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Description automatically generated

**ROOT CREEK WATER DISTRICT**

**2022 Agricultural Water**

**Rate Study Update**

**DRAFT REPORT**

**June 2, 2022**



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# Introduction and Executive Summary

## Background

The Root Creek Water District (Root Creek WD, RCWD, or District) was formed in 1996 to address the declining groundwater table in southeastern Madera County and to ensure long-term reliable water supply. In 2007, RCWD secured surface water supply sufficient to reverse the groundwater deficit for the entire District consisting of both municipal and agricultural water usage. Concurrently, the District developed a sustainable water management plan that satisfies the substantive components of a local Groundwater Sustainability Plan (GSP) required by the Sustainable Groundwater Management Act (SGMA). The District expects to have fully sustainable groundwater decades before most areas in the state. Most significantly, the RCWD Groundwater Sustainability Agency's (GSA) GSP does not require fallowing or retirement of any land either within or outside the District.

To fulfill the District's commitment to balance the groundwater supply to support all current and projected water uses, RCWD pursued long‐term water supply, storage, and conveyance (or "wheeling”) contracts with the Madera Irrigation District, Friant Water Authority, Chowchilla Water District, the Westside Mutual Water Company, North Kern Water Storage District and the Shafter‐Wasco Irrigation District. Imported water is delivered from Millerton Lake to the agricultural users via Madera Irrigation District Lateral 6.2 to RCWD's turnout into a 48‐inch gravity pipeline that feeds the agricultural water distribution system in the RCWD service area.

The District last completed a Rate Study and Financial Plan in 2016. The plan, which was approved by landowners in the District, determined land-based assessments and agricultural water rates. This study recommends increased rates to promote the financial health and stability of the District’s agricultural water enterprise fund. Additional revenues are needed to maintain RCWD’s sustainable water supply over the next five years.

## Requirements of Proposition 218

The implementation of water rates in California are governed by the substantive and procedural requirements of Proposition 218, the “Right to Vote on Taxes Act,” which is codified as Articles XIIIC and XIIID of the California Constitution. The District must follow the procedural requirements of Proposition 218 for all rate increases. These requirements include:

1. **Noticing Requirement** –The District must mail a notice of the proposed rate increases 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 rates will be considered/adopted.
2. **Public Hearing** – The District must hold a public hearing prior to adopting the proposed rate increases. The public hearing must be held not less than 45 days after the required notices are mailed.
3. **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 increases cannot be adopted.

Proposition 218 also established substantive requirements that apply to rates and charges, 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.
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 where the service is available to the public at large.

Charges 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 the procedural requirements of Proposition 218.

## Rate Study Process

The following is a brief description of the rate study process:

* **Revenue Requirement** - The revenue requirement is analyzed via a cash flow developed from the District’s budget. Based on the best information currently available, the cash flow incorporates projected operation and maintenance costs, debt service, and changes in land use to estimate annual revenue requirements. The plan serves as a roadmap for funding the District’s operations while maintaining long-term fiscal stability.
* **Cost of Service Allocation** - The cost of service process builds on the financial plan analysis and assigns to functional cost components consisting of administration, operations, water supply, and debt service.
* **Rate Design** - Rate design involves developing a rate structure that proportionately recovers costs from customers. Final rate recommendations are designed to (a) fund the enterprise’s short- and long-term costs of providing service; (b) proportionately allocate costs to all customers; and (c) comply with the substantive requirements of Proposition 218.

The rates developed in this report were based on the best available information gathered from District budgets, audits, and input from staff. The proposed rates are based on the reasonable cost of providing service and are proportional to the benefits received by each customer.

## Summary of Proposed Rates

RCWD charges agricultural water users a land-based assessment as well as usage rates for water service. This study does not propose any changes to the assessment, and it is assumed the assessment will continue to increase annually based on previously authorized inflationary adjustments. The District has two water service rates – one for groundwater pumping and one for surface water delivery. The water service rates are calculated to recover debt service costs for the agricultural water enterprise’s installment sale agreement, operating costs, and water supply expenses.

Current and proposed rates are provided in Table 1. The proposed rates were developed to fairly recover costs, adhere to California statute, and be affordable to customers. The first rate increase is proposed to go into effect January 1, 2023, and future rate adjustments are proposed to go into effect January 1 each year thereafter.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 1: Current and Proposed Rates** | | | | | | | |  |
| **2022 Agricultural Water Rate Study Update** | | | | | | | |  |
| **Root Creek Water District** | | | | | |  | |  |
|  | | | | | |  | |  |
| **Category ($/acre foot)** | **Current** | **PROPOSED** | | | | | | |
| **January 1, 2022** | **January 1, 2023** | **January 1, 2024** | **January 1, 2025** | **January 1, 2026** | | **January 1, 2027** | |
| Groundwater Recharge Fee | $100.94 | $114.68 | $125.61 | $135.17 | $142.32 | | $149.91 | |
| Surface Water Fee | $142.14 | $162.23 | $178.22 | $192.33 | $203.06 | | $214.44 | |
|  |  |  |  |  |  | |  | |

# Land Use, Water Demand, and Current Revenues

This section provides background information regarding the number of acres within Root Creek Water District that receive agricultural and municipal water service. This section also estimates current and future agricultural water use.

## Acreage Estimate and Assessment Revenues

Table 2 provides current and projected land use of the District through 2027. It is estimated that about 1,060 acres will be developed from agricultural use to municipal use during that time. Table 2 also calculates assessment revenues over the next five years. RCWD’s current assessment was approved via a landowner vote in 2016. This study does not propose adjustments to the assessment beyond estimating assessment revenues assuming 3% annual inflationary increases. Assessments cover District administrative costs, which would otherwise be recovered through agricultural water service rates. Currently, RCWD charges a land assessment of $35.81 per acre and expects to collect about $342,000. Of the 2022 assessment revenue, about $300,000 is attributed to agricultural land use. The amount attributed to agricultural land use varies by year based on acreage and the inflationary assessment increase.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table 2: Estimated Land Use and Assessments** | | |  |  |  |  |
| **2022 Agricultural Water Rate Study Update** | | |  |  |  |  |
| **Root Creek Water District** | | |  |  |  |  |
|  | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** |
| Agricultural Acres | 8,150 | 7,550 | 7,250 | 7,090 | 7,090 | 7,090 |
| Municipal Acres | 1,400 | 2,000 | 2,300 | 2,460 | 2,460 | 2,460 |
| Total Acres | 9,550 | 9,550 | 9,550 | 9,550 | 9,550 | 9,550 |
|  |  |  |  |  |  |  |
| Agricultural Land Assessments | $291,852 | $278,444 | $275,428 | $277,432 | $285,727 | $294,306 |
| Municipal Land Assessments | $50,134 | $0 | $0 | $0 | $0 | $0 |
| Municipal Admin Cost Recovery [1] | $0 | $73,760 | $87,377 | $96,260 | $99,138 | $102,115 |
| Total Assessment Revenue (+3%/yr) | $341,986 | $352,204 | $362,805 | $373,692 | $384,865 | $396,421 |
|  |  |  |  |  |  |  |
| 1 – Municipal land assessments are proposed to be discontinued. District administrative costs that were previously recovered through municipal assessments are proposed to be recovered via bimonthly utility rates. | | | | | | |

## Water Use and Current Revenues

Table 3 estimates agricultural water use and revenues based on current rates. In 2022, agricultural water customers are expected to use about 14,611 acre-feet (AF) of supply. Only a small amount, about 9%, is expected to be from imported surface water. Each source of water (groundwater or surface water) has its own rate. The capital fee of $18 per AF is charged to all water use – both groundwater and surface water.

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 3: Current Agricultural Water Rates and Revenues** | | | |
| **2022 Agricultural Water Rate Study Update** | | | |
| **Root Creek Water District** | | | |
|  | | | |
|  | **2022**  **Budgeted Revenue** | **Current 2022 Rates ($/AF)** | **AF** |
| Total Groundwater Recharge Fee |  | $100.94 |  |
| Total Surface Water Charge |  | $142.14 |  |
|  |  |  |  |
| Capital Fee | $263,000 | $18.00 | 14,611 |
| Groundwater Recharge Fee | $1,098,000 | $82.94 | 13,238 |
| Surface Water Charge | $170,400 | $124.14 | 1,373 |
|  |  |  |  |

# Revenue Requirement

The revenue requirement for the agricultural water service was developed using the District’s current budget and projected expenses through 2027. As discussed, RCWD recovers its cost of service from assessments as well as rates. Increased assessments were approved by landowners within the District in February 2016 to cover the estimated costs of groundwater monitoring and District administration. Since 2016, RCWD has established a detailed operating budget based on actual costs. Table 4 identifies budget categories and costs that are proposed to be recovered from assessment revenues. As agricultural land is developed into municipal land, the municipal water utility will fund a greater proportional share of the costs shown below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 4: 2022 Assessment Revenues and Expenses** | | |  |
| **2022 Agricultural Water Rate Study Update** | | |  |
| **Root Creek Water District** | | |  |
|  |  |  |  |
|  |  |  |  |
| **Assessments** |  |  | **Revenues** |
| Municipal Land Assessments | |  | $50,134 |
| Agricultural Land Assessments | |  | $291,852 |
|  |  |  | $341,986 |
|  |  |  |  |
| **Budget Code** | **Enterprise** | **Description** | **Expenses** |
| 660 | 01-District Admin | General & Administrative Costs | $27,500 |
| 640.01 | 01-District Admin | Membership dues | $5,000 |
| 620.05 | 01-District Admin, 02-Water, 05-Ag [1] | Legal | $35,000 |
| 620.03 | 01-District Admin | Management | $20,000 |
| 630.04 | 02-Water and 05-Agriculture | GSP | $25,000 |
| 620.09 | 02-Water and 05-Agriculture | Special Counsel | $100,000 |
| 610.02 | 02-Water and 05-Agriculture | Website | $6,500 |
| 570 | 02-Water and 05-Agriculture | Groundwater Maintenance | $25,000 |
| 620.06 | 02-Water and 05-Agriculture | GIS Services | $25,000 |
| 620.03 | 02-Water and 05-Agriculture Portion [1] | Management | $67,500 |
| 650.01 | 02-Water and 05-Agriculture Portion [1] | Insurance | $5,000 |
|  |  |  | $342,000 |
|  |  |  |  |
| 1 - The sewer and storm drain enterprises also have expenses under these line items that are not included in the costs shown here. Sewer and storm drain costs are proposed to be funded solely from rate revenues. | | | |

Separate from administrative costs covered by assessments, water rates are intended to fund the costs of professional services (accounting and auditing), engineering, water importation, and landowner repayment. The District’s main expense is the water importation cost, which is split 50/50 with the municipal water system. It is assumed that water supply costs will increase by 5% per year and the other operating costs will increase by 3% per year. In addition, the agricultural water system is repaying the Riverstone landowner $265,000 annually as obligated in the District’s installment sale agreement.

The agricultural system is generating positive net revenues, has a formal loan in place to repay past costs, and is unlikely to require further cash infusions from the Riverstone landowner. Therefore, it is assumed that the 2022 beginning balance for the agricultural enterprise is $0. The capital fee, recharge fee, and surface water fee are subject to the Proposition 218 public noticing and approval process. The total revenue collected from the recharge and surface water fees are proposed to increase 6.25% each year of the Proposition 218 period, with the first increase on January 1, 2023. These revenue increases will allow the agricultural water fund to accumulate an operating reserve equal to 50% of professional services and engineering costs as well as a $2 million water supply reserve by the year end of 2027. See Table 5.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table 5: Agricultural Water Service Operating Cash Flow** | | | | | |  |
| **2022 Agricultural Water Rate Study Update** | | | |  |  |  |
| **Root Creek Water District** | | | |  |  |  |
|  |  |  |  |  |  |  |
|  | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** |
|  |  | 1-Jan | 1-Jan | 1-Jan | 1-Jan | 1-Jan |
| % Revenue Increase [1] |  | 6.25% | 6.25% | 6.25% | 6.25% | 6.25% |
|  |  |  |  |  |  |  |
| FUND BALANCE | $0 | $254,500 | $539,600 | $856,300 | $1,207,600 | $1,596,200 |
|  |  |  |  |  |  |  |
| REVENUES |  |  |  |  |  |  |
| Assessments | 291,900 | 278,400 | 275,400 | 277,400 | 285,700 | 294,300 |
| Recharge Rates | 1,098,000 | 1,166,300 | 1,239,100 | 1,316,600 | 1,398,900 | 1,486,300 |
| Surface Water Rates | 170,400 | 181,400 | 192,700 | 204,800 | 217,600 | 231,200 |
| Capital Fees | 263,700 | 265,000 | 265,000 | 265,000 | 265,000 | 265,000 |
| TOTAL REVENUES | 1,824,000 | 1,891,100 | 1,972,200 | 2,063,800 | 2,167,200 | 2,276,800 |
|  |  |  |  |  |  |  |
| EXPENSES |  |  |  |  |  |  |
| Administration | 291,900 | 278,400 | 275,400 | 277,400 | 285,700 | 294,300 |
| Professional Services | 18,800 | 19,400 | 20,000 | 20,600 | 21,200 | 21,800 |
| Engineering | 13,800 | 14,200 | 14,600 | 15,000 | 15,500 | 16,000 |
| Total O&M | 324,500 | 312,000 | 310,000 | 313,000 | 322,400 | 332,100 |
|  |  |  |  |  |  |  |
| Water Importation | 980,000 | 1,029,000 | 1,080,500 | 1,134,500 | 1,191,200 | 1,250,800 |
| Landowner Repayment | 265,000 | 265,000 | 265,000 | 265,000 | 265,000 | 265,000 |
| TOTAL EXPENSES | 1,569,500 | 1,606,000 | 1,655,500 | 1,712,500 | 1,778,600 | 1,847,900 |
|  |  |  |  |  |  |  |
| NET REVENUES | 254,500 | 294,600 | 337,000 | 383,700 | 434,700 | 490,300 |
|  |  |  |  |  |  |  |
| ENDING FUND BALANCE | 254,500 | 539,600 | 856,300 | 1,207,600 | 1,596,200 | 2,025,100 |
| O&M Reserve [2] | 16,300 | 16,800 | 17,300 | 17,800 | 18,400 | 18,900 |
| Water Supply Reserve | 238,200 | 522,800 | 839,000 | 1,189,800 | 1,577,800 | 2,006,200 |
|  |  |  |  |  |  |  |
| 1 - % increase to the total amount collected from groundwater recharge and surface water rates | | | | | | |
| 2 - 50% of professional services and engineering | | | | | | |

# Proposed Rates

This section calculates the proposed water rates by dividing the revenue requirement by estimated water use.

## Water Supply Rates

Table 6 provides a projection of agricultural water consumption over the next five years. It is assumed that groundwater and surface water use will decline at the same rate proportional to the reduction in agricultural acres shown in Table 2. To manage the groundwater basin, the District must encourage the use of imported surface water to offset groundwater demand. All customers, even those that continue to use only groundwater, benefit from surface water supply as a means to alleviate the District’s groundwater overdraft. To that end, both groundwater customers and surface water customers pay for imported water. The District proposes to continue to price the recharge fee and the surface water charge such that the customer is indifferent to the source of supply. A customer using groundwater would pay the recharge fee to the District and would also incur pumping costs to operate his or her well. It is assumed that pumping costs add 50% to the District’s recharge fee.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 6: Agricultural Water Demand Projection (AFY)** | | | |  |  |
| **2022 Agricultural Water Rate Study Update** | | | |  |  |
| **Root Creek Water District** | | | |  |  |
|  | | | |  |  |
| **Source** | **2023** | **2024** | **2025** | **2026** | **2027** |
| Groundwater | 12,264 | 11,777 | 11,517 | 11,517 | 11,517 |
| Surface Water | 1,272 | 1,221 | 1,194 | 1,194 | 1,194 |
| Total | 13,535 | 12,998 | 12,711 | 12,711 | 12,711 |
|  |  |  |  |  |  |
| *For Rate Design: Surface Water 1.5X* | | | | | |
| Groundwater | 12,264 | 11,777 | 11,517 | 11,517 | 11,517 |
| Surface Water | 1,907 | 1,832 | 1,791 | 1,791 | 1,791 |
| Total Equivalents | 14,171 | 13,608 | 13,308 | 13,308 | 13,308 |
|  |  |  |  |  |  |

Table 7 calculates the groundwater and surface water rates by dividing the revenue requirement established in the cash flow by equivalent water usage.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 7: Agricultural Water Rate Calculation** | | | |  |  |
| **2022 Agricultural Water Rate Study Update** | | | |  |  |
| **Root Creek Water District** | | | |  |  |
|  |  |  |  |  |  |
|  | **2023** | **2024** | **2025** | **2026** | **2027** |
| Revenue Requirement | $1,347,675 | $1,431,905 | $1,521,399 | $1,616,486 | $1,717,517 |
|  |  |  |  |  |  |
| AF Equivalents | 14,171 | 13,608 | 13,308 | 13,308 | 13,308 |
| $ per AF Equivalent | $95.10 | $105.22 | $114.32 | $121.47 | $129.06 |
|  |  |  |  |  |  |
| Rates (do not include capital fee) | |  |  |  |  |
| Groundwater | $95.10 | $105.22 | $114.32 | $121.47 | $129.06 |
| Surface Water (1.5X) | $142.65 | $157.83 | $171.48 | $182.21 | $193.59 |
|  |  |  |  |  |  |

## Capital Fee

The agricultural enterprise’s portion of past District formation costs and the costs for additional imported supply infrastructure are recovered through a capital fee charged to all agricultural water use including groundwater and surface water. The agricultural water enterprise’s repayment obligations were codified via an installment sale agreement in late 2017. The current agricultural capital fee is $18 per AF.

Table 8 calculates the proposed capital fee per year using the projected agricultural water demand shown in Table 6 and recovers the annual debt service payment of the installment sale agreement. It is proposed that the District increase the capital fee to $19.58 in 2023, based on an estimated 13,535 AF of total water used. If more water is consumed than projected in a given year, the District should use any excess capital fee revenue to pay down additional principal.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 8: Agricultural Capital Fee Calculation** | | | |  |  |
| **2022 Agricultural Water Rate Study Update** | | | |  |  |
| **Root Creek Water District** | | | |  |  |
|  |  |  |  |  |  |
| **Source** | **2023** | **2024** | **2025** | **2026** | **2027** |
| Landowner Repayment | $265,000 | $265,000 | $265,000 | $265,000 | $265,000 |
| Demand (AF) | 13,535 | 12,998 | 12,711 | 12,711 | 12,711 |
| Rate ($/AF) | $19.58 | $20.39 | $20.85 | $20.85 | $20.85 |
| Increase [1] | 8.8% | 4.1% | 2.3% | 0.0% | 0.0% |
|  |  |  |  |  |  |
| 1 - Current capital fee is $18/AF | | | | | |

## Total Proposed Rates

Current and proposed agricultural water rates including capital fees are provided in Table 9. It should be noted that holding contract water use is excluded from paying the capital fee or other fees. Holding contract water rights (and associated infrastructure) are owned by private landowners within RCWD. Importation of the holding contract water reduces the District’s overdraft and therefore is not required to pay water rates or charges.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 9: Current and Proposed Agricultural Water Rates** | | | | | | | | | | | | | | | | |
| **2022 Rate Study Update** | | | | | | | | |  | |  | |  | | |  |
| **Root Creek Water District** | | |  |  |  |  |  |  | |  | |  | |  | | |
|  |  |  |  |  |  |  |  |  | |  | |  | | |  | |
| **Category ($/AF)** | **Current** | **PROPOSED** | | | | | | | | | | | | | | |
| **Jan 1, 2022** | **Jan 1, 2023** | | **Jan 1, 2024** | | **Jan 1, 2025** | | **Jan 1, 2026** | | | | **Jan 1, 2027** | | | | |
| Groundwater Recharge | $100.94 | $114.68 | 14% | $125.61 | 10% | $135.17 | 8% | $142.32 | | 5% | | $149.91 | | | 5% | |
| Surface Water | $142.14 | $162.23 | 14% | $178.22 | 10% | $192.33 | 8% | $203.06 | | 6% | | $214.44 | | | 6% | |
|  |  |  |  |  |  |  |  |  | |  | |  | | |  | |
| Rates include capital fees | | | | | | | | | | | | | | | | |