



COST OF SERVICE STUDY FOR BUTTE WATER DISTRICT

**TO COMPLY WITH PROPOSITION 218 REQUIREMENTS FOR
RATE INCREASES**

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ABBREVIATIONS and ACRONYMS

AF.....Acre-feet
BWD..... Butte Water District
District Butte Water District
GSA.....Groundwater Sustainability Agency
Joint Board Joint Water Districts Board
Report Proposition 218 Engineer’s Report
Roll.....Assessment Roll
SBCC Sutter Butte Canal Company
SGMA Sustainable Groundwater Management Act

REPORT SUMMARY

Butte Water District (BWD or District) is a public agency water district providing water and groundwater sustainability services to about 31,000 acres in Butte and Sutter Counties. The District holds senior pre-1914 water rights to over 130,000 acre feet (AF) of water from the Feather River which the District provides to users via a series of canals and other distribution facilities for the irrigation of rice, orchards, alfalfa, and other crops. The District also formed and serves as a Groundwater Sustainability Agency (GSA) for all of its acreage to ensure local control and management of groundwater resources under California's Sustainable Groundwater Management Act (SGMA).

Historically, the District levied water charges on a per acre and crop type basis as well as land-based assessments (also known as "standby charges") on a per acre basis to recover the District's expenses. However, these revenue sources are inadequate to cover the District's total expenses. Non-operating revenues, District reserves, and outside surplus water sales (when available) have been used to make up any financial shortfall. Existing water sales and standby assessment revenues for BWD are approximately \$513,000 annually, while the operating costs reach \$1.6 million per year. This Report analyzes and supports a proposed rate change in compliance with Proposition 218 to address this structural operating deficit.

Beginning in 2025, the District proposes to raise the current water rates to reflect the true cost of providing water service as well as implement a new groundwater management fee in order to recover the costs of complying with SGMA and in maintaining sustainable groundwater conditions within the District boundaries. The increased rate revenues would cover operating costs without relying on speculative surplus water transfers, allow the District to cash-fund necessary capital improvement projects, and maintain District reserves.

The rate increase proposal process is being conducted in accordance with provisions of Proposition 218 (Article XIII D, section 6, of the California Constitution) the fee authority set forth in SGMA, including Water Code section 10730.2, and Sections 53750 through 53753.5 of the California Government Code. These constitutional and statutory provisions implement Proposition 218, which established mandatory procedures that local agencies must follow in order to levy certain property related charges or fees.

This Cost of Service Study (Report) evaluates the District's cost of service and proportional costs to customers based on how they receive service. The rates recommended in this report do not exceed the proportional cost of the service attributable to each parcel. Following the acceptance of this Cost of Service Study by the Board of Directors, the District would officially begin the Proposition 218 process by mailing a notice to property owners and residents of affected parcels of the proposed rate increase. The District's Board of Directors would hold a public hearing to determine whether there is a majority protest against these rate increases and groundwater management fee implementation. Absent a majority protest, the Board of Directors may impose the rate increase and groundwater management fee as proposed up to the maximum amount identified on the notice.

This Proposition 218 process establishes the maximum amount the District may charge for services provided. The actual amount charged by the District in any year can be lower than the maximum shown on the Proposition 218 notice but will not exceed the rate proposed unless another Proposition 218 approval process is conducted. The District's Board of Directors will at least once annually consider the rates to impose for that year at an open and public meeting with opportunity for public input and feedback on that year's rates.¹

Under the current irrigation rate structure, the District charges varying rates based on whether customers receive water via gravity or a pump. Water users that operate privately owned pumps to utilize District water are currently charged at half of the gravity rates. Starting in 2025, the proposed irrigation rate structure would no longer charge different rates as this Report determines that the cost of service for the District to deliver water to each water user's turnout remains the same regardless of whether customers rely on gravity deliveries or a pump. Gravity users would pay the same as they have prior, while former pump users would have their rate increased to match that of gravity.

In 2026 and through 2029, water rates as well as the new groundwater management fees would increase by 17.5% annually in order to have revenues meet costs and assist with capital expenses equal to the cost of service for the District. By increasing at 17.5% annually, the District would impose the added costs gradually for customers rather than all at once. The District's current and proposed water delivery rates are provided in [Table 1](#), and the new groundwater management fees are provided in [Table 2](#). Both sets of charges are billed on a \$/acre basis. The groundwater management fees are proposed to be billed to all properties that have direct or indirect access to groundwater.

¹ According to the District's Rules and Regulations, Rule 11 states: "The rates of charges for the use of water, which may include a service charge and penalties and interest on delinquency and the time of payment of such charges may be fixed and determined annually by the Board of Directors prior to the fifteenth day of March each year."

Table 1: Current Water Delivery Charges vs Proposed

Current & Proposed Rates						
Category	Current Rate	2025	2026	2027	2028	2029
Orchard/Row Crops			17.50%	17.50%	17.50%	17.50%
Gravity	\$25.00	\$25.00	\$29.00	\$34.00	\$40.00	\$47.00
Pump/Sprinkler	\$12.50	\$25.00	\$29.00	\$34.00	\$40.00	\$47.00
Alfalfa						
Gravity	\$27.00	\$27.00	\$32.00	\$38.00	\$45.00	\$53.00
Pump	\$13.50	\$27.00	\$32.00	\$38.00	\$45.00	\$53.00
Pasture						
Gravity	\$30.00	\$30.00	\$35.00	\$41.00	\$48.00	\$56.00
Pump	\$15.00	\$30.00	\$35.00	\$41.00	\$48.00	\$56.00
Rice						
Gravity	\$36.00	\$36.00	\$42.00	\$49.00	\$58.00	\$68.00
Pump	\$18.00	\$36.00	\$42.00	\$49.00	\$58.00	\$68.00
Rice Decomp						
Gravity	\$12.00	\$12.00	\$14.00	\$16.00	\$19.00	\$22.00
Pump	\$6.00	\$12.00	\$14.00	\$16.00	\$19.00	\$22.00
Minimum Charge						
3 acres or less	\$80.00	\$80.00	\$94.00	\$110.00	\$129.00	\$152.00
Drought/Curtailment						
Rice	\$60.00	\$72.00	\$84.00	\$98.00	\$116.00	\$136.00
Winter						
Gravity	\$12.00	\$12.00	\$14.00	\$16.00	\$19.00	\$22.00
Drain	\$6.00	\$12.00	\$14.00	\$16.00	\$19.00	\$22.00

Table 2: Groundwater Management Fee

Groundwater Management Fee (\$/acre/year)				
2025	2026	2027	2028	2029
	17.50%	17.50%	17.50%	17.50%
\$12.78	\$15.01	\$17.64	\$20.73	\$24.36

1. PURPOSE OF THE REPORT

1.1. General

In November 1996, the California voters approved Proposition 218, the “Right to Vote on Taxes Act”, which added Article XIII D to the California Constitution. Proposition 218 imposes certain requirements relative to the imposition of any new or increased existing property-related fees and charges by local agencies, including water rates and fees for groundwater management. The District will adhere to the provisions of Proposition 218, which serve to fully inform the District’s landowners of the proposed rate change while simultaneously giving them a direct say in the matter.

1.2. Requirements of Proposition 218

The implementation of new or enhanced fees like those proposed in this Report are governed by the substantive and procedural requirements of Proposition 218, the “Right to Vote on Taxes Act” which is codified as Articles XIII C and XIII D of the California Constitution. Specifically, the District must follow the requirements of Proposition 218 in Article XIII D, section 6, SGMA including Water Code section 10730.2, and the Proposition 218 Omnibus Implementation Act (Government Code sections 53750-53758). The procedural aspects of these requirements include:

1. **Noticing Requirement** – The District must mail a notice of the proposed rate increases to all affected property owners and 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 rates and fee will be considered/adopted.
2. **Public Hearing** – The District must hold a public hearing prior to adopting the proposed rate increases and groundwater management fee. The public hearing must be held not less than 45 days after the required notices are mailed.
3. **Rate Increases and Groundwater Management Fee Subject to Majority Protest** – At the public hearing, the proposed rate increases and groundwater management fee are subject to majority protest. If more than 50% of affected property owners or ratepayers submit written protests against the proposed rate change, it cannot be adopted.

Proposition 218 also established substantive requirements that apply to fees and charges like those included in this Report, including:

1. **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”.
2. **Intended Purpose** – Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
3. **Proportional Cost Recovery** – The amount of the fee or charge levied on any customer shall not exceed the proportional cost of service attributable to that customer. This analysis may be done by customer class.

4. **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.
5. **General Government Services** – No fee or charge may be imposed for general governmental services available to the public at large, such as police or fire services.

1.3. Rate Study Process

Proposition 218 requires that local agency water purveyors set rates based on the actual cost of providing service and assign rates to customers based on how they take service. The following is a brief description of the rate study process:

- **Revenue Requirement** – Revenue requirements are analyzed via cash flow projections based on the best information currently available such as the District's historical operating results, budgets, audits, and capital project needs. The cash flow projection serves as a roadmap for funding future operating and maintenance costs, capital expenditures, and funding of prudent reserves to maintain long-term fiscal stability and operational capabilities.
- **Cost of Service Allocation** - The cost allocation process builds on the revenue requirement analysis and assigns water costs to functional cost components. The proposed water rates assign costs to gravity and pump customer classes and are proportional to the cost of service.
- **Rate Design** - Rate design involves developing a rate structure that fairly recovers costs from customers. Final rate recommendations are designed to fund the District's short- and long-term costs of providing service and fairly allocate costs to all customers.
- **Groundwater Management Fee Inclusion** – The rate design takes into account the addition of a groundwater management fee that would cover 25% of operating costs and is included in this Cost of Service Study pursuant to Proposition 218 and other laws. As such, the water rates will fund the remaining costs of providing service.

The rates developed in this Cost of Service Study are based on the best available information gathered from District budgets, audits, capital and reserve funding needs, and input from staff. The proposed rates comply with Proposition 218's requirements and are based on the reasonable cost of providing service proportional to the benefits received by each customer class.

1.4. Rate Study Goals and Proposed Rates

The District's last water rate increase was in 2006. The goal of this rate study is to update a rate plan to cover the District's cost of service for the next five years from 2025 through 2029. The District's financial strategy is to address the structural operating deficit by covering annual operating costs with rate revenues. Extraordinary expenses, such as capital improvements, would be funded with proceeds from surplus water transfers to entities outside the District. This reflects a change in historical practice as the District's annual operating losses were covered by District reserves and/or surplus water transfer revenues.

New groundwater management fees are incorporated into this study in order to recover costs incurred by the District under SGMA and to continue to function as a GSA and ensure local control of groundwater resources through sustainable management of groundwater resources within the District pursuant to the District's Groundwater Sustainability Plan (GSP). The District was able to form as a GSA because of its existence as a local public agency that "has water supply, water management, or land use responsibilities within a groundwater basin." (Water Code § 10721, subs. (j), (n).) In 2022, the District adopted GSPs for its areas within the Butte and Sutter Subbasins that will be overseen and implemented by the District over SGMA's 20-year planning horizon. All lands within the District are benefitted by these groundwater management services.

In recognition of these groundwater management services provided by the District, and pursuant to SGMA, this study proposes to recover 25% of the District's operating costs through a groundwater management fee. The groundwater management fee would be initially equal to 25% of 2025 operating costs and would be increased annually by the same percentage as that of the water delivery rates (17.5%) through 2029.

This study phases-in water rate increases over five years in order to recover the remaining operating costs. For the first three years, net operations are negative (expenses are greater than revenues) while revenues are steadily increasing. For these years, the District will continue to draw upon reserves and/or fund the deficit with water transfer revenues. In 2028 and 2029, net operations are positive such that revenues will fully fund operating costs and stabilize the reserve, which would serve to payback some of the deficit from the years prior and/or be used for capital expenses.

1.5. Proposed Water Rates

Currently, the District charges different rates for customers that, after District delivery at the farm gate, utilize gravity versus pump with the latter paying 50% of gravity rates on a per-acre basis. It is proposed that gravity and pump rates are charged on an equal level as the cost of water service for the District to deliver to the customer farmgate remains the same for the District regardless of how the customer utilizes the water after delivery at the farmgate. As such, gravity water rates would not be increased in 2025, but pump users would experience a 100% increase to bring the rates to be equivalent with existing gravity rates. The existing minimum charge (three acres or less) would remain \$80 for 2025. In 2026 through 2029, water rates, including the minimum charge, would increase by up to 17.5% annually. Landowners would be billed based on the annual application for water.

1.6. Proposed Groundwater Management Fee

In 2014, California enacted the Sustainable Groundwater Management Act (SGMA) to better manage groundwater in the State, primarily focusing on avoiding the lowering of groundwater levels, reduction of groundwater storage, subsidence, surface water depletion, and water quality degradation. To achieve its purposes, SGMA requires groundwater basins to be managed by GSAs, which must then develop GSPs to reach long-term sustainability. BWD serves as a GSA within both the Butte Subbasin and Sutter Subbasin thereby serving a critical role in the sustainable use of groundwater within the basins.

SGMA at Water Code section 10730.2 authorizes the District, as a GSA that has adopted GSPs, to impose fees on the extraction of groundwater from the basin to fund costs of groundwater management, including “administration, operation, and maintenance, including a prudent reserve” and “supply, production, treatment, or distribution of water” (Water Code § 10730.2, subs. (a)(1), (3)). The District is authorized under SGMA to require measurement of groundwater extractions (Water Code § 10725.8) and could impose a volumetric fee based on the volume of water extracted from every groundwater extraction facility. However, rather than have landowners incur the cost and ongoing maintenance and operation of such extraction measurement devices, the District is proposing a per acre fee as a proxy for groundwater extraction. Most parcels within the District’s service area are developed and utilized for production agriculture or irrigated ranches. A very small number of parcels within the District are urban, receiving domestic water supply from a common groundwater provider. Neither Butte nor Sutter Counties have comprehensive or complete data on well locations or use. However, other data, including anecdotal, suggests all of the parcels within the District either directly utilize groundwater (e.g., overlying use on the same parcel) or indirectly utilize groundwater (e.g., appropriative, meaning groundwater pumped from one parcel for a non-overlying use on another parcel). It is also axiomatic that larger parcels extract and use more groundwater than smaller parcels. Consequently, this Report reasonably assumes that all parcels within the District directly or indirectly extract groundwater for overlying or appropriative use and a per acre fee for groundwater management is an appropriate proxy for such groundwater extraction.

However, given incomplete data and information on well inventory and groundwater use, the District also proposes an exemption process for eligible parcels from the proposed groundwater management fee. For example, there may be a parcel within the District that is fully undeveloped and does not and has not utilized or received groundwater. Under this hypothetical scenario, this undeveloped parcel that has never directly or indirectly utilized groundwater would be exempt from the fee because it does not extract groundwater. The District will prepare and adopt a policy detailing the timing and process for annually applying for the exemption and will (assuming there is no majority protest) adopt the policy at the same meeting at which it conducts the public hearing on these proposed rate changes under Proposition 218.

As noted above, the District has the authority to charge groundwater management fees via SGMA. In particular, Water Code section 10730.2 states that the District can recover costs related to the supply, production, treatment, and/or distribution of water (i.e., all District costs) in line with groundwater management. However, rather than recovering the entirety of the District’s operating budget through the proposed groundwater management fee, the District Board of Directors elected to recover a portion (25%) of its operating expenses through the proposed groundwater management fee. This fee is proposed to be \$12.78 per acre per year in 2025, equivalent to 25% of the District’s operating expenses. After 2025, the groundwater management fee would be increased annually by up to the same percentage as that of the water rates (17.5% beginning in 2026 through 2029).

2. DISTRICT BACKGROUND INFORMATION

2.1. General

The Butte Water District was established in 1952 and is responsible for providing water service to users within its service area. After formation, BWD bought a 24% share of the Sutter Butte Canal Company's (SBCC) pre-1914 appropriative water rights and water diversion and conveyance system. The District is headquartered approximately 60 miles north of Sacramento in Gridley, California and currently encompasses approximately 32,000 acres of land within its boundaries.

In 1957, BWD, Richvale Irrigation District, Biggs-West Gridley Water District, and Sutter Extension Water District together formed the Joint Water Districts Board (Joint Board) to manage the SBCC distribution system, which they all commonly own and use portions of. Following the construction of the Thermalito Afterbay and Lake Oroville, the Joint Board entered into a diversion agreement with the State in 1969 to allow for the collective diversion of up to 555,000 AF per irrigation season from the Feather River at the Thermalito Afterbay plus an unquantified additional volume of water for reasonable and beneficial use from November 1 through March 30 each year. Under an agreement with the other Joint Water Districts, BWD is entitled to approximately 133,000 AF of the Joint Board's diversions from the Feather River each year between April 1 and October 31, though this is subject to reduction under certain "drought" conditions.

The majority of the District's cropped area is in rice production and orchards, though portions include alfalfa, pasture, and row crops. During the winter season, water supplies are used for rice straw decomposition, to create wintering habitat for waterfowl, and for other reasonable and beneficial uses.

2.2. Water System Overview

BWD's water distribution facilities are typically an open channel, gravity flow system operated via upstream level control. The District's water conveyance and delivery system includes approximately 80 miles of unlined canals that are either District-owned or within easements. Additionally, private laterals account for an estimated 25 to 30 miles. The primary canal serving the eastern portion of the District, the Main Canal, flows from the Thermalito Afterbay southward to feed the smaller District operated and private laterals. The Main Canal has a flow capacity of 900 cubic feet per second of which capacity is shared with other Joint Water Districts and delivers an average of 100,000 AF during the irrigation season to BWD water users. Most of the western side of the District is served through District laterals. At the farm level, the District operates 1,400 irrigation farm gates that convey water to private landowners. Some landowners do not have convenient laterals from which to take service and instead pump water from drains to their fields.

Due to the availability of irrigation water, sustainable groundwater conditions, soil characteristics, and its favorable climate, rice is a major crop in the District. For rice, the irrigation season typically begins in April or May with the flood up of rice fields. During the winter season, fields are typically flooded for rice straw decomposition between November and January. The flooded fields provide other beneficial uses including habitat for migratory waterfowl, shorebirds, and other species during the winter. In addition to

rice, the District additionally delivers a substantial amount of water to orchards, as well as pasture and row crops.

Water availability may be limited in certain years by the Department of Water Resources reductions permitted under the Joint Board’s 1969 diversion agreement with the State. Only diversions during the irrigation season (April through October) are counted against BWD’s allotment of the Joint Board’s total allowed diversions.

2.3. Current Rates

The District’s current rate structure is based on a fixed charge per irrigated acre, see [Table 3](#). For properties of three acres or less, customers pay a flat fee – the District delivered water to 64 such customers in 2023. The water rate also differs for gravity deliveries and pump deliveries requiring lift pumps to pump water for irrigation. There are separate rates for summer (April to October) and winter (November to March) deliveries. Winter rates are currently \$12 per acre for gravity and \$6 for pump.

Under the District’s 1969 diversion agreement with the State, the surface water supply allotment can be curtailed in certain drought years. As such, rates can also vary between full supply and curtailment years. Curtailment years maintain the same rates as full supply rates for each crop except for rice. For rice, the curtailment (or drought) rate is currently \$60 per acre.

Customers that use pumps for water deliveries are charged lower rates than those for gravity deliveries and are responsible for pumping their own water to their fields. The difference between the gravity and pump rate is based on half the cost for pump compared to gravity. Single flood rates are equal to half of the crop-based water rate. The District also uses an “out of district” rate, which is equal to the current District water rates plus 25%. The District’s 2023 water sale revenues based on crop type, acreage, and the current rates are shown in [Table 4](#).

Table 3: Current 2024 Rates (\$/acre)

Current Rates	
Category	
Orchard/Row Crops	
Gravity	\$25.00
Pump/Sprinkler	\$12.50
Alfalfa	
Gravity	\$27.00
Pump	\$13.50
Pasture	
Gravity	\$30.00
Pump	\$15.00
Rice	
Gravity	\$36.00
Pump	\$18.00
Rice Decomp	
Gravity	\$12.00
Pump	\$6.00
Minimum Charge	
3 acres or less	\$80.00

Table 4: BWD Sales by Crop/Item Summary (2023)

Butte Water District Sales by Item Summary (Jan 1-Dec 2023)		
Service	Quantity (Acres)	Amount
Auxiliary (Acres that are not using district water)	184.09	\$4,081.14
Alfalfa-Gravity Water	127.50	\$3,444.50
Minimum Charge (3 acres or less)	64 (# of customers)	\$5,040.00
Other Crop-Pump	1,733.93	\$21,267.91
Other Crop-Gravity Water	3,681.26	\$92,031.50
Other Crop-Gravity Single Flood	9.00	\$112.50
Pasture-Pump	12.00	\$180.00
Pasture-Gravity Water	489.31	\$14,679.40
Pond-Flat Rate	3.00	\$480.00
Rice-Pump	2,942.10	\$52,957.20
Rice-Gravity Water	2,822.08	\$101,790.09
Rice Decomp-Pump	2,068.87	\$12,413.22
Rice Decomp-Pump/Single	183.32	\$549.96
Rice Decomp-Gravity Water	2,288.07	\$27,456.84
Winter Water (single irrigation)	26.00	\$156.00
Total Service	16,634.53	\$336,640.26

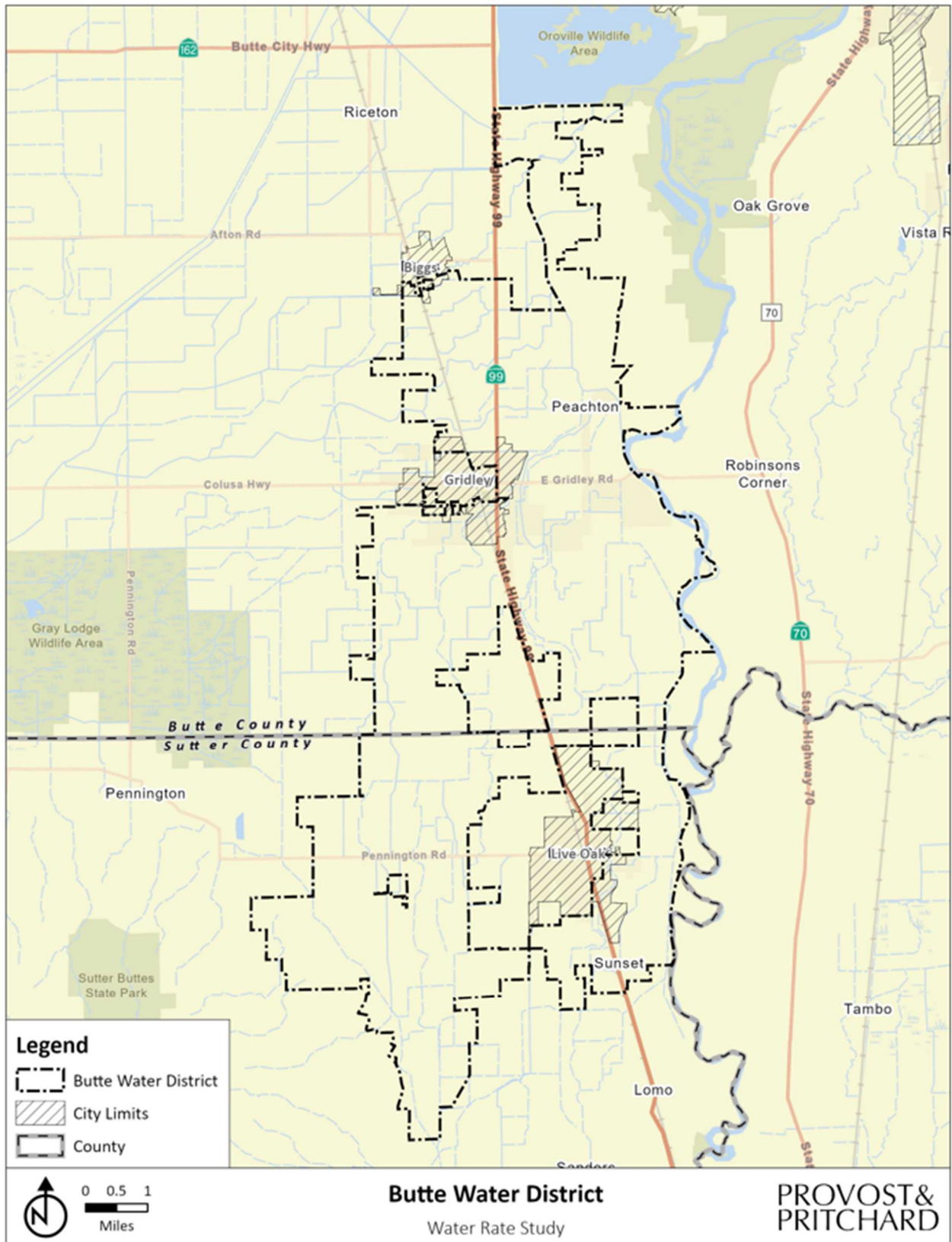


Figure 1: District Location Map

3. COST OF SERVICE

Proposition 218 requires that water rates be based on the reasonable cost of providing service to customers. This section provides an analysis of revenues and expenses to determine the total cost of service to be recovered via rates. The cost of service is expressed in a cash flow table that illustrates revenue increases needed to keep up with expenses and maintain the financial health of the District.

3.1. Expenses

3.1.1. Operating Costs

Major expenses in 2025 include staffing, operations and maintenance, utilities, administration, Joint Board expenses, consulting fees, and legal expenses. Costs associated with staffing total about \$1,028,600 including salaries and benefits. For 2025, legal fees are projected at \$73,500. District general and administration costs are projected to total about \$183,000, and the District's share of Joint Board expenses is about \$115,400. In 2025, the District is budgeted to incur about \$20,600 for direct SGMA compliance costs, such as implementation of the GSP. However, the ongoing operation and existence of the District is a necessary prerequisite for its eligibility to serve as a GSA under SGMA (Water Code § 10721, subds. (j), (n)). Thus, costs attributable to the ongoing financial viability and continuing operation of the District is appropriately distributed to all parcels within the District's GSA boundaries (Water Code § 10730.2, subds. (a)(1), (a)(3)). The total estimated operating cost in 2025 is about \$1.63 million (excluding capital outlay).

In future years, most operating expenses are projected to increase by 3% annually. The legal fees are projected to increase by 5% annually. [Table 6](#) details the operating costs required for providing water service and sustainably managing groundwater in the District over the five years from 2025 to 2029.

3.1.2. Capital Costs

[Table 5](#) lists the District's planned capital outlays and improvement projects by year through 2029. The District's capital outlay and projects primarily include a variety of construction projects and maintenance vehicles and equipment. Major capital improvement projects include the construction of a new shop and the undergrounding of piping and laterals beginning in 2025. The capital improvement costs shown in [Table 5](#) will be funded via draws on the District's reserves during the next five years. Potential additional future projects not shown in [Table 5](#), such as the replacement and automation of two weirs, are intended to be funded via water transfers to entities outside the District so as to not burden ratepayers. If water transfer revenues are not available, the District will delay projects and/or seek other sources of funding such as grants.

Table 5: Future Capital Costs and Improvements

Capital Outlay Projects (2025-2029)						
Category	2025	2026	2027	2028	2029	Total
Equipment	-	\$340,000	\$90,000	\$250,000	\$250,000	\$930,000
New shop	\$200,000	\$100,000	-	-	-	\$300,000
Undergrounding piping and laterals	\$100,000	\$100,000	-	-	-	\$200,000
Improving/metering rice fields	-	-	\$250,000	\$250,000	\$250,000	\$750,000
Total Capital Cost	\$300,000	\$540,000	\$340,000	\$500,000	\$500,000	\$2,180,000
Average Annual Cost						\$436,000

3.2. Revenues

The existing water rates do not cover the District’s costs of providing water service to its landowners and water users (see Table 6). As a result, the District has been required to use its reserves or surplus water transfer revenue to make up annual operating deficits. Each year, the deficits have grown larger, necessitating the use of increasing amounts of reserves if surplus water transfers are not possible or available. To reverse this unsustainable trend and to begin to make progress on balancing the operating budget to pay the District’s fixed operating costs described on the prior page, it is recommended that the District implement a series of rate increases. For 2024, BWD anticipated that it would generate \$335,700 in revenue from water sales within the District. In 2025, it is recommended that revenues earned from water service rates and charges be equal between pump and gravity rates before being increased by 17.5% in 2026 (and at the same rate annually through 2029) to begin closing the gap between revenues and expenses. Additional revenue sources include standby charges (assessments), and out of District water sales to other Joint Water Districts, and revenue from the rental of office space to the Joint Water Districts Board.

If the District generates surplus water transfer revenues over the next five years, these revenues will be used to fund additional capital improvement projects, replenish District capital reserves, or at the discretion of the Board of Directors to forgo or minimize future rate increases.²

3.3. Cash Flow

Table 6 provides a District cash flow projection for 2025 to 2029. The cash flow is based on the 2023 and 2024 budgets and includes projected operating expense increases as described above. New rates are proposed to become effective April 1 of each year for the next five years. The rate change for individual customers will depend on the crop grown and water usage.

² It is proposed that surplus water transfers revenues fund capital projects and capital reserves. It is proposed that rate revenues fund annual operations and operating reserves.

The cash flow is designed with annual rate increases of 17.5% for 2026 to 2029. For the first three years of this five-year rate plan, net operations are negative while rate increases are phased in. For these years, the District will continue to draw upon reserves and/or fund the deficit with surplus water transfer revenues. For these years, the District will draw upon reserves and/or fund the deficit with surplus water transfer revenues. BWD currently has extra reserves resulting from past surplus water transfers to make up for the phased in rates. This allows the District to spend down its reserves until meeting the target water rate and groundwater management fee levels to the benefit of landowners. In 2028 and 2029, net revenues are positive such that revenues will fully fund operating costs, pay back deficit spending from 2025 to 2027, and accumulate reserves to help fund future capital improvement projects. and maintain its operating reserve. The development of proposed rates is described in more detail in the following section.

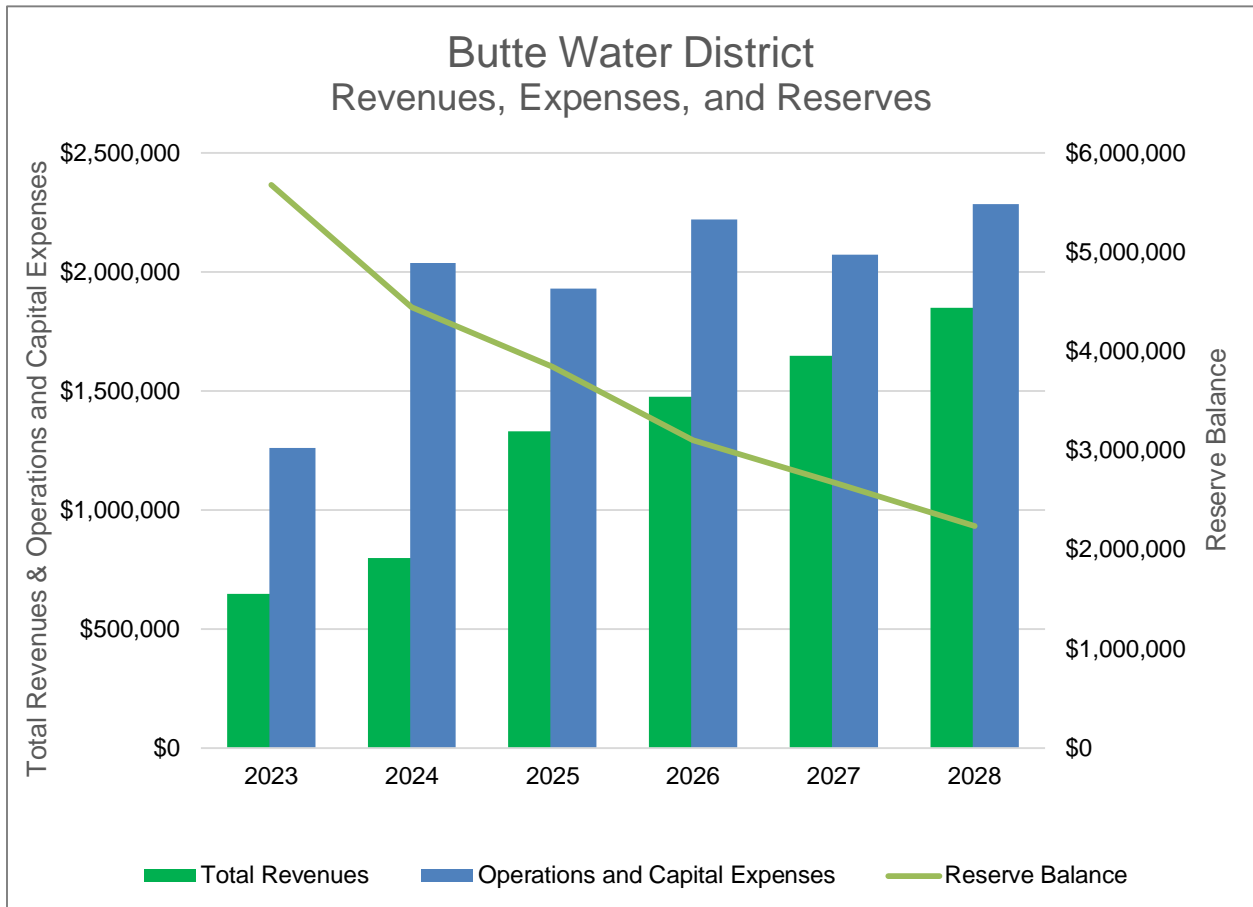


Table 6: Cash Flows

Butte Water District Cash Flow							
	2023	2024	2025	2026	2027	2028	2029
<i>Total Rate Revenue Increase</i>				17.50%	17.50%	17.50%	17.50%
Beginning Balance	\$ 6,294,800	\$ 5,682,100	\$ 4,442,900	\$ 3,843,100	\$ 3,099,000	\$ 2,674,500	\$ 2,237,900
<i>Revenues</i>							
Customer Water Sales	\$ 336,600	\$ 335,700	\$ 425,100	\$ 499,500	\$ 586,900	\$ 689,600	\$ 810,300
Richvale and Joint Sales	\$ 106,000	\$ 210,800	\$ 210,800	\$ 210,800	\$ 210,800	\$ 210,800	\$ 210,800
Joint Office/Joint Work	\$ 24,000	\$ 22,800	\$ 22,800	\$ 22,800	\$ 22,800	\$ 22,800	\$ 22,800
Sale of Equipment	\$ 20,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
SGMA Assessment	\$ -	\$ -	\$ 407,400	\$ 478,700	\$ 562,500	\$ 660,900	\$ 776,600
Standby Charges	\$ 160,000	\$ 177,300	\$ 263,800	\$ 263,800	\$ 263,800	\$ 263,800	\$ 263,800
Total Revenues	\$ 646,600	\$ 796,600	\$ 1,329,900	\$ 1,475,600	\$ 1,646,800	\$ 1,847,900	\$ 2,084,300
<i>Operating Expenses (+3%/yr)</i>							
Office Expenses	\$ 35,600	\$ 36,300	\$ 37,400	\$ 38,500	\$ 39,700	\$ 40,900	\$ 42,100
Operating Costs	\$ 139,400	\$ 151,300	\$ 155,800	\$ 160,500	\$ 165,300	\$ 170,300	\$ 175,400
Joint Board/Joint Work		\$ 112,000	\$ 115,400	\$ 118,900	\$ 122,500	\$ 126,200	\$ 130,000
General/Other	\$ 156,400	\$ 177,700	\$ 183,000	\$ 188,500	\$ 194,200	\$ 200,000	\$ 206,000
Legal Fees (+5%/yr)	\$ 32,000	\$ 70,000	\$ 73,500	\$ 77,200	\$ 81,100	\$ 85,200	\$ 89,500
Equipment Leases	\$ 17,300	\$ 15,400	\$ 15,400	\$ 15,400	\$ 15,400	\$ 15,400	\$ 15,400
Salary and Benefits	\$ 878,600	\$ 1,043,100	\$ 1,028,600	\$ 1,059,500	\$ 1,091,300	\$ 1,124,000	\$ 1,157,700
Additional SGMA Fees		\$ 20,000	\$ 20,600	\$ 21,200	\$ 21,800	\$ 22,500	\$ 23,200
Total Operating Expenses	\$ 1,259,300	\$ 1,625,800	\$ 1,629,700	\$ 1,679,700	\$ 1,731,300	\$ 1,784,500	\$ 1,839,300

<i>Net Operations</i>	\$ (612,700)	\$ (829,200)	\$ (299,800)	\$ (204,100)	\$ (84,500)	\$ 63,400	\$ 245,000
<i>Future Capital Expenses</i>		\$ 410,000	\$ 300,000	\$ 540,000	\$ 340,000	\$ 500,000	\$ 500,000
<i>Ending Balance</i>	\$ 5,682,100	\$ 4,442,900	\$ 3,843,100	\$ 3,099,000	\$ 2,674,500	\$ 2,237,900	\$ 1,982,900

4. Rate and Fee Design

The prior section determined the total cost of providing service to customers. In this section, the cost of service is allocated to rates and to the groundwater management fee to fairly recover costs proportional to the service received by each customer. Note that for the purposes of this Cost of Service Study the existing standby assessment was assumed to be equal to the maximum allowable amount (\$8.68) per the approved District Proposition 218 Engineer's Report and process from 2013. However, the increase to \$8.68 would be an annual District Board decision separate from this Cost of Service Study.

4.1. Proposed Water Rates

The proposed rates for gravity deliveries and pump deliveries based on the cost of service are shown below in Table 7. The pump delivery rates per acre foot are equivalent to the gravity delivery rates. This is also the case for winter delivery rates via gravity or pump; the rates will be equivalent beginning in 2025 to align with the District's cost of service. The District's curtailment or drought rates are equal to full supply water rates for all crops except rice. For rice, the drought rates would be equal to double that of the full supply rice rates. Winter rates and drought rates are also included in Table 7 below.

The rates are designed to generate sufficient revenues to meet the District's total revenue requirements, which are determined in Table 6 under the line item "Customer Water Sales" and shown in Table 8 below. Slight differences in revenue are due to rounding. Additionally, the District's current single flood rates (equal to 50% or half of the crop water rate for that year) as well as the District's "out of district" rates (equal to water rates for in-District deliveries for that year plus 25%) are proposed to continue as part of this Proposition 218.³

4.1.1. Proposed Rates

The proposed five-year rate schedule is summarized in Table 7. The rates are calculated by maintaining all current gravity water rates for 2025 while increasing the pump rates to match that of the gravity rates. Then, in order to make up for the gap between operating costs and revenue, the rates gradually increase by 17.5% over the subsequent four years. The 17.5% annual increase would be through 2029. By 2029, it is anticipated that the District's operating expenses would then be \$1,839,300 and revenues would be \$2,084,300, leaving the District with a slight positive balance to be used for capital expenses or added to reserves. In 2028, BWD would have its first year in which revenues outweigh expenses. The water rates proposed in this Cost of Service Study are the maximum annual amount that the District Board of Directors may impose. The District Board of Directors may impose water rates at an amount less than the maximum annual amount proposed.

³ For instance, the out of district rate for rice in 2025 would be \$36 (the 2025 in-District rate) x 1.25 = \$45.

Table 7: Proposed Rates through 2029

Current & Proposed Rates						
Category	Current Rate	2025	2026	2027	2028	2029
Orchard/Row Crops			17.50%	17.50%	17.50%	17.50%
Gravity	\$25.00	\$25.00	\$29.00	\$34.00	\$40.00	\$47.00
Pump/Sprinkler	\$12.50	\$25.00	\$29.00	\$34.00	\$40.00	\$47.00
Alfalfa						
Gravity	\$27.00	\$27.00	\$32.00	\$38.00	\$45.00	\$53.00
Pump	\$13.50	\$27.00	\$32.00	\$38.00	\$45.00	\$53.00
Pasture						
Gravity	\$30.00	\$30.00	\$35.00	\$41.00	\$48.00	\$56.00
Pump	\$15.00	\$30.00	\$35.00	\$41.00	\$48.00	\$56.00
Rice						
Gravity	\$36.00	\$36.00	\$42.00	\$49.00	\$58.00	\$68.00
Pump	\$18.00	\$36.00	\$42.00	\$49.00	\$58.00	\$68.00
Rice Decomp						
Gravity	\$12.00	\$12.00	\$14.00	\$16.00	\$19.00	\$22.00
Pump	\$6.00	\$12.00	\$14.00	\$16.00	\$19.00	\$22.00
Minimum Charge						
3 acres or less	\$80.00	\$80.00	\$94.00	\$110.00	\$129.00	\$152.00
Drought/Curtailment						
Rice	\$60.00	\$72.00	\$84.00	\$98.00	\$116.00	\$136.00
Winter						
Gravity	\$12.00	\$12.00	\$14.00	\$16.00	\$19.00	\$22.00
Drain	\$6.00	\$12.00	\$14.00	\$16.00	\$19.00	\$22.00

Table 8: Rate Design

Rate Design						
	2024	2025	2026	2027	2028	2029
<i>Rate & Fee Increase</i>			17.50%	17.50%	17.50%	17.50%
Total Revenues	\$796,600	\$1,329,900	\$1,475,600	\$1,646,800	\$1,847,900	\$2,084,300
Total Operating Expenses	\$1,625,800	\$1,629,700	\$1,679,700	\$1,731,300	\$1,784,500	\$1,839,300
Net Operations	(\$829,200)	(\$299,800)	(\$204,100)	(\$84,500)	\$63,400.00	\$245,000.00

4.2. Groundwater Management Fee

As discussed, the District as a GSA under SGMA can, subject to Article XIII D, section 6, propose and implement a groundwater management fee to fund the costs of District operations and SGMA implementation. As such, BWD can recover costs related to the supply, production, treatment, and/or distribution of water (i.e., all District costs) in line with groundwater management. Despite being able to recover 100% of these operating expenses, the District Board has elected to recover only up to 25% of its operating expenses through the proposed groundwater management fee. In 2025, this fee will be **\$12.78** per acre per year, which is calculated based on the equations below. The groundwater management fee proposed in this Cost of Service Study is the maximum annual amount that the District Board of Directors may impose. The District Board of Directors may impose a groundwater management fee less than the maximum annual amount proposed.

$ \begin{aligned} &\$1,629,700 \text{ (total operating costs)} \div 31,881.99 \text{ (total acres within District boundary)} \\ &= \$51.11 \text{ (groundwater management cost per acre)} \\ &\quad \$51.11 \times 25\% = \$12.78 \end{aligned} $

The groundwater management fee would be increased annually by up to the same percentage as that of the water rates (17.5% beginning in 2026) as depicted in [Table 9](#) below.

Table 9: Groundwater Management Fee

Groundwater Management Fee (\$/acre/year)				
2025	2026	2027	2028	2029
	17.50%	17.50%	17.50%	17.50%
\$12.78	\$15.01	\$17.64	\$20.73	\$24.36

4.3. Rate and Fee Summary

The table below details the total proposed cost per acre for landowners. For this purpose, the standby assessment is also included in the table, but there is no increase to the standby assessment proposed by this Proposition 218 process.

Table 10: Total Cost per Acre

Total Up to Cost per Acre						
Per/Acre	Current	2025	2026	2027	2028	2029
Orchard/Row Crop						
Standby Assessment	\$7.00	\$8.68	\$8.68	\$8.68	\$8.68	\$8.68
Groundwater Management Fee		\$12.78	\$15.01	\$17.64	\$20.73	\$24.36
Orchard/Row Crop Fee	<u>\$25.00</u>	<u>\$25.00</u>	<u>\$29.00</u>	<u>\$34.00</u>	<u>\$40.00</u>	<u>\$47.00</u>
Total	\$32.00	\$46.46	\$52.69	\$60.32	\$69.41	\$80.04
Alfalfa						
Standby Assessment	\$7.00	\$8.68	\$8.68	\$8.68	\$8.68	\$8.68
Groundwater Management Fee		\$12.78	\$15.01	\$17.64	\$20.73	\$24.36
Alfalfa Fee	<u>\$27.00</u>	<u>\$27.00</u>	<u>\$32.00</u>	<u>\$38.00</u>	<u>\$45.00</u>	<u>\$53.00</u>
Total	\$34.00	\$48.46	\$55.69	\$64.32	\$74.41	\$86.04
Pasture						
Standby Assessment	\$7.00	\$8.68	\$8.68	\$8.68	\$8.68	\$8.68
Groundwater Management Fee		\$12.78	\$15.01	\$17.64	\$20.73	\$24.36
Pasture Fee	<u>\$30.00</u>	<u>\$30.00</u>	<u>\$35.00</u>	<u>\$41.00</u>	<u>\$48.00</u>	<u>\$56.00</u>
Total	\$37.00	\$51.46	\$58.69	\$67.32	\$77.41	\$89.04
Rice						
Standby Assessment	\$7.00	\$8.68	\$8.68	\$8.68	\$8.68	\$8.68
Groundwater Management Fee		\$12.78	\$15.01	\$17.64	\$20.73	\$24.36
Rice Fee	<u>\$36.00</u>	<u>\$36.00</u>	<u>\$42.00</u>	<u>\$49.00</u>	<u>\$58.00</u>	<u>\$68.00</u>
Total	\$43.00	\$57.46	\$65.69	\$75.32	\$87.41	\$101.04