reporting. Programs related to reducing groundwater pumping and other conservation measures are necessary to achieve sustainability. Funding these efforts will be key to the success of the GSP.

Executive Summary

This Fee Study is intended to support NCGSA's development and implementation of a regulatory fee on groundwater users within the Subbasin (referred to throughout as the Fee or Fee Program), beginning in Fiscal Year (FY) 2026-27. This proposed Fee is intended to fund the Groundwater Sustainability Program as outlined in the GSP. The Fee Study summarizes the efforts of the GSA Board, staff, and consultants in determining the financial, legal, and policy decisions best suited to funding GSP implementation in the Subbasin. This summary includes considerations of legal authority, funding structure, and Fee methodology.

This Fee Study was prepared to:

- Describe the costs of implementing the Groundwater Sustainability Program that would be funded by the proposed Fee;
- Describe a projected annual GSA budget to be funded by the Fee in 2026-27 and into the future;
- Determine the appropriate allocation of GSP implementation costs across groundwater user classes;
- Describe the method of apportionment of costs to parcels that benefit from GSP implementation within NCGSA; and
- Establish a rate and fee schedule to recover GSP implementation costs needed to achieve Subbasin sustainability.

This Fee Study and the proposed Fee have been developed pursuant to California Water Code section 10730 and Article XIII C of the California Constitution. Note that only parcels that receive a benefit from the implementation of the Napa Valley Subbasin GSP are included in the proposed Fee Program.

[1] https://sgma.water.ca.gov/portal/gsp/preview/124

A Regulatory Fee Program for the Napa Valley Subbasin

Through numerous discussions with County staff, legal counsel, and the SCI Team, a regulatory fee in accordance with Water Code § 10730 and Proposition 26 was selected as the optimal funding mechanism for the Napa Valley Subbasin.

The methodology of the Fee Program established by this Study is based on apportioning the costs of GSP implementation to groundwater users in a manner that is proportional to the benefit provided to each parcel. For this reason, this Study establishes a hybrid methodology that utilizes different charge types for different groundwater user classes, as detailed below:

- Agricultural groundwater users: charged on the basis of "Planted Acreage" and "Groundwater-Irrigated Acreage." These users are agricultural irrigators primarily within the Napa Valley wine industry.
- Self-Supplied Groundwater Users: charged on a parcel basis for each parcel that extracts groundwater. These users are largely domestic users but also include a limited number of small commercial entities.
- Public Water Systems (PWS) Users: water systems extracting groundwater for public distribution, charged on the basis of their groundwater extraction. These users consist of the City of St. Helena and small water systems, including wine tasting facilities and other similar entities.

Background of Funding Strategies for NCGSA

Since the inception of the Agency in 2019, leadership has discussed and considered the short term and long-term challenges associated with funding. Funding needs of sustainable groundwater management are often fluid and multifaceted and require a dynamic approach, particularly during the early years of the GSA.

In part, the NCGSA has funded the costs of operations and GSP development with allocations from the Napa County general fund. Like many other GSAs across the State, member agency funding contributions (in this case the County) have allowed agencies to develop goals and priorities to guide development of the GSP. NCGSA has also relied on a grant award from DWR's Sustainable Groundwater Management Proposition 68 Implementation Grant Program. This award contributed greatly to the development of the NCGSA GSP.

Like GSAs throughout California, as NCGSA has moved into the GSP implementation phase, conversations surrounding funding have gravitated more toward the establishment of a reliable, stand-alone funding mechanism to support GSP implementation efforts.

Napa County continues to support the implementation of the GSP in the Napa Valley. As detailed below in Section III, a continued contribution from the Napa County general fund will be used to reduce the revenue requirement applied to groundwater users.

Subbasin Characteristics and Approach

The conditions of the Napa Valley Subbasin are discussed in detail in the GSP. The Subbasin underlies approximately 46,609 acres overlying the Napa Valley and entirely within Napa County. Groundwater within the Subbasin is used for agricultural, domestic, commercial, and public supply purposes. A map of the Subbasin boundary is provided in Figure 1, below.

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 below.

Table 1 – SGMA Priority Ranking Criteria

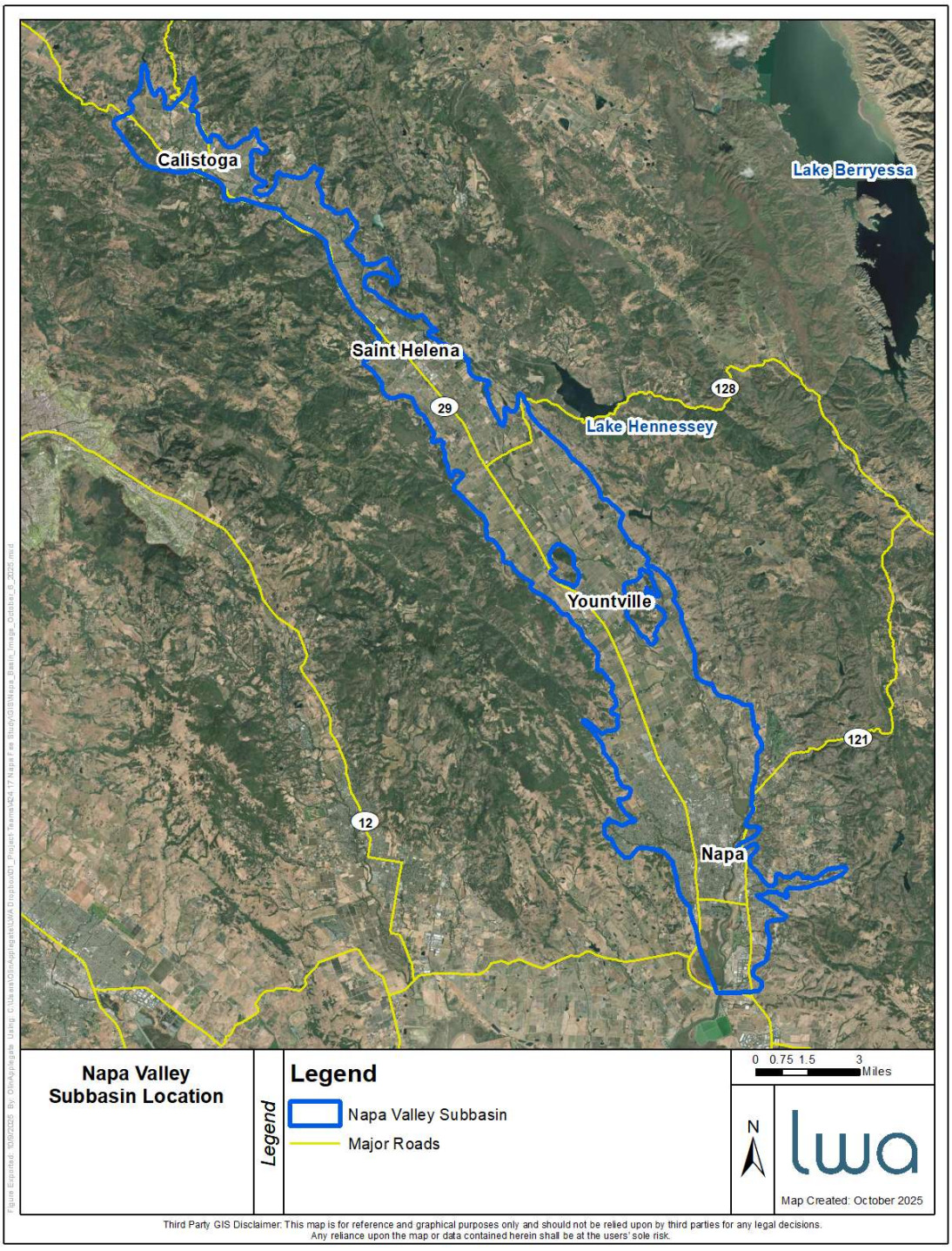
Priority	Total Priority Point Ranges			
Very Low	*over*	zero	*up to*	7
Low	*over*	7	*up to*	14
Medium	*over*	14	*up to*	21
High	*over*	21	*up to*	42

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 22, the Napa Valley Subbasin is classified by DWR as a high-priority basin. The Subbasin's priority point allocation is illustrated in Table 2.

Table 2 – Napa Valley Subbasin Priority Points

Criteria	Priority Points
1 Population	3
2 Population Growth	2
3 Public Supply Wells	5
4 Total Wells	5
5 Irrigated Acres	4
6 Groundwater Reliance	3
7 Impacts	0
8 Habitat and Other Information	0
Total Priority Points	22

Figure 1 – Napa Valley Subbasin Boundary



Napa Valley Subbasin GSP

The Napa Valley Subbasin GSP provides the basis for the GSA's Groundwater Sustainability Program. The GSP's stated sustainability goal is "to protect and enhance groundwater quantity and quality for all beneficial uses and users of groundwater and interconnected surface water in the Napa Valley Subbasin both now and in the future" "implement sustainable management criteria and an adaptive management approach supported by the best available information and best available science, resulting in the absence of undesirable results within 20 years from GSP adoption" (GSP, 18). With this in mind, the GSP includes a detailed analysis of Subbasin conditions, definitions of Sustainable Management Criteria and undesirable results, and Projects and Management Actions intended to achieve sustainability.

SGMA sets forth six Sustainable Management Criteria that are used to measure sustainability. The GSP defines these Criteria and their corresponding undesirable results for the Napa Valley Subbasin as listed below (GSP, 9-1). These Criteria provide the basis for defining sustainable conditions and guide the GSA's efforts to implement the GSP.

1. Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon. Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and groundwater recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.
2. Significant and unreasonable reduction of groundwater storage.
3. Significant and unreasonable seawater intrusion.
4. Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
5. Significant and unreasonable land subsidence that substantially interferes with surface land uses.
6. Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

The GSP also outlines management actions necessary to achieve sustainability. The costs described in Section III. of this Study include several management actions or workplans described in Section 11 of the GSP.

Discussion of Benefit

Sustainable groundwater management, such as NCGSA's Groundwater Sustainability Program, provides a benefit to all groundwater users within the Subbasin. Because sustainable groundwater management protects particular identifiable parcels (including residents of the parcel and any appurtenant facilities or improvements) from undesirable results and potential unavailability of reliable groundwater access, the benefits are provided directly to property owners within NCGSA. This Study concludes the GSA's enhanced sustainable groundwater management provides a benefit directly to property owners in that:

- Their property and way of life is being protected from undesirable results including potential unavailability of reliable groundwater access.
- Local management of groundwater resources is maintained, avoiding State intervention and retaining local control and input.

The proposed GSA budget used in this Study will result in the Subbasin maintaining the high standard by which it has been managed to date, with funding from the Napa County general fund. Accordingly, it will reduce the risk of undesirable results and the associated effects on property, including unavailability of reliable groundwater access, State intervention, and decreased property values. As discussed in detail below, this Study utilizes a hybrid methodology that incorporates three different types of charges to allocate the cost of providing these benefits to groundwater users within the Subbasin.

II. Legislative and Legal Understanding

This Fee Study serves as a part of the legal basis for the establishment of a Fee Program in support of GSP implementation in the Subbasin. Within SGMA, two revenue paths are specifically described to fund a groundwater sustainability agency: Water Code § 10730 describes fees that align with general GSA management and GSP implementation excluding major capital investments for improvements; and Water Code § 10730.2 describes fees at the full spectrum of GSA costs including major capital investments and facility operations and requires more rigorous and lengthy adoption procedures. These code sections are the legal apparatus that provide GSAs with the authority to charge fees, and they detail specific requirements related to fee structure and implementation. The descriptions of fees in each of these two sections provide guidance for the constitutional "pathways" that are applicable for their respective fee types. While these code sections do not explicitly state that the fees they describe are regulatory fees (§ 10730) or property related fees (§ 10730.2), they are generally interpreted as such due to shared characteristics between their descriptions.

An essential aspect of understanding the legal requirements of fee programs in support of groundwater management is the way in which various legal obligations interplay with one another. Appropriate sections of the California Water Code provide guidance for GSAs in establishing funding mechanisms, but all charges imposed by government agencies must adhere to the requirements set forth in the California Constitution. Both the appropriate Water Code Section and the appropriate Constitutional Articles must be identified and complied with.

The primary constitutional standards relevant for fees established under Water Code § 10730 are included in Article XIII C of the California Constitution. As enshrined by the passage of Proposition 26, this section sets forth general requirements for charges imposed by government agencies. The requirements of Water Code § 10730 and Article XIII C are discussed below.

Water Code § 10730

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

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

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

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.*

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. The implementation of the Napa Valley Subbasin GSP requires exercising regulatory powers and authorities provided by SGMA for all applicable parcels within the Subbasin. This includes all parcels extracting groundwater. Furthermore, de minimis groundwater extraction accounts for approximately 18% of total extraction in the Subbasin. SGMA requires the GSA to account for and analyze this extraction as a part of its Groundwater Sustainability Program.

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. The GSA 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 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 in support of NCGSA's Groundwater Sustainability Program. The Napa Valley Subbasin GSP provides a benefit or service to all groundwater users in the Subbasin. Additionally, costs incurred by the GSA's Groundwater Sustainability Program are regulatory costs, as they represent the regulation of groundwater in the Subbasin.

This Fee Study provides the rationale for how the fee program for the Napa County GSA will comply with the requirements of Article XII A, including the fees charged to groundwater extractors in the Subbasin:

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.

III. Budget and Revenue Requirement

The proposed Fee Program revenue requirement stems from the cost of implementing the Napa Valley Subbasin GSP. These costs have been organized into two primary categories: Administrative Costs – which include Agency Administration and Operational Coordination, and Professional Services – which include Monitoring and Reporting and Management Actions.

The revenue requirement differs from the total budget amount in that the Napa County Board of Supervisors has proposed a County contribution in the amount of $500,000 annually. This will reduce the total required revenue applied to the Fee Program.

GSP Implementation Costs

The projected costs included in the budget were developed in cooperation with County staff and technical consultants. This effort was aided by staff and consultant knowledge and experience with the GSA's budget over the last several years, as these costs have been incurred annually and paid for by the County general fund and grants. As the GSA looks to incorporate costs into the new Fee Program, recent past experiences help to shape these projections.

The budget provided in Table 3 below is intended to demonstrate typical annual costs incurred by the GSA. Prior to imposing Fees each year, the GSA Board will evaluate funding needs and may elect to decrease the Fee Program budget and corresponding rates. However, the GSA cannot increase the Fee Program budget and rates beyond the proposed budget without conducting new Fee implementation proceedings (with the exception of an inflationary mechanism, as disused below).

Table 3 – Napa County GSA Annual Costs

Estimated Annual Expenses	Total Estimated Annual Cost
Administrative Costs	
Agency Administration	
General Administration Services	$446,017
Accounting/Auditing Services	$500
Legal Services	$20,000
Operational Coordination	
Technical Advisory Group Membership	$67,500
Napa County RCD Collaboration, Stream Watch and ISW/GDE	$177,000
Fee Program Annual Administration	$25,000
Stakeholder Engagement/Outreach	$69,600
Subtotal	$805,617
Professional Services	
Monitoring and Reporting	
Program Management and Administration	$80,300
Required GSP Annual Report	$94,758
GSP Periodic Evaluation	$69,832
Napa Valley GSP Monitoring & Data Management / Visualization	$85,526
Evaluation of Hydrologic Data / Sustainability Indicators	$19,878
Technical Advisory Group Meeting Coordination and Support	$74,200
Napa Valley Integrated Hydrologic Model Refinement	$102,192
GSA Coordination with SB SDA Watershed Modeling	$26,222
Management Actions	
Grant Proposal Support	$7,550
Stream Gage Improvement Program Ongoing O&M	$155,042
Data Management System Infrastructure Improvements	$75,000
Napa Valley Integrated Hydrologic Model Scenarios/Application	$75,680
ISW / GDEs Workplan Implementation	$318,950
Demand Management / GPR & WC Workplan Implementation	$472,653
GSP-Related Support for Fee Program	$4,900
Subtotal	$1,662,683
Total	$2,468,300

Administrative Costs

Administrative costs refers to both general Agency administration and operational costs incurred by the GSA in administering the Program. These costs include general administrative services (office management, personnel / staff, and record keeping), accounting and auditing services, and legal services.

Operational Coordination costs stem from GSA efforts to coordinate with regional partners, work with the TAG, administer the proposed Fee Program, and engage stakeholders.

- Technical Advisory Group (TAG) relates to maintaining TAG membership in support of efforts to advise the GSA regarding the projects and workplans necessary for GSP implementation.
- Napa County Resource Conservation District Collaboration refers to funding for RCD support provided for GSA workplan implementation, including the Stream Watch program and the Interconnected Surface Water (ISW) / Groundwater Dependent Ecosystem (GDEs) Workplan.
- Fee Program annual administration refers to the cost of annual administration of the Fee Program. This cost includes, but is not limited to, consolidating annual changes in agricultural planted acreage, parcel changes, placing charges on annual tax bills and processing Fee Program waivers.
- Stakeholder engagement and outreach includes costs related to supporting both outreach to Subbasin groundwater users and stakeholder-driven initiatives. This work includes decentralized efforts to improve groundwater sustainability in the Subbasin through community-driven programs.

Professional Services

Professional Services refers to a suite of services provided by the GSA's technical consultant team. These services ensure the GSP is implemented successfully and according to State requirements and are essential to the success of the Groundwater Sustainability Program. Two sub-categories are used here to differentiate between Monitoring and Reporting costs and costs related to Management Actions intended to address specific elements of the GSP.

Monitoring and Reporting

Monitoring and reporting include funding for State-mandated data collection and analysis. These services involve data collection, analysis and reporting on various critical components of the GSA and GSP implementation.

- **Program Management and Administration** includes tasks associated with GSP implementation strategy along with regional and local coordination to ensure efforts are

integrated with the Drought Resilience Plan, Regional Climate Action and Adaptation Plan, and updates to the County groundwater ordinance.

- **Required GSP Annual Report** refers to the cost associated with acquisition, analysis and quality control of data related to subsidence and groundwater levels as well as data inputs to the water budget (e.g., extraction and surface water diversions), utilizing the hydrologic model to present current existing groundwater conditions, updating contour maps, change in groundwater storage maps and computing extraction estimates for all water use sectors. This includes analysis and preparation of the annual progress report related to GSP implementation.
- **GSP Periodic Evaluation** refers to the effort to prepare a SWR-required 5-year evaluation of the GSA's Groundwater Sustainability Plan. The first 5-year Periodic Evaluation will be due in January 2027 and will include providing the status of groundwater conditions and progress toward meeting interim milestones and measurable objectives. The evaluation requires the evaluation of the cumulative benefits of projects and management actions toward the overall sustainability goal and will involve stakeholder outreach and engagement.
- **Napa Valley GSP Monitoring & Data Management / Visualization** refers to the cost of monitoring, maintaining, and measuring 14 dedicated dual-completion monitoring wells across the Subbasin. This includes water quality sampling and analysis, downloading data, maintaining equipment, presenting and maintaining an online data visualization portal for the public and County alike. Data collected are used in presentations, memos, annual reports and other products.
- **Evaluation of Hydrologic Data / Sustainability Indicators** refers to the ongoing review and analysis of monitoring data and conditions related to SMC and triggers and assessment of mid-winter conditions and implications for management actions.
- **Technical Advisory Group Meeting Coordination and Support** refers to efforts associated with preparing analyses, memos and presentations. This includes meetings, technical staff time and preparation materials in support of Technical Advisory Group meetings and events.
- **Napa Valley Integrated Hydrologic Model Refinement** refers to efforts by technical staff to improve and refine inputs to the hydrologic model (e.g. geology, evapotranspiration rates, soil moisture estimates, water use by vines and well inventory) and includes coordination with growers, agricultural specialists and local, state and federal agencies.
- **GSA Coordination with SB SDA Watershed Modeling** refers to the coordination between the GSA and the Division of Water Rights in the State Water Resources Control Board on the effort to build the Napa River Watershed Model, and ensure this model utilizes the NVIHM to ensure model agreement and accuracy for their water supply and assessment model.

Management Actions

The Management Actions budget is comprised of programs and management actions intended to address specific elements of GSP implementation. These includes a number of programs and work plans that focus on various goals identified in the GSP.

- **Grant Proposal Support**. When available, grant funding is critical to support efforts to address demand management, water conservation, or related efforts that align with the GSA's Management Actions.
- The **Stream Gage Improvement Program** involves upgrading existing stream gages, reactivating historical gages, or installing new gages on natural waterways at 5 locations within the Subbasin. Access to reliable, real-time information about the conditions and amount of water flowing into local rivers and streams is critical to better manage water resources for public safety, water supply and the conservation of freshwater species. The design, permitting and installation costs of the gages are funded by a DWR CalSIP grant with the ongoing operation & maintenance costs to be funded by the NCGSA.
- **Data Management System Infrastructure Improvements** related to County development of a data management system for submittal and housing of voluntary and required groundwater pumping data.
- **Napa Valley Integrated Hydrologic Model Scenarios / Application** includes costs related to the incorporation of the effects of climate change into the NVIHM, as well as preparation to include 'as-requested' modeling scenarios which help to guide management decisions.
- **The Interconnected Surface Water (ISW) / Groundwater Dependent Ecosystem (GDEs) Workplan** involves support for GDE-related surveys at six specific sites throughout the Subbasin and analysis of data using the California Environmental Flows Framework (CEFF). This work will include vegetation, streamflow, water quality, and wildlife monitoring, analysis, and reporting.
- **Demand Management** includes implementation of both the Groundwater Pumping Reduction (GPR) and Water Conservation (WC) Workplans. These efforts include (but are not limited to) exploration of alternative water supplies for agriculture (such as expanding recycled water use), recharge feasibility analysis, extended replant, pilot certification partnership program, domestic demand management, incentivization of agricultural water conservation practices, and development of a consumptive water use benchmarking program. Also included are water conservation pilot sites and other remote sensing data, which support efforts to refine estimates of water use on vineyards and wineries, share and collaborate to identify best management practices, and build climate resiliency. Lastly, groundwater pumping reduction incentives are included, which provide funding for incentive payments which may be used to offset the cost of water conservation practices.

- **GSP-related Support for the Fee Program** involves technical support for the annual administration of the proposed Fee Program. This may include tracking changes in groundwater use, budgetary considerations, and other pertinent updates.

County Contribution

Since the inception of the GSA, the Napa County general fund has provided the largest financial contribution to the Groundwater Sustainability Program. As the GSA looks to implement its first Fee Program, the GSA Board (which is also the County Board of Supervisors), determined that a continued contribution from the general fund would be appropriate. The commitment of a continued County contribution will achieve several goals:

- It will be used to account for the economic and cultural significance of groundwater to the County as whole;
- It will reduce the revenue requirement passed on to groundwater users, which will lower rates;
- It will stabilize the budget on a short-term and long-term basis; and,
- It will allow the GSA to provide relief to self-supplied groundwater users who may be more adversely affected by the financial burden of the proposed Fee.

The County has committed to making an annual contribution in the amount of up to $500,000. Of this amount, at least $300,000 will be used to account to offset the revenue requirement applied to all groundwater users. The remaining $200,000 will be used to account for unforeseen or escalated costs and provide relief to self-supplied groundwater users. This contribution will effectively reduce the revenue requirement by $300,000, from $2,468,300 to $2,168,300.

Future Year Fees and Inflationary Adjustment

The projected budget included in this Study is intended to illustrate the maximum revenue need and corresponding rates associated with the Groundwater Sustainability Program. However, per Proposition 26 requirements, the Fee Program must generate no more revenue than is necessary to cover the "reasonable costs of the governmental activity." For this reason, the budget will be evaluated each year prior to setting rates and may be reduced in years where the proposed revenue need in this Study is not necessary. However, the budget applied to the Fee Program cannot exceed the costs included in this Study without implementation of a new Fee Program, aside from the use of an inflationary mechanism (as described below).

This Study proposed the inclusion of an inflationary mechanism by which the Board would have the option to adjust the budget (and correspondingly, the rates) according to the Consumer Price Index for Urban Consumers (CPI), as published by the United States Bureau of Labor Statistics (BLS). The intent of including such a mechanism is to allow for the Board to consider adjusting the budget according to annual inflation as it relates to Agency costs. Public agencies in California commonly use the CPI in order to adjust the budget and rate of a fee program each fiscal year.

This Study proposes the opportunity for the Board to adjust the budget and rate in future years by using the annual change in the San Francisco Bay Area Consumer Price Index-U, measured each December of the preceding calendar year, with an annual adjustment not to exceed 4%. The maximum authorized Fee rate each year shall be equal to the previous year's rate, increased by the San Francisco Bay Area CPI or 4%, whichever is less. Incorporation of this inflationary adjustment in this Study provides for this annual increase without the need to adopt an updated fee study or undergo additional procedural requirements.

While the use of an inflationary mechanism is a sound approach to address increases in costs, it should be noted that the budget itself and the benefits provided by the Agency justify the use of a regulatory fee. The use of a CPI increase in any given year must be justified by an increase in the projected GSA budget.

IV. Cost Apportionment

As noted above, the proposed Fee Program uses a hybrid fee methodology that incorporates different charges for three different groundwater user classes:

- Agricultural groundwater users.
  - Charged a 'base rate' per acre of crop planted.
  - Charged an additional rate per groundwater-irrigated acre.
- Self-supplied groundwater users (largely domestic or de minimis users).
  - Charged a parcel fee per groundwater-using parcel.
- Public water system groundwater users (water systems extracting groundwater).
  - Charged a rate per AF of groundwater extracted.

When incorporating several charge types within a hybrid fee methodology, costs must be apportioned appropriately. Using a different basis for each charge type requires allocating costs proportionally to each rate calculation in order to ensure the appropriate cost burden is placed on each user class.

This Study proposes addressing this in two ways: (1) categorizing costs as either "Common Costs" or "Applied Groundwater Use Costs" (as shown in Table 4) and (2) using a five-year average of pumping by each user class to allocate cost burden equitably (as shown in Table 8). These two elements of cost apportionment are intended to address the variable benefit provided to each user class. Both are discussed in detail below.

Cost Categorization

While some costs to be funded by the proposed Fee provide a benefit broadly to all groundwater users, other costs provide a heightened benefit only to certain users. In order to apportion costs proportionally to groundwater users, GSA staff and consultants analyzed all line items in the proposed budget according to their purpose and the benefit they provide. This framework addresses the variable benefit provided by different GSA costs to different user classes.

Cost Categories

This budget is split into two sections: Administrative Costs and Professional Services. Furthermore, all costs are designated as either "Common Costs," which refer to costs that provide benefit broadly to all groundwater users, or "Applied Groundwater Use Costs," that provide a benefit to agricultural and water system groundwater users. More detail on these categories and designations is provided below, along with the projected annual budget.

Common Costs

Common Costs are those that provide benefit broadly to all groundwater users, in that they involve general Subbasin management, compliance with SGMA, and efforts to track and measure sustainability in accordance with the GSP. For this reason, Common Costs are allocated to all groundwater users.

Agency administration costs are included in this category due to their nature as essential to the management of the Groundwater Sustainability Program. All groundwater users benefit from consistent Program management.

Costs related to the Technical Advisory Group are also included in this category, as the TAG advises the GSA on a number of efforts to achieve Subbasin sustainability.

All costs related to monitoring and reporting are also included in the Common Cost category. Efforts to monitor and analyze Subbasin conditions are specifically required by SGMA. Monitoring and reporting activities provide the data that informs GSA policy decisions and ensure sustainability goals can be met. These costs provide a benefit to all groundwater users.

Applied Groundwater Use Costs

Applied Groundwater Use Costs refers to costs that both focus on large-scale applied groundwater use and are necessitated by agricultural irrigation and water suppliers. These costs provide a heightened benefit to agricultural users and water system users, and because of this they are allocated only to these two user classes.

Aside from the cost of TAG coordination, all operational coordination costs are included in this category. As a whole, these costs are largely in place to support the implementation of management actions that address groundwater use in the agricultural industry. Examples include groundwater pumping reduction incentives (which will be used to incentivize agricultural pumping reduction) and GSP monitoring and Data Management (which holds a large focus on water use in the agricultural sector).

The Cost of management actions are also categorized as Applied Groundwater Use Costs. In part, the management actions proposed to be funded by the Fee Program are undertaken by the GSA to address specific aspects of groundwater use in the agricultural industry. Two items in particular – the Water Conservation and Groundwater Pumping Reduction Workplans and Water Conservation Pilot Sites efforts – are focused primarily, but not exclusively, on agricultural groundwater users. Other management actions, such as the ISW / GDE Workplan, are in place to account for the effects of groundwater use on groundwater dependent ecosystems. Due to the high volume of agricultural groundwater use relative to other users, these efforts are largely necessitated by agriculture.

Cost categorization is summarized in Table 4 below. As shown, Common Costs total $1,146,525 and Applied Groundwater Use Costs total $1,321,775.

Table 4 - Cost Categorization

Estimated Annual Expenses	Total Estimated Annual Cost	Common Costs	Applied Groundwater Costs
Administrative Costs			
Agency Administration			
General Administration Services	$446,017	$446,017	
Accounting/Auditing Services	$500	$500	
Legal Services	$20,000	$20,000	
Operational Coordination			
Technical Advisory Group Membership	$67,500	$67,500	
Napa County RCD Collaboration, Stream Watch and ISW/GDE	$177,000		$177,000
Fee Program Annual Administration	$25,000		$25,000
Stakeholder Engagement/Outreach	$69,600	$59,600	$10,000
Subtotal	$805,617	$593,617	$212,000
Professional Services			
Monitoring and Reporting			
Program Management and Administration	$80,300	$80,300	
Required GSP Annual Report	$94,758	$94,758	
GSP Periodic Evaluation	$69,832	$69,832	
Napa Valley GSP Monitoring & Data Management / Visualization	$85,526	$85,526	
Evaluation of Hydrologic Data / Sustainability Indicators	$19,878	$19,878	
Technical Advisory Group Meeting Coordination and Support	$74,200	$74,200	
Napa Valley Integrated Hydrologic Model Refinement	$102,192	$102,192	
GSA Coordination with SB SDA Watershed Modeling	$26,222	$26,222	
Management Actions			
Grant Proposal Support	$7,550		$7,550
Stream Gage Improvement Program and Ongoing O&M	$155,042		$155,042
Data Management System Infrastructure Improvements	$75,000		$75,000
Napa Valley Integrated Hydrologic Model Scenarios/Application	$75,680		$75,680
ISW / GDEs Workplan Implementation	$318,950		$318,950
Demand Management / GPR & WC Workplan Implementation	$472,653		$472,653
GSP-Related Support for Fee Program	$4,900		$4,900
Subtotal	$1,662,683	$552,908	$1,109,775
Total	$2,468,300	$1,146,525	$1,321,775

Table 5 below summarizes the total cost assigned to each category, along with the percentage of overall cost.

Table 5 - Cost Category Summary

Cost Category	Amount	Percentage of Cost
Total Cost	$2,468,300	100.0%
Common Costs	$1,146,525	46.4%
Applied GW Use Costs	$1,321,775	53.6%

County Contribution Apportionment

As discussed in Section III, one of the goals the County Contribution will achieve is a reduction of the revenue requirement passed on to groundwater users. This will lower the rates applied to each user class.

Reducing the Burden on Rate Payers

By contributing $300,000 each year to the Groundwater Sustainability Program, the County will reduce the revenue requirement applied to all groundwater users and thereby lower the Fee Program's rates. However, in order to provide a uniform reduction in rates across all users, this contribution must be applied to the revenue requirement in a manner that maintains the split between Common Costs and Applied Groundwater Use Costs so that the two cost categories remain proportional to the total revenue need. As illustrated in Table 6 below, the Common Cost total is reduced to $1,007,175 and the Applied Groundwater Use Cost total is reduced to $1,161,125.

Table 6 - County Contribution and Cost Category Split

Cost Category	Amount	Percentage of Cost
Total Cost	$2,468,300	100.0%
County Contribution	$300,000	12.2%
Revenue Requirement[1]	$2,168,300	87.8%
Common Cost Revenue Need[2]	$1,007,175	46.4%
Applied GW Use Cost Revenue Need[3]	$1,161,125	53.6%

(1) The revenue requirement represents the total budget minus a portion of the County contribution ($300,000).
(2) The Common Cost Revenue Need is calculated by multiplying the revenue requirement by 46.4% (the same percentage of the total cost that was assigned to the Common Cost category in Table 5).
(3) The Applied Groundwater Use Cost Revenue Need is calculated by multiplying the revenue requirement by 53.6% (the same percentage of the total cost that was assigned to the Applied Groundwater Use Cost category in Table 5).

Financial Relief and Budget Stabilization

As noted above, the remaining $200,000 of the County contribution will be used for two primary purposes. First, a portion of this funding will be used to provide financial relief to self-supplied users who may be more adversely affected by the proposed Fee. Second, this funding will be used to stabilize the budget in the event of unforeseen costs or cost increases. In years where this amount is not used, it may be withheld or placed into a dedicated fund to ensure the GSA's ability to implement the GSP over time. Any funding placed in a dedicated fund may be used in future years to support GSA administrative activities or projects.

Financial Relief

This study proposes providing financial relief to self-supplied users in two ways: (1) $100,000 will be allocated to offset the total cost allocated to these users, and (2) the remaining $100,000 will be used, in part, to provide an opportunity to request that the fee be waived.

The $100,000 will offset the total self-supplied user cost allocation of $179,733 – bringing this total down to $79,733. This contribution is intended to acknowledge that self-supplied users – largely domestic groundwater users – rely on groundwater supply as an essential part of daily life.

The remaining $100,000 will be used initially to provide an opportunity to request that the self-supplied user Fee be waived. In order to determine eligibility for this relief, this Study proposes using enrollment in PG&E's California Alternate Rates for Energy (CARE) Program[2]. This program offers discounted energy rates for households that qualify based on status as low-income or separate enrollment in other public assistance programs such as CalFresh. By using enrollment in CARE, the GSA can determine eligibility based on actual need without requiring self-supplied users to submit annual income information. Self-supplied users who are enrolled in CARE may submit proof of enrollment to the GSA and request their Fee be waived. Because this funding is derived from the County's general fund, other Fee payers will not be subsidizing fee waivers.

Note that the offset cost allocated to self-supplied users – approximately $80,000 – is less than the $100,000 portion of the County contribution. The Subbasin does contain several areas that are determined to be Disadvantaged Communities (DACs) – however, most of these areas are within public water system service areas and would not be directly subject to the Fee. For this reason, it is anticipated that the number of requests for fee waivers from Self-Supplied users will be minimal.

[2] https://www.pge.com/en/account/billing-and-assistance/financial-assistance/california-alternate-rates-for-energy-program.html#accordion-featured-67a0691982-item-5a7e280994

It is anticipated that most of this portion of the County contribution will be placed into a reserve fund for future use. This is described in detail below.

Budget Stabilization

The number of Fee waiver requests the GSA will receive in the coming years is difficult to predict. However, it is worth considering the potential scope of a reserve fund in the event that Fee waiver requests are in fact minimal.

There are approximately 1,300 Self-Supplied parcels in the Subbasin. Using a conservative estimate of 50 Fee waivers per year, Table 7 below illustrates how the reserve fund might grow through five years of the Fee program.

Table 7 - Estimated Five-Year Reserve Fund Revenue

	2026-27	2027-28	2028-29	2029-30	2030-31
Fee Waivers	50	50	50	50	50
Waived Revenue	$3,129	$3,129	$3,129	$3,129	$3,129
Remaining Contribution	$96,871	$96,871	$96,871	$96,871	$96,871
Cumulative Reserve Fund	$96,871	$193,742	$290,612	$387,483	$484,354

As shown above, 50 Fee waivers per year would allow for approximately $97,000 to be placed into a reserve fund annually. Cumulatively over the course of five years, this fund would then grow to nearly $500,000.

Placement of funding into this reserve would of course be done at the discretion of the Board. Any funding placed in this reserve could be used for a number of purposes. It could be used to address unforeseen or escalated costs, contribute to new projects, or to provide incentive payments to groundwater users for improving water use practices.

Cost Allocation

Defining the two cost categories supports the appropriate allocation of costs to each groundwater user class. Per the cost framework described above, Common Costs will be allocated to all groundwater users while Applied Groundwater Use Costs will be allocated to agricultural users and water system users. However, these costs must still be allocated equitably to the type of charge assigned to each user class.

This Study proposes using a five-year average of groundwater pumping across these classes as a metric to distribute a percentage of GSA costs to those user classes. Within each charge type, these cost amounts can then inform (1) a rate per parcel for self-supplied users, (2) a rate per AF for water systems, and (3) a rate per planted acre and irrigated acre for agricultural users. By using the average groundwater pumping attributed to each user class as a metric to apportion a percentage of Agency costs to those user classes, these cost amounts can proportionally inform different charges – despite having a unique basis for each charge.

Table 8 below illustrates the groundwater pumping across the three user classes included in the proposed Fee Program. Pumping amounts are derived from the GSA's annual reports.[3] The average percentage of pumping shown at the bottom is used to inform cost distribution to each user class, as discussed in more detail below.

Table 8 - Five-Year Average Pumping Across User Classes

Water Year	Pumping or Percentage of Pumping	Agricultural	Self Supplied	PWS	Total
2020	Pumping (AF)	14,620	3,560	1,390	19,570
	Percentage of Pumping	74.7%	18.2%	7.1%	100%
2021	Pumping (AF)	17,340	4,070	1,580	22,990
	Percentage of Pumping	75.4%	17.7%	6.9%	100.0%
2022	Pumping (AF)	14,200	3,400	1,520	19,120
	Percentage of Pumping	74.3%	17.8%	7.9%	100.0%
2023	Pumping (AF)	11,170	2,730	1,400	15,300
	Percentage of Pumping	73.0%	17.8%	9.2%	100.0%
2024	Pumping (AF)	11,790	2,870	1,550	16,210
	Percentage of Pumping	72.7%	17.7%	9.6%	100.0%
Average	**Pumping (AF)**	**13,824**	**3,326**	**1,488**	**18,638**
	Percentage of Pumping	**74.2%**	**17.8%**	**8.0%**	**100.0%**

In Table 9 below, the five-year average pumping amount of each user class is applied to costs. Percentage of total pumping volume is used to allocate the percentage of Common Costs. Applied Groundwater Use Costs are only allocated to Agricultural and PWS users – for this reason, the percentage of agricultural and PWS pumping (shown below as "non-de minimis" pumping) is used to allocate the percentage of Applied Groundwater Use Costs. These cost totals are used to inform rates for each user class, as illustrated in Section V, below. As noted above, the total budget allocated to self-supplied users is offset by $100,000 from the County Contribution. This reduces this total from $179,733 to $79,733 in practice.

[3] https://www.countyofnapa.org/3219/County-of-Napa-Plans-Reports-Documents

Table 9 - Cost Allocation by User Class

User Class	5-Year Average Pumping [1]	% of Total Pumping [2]	Common Cost Allocation [3]	% of Non-De Minimis Pumping [4]	Applied GW Cost Allocation [5]	Total Revenue Requirement [6]
	18,638	100%	$1,007,175	100%	$1,161,125	$2,168,300
Agricultural	13,824	74.2%	$747,032	90.3%	$1,048,288	$1,795,321
Self-Supplied	3,326	17.8%	$179,733	0.0%	$0	$179,733
PWS	1,488	8.0%	$80,410	9.7%	$112,837	$193,246

(1) Five-year average pumping is derived from the GSA's Annual Reports.
(2) Percentage of total pumping is calculated by dividing each user class's average pumping by the total average pumping.
(3) The Common Cost allocation by user class is calculated by multiplying each user class's percentage of average pumping by the total Common Cost.
(4) Percentage of non-de minimis pumping is calculated by dividing each user class's pumping by the sum of agricultural and PWS pumping (self-supplied users are excluded from Applied Groundwater Use Costs).
(5) The Applied Groundwater Use Cost allocation by user class is calculated by multiplying each user class's percentage of non-de minimis pumping by the total Applied Groundwater Use Cost.
(6) Total revenue requirement is calculated by adding the Common Cost Allocation and the Applied Groundwater Use Cost Allocation for each use class. Note that the self-supplied user class budget allocation will be offset by $100,000 from the County Contribution, reducing it to $79,733.

V. Fee Structure and Methodology

The proposed Fee Program methodology is the basis for apportioning NCGSA costs to groundwater users who benefit from the Groundwater Sustainability Program. The methodology and associated proportionality of a funding mechanism are key aspects of its character and hold implications for its implementation, annual administration, corresponding outreach, and other aspects of how a funding program operates.

Essentially, a rate is determined by a simple equation. However, determining the inputs to this equation are more involved under a hybrid methodology. The cost apportionment described in Section IV is applied to a rate equation for each user class based on their selected methodology. The revenue requirement is divided by the methodological unit (e.g., planted acres) which produces a rate. A general rate determination equation is shown below for reference:

Figure 2 - Rate Determination Equation

$$\frac{\text{Revenue Requirement (\$)}}{\text{Methodology Unit}} = \text{Rate}$$

Depending upon the user class in question, a charge per planted acre, per groundwater-irrigated acre, per AF, or per parcel can be produced by this equation.

Proposed Fee Methodology

This Study finds that a multi-faceted approach to fee structure is appropriate for the Napa Valley Subbasin. Several factors contributed to this determination. First, parcel-scale groundwater use amounts for agricultural users and self-supplied users are unknown. Charging these users based on their actual use would require estimation of groundwater use. This approach was explored at length – but ultimately deemed ineffective for the Subbasin.

For this reason, the SCI Team worked with County staff and consultants to develop a fee structure that utilizes three types of charges – one for each user class:

- Agricultural groundwater users are charged a base rate per cropped acre and an additional rate per groundwater-irrigated acre.
- Self-supplied users are charged a rate per parcel.
- Public water system users are charged a rate per AF of extraction.

More detail on these charges and how they are calculated is provided below.

Subbasin Boundary Parcels

Napa County GSA only has the authority to impose the Fees proposed by this Study on groundwater users within the Napa Valley Subbasin. While a majority of parcels are clearly within or outside of the Subbasin, a number of parcels straddle the boundary. To address parcels that straddle the Subbasin boundary, this Study establishes a baseline criterion under which parcels with at least 50% of their land area within the Subbasin would be subject to the Fee. However, the true determination of whether a user extracts groundwater from within the Subbasin stems from whether their well(s) are within the boundary. For this reason, two important provisions must be considered.

First, Napa County maintains a spatial well database that accounts for groundwater well locations within the Subbasin. However, this database is incomplete and sometimes does not reflect the true location of wells. In instances where a well location is deemed dependable, parcels are either subject or not subject to the Fee based on this data as opposed to the 50% threshold.

Second, property owners who believe they have been included in the Fee Program in error may reach out to the GSA and provide proof that the location of their well lies outside of the Subbasin boundary. In these instances, the GSA may correct their inclusion when appropriate.

Groundwater User Classes

As noted above, groundwater users in the Subbasin are grouped into three user classes to optimally structure groundwater Fees. Different approaches are used to charge each user type.

Agricultural Groundwater Users

Agricultural groundwater users represent a substantial portion of the total groundwater extraction in the Subbasin. Data from the Napa County Assessor's Office has been used to assign crop-specific acreage to each parcel. An assumption of 10% of total planted acreage is applied to the rate equation to account for dry-farmed acres or acres supplied with other water sources. For the purposes of this Fee Program, planted acreage with greater than 50% of its irrigation coming from alternative water sources will be defined as acreage using alternative water supply. Prior to placing charges on tax bills in 2026, the GSA will provide opportunity for agricultural irrigators to submit claims of dry farming or alternative water use. Annual updates will be required to ensure this dataset is current and reflects the most recent crop acreage.

Self-Supplied Groundwater Users (Largely Residential Groundwater Users)

Self-Supplied use includes all parcels that utilize groundwater for residential or commercial purposes. While there is limited data available to support parcel-scale understanding of groundwater use in these instances, these parcels are charged a rate per parcel, which acknowledges that they are provided a service by, and benefit from, the costs of sustainably managing the Subbasin. These users are identified by using Napa County use codes; all parcels that are assigned a use code that implies water use (e.g., residential) and lie outside of public water system boundaries are assumed to rely on well water.

Public Water System Users

Public water supply systems are the only user class in the Subbasin 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, which is made available through the California State Water Resources Control Board (SWRCB). This data, along with data from Napa County, was used to inform water system groundwater use included in the GSA's Annual Reports. For the purposes of this Study, Annual Report data is used. Prior to charging water systems for fiscal year 2026-27, the GSA will calculate groundwater extraction on a system-by-system basis.

Agricultural User Fee Calculation

Agricultural users are charged according to their cropped acreage. While parcel-scale groundwater extraction is unknown, parcel scale planted crop acreage is available. GSAs often utilize DWR crop maps to determine parcel-scale crop acreage; however, in Napa County, the Assessor's office maintains a database of crop acreage that is updated annually. This data provides an accurate accounting for the amount of planted crop acreage on each parcel in the Subbasin.

Agricultural User Methodology Development

Exploration of Extraction-Based Methodologies

Staff and consultants explored several methodologies that would have estimated agricultural groundwater use on a parcel scale. Incorporating input from GSA staff and consultants and an irrigation specialist at the University of California Cooperative Extension, the SCI Team analyzed crop data from various sources – including the Cal Poly Irrigation Training and Research Center (ITRC), OpenET, and the NVIHM. The analysis showed variability in parcel-scale estimates due in large part to a range in professional judgement and geographic-specific irrigation practices within given areas of the Subbasin.

As such, upon staff review of applied water estimates, several concerns were identified. First, issues related to consistency were noted. The use of different water use estimation methodologies for various purposes (modeling, Fee Study, etc.) holds implications related to policy, outreach, and data availability and consistency. First, technical staff expressed that the Napa Valley Subbasin has a high variability of water use and related characteristics. Depending upon various factors, the opportunity for vines to benefit from direct uptake and soil moisture varies greatly on a parcel-by-parcel basis. Ultimately, it was determined that more data would be needed to develop an accurate annual applied water estimation. Because of these concerns, staff began to explore alternative approaches to Fee Program development.

Using crop acreage as a means of accounting for the benefit provided to agricultural users was ultimately selected. While this approach does not take into account water use, it does apportion costs based on the amount of crops grown. In this sense, users that maintain more planted crops – and stand to benefit more from the GSA's Groundwater Sustainability Program – are charged more. Those that maintain less are charged less. This provides the general framework for apportioning costs based on cropped acreage.

Dry Farming and Use of Alternative Water Sources

One additional consideration is required when determining the rate charged for agricultural users. While the majority of planted acreage in the Subbasin is wine grapes irrigated with groundwater, there are instances of dry farming and use of alternative water supply (such as surface water or recycled water). Two primary elements of these practices are relevant: (1) they are beneficial to the Subbasin and support the GSA's goal of sustainable groundwater management, and (2) they imply that the users conducting these practices receive less benefit from the Groundwater Sustainability Program. However, under a methodology based on planted acreage, reducing the Fee for these users based on a reduction in water use is challenging.

This Study identifies a solution under which all planted acreage is charged a baseline rate per planted acre that is derived from the Common Costs allocated to agricultural users. This acknowledges that all users receive a degree of benefit from the Groundwater Sustainability Program. Users engaged in dry farming still have a need for groundwater in several instances: when initially planting or when replanting, for heat protection, and for frost protection.

Users who irrigate primarily with alternative water sources likely still need to use groundwater when alternative supplies are limited or when water demand increases. The benefit conferred on these users is accounted for with a baseline rate per planted acre. By avoiding the higher rate per groundwater-irrigated acre, their lesser benefit is accounted for. This Study proposes that if greater than 50% of a parcel's water use stems from alternative water sources, only the baseline rate per planted acre is imposed.

In turn, those consistently irrigating their cropped acreage with groundwater are charged the baseline rate per planted acre, as well as an additional rate per groundwater-irrigated acre. This additional rate is derived from the Applied Groundwater Use Costs allocated to agricultural users. This accounts for the higher degree of benefit conferred to these users.

Agricultural User Fee Calculation

As noted above, there are two separate rate equations that pertain to agricultural users. The first accounts for all Common Costs and is charged across all planted acreage derived from the Assessor's dataset. The total Common Cost amount allocated to these users is $747,032 (as shown in Table 9). The total number of planted acres overlying parcels within the Subbasin is 19,361. By dividing this cost by the total planted acreage, we arrive at a rate of $38.58 per planted acre, charged to all agricultural users in the Subbasin. Figure 3 below illustrates this equation.

Figure 3 - Agricultural User Base Rate

$$\frac{\$747,032}{19,361 \text{ Planted Acres}} = \$38.58 \text{ per planted acre}$$

The second rate equation accounts for all Applied Groundwater Use Costs allocated to agricultural users. This is charged only to those users who consistently irrigate with groundwater. As noted previously, this Study assumes that 10% of planted acreage is either dry-farmed or uses alternative water supply. The remaining 90%, or 17,425 planted acres, is used to calculate the rate. By dividing the Applied Groundwater Use Costs allocated to agricultural users ($1,048,288) by the total assumed groundwater-irrigated planted acres (17,425), we arrive at an additional rate of $60.16 per groundwater-irrigated acre. Figure 4 below illustrates this equation.

Figure 4 - Agricultural User Additional Rate

$$\frac{\$1,048,288}{17,425 \text{ GW-Irrigated Acres}} = \$60.16 \text{ per GW-irrigated acre}$$

The combined rate for groundwater irrigated acres simply sums these two rates, as illustrated in Figure 5 below.

Figure 5 - Total Rate per Groundwater-Irrigated Planted Acre

$38.58	per planted acre
+ $60.16	per GW-irrigated acre
$98.74	total per GW-irrigated acre

Self-Supplied User Fee Calculation

Self-Supplied users are charged according to their use of groundwater on a parcel basis. Self-supplied parcel-scale groundwater extraction is unknown, but access to, and use of, groundwater for domestic or similar purposes can be determined. All parcels within Napa County are assigned a use code related to their land use. This Study identifies all parcels with a use code that implies water use and excludes all parcels served by public water systems to determine self-supplied users. This serves as the approach to charging self-supplied users on a parcel basis.

Self-Supplied User Methodology Development

Exploration of Extraction-Based Methodologies

Similar to the approach to agricultural users, staff and consultants explored extraction-based methodologies for self-supplied users. However, the variability for most domestic and small commercial users is limited. In most cases, this type of user represents a small amount of water use – de minimis users are defined by SGMA as those that use less than 2 AF per year for domestic purposes. Differences in household size likely represent a minimal variability across this user class.

One element of self-supplied groundwater use that has the potential to introduce more notable variability is landscape irrigation. Irrigation of lawns and other similar landscaping can vary on a parcel-by-parcel basis. In order to address this, staff and consultants attempted to account for irrigated turf areas by using Landsat technology. This process utilizes satellite imagery to identify areas of turf. However, several challenges precluded the use of this approach. First, tree canopies and building shadows prevent many turf areas that are non-homogenous from being identified and digitized. Second, in order for turf to be measured accurately, an area threshold must be used to prevent anomalies from producing errors in the data. Staff utilized a threshold of 0.25 acres to address this. However, in some cases, smaller turf areas on a single parcel are separated by homes or other features, in which case they are not accounted for. Similarly, when a large turf area is split between multiple parcels, it may not be properly accounted for. The challenges discovered in this process shed light on the inability to consistently address potential variability from landscape irrigation.

For this reason, the SCI Team shifted toward a methodology that accounts for self-supplied user's use of and access to groundwater. Because these users extract a minimal amount of groundwater on a parcel-by-parcel basis, the benefit provided to them by the Groundwater Sustainability Program is largely based on continued access to groundwater resources, as opposed to a variable benefit based on amount of extraction.

Self-Supplied User Fee Calculation

The rate charged to self-supplied users is based on the total Common Costs allocated to this user class and the total number of parcels where self-supplied use was identified. As discussed above, all parcels with a County use code that indicates water use were flagged for analysis. The vast majority of these parcels pertain to various residential use codes. A modest number of small commercial parcels are included as well. The SCI Team then analyzed these parcels to determine whether they lie within a water system boundary, which implies they are served by a water system. All parcels that are assigned to a use code that indicates water use but lie outside of PWS boundaries were identified as self-supplied users.

The total Common Costs allocated to self-supplied users is $179,733. This amount is offset by the County Contribution, reducing it to $79,733. No Applied Groundwater Use Costs are assigned to this user class. In accordance with the methodology described above, the total number of self-supplied users is 1,274. By dividing the cost allocation by the parcel count, we arrive at a rate of $62.58 per parcel, as illustrated in Figure 6.

Figure 6 – Self-Supplied User Rate

$$\frac{\$79{,}733}{1{,}274 \text{ Parcels}} = \$62.58 \text{ per parcel}$$

Public Water System User Fee Calculation

Public water system users are charged according to their extraction. This is the only user class for which extraction information is available. This Study utilizes data compiled by the GSA's Annual Reports, which include aggregate extraction amounts for small PWS, and amounts for the only municipal system that extracts groundwater (the City of St. Helena). Prior to charging water systems in fiscal year 2026-27, the GSA will determine system-specific extraction.

Public Water System User Methodology Development

The methodology for public water systems remained relatively consistent for the duration of methodology development. Because extraction data for this user class is available, a charge per AF of extraction was identified as the optimal approach for these users.

Public Water System User Fee Calculation

The rate charged to public water system users is based on the total Common Costs and Applied Groundwater Use Costs allocated to this user class and the groundwater extraction applied by these systems.

The total cost allocated to water system users sums the Common Costs ($80,410) and the Applied Groundwater use Costs ($112,837) to arrive at a total of $193,246. By dividing the cost allocation by the extraction amount, we arrive at a rate of $129.87 per AF, as illustrated in Figure 7.

Figure 7 – Public Water System Rate

$$\frac{\$193{,}246}{1{,}488 \text{ Acre Feet}} = \$129.87 \text{ per acre foot}$$

Revenue Summary

A summary of all proposed Fee rates across the three groundwater user classes is provided below in Table 10.

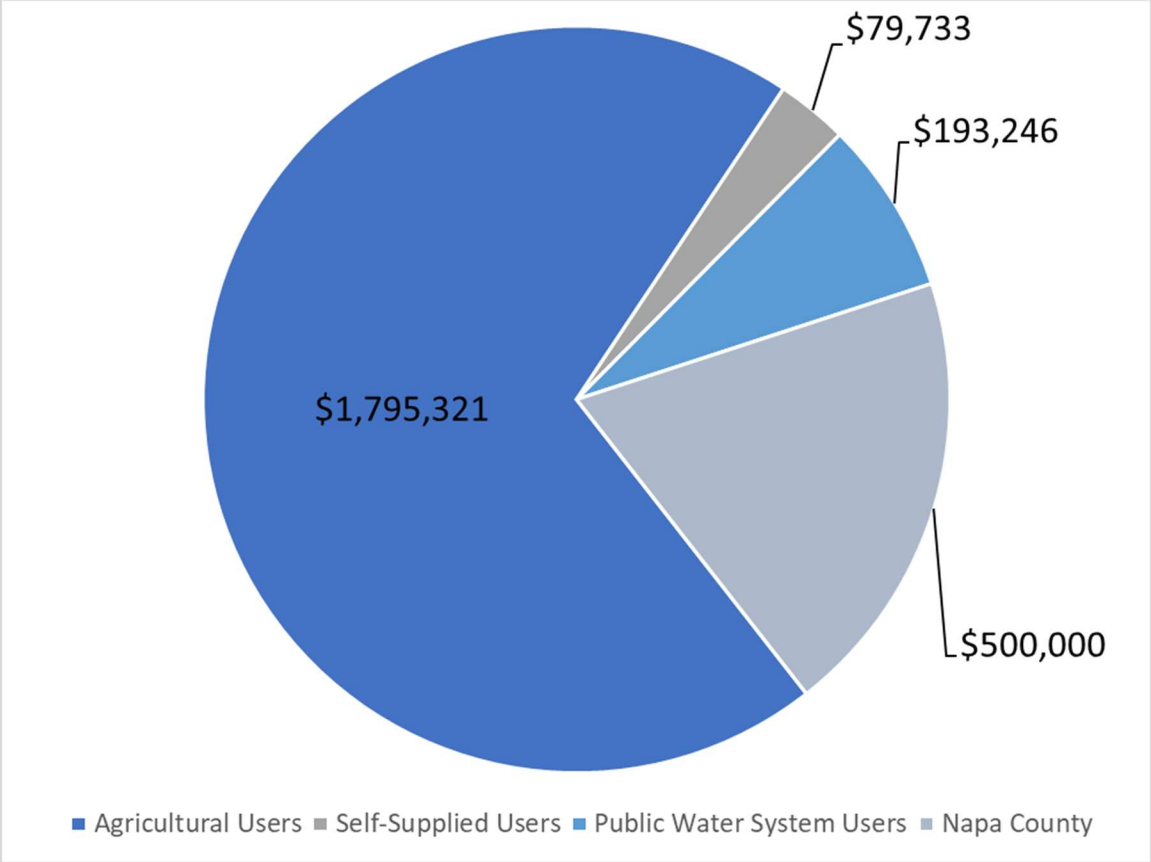
Table 10 - Rate Summary Table

User Class / Charge Type	Cost Allocation	Rate	Basis
Agricultural User Base Rate	$747,032	$38.58	per planted acre
Agricultural User Additional Rate	$1,048,288	$60.16	per GW-irrigated acre
Agricultural User Combined Rate	NA	$98.74	per planted acre (total)
Self-Supplied User Rate	$79,733	$62.58	per parcel
Public Water System User Rate	$193,246	$129.87	per AF

Fee Program Budget Allocation

A summary of budget allocation by user class is provided below in Figure 8 in order to allow for consideration of them as a whole.

Figure 8 - Summary of Budget Allocation



VI. Fee Implementation

This Fee Study presents findings to meet the procedural requirements of Proposition 26, which require analysis and support that the levy, charge, or other exaction is not a tax, that the amount is not more than necessary to cover the reasonable cost of the governmental activity, that the way those costs are allocated to a payor bears a fair or reasonable relationship to the payor's burden on or benefits received from the governmental activity, and that the governmental activity funded by the fee is not provided to those not charged.

While this Study provides the methodological and legal basis for Fee calculation, the implementation of a new Fee program for the Napa Valley Subbasin will involve several required procedural steps, as detailed below.

Fee Adoption

Neither a public noticing nor a balloting is required in order to adopt a Regulatory Fee; however, Water Code § 10730 provides additional requirements related to fee implementation.

Water Code § 10730 Fee (Regulatory Fee) Implementation Process

Water Code § 10730 requires a 20-day posted notice and corresponding public meeting. The posted notice must include notice of access to the data that serves as the basis of the proposed fee. In this case, this Fee Study provides this data.

Additionally, in order to charge self-supplied users (most of which are de minimis users) the GSA will need to establish that de minimis extractors are regulated pursuant to the Napa Valley Subbasin GSP. While this is established by the GSA's authority to implement the GSP, additional steps may be taken to ensure regulation of these users is clear. These steps may include registration of extraction facilities, additional outreach, and similar efforts.

Water Code § 10730 Fee Implementation Procedures

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

Additional Outreach

Since the GSA began exploring alternative revenue options in 2023, iterations of the proposed Fee program have been discussed in numerous public meetings and outreach efforts. In addition to past meetings and the meetings required to adopt the Fee (as described above), it is recommended that the GSA engage in additional outreach in 2026 to ensure that groundwater users are aware of the Fee program.

This outreach may include targeted information campaigns to ensure that self-supplied users are aware of the option to apply for a fee waiver and that agricultural users are aware of the option to provide claims of dry-farming or use of alternative water sources.

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. It is recommended that The GSA utilize the tax bill method of collection to the extent possible. Charges assigned to public water systems, however, are not tied to parcels and will likely be billed directly to these entities in most cases.

Annual Fee Administration

It is anticipated that the GSA will engage in annual Fee administration to ensure that data is updated according to changes in planted acreage, water use, and parcel land use. Analysis of updated data and determination of deadlines to request Fee waivers and to provide claims of dry farming or use of alternative water sources will be necessary in order to provide direct charge rolls to the Napa County Auditor's office each year in early August.

As noted previously, the Groundwater Sustainability Program's budget will be evaluated each year prior to setting rates. The budget applied to the Fee Program may be reduced in years where the proposed revenue need in this Study is not necessary but cannot exceed the costs included in this Study except for increases tied to the San Francisco Bay Area CPI, with an annual cap of 4%.