



# WATER RATE FEE STUDY FOR TRANQUILLITY IRRIGATION DISTRICT

## PROPOSITION 218 PROCEDURES FOR WATER RATE INCREASES

November 2021

### Prepared for:

Tranquillity Irrigation District  
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### Prepared by:



Date Signed: November 16, 2021



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## REPORT SUMMARY

Historically, the Tranquillity Irrigation District (TID or District) has levied volumetric agricultural water charges, monthly municipal charges, and land-based assessments to recover the District's expenses. Additionally, non-operating revenues, District reserves, and outside water sales were used to make up any shortfall. In October 2019, landowners in the District approved rate increases to decrease the District's reliance on revenue from outside water sales. Since the 2019 rate increase, two issues have become apparent:

1. While the reliance on revenue from outside water sales has decreased, the District has recognized that the water rates should be increased to collect enough revenue to meet the actual cost of providing the water and to replenish the District's depleted reserve funds.
2. In dry years, such as 2021, the District has a large reliance on groundwater. The cost of service of providing groundwater is much higher than providing surface water due to increased energy costs and the additional wear and tear on groundwater pumping facilities.

Under the current rate structure, the District charges a flat rate of \$58/AF for irrigation water. Should supplemental well water be requested by a grower, the District enters into contracts with the water users to supply that water. The District proposes to discontinue this practice by implementing a *surface water* rate of \$98/acre-foot (AF) and a *groundwater rate* of \$200/AF.

**Table 1. Current Water Charges vs Proposed**

Classification	Current Rate	Proposed Maximum Rate
Irrigation Water	\$58/acre-foot	
Irrigation - Surface Water		\$98/acre-foot
Irrigation -Groundwater		\$200/acre-foot

The maximum rates identified above were developed by taking the 2021 budget, apportioning the amount to be met by irrigation water sales, and then evaluating the budget under the following scenarios:

1. Wet years, when surface water meets most of the District's water needs;
2. Dry years, such as 2021, where surface water supplies are reduced by roughly 22% and more groundwater must be pumped; and
3. Critical years, where surface water supplies are reduced by 40% (this is the District's worst-case scenario) and even more groundwater must be pumped.

The amount charged by the District in any year can be lower than the maximum, but will not exceed the rate amount proposed herein unless another rate study is adopted and the District holds a public hearing to consider whether or not there is a majority protest to the rate increase. If there is not a majority protest, then another rate increase could be considered by the TID Board. That is the same process being followed to consider this

rate increase. The proposed rates will be implemented at the discretion of the TID Board of Directors, up to the maximum rate identified herein. The proposed rates allow the District to pay the actual District operating costs without relying on revenue from outside water sales and reserves.

The water rate increase proposal process is being conducted in accordance with provisions of Proposition 218, as reflected in Article XIII D of the California Constitution 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. The District has made the decision to follow the provisions of Proposition 218, in part, because its procedures act to fully inform the District's water users, while simultaneously giving them a direct say in the matter.

Under the Proposition 218 process, once the Board determines the need to increase the water charges, the District must evaluate whether or not the increases are in line with the benefits provided by the District and to allocate the charges. This Fee Study discusses the benefits of the District's organization and its water entitlements and contracts, as well as services provided by TID.

Following the acceptance of this Fee Study by the Board of Directors, the District will mail a notice to water users of the proposed rate increase on the agricultural water rates. The District's Board of Directors will hold a public hearing on January 19, 2022, to determine whether or not there is a majority protest against these rate increases. If there is not a majority protest, then the Board of Directors may increase the agricultural water rates up to the maximum amount identified on the notice and in this Fee Study.

## **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 increasing any existing property-related fees and charges by local agencies. The District has made the decision to follow the provisions of Proposition 218, in part, because its procedures act to fully inform the District's landowners while simultaneously giving them a direct say in the matter.

### **1.2. Proposition 218 Requirements**

In general, before a local agency can levy new or increased water rates, the following procedures are required:

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 the public rate hearing at which the proposed rates will be considered.

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 the affected property owners or ratepayers submit written protests against the proposed rate increases, the increases cannot be adopted.

### **1.3. Limitations of the Fee Study**

This report is limited to the proposed increase to water rates to fully fund the District's costs. Although the District is seeking to increase its rates, the increase is necessary only to replace the amount currently subsidized by outside water sales and the use of reserve accounts, and does not reflect an increase in the budgeted expenses of the District (excluding inflationary increases).

### **1.4. Revenue Objectives**

In 2021, the District's variable expenses related to agricultural water deliveries were anticipated to be \$3.0 million, and the District collected \$1.8 million in volumetric water charges. The balance of the expenses was recovered through District reserves that were generated from outside water sales and other non-operating revenue of over \$1.2 million.

The main revenue objective for the District is to collect funds to fully fund the variable costs of the District to operate its water system for the benefit of its landowners and to replenish District's reserve fund through increased water rates, without utilizing outside water sales.

## **2. CURRENT AND PROJECTED WATER SUPPLIES**

### **2.1. General**

The District last conducted a Proposition 218 public hearing regarding volumetric agricultural water charges, monthly municipal charges, and land-based assessments on December 18, 2019. The volumetric water charges were subject to majority protest and were approved by the landowners. The volumetric water charges were calculated based on the District supplementing revenues through outside water sales and other non-operating revenues.

### **2.2. Irrigation Water Demand**

The District encompasses approximately 10,750 acres in the west central portion of Fresno County, in California's Central San Joaquin Valley. District farmland has historically produced a variety of commodities including cotton, canning tomatoes, alfalfa (seed and hay), sugar beets, small grains, pistachios and almonds. Irrigation water demand met by the District's surface and groundwater supplies is typically 25,000 AF/year.

### 2.3. Surface Water Supply

Normal surface water supplies of the District include Schedule 2 CVP water, South of Delta CVP water, and Kings River water.

Schedule 2 CVP Water (Riparian Water or Rights Water) is delivered without charge as a settlement of the District’s water rights claims in Fresno Slough; the settlement amount is 20,200 acre-feet (AF) of water. The contract (Contract 14-06-200-701-A) requires that the District take delivery of this water according to the schedule shown in **Table 1**.

The District’s South-of-Delta CVP water and their Kings River water are unreliable sources of water, especially in dry periods when the District is heavily reliant on groundwater supplies.

**Table 2. USBR Scheduled Water Deliveries to TID (AF)**

Hydrologic Year Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Normal	0	400	1,300	2,900	4,700	6,900	3,400	400	200	0	0	0	20,200
Dry	0	400	1,300	2,100	3,800	5,200	2,500	300	100	0	0	0	15,700
Critical <sup>1</sup>	0	400	1,300	1,000	1,620	2,380	1,170	140	70	0	0	0	8,080

<sup>1</sup> The “Critical” designation is not part of the CVP contract, but is estimated at 40% of the “normal” delivery schedule.

### 2.4. Groundwater Supply

The District owns and operates many wells to supplement irrigation demand that is not met by the surface water supplies described above. The amounts of groundwater needed to be pumped for each hydrologic year type is shown in **Table 3**. **Figure 1** illustrates irrigation demand being met by the two water sources under various water year type scenarios.

**Table 3. Well Water Requirements by Year Type (AF)**

Hydrologic Year Type	Groundwater (AF)	Surface Water (AF)	Total Irrigation Demand (AF)
Normal	4,800	20,200	25,000
Dry	9,300	15,700	25,000
Critical	16,900	8,100	25,000

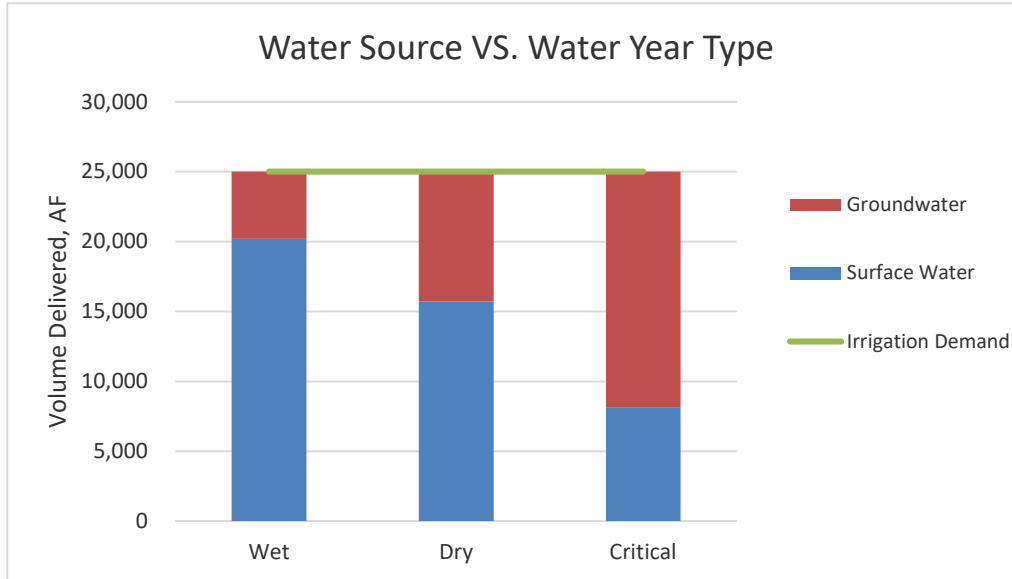


Figure 1. Water Supply and Demand

### 3. DISTRICT FINANCIAL INFORMATION

In 2021, the District projects to deliver 15,700 AF of surface water and 9,300 AF of groundwater. At the \$58/AF and \$98/AF costs, respectively, this is projected to generate \$1.8 million in revenue (**Table 4**). The District projects variable agricultural water expenses of \$3.0 million in 2021 (**Table 5**). The balance of the expenses will be recovered through District reserves that were generated from outside water sales and other non-operating revenue of over \$1.2 million.

#### 3.1. Reserve Account Depletion

The District has relied on reserve accounts to offset operation costs in the District. This practice is unsustainable. **Figure 2** demonstrates that at the current reliance on reserves, the account will be depleted by 2027 (or sooner depending on the water year.) To reverse this decline, a line item has been included on the budget to recoup reserve account losses.

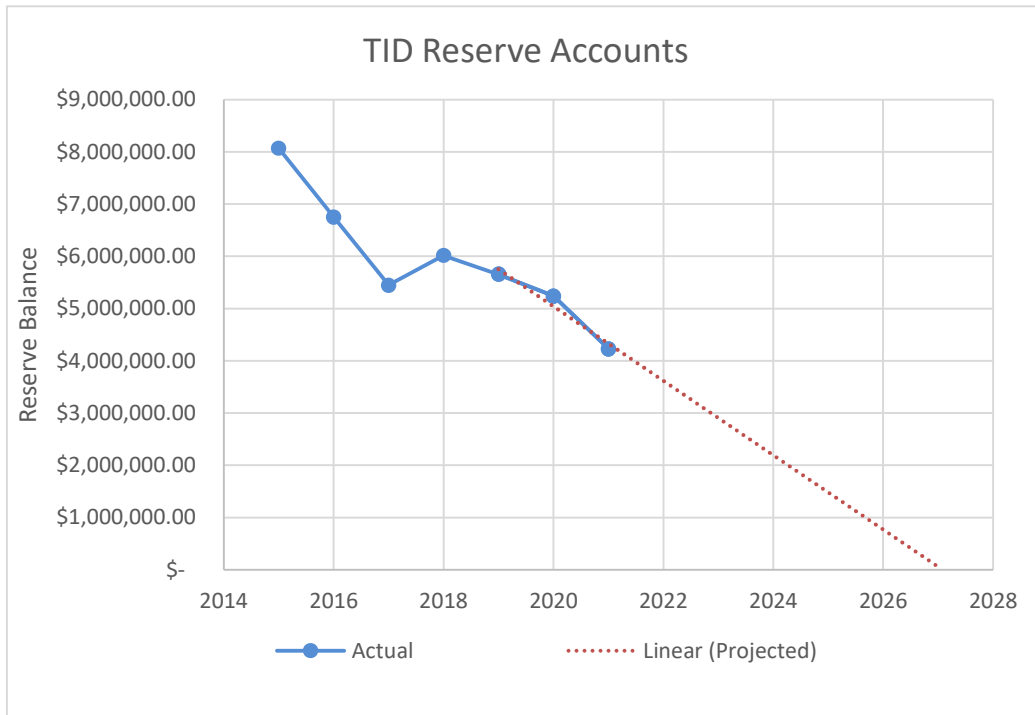


Figure 2. Reserve Account Depletion

### 3.2. Increase Energy Reliance

The 2019 water rate increase did not account for the high energy bills associated with dry and potentially critical water years. The current cost to extract groundwater is roughly \$106/AF. This cost will increase as groundwater levels decline, pump and well efficiencies degrade, and energy costs from the utility company increase. **Table 5** accounts for this variable cost of service.

### 3.3. Projected Revenues

Following approval of the rate increase, revenues are projected for each water year type in **Table 4**. Expenses associated with each of the water year types are projected in **Table 5**. **Figure 3** illustrates the agricultural water budget being met with the proposed revenue structure in the various water year type scenarios.

Table 4. Projected Revenue from Agricultural Water Deliveries

Revenue Source	Wet Year	Dry Year	Critical Year
Irrigation – Surface Water (\$98/AF)	\$1,979,600	\$1,538,600	\$793,800
Irrigation – Groundwater (\$200/AF)	960,000	1,860,000	3,380,000
<b>Totals</b>	<b>\$2,939,600</b>	<b>\$3,398,600</b>	<b>\$4,173,800</b>

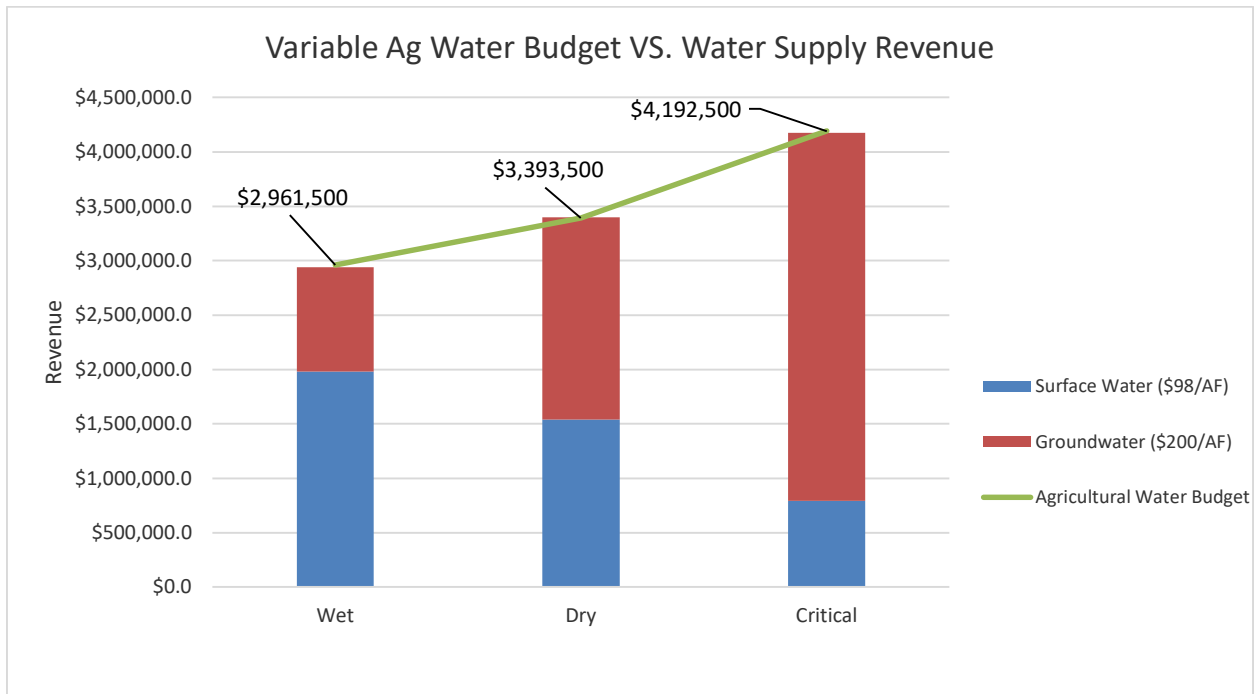


Figure 3. Revenue Breakdown by Water Year Type



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**Table 5. Projected Expenses Related to Agricultural Water Deliveries**

<i>Expenses</i>	<b>Total Budget</b>	<b>Ag Water Variable Cost Budget</b>		<b>Wet Year</b>	<b>Dry Year</b>	<b>Critical Year</b>
		<b>Apportionment (%)</b>	<b>(%)</b>			
Wages	\$760,000	75	\$570,000	\$570,000	\$570,000	\$570,000
Payroll Taxes & UI	\$20,000	75	\$15,000	\$15,000	\$15,000	\$15,000
Medical, Dental, Vision Insurance	\$340,000	75	\$255,000	\$255,000	\$255,000	\$255,000
Pension Expense (TID cont)	\$120,000	75	\$90,000	\$90,000	\$90,000	\$90,000
R/M Irrigation System (inc. meter repair)	\$50,000	100	\$50,000	\$50,000	\$50,000	\$50,000
Weed Control	\$40,000	100	\$40,000	\$40,000	\$40,000	\$40,000
R/M Pumps & Wells	\$50,000	100	\$50,000	\$26,000	\$50,000	\$91,000
R/M Vehicles	\$25,000	80	\$20,000	\$20,000	\$20,000	\$20,000
R/M Equipment	\$60,000	80	\$48,000	\$48,000	\$48,000	\$48,000
R/M City Water System	\$45,000	0	\$0	\$0	\$0	\$0
R/M Office Equipment	\$5,000	50	\$2,500	\$2,500	\$2,500	\$2,500
R/M Building	\$5,000	50	\$2,500	\$2,500	\$2,500	\$2,500
R/M Park	\$1,000	0	\$0	\$0	\$0	\$0
Equipment Rental (excavator/heavy equip)	\$5,000	100	\$5,000	\$5,000	\$5,000	\$5,000
Contract Water Costs/SLDMWA pu fees	\$50,000	100	\$50,000	\$50,000	\$50,000	\$50,000
<i>Solar Power</i>	<i>\$350,000</i>	<i>100</i>	<i>\$350,000</i>	<i>\$181,000</i>	<i>\$350,000</i>	<i>\$636,000</i>
<i>Irrigation Power - Electrical &amp; Diesel</i>	<i>\$700,000</i>	<i>100</i>	<i>\$700,000</i>	<i>\$361,000</i>	<i>\$700,000</i>	<i>\$1,272,000</i>
Utilities - Office, Shop, Park	\$16,000	0	\$0	\$0	\$0	\$0
City Water Power	\$75,000	0	\$0	\$0	\$0	\$0
Telephone & Broadband	\$15,000	0	\$0	\$0	\$0	\$0
Office Supplies	\$15,000	0	\$0	\$0	\$0	\$0
Outside Supplies (shop parts & misc items)	\$55,000	50	\$27,500	\$27,500	\$27,500	\$27,500
Misc Operating/Office Expenses	\$5,000	0	\$0	\$0	\$0	\$0
Copier Lease	\$3,500	0	\$0	\$0	\$0	\$0
SGMA - Central Delta Mendota GSA	\$145,000	100	\$145,000	\$145,000	\$145,000	\$145,000
Legal	\$110,000	100	\$110,000	\$110,000	\$110,000	\$110,000
Audit Fees	\$30,000	90	\$27,000	\$27,000	\$27,000	\$27,000
Gen. Liab, Property Insurance	\$40,000	0	\$0	\$0	\$0	\$0
Workers Comp Insurance	\$30,000	50	\$15,000	\$15,000	\$15,000	\$15,000
Employee Training	\$1,000	100	\$1,000	\$1,000	\$1,000	\$1,000
Employee Conferences/Meetings	\$35,000	100	\$35,000	\$35,000	\$35,000	\$35,000
Fuel & Oil	\$55,000	100	\$55,000	\$55,000	\$55,000	\$55,000
City Water Treatment & Misc Expense	\$25,000	0	\$0	\$0	\$0	\$0
Water Sampling	\$7,000	0	\$0	\$0	\$0	\$0
Outside Engineering ( <i>doesn't include work on big projects</i> )	\$120,000	100	\$120,000	\$120,000	\$120,000	\$120,000
KRWA Expenses (incl. dues)	\$40,000	100	\$40,000	\$40,000	\$40,000	\$40,000
SLDMWA	\$75,000	100	\$75,000	\$75,000	\$75,000	\$75,000
Dues (all other dues )	\$100,000	100	\$100,000	\$100,000	\$100,000	\$100,000
Taxes & Permits (prop., Rights Water)	\$45,000	100	\$45,000	\$45,000	\$45,000	\$45,000
<i>Capital Improvements/ Reserves</i>	<i>0</i>	<i>100</i>		<i>\$450,000</i>	<i>\$350,000</i>	<i>\$250,000</i>
<b>Totals</b>	<b>\$3,668,500</b>	<b>-</b>	<b>\$3,043,500</b>	<b>\$2,961,103</b>	<b>\$3,430,471</b>	<b>\$4,225,265</b>