

PIXLEY IRRIGATION DISTRICT
PROPOSITION 218
FEE STUDY
FOR
SGMA IMPLEMENTATION ACTIONS

MARCH 2025

Prepared for:

Pixley Irrigation District

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TABLE OF CONTENTS

REPORT SUMMARY 1

1. LEGISLATIVE REQUIREMENTS 3

 1.1. SGMA Legislation 3

 1.2. District Compliance Activities and GSP Development..... 3

 1.3. Fee and Charge Adoption Process 4

 1.3.1. Procedural Requirements 4

 1.3.2. Substantive Requirements..... 5

 1.4. Legal Review..... 5

2. COST OF SERVICE AND RATE DESIGN..... 7

 2.1. Cost of Service..... 7

 2.2. Rate Design 7

 2.2.1. Methodology 7

 2.2.2. Transitional and Exceedance Fees 8

 2.2.3. Fee Calculation..... 8

3. IMPLEMENTATION PROCEDURES 14

4. REFERENCES..... 15

LIST OF FIGURES

Figure 1. District Location Map 6

LIST OF TABLES

Table 2-1. Groundwater Sustainability and Extraction Annual Costs. 7

Table 2-2. Fee Estimate Calculation. 9

Table 2-3. District SGMA Implementation Costs (2019-2023)..... 9

Table 2-4. District SGMA Implementation Costs (2025-2029)..... 10

Table 2-5. Five-Year Average Water Cost..... 11

Table 2-6. Transitional Fee Calculation 12

Table 2-7. Five-Year Highest Water Cost..... 12

Table 2-8. Exceedance Fee Calculation..... 13

ACRONYMS and ABBREVIATIONS

AF.....Acre-Feet
Art. XIII D..... California Constitution Article XIII D
CASGEM..... California Statewide Groundwater Elevation Monitoring
District Pixley Irrigation District
FKC..... Friant-Kern Canal
GSA.....Groundwater Sustainability Agency
GSP..... Groundwater Sustainability Plan
GW.....Groundwater
ITRC..... Irrigation Training and Research Center
PIXID..... Pixley Irrigation District
SGMA..... Sustainable Groundwater Management Act
Subbasin Tule Subbasin
SW Surface Water
SWRCB..... State Water Resources Control Board

REPORT SUMMARY

The Sustainable Groundwater Management Act (SGMA) became law in September 2014. Pixley Irrigation District (District) is a Groundwater Sustainability Agency (GSA) under SGMA. SGMA requires GSAs in high and medium priority basins to adopt and implement Groundwater Sustainability Plans (GSPs) to achieve groundwater sustainability by 2040.

The District serves as the GSA for the lands within its boundaries, which overlies a portion of the Tule Subbasin. The District worked cooperatively with stakeholders to develop and implement a GSP for its lands. The GSP was not approved by the California Department of Water Resources and, pursuant to SGMA, the State Water Resources Control Board placed the entire Tule Subbasin on probationary status. The District is collaborating with other GSAs within the Tule Subbasin to move out of the probationary designation to attain groundwater sustainability.

The District proposes to charge each groundwater extractor a groundwater extraction fee to cover the costs of GSA administration, SGMA GSP implementation, SGMA projects and management actions required by the GSP, and required mitigation of undesirable results required by SGMA including well mitigation and the Friant-Kern Canal Capacity Correction (FKC Fix) debt repayment. The District is proposing a **three-tier groundwater extraction fee**:

Base Fee: \$1.93/AF Maximum

Transitional: \$187.20/AF Maximum

Exceedance: \$824.71/AF Maximum

The three tiers consider the duration of the activity for which they will fund. For instance, the base fee will cover long-term implementation costs, whereas the transitional fee will cover mitigation costs as the region transitions to sustainability. These fees also reflect the goal to assist landowners with the transition to sustainability by the year 2040 by having groundwater use and extraction above basin wide safe yield phased down based on periodic reviews of progress.

The actual extraction fees will be set annually by the Board, based on budget needs, but will not exceed the proposed maximum rates. Although the fees are based on projections through 2029, the fee will continue beyond 2029 to fund future sustainability-related capital projects. However, in 2030, it is expected that a re-evaluation of fee rates would occur as a result of updated transitional water parameters and other associated factors.

The proposed fee is being proposed as an extraction fee under SGMA (Water Code Section 10730.2) and as such the provisions of Sections 6(a) and (b) of Article XIII D of the California Constitution (Art. XIII D) apply. The proposed fee was calculated based on the District's anticipated five-year average cost of SGMA implementation, which also

includes other costs such as a well mitigation fee, an annual repayment cost for the repair of the FKC, and land fallowing and water purchase program costs. The fee is directly correlated to the lands which use groundwater and in proportion to the use of groundwater.

The Board will conduct a public hearing for the proposed fee on May 8, 2025. Hearing notices will be mailed to all affected landowners at least 45 days in advance of the hearing date. Property owners may submit written protests to the proposed fee prior to the hearing. If a majority of property owners submit written protests, the District may not adopt the fee. Absent a majority protest, the District is authorized to adopt the proposed fee at its public adoption hearing on May 8, 2025.

1. LEGISLATIVE REQUIREMENTS

1.1. SGMA Legislation

The Sustainable Groundwater Management Act (SGMA) was passed by California Legislature in 2014. The Act requires that subbasins defined by the Department of Water Resources (DWR) Bulletin 118 that are deemed in critical overdraft by the California Statewide Groundwater Elevation Monitoring Program (CASGEM) be sustainable by 2040. Sustainability is defined as not creating undesirable results in the following categories:

- Lowering Groundwater Levels
- Reducing Groundwater Storage
- Seawater Intrusion
- Degrading Water Quality
- Land Subsidence
- Depleting Interconnected Surface Water

To comply with SGMA, local agencies were required to form Groundwater Sustainability Agencies (GSA) by June 30, 2017. These GSAs were tasked with preparing Groundwater Sustainability Plans (GSP) by January 31, 2020 (in Critically Overdrafted subbasin). The GSPs will develop a course of action to become sustainable by 2040. The GSAs will have the ongoing responsibility to monitor the subbasin for compliance and develop Annual Reports and Five-Year Interim Updates. The State Water Resources Control Board (SWRCB) will intervene if the GSAs do not comply with SGMA, to ensure the subbasins are sustainable.

1.2. District Compliance Activities and GSP Development

The Pixley Irrigation District (District) serves as the GSA for the lands within its boundaries (as well as the communities of Pixley and Teviston), which overlie the Tule Subbasin (Subbasin). The District has worked cooperatively with stakeholders and other GSAs in the Subbasin to develop and implement a GSP for its lands to attain groundwater sustainability.

The District is located in Tulare County and encompasses more than 69,500 acres, of which 58,498 acres are irrigated ([FIGURE 1](#)). Land use within the District is predominantly characterized by agricultural activities, with row crops making up the majority of crops and which support the local dairy industry. The unincorporated communities of Pixley and Teviston lie within the District's boundary but are, for the most part, excluded from the District. Also, an Angiola Water District 773-acre island is located in the northwesterly portion of PIXID, but not a part of the District.

The District imports as much surface water as possible to offset the use of groundwater for irrigation purposes and to replenish the aquifer through direct recharge via sinking basins, river channels and unlined canals. The lack of access to a reliable surface water supply for Pixley means that providing water to landowners through both direct and in-lieu recharge in wetter years becomes a method for stabilizing access to water for the landowners of the District.

The District does not have any groundwater extraction wells; therefore, each landowner must rely on domestic wells to sustain irrigation during periods when the District does not have surface water available. In wetter years, the District operates its groundwater recharge/regulating reservoirs and distribution system to recharge the groundwater reservoir.

1.3. Fee and Charge Adoption Process

GSA's such as Pixley GSA, which are formed by existing Irrigation Districts, have various authorities that support the adoption of fees, charges and assessments. Charges similar to those considered for this study have previously been adopted under general authorities available to Irrigation Districts; existing fee and charge authorities are specifically and generally acknowledged under SGMA as being available to GSA's formed by existing agencies, such as Irrigation Districts.

However, in addition to those general authorities to existing entities, SGMA (Water Code Section 10730.2) specifically authorizes a GSA to impose fees on the extraction of groundwater to fund costs of groundwater management, including but not limited to (a) the acquisition of lands or other property, facilities, and services, and (b) supply, production, treatment, or distribution of water. With this study, the GSA has elected to utilize this specific authority for future fees. Water Code Section 17030.2 specifies that fees adopted under its authority must comply with Sections 6(a) and (b) of Art. XIII D in adopting such fees. Because the District is now elected to use this authority, adoption of this fee will now follow that procedure.

1.3.1. Procedural Requirements

Section 6(a) of Art. XIII D requires:

- **Noticing Requirement** - The District must mail a notice of the proposed fee to all affected property owners or ratepayers. The notice must specify the amount of the fee, the basis upon which it was calculated, the reason for the fee, and the date/time/location of a public rate hearing at which the proposed fees will be considered/adopted.
- **Public Hearing** – The District must hold a public hearing prior to adopting the proposed fee. The public hearing must be held not less than 45 days after the required notices are mailed.

- **Rate Increases Subject to Majority Protest** - At the public hearing, the proposed rate increases are subject to majority protest. If more than 50% of affected property owners or ratepayers submit written protests against the proposed rate increases, the fees cannot be adopted.

1.3.2. Substantive Requirements

Section 6(b) of Art XIII D requires:

- **Cost of Service** - Revenues derived from the fee or charge cannot exceed the funds required to provide the service. In essence, fees cannot exceed the "cost of service".
- **Intended Purpose** - Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
- **Proportional Cost Recovery** - The amount of the fee or charge levied on a landowner shall not exceed the proportional cost of service attributable to that landowner.
- **Availability of Service** - No fee or charge may be imposed for a service unless that service is used by, or immediately available to, the owner of the property.

Charges for water services, such as the proposed property-related fee, are exempt from additional voting requirements of Proposition 218, provided the charges do not exceed the cost of providing service and are adopted pursuant to procedural requirements of Proposition 218.

1.4. Legal Review

As noted under section 1.3, fees similar to the one considered in this report to date have been adopted under general authorities of Irrigation Districts. The District has determined to proceed for this and future fees under the specific authority of SGMA (Water Code Section 10730.2.). The District's legal counsel has reviewed the fee described in this report and has determined that the fee, if adopted by the GSA Board, is authorized as an extraction fee under SGMA (Water Code Section 10730.2) and that the District will comply with Sections 6(a) and (b) of Art. XIII D in adopting the fee. As described in this report, the fees are calculated from the anticipated costs for the District to implement SGMA and cover groundwater extraction and sustainability projects. Such costs include GSA administration, well mitigation, associated project costs like the Friant-Kern Canal Capacity Correction (FKC Fix) debt repayment and land fallowing and water purchase program, and exceedance penalties. The fees are based on projections through 2029.

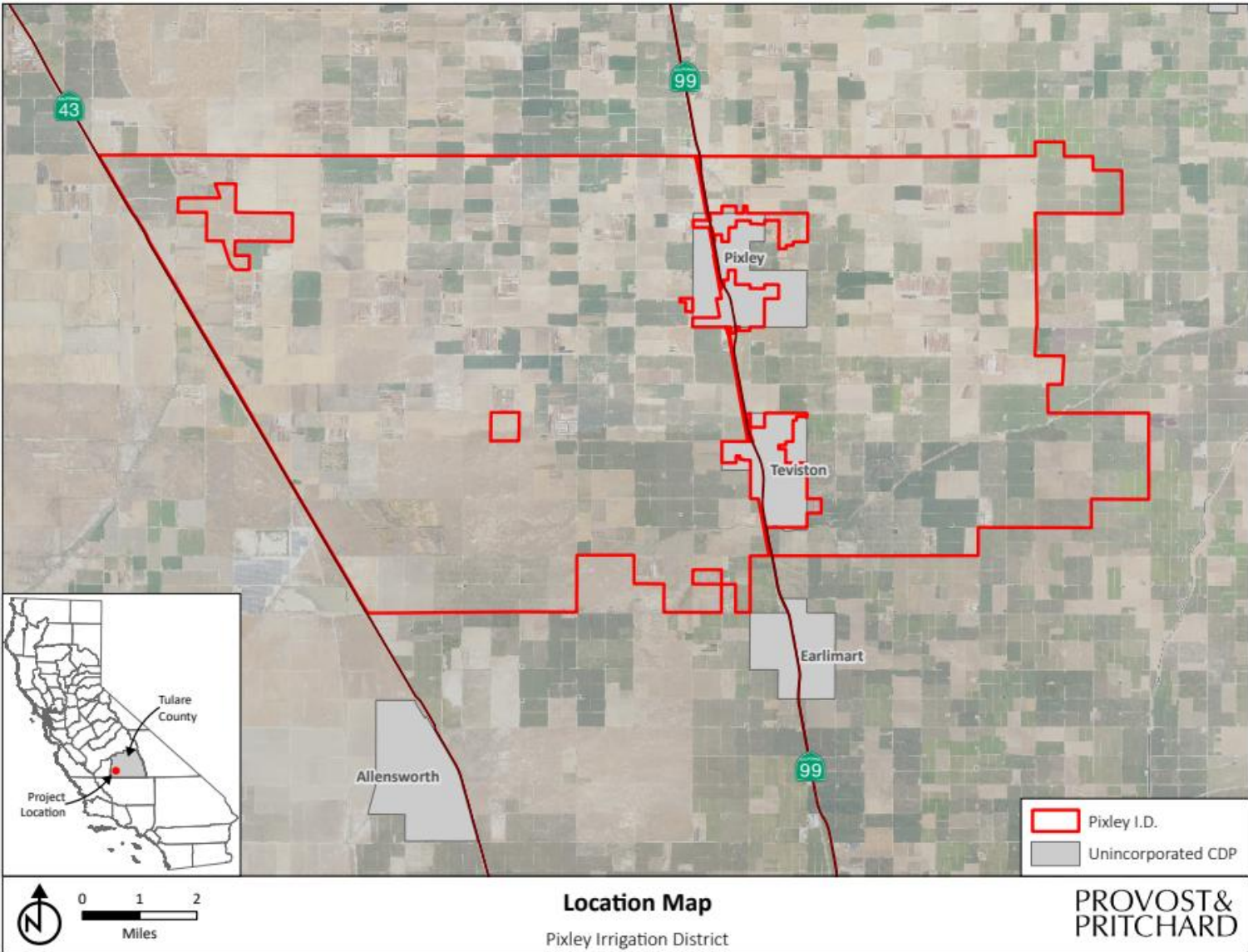


Figure 1. District Location Map

2. COST OF SERVICE AND RATE DESIGN

2.1. Cost of Service

The cost of service for the fees recommended in this study are based on the District's anticipated five-year average cost of SGMA implementation, which also includes other costs such as a well mitigation fee, an annual loan repayment cost for the capacity correction of the FKC, and land fallowing and water purchase program costs. Annual expenses associated with groundwater extraction are estimated at approximately \$4.52 million (see [TABLE 2-1](#)). This study identifies the maximum rate that could be expected and, in compliance with Proposition 218, allows the District's Board to set rates lower than identified here should outside funding become available.

Table 2-1. Groundwater Sustainability and Extraction Annual Costs.

Costs	2025-2029 (Annual)
SGMA Implementation	\$242,524
Well Mitigation Fee	\$879,998
Annual FKC Fix Debt Service (Loan Ends in 2031)	\$649,522
Land Fallowing & Water Purchase Programs	\$2,750,000
Total Annual Costs	\$4,522,044

2.2. Rate Design

2.2.1. Methodology

Fees adopted under the authority of SGMA (Water Code section 10730.2) must be shown to be proportional to the cost of service attributable to the "customers" of the service and be based upon the benefit received. There are many methods to achieve proportionality in structuring rates such as: per-acre fees, rates charged per acre-foot of actual groundwater pumped (i.e. extraction fees), annual charges based on well capacity, etc.

In developing proposed fees, the District considers how it incurs costs and the availability of customer data (such as land ownership, use, groundwater use, and existing funding and projections of SGMA compliance costs). The costs include SGMA implementation, well mitigation, FKC Fix loan repayment, land fallowing and water purchase programs, and exceedance penalties. The District finds extraction fees to appropriately and proportionally distribute these costs.

The fee is proposed to be applied to groundwater consumption as determined on a net basis, meaning that groundwater extracted but returned to the groundwater basin through over-irrigation are not included in net groundwater consumption calculations. The GSA has determined to utilize this approach because groundwater that is returned to the subbasin remains available for eventual use, and assists in the maintenance of overall groundwater levels and avoidance of undesirable results. The impacts sought to be offset from funds collected through fees are mostly if not entirely intended to relate to negative impacts of lowering groundwater levels and reduction of overall groundwater storage that

is caused by ongoing overdraft within the GSA's portion of the subbasin, both of which are not negatively affected by return flows. Therefore, measuring overdraft via the net consumption method is the most directly-proportionate means to relate fees to costs and benefits.

If the GSA were to establish a different purpose and benefit for a proposed fee, such as for example to offset the impacts of subsidence, such a purpose would likely be required to be served through relation to another measurement, such as gross groundwater production from specific confined areas of the groundwater aquifer. This is not the purpose of the subject proposed fee, so these alternative measurement bases are not necessary to consider.

2.2.2. Transitional and Exceedance Fees

There exists a phased approach to the availability of groundwater for transitional water. The GSP provided for levels of groundwater consumption (on a net basis) that are higher during the initial phases and decreases over time to reach sustainable consumption levels (on a net basis) (as required by SGMA) by 2040.

Transitional water is available based on the following sequencing: (1) precipitation yield; (2) sustainable yield credits; (3) District allocated groundwater credits; (4) transitional groundwater credits; and (5) landowner developed groundwater credits. For the exceedance fee, exceedance can be defined as the consumption of groundwater beyond the allowable limit. The exceedance tier is to be established annually by the GSA as a fair representation of the cost to mitigate the damage to the GSA and the lands served by the GSA due to the contribution toward undesirable results, as defined in SGMA.

The base fee will cover long-term implementation costs, whereas the transitional fee will cover mitigation costs as the region transitions to sustainability. These fees are also a result of the District's aims to assist landowners with the transition to implementation of SGMA by having groundwater use and extraction above basin wide safe yield phased based on periodic reviews of the GSP per the guidelines of SGMA.

2.2.3. Fee Calculation

The District's review of average SGMA implementation costs over the past five years (2019 through 2023), transitional allocations and the number of domestic wells within the District boundary, existing FKC Fix loan balance, and anticipated land fallowing and water purchase program projects directly informed the groundwater extraction fee calculation. The total proposed annual fee per AF for the Base Fee, Transitional Fee, and Exceedance Fee is laid out in the table below and explained thereafter.

Table 2-2. Fee Estimate Calculation.

Annual Fees (2025-2029)	Base Fee	Transitional Fee	Exceedance Fee
SGMA Implementation	\$1.93	\$1.93	\$1.93
Well Mitigation Fee		\$20.06	\$20.06
FKC Fix Debt Service Loan		\$14.80	\$14.80
Land Fallowing & Water Purchase		\$62.68	\$62.68
Five-Year Average Cost of Water		\$87.72	
District Highest Cost Water			\$725.24
Total Annual Fee (per AF)	\$1.93	\$187.20	\$824.71

The maximums of \$1.93/AF for the Base Fee, \$187.20/AF for the Transitional Fee, and \$824.71/AF for the Exceedance Fee will remain in perpetuity. The Board may not raise the fees beyond the aforementioned rates without another Proposition 218 election.

Base Fee

In order to calculate the Base Fee, the five-year average expenses for SGMA implementation from 2019 through 2023 were calculated. These costs include applicable legal fees and consulting fees. Moving forward, it is anticipated that the District would also rely on internal staff to perform administrative duties directly related to SGMA implementation. Taking the five-year average with an estimated \$40,000 District staff costs¹, SGMA implementation was found to be \$242,524.

Table 2-3. District SGMA Implementation Costs (2019-2023)

District's Five-Year SGMA Implementation Costs						
	2019	2020	2021	2022	2023	2019-2023 Average
Annual Costs	\$237,235	\$227,526	\$142,513	\$256,081	\$658,289	
Subtraction of Land Fallowing Payments	-	-	-	(\$75,000)	(\$442,184)	
Total	\$237,235	\$227,526	\$142,513	\$181,081	\$216,105	\$200,892

¹ The \$40,000 estimate was calculated by conservatively assuming 40 hours per month, or 480 hours annually, would be spent by District staff for administrative duties related to SGMA implementation. With the conservative estimate of \$84 per hour after salary, benefits, and overhead, the cost came out to \$40,320. The District then rounded down for the estimate.

Table 2-4. District SGMA Implementation Costs (2025-2029)

District's Five-Year SGMA Implementation Costs						
	2025	2026	2027	2028	2029	2025-2029 Average
2019-2023 Average	\$200,892	\$200,892	\$200,892	\$200,892	\$200,892	
District Staff Costs ²	\$40,000	\$40,800	\$41,616	\$42,448.32	\$43,297.29	
Total	\$240,892	\$241,692	\$242,508	\$243,340	\$244,189	\$242,524

The \$242,524 was then divided by the total AF/acre of groundwater allocations within the District (sustainable yield + precipitation + District allocations + transitional allocation) and multiplied by the total irrigated acreage with the District.

Sustainable yield + precipitation + District allocations = **1.4 AF** (based on 2024, the most recent data available)

1.4 AF + 0.75 AF (transitional allocation for years 2025-2029) = **2.15 AF**

2.15 AF * 58,498 irrigated acres = 125,771

\$242,524 (average cost of SGMA implementation) / **125,771 = \$1.93 Base Fee**

Transitional Fee

The Transitional Fee comprises the SGMA implementation fee of \$1.93 as well as a well mitigation fee, loan repayment for the FKC Fix, a portion of projected land fallowing and water purchase programs, and a fee related to the five-year average cost of water, all of which is equal to **\$187.20/AF transitional fee**. These additional cost elements are described below.

- **Well Mitigation Fee:** The well mitigation fee is based on the 44 domestic wells and an estimated \$100,000 mitigation per well on average. Mitigation could involve replacement wells, lowering pumps, and/or deepening of wells. The \$4.4 million cost (44 * \$100,000) is divided by the total transitional AF allocations from 2025-2029, a total of 219,368. Since the highest potential for all 44 wells requiring mitigation, the potential costs are spread across the initial 5-year transitional period to help the District meet the potential mitigation costs.

$$\$4,400,000 / 219,368 = \$20.06$$

² District staff costs are multiplied by an inflationary 2% consumer price index.

- **FKC Fix Loan Repayment:** The District is presently repaying the loan it received for the FKC Fix project. The loan concludes in 2031, and the repayment fee included in this study uses the annual loan payment of \$649,522. This number is then divided by 0.75 (in line with the current transitional allocation of 0.75 AF/acre per year) of the District’s total irrigated acres (58,498 * 0.75 = 43,874).

$$\boxed{\$649,522 / 43,874 = \$14.80}$$

- **Land Fallowing and Water Purchase Program:** Land fallowing and water purchase program costs are associated with the agricultural land retirement projects as discussed in Section 5.2.4 of the PIXID GSP.³ Land fallowing and water purchases are beneficial to offset the overdraft and subsidence occurring within the Subbasin and assists in offsetting groundwater pumping by reducing the consumptive demands. Associated costs are projected to be approximately \$2.75 million. This number is then divided by 0.75 (in line with the current transitional allocation of 0.75 AF/acre per year) of the District’s total irrigated acres.

$$\boxed{\$2,750,000 / 43,874 = \$62.68}$$

- **Five-Year Average Cost of Water:** The District’s five-year average cost of water from 2019-2023 is \$75.60. After an annual inflationary increase of 5% over the next five years, the average cost over those five years is **\$87.72**.

Table 2-5. Five-Year Average Water Cost

District’s Five-Year Average Water Cost						
	2025	2026	2027	2028	2029	Average (2025-2029)
Five-Year Average Water Cost (5% inflationary increase)	\$79.38	\$83.35	\$87.52	\$91.89	\$96.49	\$87.72

³ (Pixley Irrigation District Groundwater Sustainability Agency, 2024)

Table 2-6. Transitional Fee Calculation

Annual Fees (2025-2029)	Transitional Fee
SGMA Implementation	\$1.93
Well Mitigation Fee	\$20.06
FKC Fix Debt Service Loan	\$14.80
Land Fallowing & Water Purchase	\$62.68
Five-Year Average Cost of Water	\$87.72
Total Annual Fee (per AF)	\$187.20

Exceedance Fee

The Exceedance Fee comprises that of the Transitional Fee, except that instead of a fee for the five-year average cost of water, the Exceedance Fee charges are proposed to be based on a predicted highest cost of water. The rationale for using a highest cost of water calculation is that the exceedance tier represents groundwater overextraction beyond what the GSA has determined it is capable of mitigating for through its typically-available water supplies and other mitigation measures, to avoid undesirable results; in order to avoid undesirable results from this level of overuse, the GSA would need to replace each acre foot of exceedance water with a like amount of new water supplies, in addition to its normal water supply. The normal water supply costs, represented by the average, would not be sufficient to pay for supplies beyond this normal amount. Using the District's highest cost would be more likely to provide the funds needed to secure water supplies beyond what is normally available to the District. The District's current highest water cost is \$625 per AF, under a long-term banked water purchase agreement. This rate is then increased annually by a 5% inflation rate (as shown in [TABLE 2-7](#)). Like that of the average water cost for the transitional fee, the highest water cost includes the average of those anticipated costs from 2025-2029 to calculate the fee. After substituting the highest water cost for the five-year average water cost, the total is a **\$824.71/AF exceedance fee**.

Table 2-7. Five-Year Highest Water Cost

District's Five-Year Highest Water Cost						
	2025	2026	2027	2028	2029	Average (2025-2029)
Five-Year Average Water Cost (5% inflationary increase)	\$656.25	\$689.06	\$723.52	\$759.69	\$797.68	\$725.24

Table 2-8. Exceedance Fee Calculation

Annual Fees (2025-2029)	Exceedance Fee
SGMA Implementation	\$1.93
Well Mitigation Fee	\$20.06
FKC Fix Debt Service Loan	\$14.80
Land Fallowing & Water Purchase	\$62.68
District Highest Cost Water	\$725.24
Total Annual Fee (per AF)	\$824.71

3. IMPLEMENTATION PROCEDURES

The Board will conduct a public hearing for the proposed fee on May 8, 2025. Hearing notices will be mailed to all affected landowners at least 45 days in advance of the hearing date. Property owners may submit written protests to the proposed fee prior to the hearing. If a majority of property owners submit written protests, the District may not adopt the fee. Absent a majority protest, the District is authorized to adopt the proposed fee at its public adoption hearing on May 8, 2025.

4. REFERENCES

Pixley Irrigation District GSA Groundwater Sustainability Plan, July 2024. 4Creeks.

Proposition 218, Local District Guidelines for Compliance, 2007 Update (May 2007) Association of California Water Agencies

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California Department of Water Resources, Groundwater Information Center Interactive Map Application,
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