



4745 Mangels Boulevard • Fairfield, California 94534 • Tel: 707.430.4300 • Fax: 707.430.4319

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To: Bill Keane, Administrator for Sonoma Valley Groundwater Sustainability Agency
Sandi Potter, Administrator for Petaluma Valley Groundwater Sustainability Agency
Andy Rodgers, Administrator for Santa Rosa Plain Groundwater Sustainability Agency

From: Jerry Bradshaw and Ryan Aston, SCI Consulting Group

Subject: Supplement to the 2022 Rate and Fee Studies for three Groundwater Sustainability Agencies in Sonoma County

Part 1 – Introduction

In July 2022 the three groundwater sustainability agencies (“GSAs”) in Sonoma County (Petaluma Valley GSA, Santa Rosa Plain GSA, and Sonoma Valley GSA) adopted ordinances establishing groundwater sustainability fees for users of groundwater in their respective basins or sub-basins (“basins”). These fees were based on Rate and Fee Studies prepared by SCI Consulting Group, which were based on complex methodologies and multiple public data sets. Upon adoption, the fee programs were rolled out in August 2022 in two ways: 1) Added to the property tax bill for individual parcel owners; and 2) via a direct bill for public water systems (“PWS”) and parcel owners who do not normally receive a property tax bill (e.g., government agencies, tax exempt properties, etc.). To alert groundwater users of the new fees, the GSAs mailed letters to each affected property owner or entity informing them of the upcoming new fee, the specific amount, and the method of billing.

Based on feedback from property owners, the GSAs became aware of incorrect data used for charging some individual fees. This was expected in the first year or two of the fees, and an “Appeal Allowance” was incorporated in the Rate and Fee Studies to allow for accompanying revenue reduction. However, some of the corrections revealed systematic inaccuracies that impacted large groups of parcels and resulted in a significant impact on the overall revenue streams for the three GSAs. This memorandum is intended to describe the systematic corrections and their impact on revenues. It is issued as a supplement to the three Rate and Fee Studies for the respective GSAs.

Background

When talking about systematic corrections, it is useful to review the systematic structure of the underlying data. The fees were based on groundwater usage for each parcel – in this case all three GSAs adopted a fee of \$40 per acre-foot of groundwater used per year. However, actual usage data for individual parcels is either non-existent or not publicly available. Therefore, the usage was estimated based on the water demand calculated for each groundwater-reliant parcel. Estimating water demand requires data sets from multiple sources – all of which require some assumptions. Figure 1 illustrates the approach for estimating water demand for each parcel. The three rate studies contain a more detailed description of the rate elements, data sources, and assumptions.

The use of estimation, and the corresponding assumptions necessary to formulate the estimation approach, introduced the possibility that discrepancies at the parcel scale might occur. This possibility necessitated the ability for property owners to interact with the assumed data related to their groundwater use. To engage with registered extractors during the development of the Rate and Fee Studies, the GSAs jointly built a database and published it through a website called the Groundwater Users Information and Data Exchange (“GUIDE”). The GUIDE website enabled property owners to view the data assembled for their properties and encouraged them to complete a survey whereby they could submit corrections or other information.

As anticipated, public engagement was significantly higher once a letter announcing the upcoming fees were mailed. This was manifested both through calls directly to the GSAs and through GUIDE survey submittals. Due to the intrinsic imperfections of the various data sets upon which the fees rely, the GSAs were counting on receiving updated or corrected information directly from property owners either through the GUIDE surveys or through the appeals process. To this end, GSA staff were prepared to make corrections identified in survey submittals and appeals, and the actual rate calculations included a budgetary allowance for reduction in revenues resulting from groundwater usage corrections.

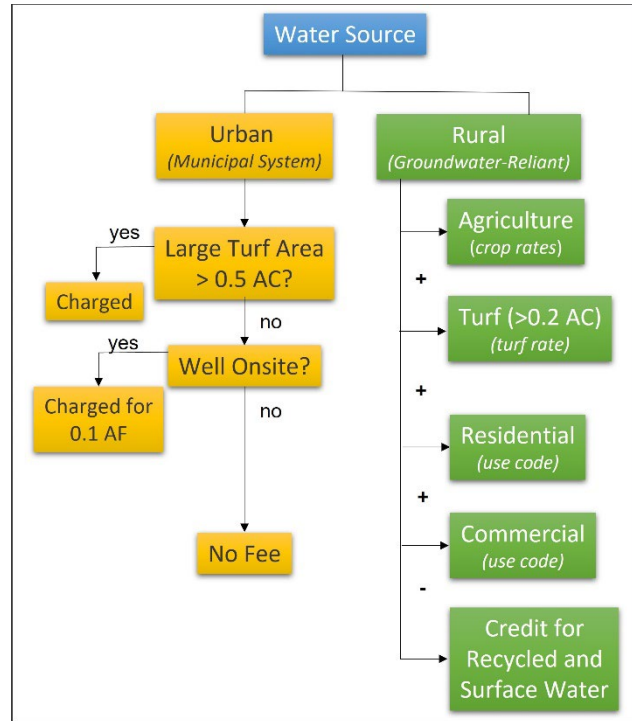


Figure 1 – Flow chart showing how groundwater usage estimates were developed

Part 2 – Systematic Corrections

The rate setting process is typically done at the macro level aimed at estimating the overall revenue needs and designing an apportionment structure that meets four basic criteria as illustrated in Figure 2:

- Fairness – Articles XIII C and D of the California Constitution require a reasonable degree of proportionality for rates versus service or benefits.
- Availability of Data – Underlying data must be readily available.
- Easy to Understand – this applies to both the rate payers as well as the administering agency and its staff.
- Ease of administration – Once a new fee or rate is established, it should be relatively easy to administer in future years.

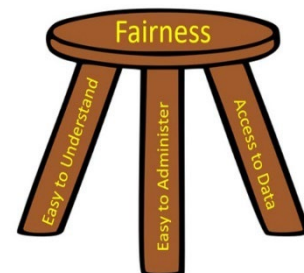


Figure 1 - Rate setting criteria

When working with datasets at the macro level it is common for parcel-scale imperfections to go undetected, although a considerable amount of vetting was done for the three GSA rate models. An example of this is where an assessor’s use code (used to estimate rural residential and commercial water use) may not be correct or up-to-date. It is expected that the first year or two of

a new fee would require parcel-scale corrections based on property owner feedback or other input. The primary goal is to properly vet the datasets in a systematic sense to ensure the imperfections are not widespread. The GSAs anticipated these corrections and established the GUIDE survey and digital map to receive corrections.

However, early in the roll-out process some critical property owner feedback indicated that several systematic flaws were present in the underlying data sets. These are discussed below.

Recycled Water Deliveries

The first dataset challenged was the estimates of recycled water (“RW”) deliveries. As shown in Figure 1, any water received from a RW facility or through surface water allocations would be deducted from a parcel’s agricultural or turf water demand. For instance, for a vineyard with a 30 acre-feet (“AF”) demand that received 20 AF of RW, the parcel would be charged based on a net groundwater extraction of 10 AF. Several complaints arrived that our data wasn’t accurate for RW.

After a review of our underlying dataset, it was discovered that the rate studies relied on RW data developed for the 2019 rate studies, which was a one-year snapshot of RW deliveries from 2017. Initial inquiries with the City of Santa Rosa found that more current data was, in some cases, very different from the 2017 data.

As a result, the rate team contacted all purveyors of RW for the Santa Rosa Plain and Sonoma Valley basins¹ asking for the most recent eight years of data at the parcel level. Further, it was agreed that the amount of the RW offset would be calculated as the five-year average for each parcel (or groups of parcels) to minimize annual fluctuations in the fees charged, and to align with the average used for PWS usage. In all, updated data was received from the City of Santa Rosa Laguna Water Quality Control Plant, Town of Windsor, City of Rohnert Park, Sonoma Valley County Sanitation District, and the Airport/Larkfield/Wikiup Sanitation Zone.

There were several challenges associated with RW:

- Often a single RW account applied to more than one contiguous property. Since the crop or turf water demand was calculated for each parcel, the task of allocating the RW to the individual parcels needed to be done manually. For this process, RW was allocated in such a way that as much groundwater demand as possible was offset by the total RW amount of each account, across multiple parcels.
- Data provided by the RW purveyors was often linked to addresses instead of parcel numbers, which required research to make that linkage.
- Working with multiple years’ data (2013 to 2020) found that many parcels had new parcel numbers assigned (due to lot mergers, splits, and adjustments) requiring manual research.
- By using a five-calendar-year average, our RW credit did not always match a property owner’s recent RW purchases. To maintain consistency, the GSAs held to the five-year average.
- In a few cases, surface water deliveries, which, when added to the RW deliveries, further offset the crop or turf water demand, had to be allocated to a batch of individual parcels. This, too, needed to be reviewed manually

¹ The Petaluma Valley data had been updated during the 2022 rate-setting process, so was not revisited.

Once the correct RW amounts for all affected parcels were determined, this data was processed through the GUIDE code. This was done to ensure that all changes made in SCI's database were reflected in the GUIDE database. The resulting data file included updated charges for each parcel that saw a change to its RW allocation.

At the conclusion of this analysis, approximately 290 parcels were re-evaluated from the five agencies. Of those, approximately 150 parcels required an adjustment of the overall fee due to a change in the RW amount.

Public Water System Boundaries

As seen in Figure 1, the first criterium for categorizing properties is whether the parcel is within the service area of a public water system ("PWS"). The primary assumption is that if a property is within a PWS, then its main source of water is that PWS. If a property is outside a PWS, then its primary source of water is groundwater. The dataset of PWS connections came from the various potable water purveyors in the basins.

While this data set was mainly accurate, the rate setting team became aware that some selected neighborhoods had been omitted from these data sources. Further clarification was sought from various public water systems, and the data sets were updated.

Another variation on this issue was that several small PWSs within the service area of the City of Santa Rosa Water Department were being charged as both a PWS and a parcel within the City's PWS. Again, this was corrected.

This analysis affected approximately 316 parcels. In most cases the fee was eliminated.

Turf Estimates

The final systematic revisions were for the turf water demand estimates. The approach to turf water demand was revised late in the rate setting process to more accurately capture the large turf areas such as golf courses, school play fields, greenbelt areas, and parks that might be irrigated with groundwater. The assumption was set for two conditions as illustrated in Figure 1:

- In urban areas, any turf area greater than 0.5 acres was assumed to be irrigated with groundwater.
- In rural areas, any turf area greater than 0.2 acres was assumed to be irrigated with groundwater.

The source data for turf areas came from the Department of Water Resources ("DWR") land use mapping completed in 2012. Parcels known to have no extraction facilities present were manually eliminated and no fee charged for turf irrigation.

Feedback from many property owners indicated that the areas identified by DWR as turf were not irrigated, which was confirmed in many instances from aerial photography. Given this feedback, all of the 461 parcels being charged for turf areas were audited using aerial imagery with the following results:

- 127 were validated as accurate and not changed.
- 334 were adjusted to a zero water demand for turf.

Part 3 – Groundwater User Submitted Corrections

As noted above, the GSAs received input from property owners through GUIDE surveys and other appeals. To date, 337 GUIDE surveys have been submitted. Of the submitted surveys, fee corrections have been identified on 243 parcels, non-fee corrections have been identified on 43 parcels, and 51 parcels are still undergoing review. Corrections made from GUIDE survey review have ranged broadly and include updates to a parcel's Assessor Use Codes, presence or absence of wells on parcels, crop acreage and type, surface water allocations, connection to PWS, and boundary status, among others. In addition, the GUIDE survey process was helpful in identifying the systematic corrections that are described above.

Thus far, the GSAs have yet to receive any informal or formal appeals, as the first step to an appeal is to complete a GUIDE survey. If staff review determines that a fee correction is not warranted after reviewing a GUIDE survey, a property owner has the ability to complete an appeals form to begin the informal appeals process, as described in the Rate Resolution. Within 30 days of receiving an appeal, the Administrator will meet with the appellant to discuss the basis of the appeal. A determination shall be made no later than 15 days following the meeting. The Administrator's decision can be disputed by filing a formal appeal to the GSA's Board of Directors within 15 days of the delivery of the determination, as described in the Fee Ordinance.

Part 4 – Implementation of Corrected Fees

As these systematic and other changes were made to the fees charged, the GSAs elected to work through the established billing methods (property tax bills, and manual bills). The vast majority of these corrections were implemented through the tax bill system, where the County would accept revised data and issue revised tax bills.

Tax Bill Corrections

In anticipation of revised tax bills, the GSAs mailed letters to property owners that were to receive them alerting them to the process and timeline. These were mailed in October 2022.

On November 4, 2022 the GSAs forwarded a list to the County of 678 parcels requiring corrections based on the systematic corrections discussed above. However, the County's tax billing process was entering a time frame where the first tax bill installments were arriving and the staff resources were not available to process our requested revisions. The GSAs were informed that the corrections would not be processed prior to early January 2023.

In the meantime, additional systematic corrections came to light as well as additional GUIDE survey corrections. In correspondence with the County, it was decided to edit our original submittal to add a new batch of corrections to the original corrections. Those new data files were submitted to the County on December 23, 2022. Revised tax bills were mailed in early January 2023.

The revised tax bill mailing did not occur prior to the first installment due for tax bills. Therefore, the processing required the County to account for any payments made prior to issuing a revision. For taxpayers who paid their taxes in full and were due a reduction in the fee, refunds were made by the County. For taxpayers who had paid the first installment, the correction was applied to the second installment, and for taxpayers who had not paid the first installment, the due date was extended to mid-February.

Manually Billed Corrections

For corrections to manually billed entities, revised invoices were mailed as the corrections were made. These totaled 90 revised invoices covering approximately 183 parcels that included both the systematic corrections and corrections made through GUIDE survey review.

Updating the GUIDE Data

The rate setting team has set a goal of updating the GUIDE data concurrently with the revised tax bills. That process is still underway. As additional corrections are made, the GUIDE data will continue to be updated.

Part 5 – Financial Impacts

The vast majority of corrections involved a reduction of fees – although a few involved a fee increase. Table 1 is a summary of the financial impacts for the three GSAs.

Table 1 – Summary of Revenue Impacts

	<u>Parcels</u>	<u>Revenue Decreases</u>	<u>Revenue Increases</u>	<u>Net Revenue Impact</u>	<u>Appeal Allowance</u>	<u>Budget Impact</u>
SRP	450	\$ (76,427)	\$ 26,094	\$ (50,333)	\$ (25,453)	\$ (24,880)
SV	363	\$ (32,455)	\$ 6,542	\$ (25,913)	\$ (14,573)	\$ (11,340)
PV	37	\$ (17,174)	\$ -	\$ (17,174)	\$ (12,419)	\$ (4,754)
TOTAL	850	<u>\$ (126,056)</u>	<u>\$ 32,636</u>	<u>\$ (93,420)</u>	<u>\$ (52,445)</u>	<u>\$ (40,974)</u>

The budget impact shown in Table 1 is the difference between the Net Revenue Impact and the Appeal Allowance factored into the rate studies. For each basin the Net Revenue Impacts exceed the Appeal Allowances creating a negative budget impact for each basin. Furthermore, there are still GUIDE surveys under review, which may further impact revenues.

Table 2 shows the extent to which the three types of systematic corrections affected the Net Revenue Impacts. It also shows the amounts for the Miscellaneous and GUIDE corrections, which are well within the Appeal Allowances. However, it is worth noting that a portion of the three types of systematic corrections were anticipated when designing the Appeal Allowance for each basin, so there is some blurring of the lines. Additionally, the Miscellaneous and GUIDE correction for Santa Rosa Plain is a positive number. This is primarily the result of the City of Santa Rosa sharing that several park parcels irrigated with groundwater were not initially charged. These parcels alone added revenue of approximately \$21,000. Another item of note is that the revenue from the Canon Manor Water System was allocated to Petaluma Valley instead of Santa Rosa Plain. That amount (\$3,118) became an addition to Santa Rosa Plain and deduction to Petaluma Valley.

Table 2 - Summary of Systematic and Miscellaneous Corrections

	Recycled Water	Public Systems	Turf	Total Systematic	Misc & G.U.I.D.E.	Net Revenue Impact
SRP	\$ (32,649)	\$ (2,100)	\$ (22,462)	\$ (57,211)	\$ 6,878	\$ (50,333)
SV	\$ (4,391)	\$ (5,645)	\$ (9,740)	\$ (19,776)	\$ (6,137)	\$ (25,913)
PV	\$ -	\$ -	\$ (8,558)	\$ (8,558)	\$ (8,616)	\$ (17,174)
TOTAL	\$ (37,040)	\$ (7,745)	\$ (40,760)	\$ (85,545)	\$ (7,874)	\$ (93,420)