

**ENGINEER'S REPORT
FOR TULARE IRRIGATION DISTRICT**

**PROPOSITION 218 PROCEDURES FOR
BENEFIT ASSESSMENT**

July 2022

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Tulare Irrigation District

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ABBREVIATIONS

AF.....Acre-feet
AFYAcre-feet per year
CFS.....Cubic-feet-per-second
CIPCapital Improvements Plan
County.....Tulare County
CPI.....Consumer Price Index
CVP.....Central Valley Project
District.....Tulare Irrigation District
DMSData Management System
DTWDepth to Water
DWRCalifornia Department of Water Resources
FKC.....Friant-Kern Canal
Friant CVPCentral Valley Project Friant Division
FWA.....Friant Water Authority
G&A.....General & Administrative
GSA.....Groundwater Sustainability Agency
GSP.....Groundwater Sustainability Plan
ID.....Irrigation District
JPA.....Joint Powers Authority
MKGSAMid-Kaweah Groundwater Sustainability Agency
O&M.....Operations & Maintenance
SGMA.....Sustainable Groundwater Management Act
SLDMWASan Luis & Delta-Mendota Water Authority
Subbasin.....Kaweah Subbasin
SWRCBState Water Resources Control Board
TID.....Tulare Irrigation District
USBRUnited States Bureau of Reclamation



REPORT SUMMARY

Due to the enactment of the Sustainable Groundwater Management Act (SGMA), recent years of drought as well as the limitations to obtaining excess Friant CVP surface water due to the San Joaquin River Settlement, and aging conveyance infrastructure the Tulare Irrigation District (TID or District) sees the need to implement programs and projects on behalf of its landowners to bring in additional surface water for direct use and recharge for increased water supply reliability, and to address replacement and maintenance of failing infrastructure. As these various factors have unfolded, the District and its Board of Directors have come to the conclusion that the current rate structure is not adequate to meet the needs of current and future programs. ***Therefore, the District intends to restructure and increase its land-based assessments.***

The general assessment 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 State's Government Code. These constitutional and statutory provisions implement Proposition 218, which established a number of mandatory procedures that local agencies must follow for the levy of certain assessments and charges to lands. However, the District has also 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.

In order to better serve District Landowners, TID's Board of Directors is requesting that landowners approve a restructure of the land-based collection framework and an increase to the special benefit assessment to lands within the District. This proposal would move away from the existing Ad Valorem property assessments and develop a flat rate assessment structure. ***The reasons for the restructure and rate increase are (1) to cover the budget shortfall from the existing land-based assessment, (2) to cover the cost of water recharged on behalf of District landowners, and (3) generate capital for new projects and programs for improving water allocation benefit in response to SGMA. This proposal could add upwards of \$7 million in additional revenue collected by the present assessment, which generates approximately \$2 million. It should be noted that the increase is a ceiling on the amount chargeable by the District, absent further proceedings, and in any given year the Board may elect to charge less than the proposed increase. The new assessments would begin with the 2023 assessment, which is mailed by the District in November 2022 with an installment due dates of December 20, 2022 and June 20, 2023. The rate increase will ramp up over a 5-year period and will be adjusted annually per a Consumer Price Index (CPI).***

Under the Proposition 218 process, once the Board determines the need to increase assessments, it is necessary to evaluate whether the costs are in line with the benefits provided and to allocate the costs to affected TID acreages. These are lands that derive a direct benefit from being within the District and the District's operations. The Engineer's Report discusses benefits of the District organization, its surface water entitlements and contracts, services provided by TID staff related to regulatory compliance, and potential

capital projects. It has been determined that these benefits apply to lands located within the District.

A public hearing will be held by the District in order to consider and address comments and questions from District landowners. Following the acceptance of this Engineer's Report by the Board of Directors, a Public Hearing will be set whereby landowners may participate and voice their support or concerns. A notice and ballot will also be sent to all landowners of affected acreages. Ballots will also be available at the Public Hearing. At the conclusion of the Public Hearing, the ballots will be counted. Proposition 218 requires that 50% plus one vote of the votes received are needed for passage of the proposed assessments.

1. PURPOSE OF THE REPORT

1.1. General

This report is prepared in accordance with State law to describe an equitable distribution of the benefit assessments to be derived by each parcel upon which such assessment will be levied. TID has charged the same assessments since before November 1996, when Proposition 218 was approved by California voters. The District collects revenue in water toll charges and assessments which are allocated towards the District's expenses which consist of: Source of Supply, Transmission and Distribution, and General & Administrative (G&A) expenses. The current water toll charge covers the majority of the District's revenue. Built into the water charge are fixed costs associated with operating the District, which presents financial challenges in dry water years. The District now intends to restructure its land-based assessment to develop a more consistent revenue basis for covering District G&A, fixed source water costs, and development of capital projects and programs in response to SGMA. This rate increase would begin in November 2022 for the 2023 assessment and ramp up over a 5-year period to the full assessment.

1.2. Proposition 218 Requirements

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 specific requirements relative to the imposition of local agencies' assessments, fees, and charges. The District has also 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.

Accordingly, the District must identify all parcels in the District that will have a "special benefit" conferred upon them for which the proposed supplemental benefit assessments will be levied. Under Proposition 218, a "special benefit" is defined as "a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large". Within TID, the primary benefits provided include, but are not limited to, protecting and maintaining water supplies, the conveyance and delivery of water supplies, the management of groundwater resources, the reduction of groundwater overdraft, and, more recently compliance with SGMA.

In general, before a local agency can levy new or increased assessments subject to Section 4 of Proposition 218, the following procedures are required:

1. Preparation of a detailed engineer's report, prepared by a registered engineer certified by the State of California, that supports each assessment.
2. The record owner of each parcel identified for assessment shall be given a written notice of each assessment, including the reason for the assessment and the total amount of the charges to the owner's particular parcel.
3. Notice to the record owner must specify the time, date, and location of the public hearing on the assessment; the notice shall also include a ballot and describe the voting procedures and statements in support and opposition to the assessment.
4. A public hearing shall be conducted, held not less than 45 days after mailing the notice, to consider protests and tabulate the ballots.
5. Ballots in favor of the assessment must represent a majority of the financial obligation (weighted based on financial obligation per unit acre) of the affected property to approve the assessments.

1.3. Sustainable Groundwater Management Act (SGMA)

On September 16, 2014, the Governor of California signed into law a three-bill legislative package (Senate Bill 1168, Assembly Bill 1739, and Assembly Bill 1319) that provided a framework for statewide sustainable groundwater management. These laws are collectively known as the Sustainable Groundwater Management Act, or SGMA. SGMA defines sustainable groundwater management as the "management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results." "Undesirable Results" are defined in SGMA as any of six primary effects caused by groundwater conditions occurring throughout the basin:

1. Lowering Groundwater Levels
2. Reducing Groundwater Storage
3. Seawater Intrusion
4. Degrading Water Quality
5. Land Subsidence
6. Depleting Interconnected Surface Water

TID entered into a Joint Powers Agreement (JPA) with the City of Visalia and the City of Tulare to form the Mid-Kaweah Groundwater Sustainability Agency (MKGSA). These potential undesirable results are the focus of SGMA and were addressed by the MKGSA in the Groundwater Sustainability Plan (GSP) submitted January 2020 to the Department of Water Resources (DWR). The focus of the GSP is on assessing, monitoring, and mitigating undesirable results from groundwater use. Some of these undesirable results, such as lowering of groundwater levels and subsidence, are significant issues and will need to be addressed and corrected. Each of these undesirable results has been investigated and prioritized as part of the GSP development. The GSP includes measurable goals and objectives and implementation actions to achieve and maintain

groundwater sustainability. SGMA requires the development and implementation of GSPs that document the proposed plan and programs for achieving groundwater sustainability within a prescribed 20-year window. During the GSP implementation phase (2020 to 2040), GSAs must adopt programs to facilitate measures outlined in the GSP, including monitoring the Subbasin for compliance, updating the GSP every five years, and providing DWR with annual updates on the progress of achieving sustainability. The State Water Resources Control Board (SWRCB) will intervene if the GSAs do not comply with SGMA, to ensure the subbasins are sustainable. TID funds the MKGSA, proportional to its share of the expenses, which is currently at one-third (1/3) of the ongoing administrative expenses, and has been developing policies in conjunction with MKGSA, as well as planning projects for groundwater sustainability in TID.

1.4. Revenue Objectives

Through this Proposition 218 Election, the District is proposing to restructure its land-based rates away from the historical Ad Valorem methodology that has been in place since before 1996. The proposed structure aims to move to flat rates across all District lands instead of the valuation per the USBR Land Classification method. The District proposes to implement the assessment across three budget categories: G&A Special Assessment, Surface Water Supply Special Assessment, and Capital Projects Special Assessment. Estimated budgets associated for each category are intended to justify a maximum assessment amount. Also included in the proposal is the ability for the Board to increase assessments related to inflationary adjustments in the future without having to incur the expense of repeating the Proposition 218 process. Inflationary adjustments would be based relative to annual, Western US Cities Average Consumer Price Index (CPI) adjustments (<https://data.bls.gov/timeseries/CUUR0400SA00>). ***Approval of this Proposition 218 election would authorize maximum assessment rates to be implemented at the discretion of the Board of Directors. The Board may elect to impose assessments lower than the maximum assessment in the future without need for a Proposition 218 election. Any need for the District to increase the maximum assessment above the inflationary adjusted maximum assessment will require the Board of Directors to pursue another Prop 218 election for those additional costs.***

Currently, the District's water tolls are responsible for covering the cost of water purchased and budget shortfalls not met by the existing land-based assessment. Water tolls also cover some fixed costs related to District operations and administrative costs, which are realized regardless of the water supply delivered in a given year. Having a secure revenue stream, authorized by the District's landowners (through a Proposition 218 election), would allow the District to maintain water rates and also fund programs to bring in more surface water on behalf of the District's landowners for success and compliance with SGMA Implementation. The secure revenue stream would also help the District obtain future financing for capital projects at lower interest rates than a variable revenue stream allows. The District has several capital projects envisioned to increase and maintain access to surface water supplies and to implement the MKGSA GSP in compliance with SGMA.

The main revenue objective for the District is to develop a more consistent revenue stream for covering existing fixed costs, funding capital projects, and maintaining surface water supplies. In total, pending landowner approval, the District would be authorized to assess for approximately \$9 million after the 5-year roll out of the new assessment rate structure.

2. DISTRICT BACKGROUND INFORMATION

2.1. General

TID is a political subdivision of the State of California operating as an independent agency under the California Water Code. TID obtains and delivers surface water supplies for irrigation of farms and recharge of the groundwater basin underlying the District. The district delivers surface water to approximately 215 farms and serves approximately 65,000 acres. The District is governed by a five-member Board of Directors that represents geographic areas within the District. The District is governed by a board of five directors elected to four-year terms on a staggered basis, meaning two directors are elected and the other three director positions in the succeeding election. Elections are held every two years. Each director represents one division within the District. Regular board meetings are held monthly, on the second Tuesday of the month at 9:00 AM.

2.2. Location

The District provides service to approximately 65,000 acres within Tulare County, California, and is situated in the San Joaquin Valley, approximately 50 miles southeast of the City of Fresno and approximately 65 miles northwest of the City of Bakersfield. The City of Tulare is situated within the District and is the largest community within the District boundaries. State Highways 63, 99, and 137 traverse the District. The topography slopes generally from east to west at 5 to 15 feet to the mile. Adjacent agricultural water agencies include Corcoran Irrigation District, Kaweah Delta Water Conservation District, Kings County Water District, Lower Tule River Irrigation District, and several private ditch companies. The location of the District is shown in **Figure 2-1**.

2.3. History

TID was organized September 21, 1889. The original proposal for the formation of an irrigation district covered 219,000 acres, extending from the Sierra Nevada foothills to Tulare Lake, was eventually reduced to 32,500 acres. The District continued in this status until January of 1948 when the so-called "Kaweah Lands" (approximately 11,000 acres) were annexed. In October of 1948, approximately 31,000 acres, comprising the area served by the Packwood Canal Company were annexed to the District. In the early days of the District's history, \$500,000 in bonds were issued for the creation of the District. About half of the funds were expended for construction of diversion works on the St. Johns River, the main canal heading at the river (including a large flume over the river), together with the purchase of water rights of the Kaweah Canal and Irrigation Company, Rocky Ford Canal and Irrigation Company, and Settlers Ditch Company. The remainder was used for canal construction within the District.

The financial difficulties of early 1890's caused a setback, and attacks on the legality of the formation of the District, and a challenge to the legality of the bonds made matters worse. By 1895, most of the landowners had begun to default on payment of District assessments. For a number of years, the District practically ceased operating, although water was kept running in the canals. During this period, the litigation over the bonds continued, and economic conditions in both Tulare and the surrounding country reached

a low ebb. After negotiations with the bondholder, it was found possible to retire the bonds at approximately \$0.50 on the dollar, and an assessment of 36 percent of the valuation was made for this purpose. The debt was finally cleared by payment of \$273,075 and the bonds were publicly burned on October 17, 1903. For many years after the retirement of the bonds, the District operated on a system of water tolls, but the annual levying of assessments was resumed in 1918. Today, the District only has one outstanding loan, which is from 2020 and is related to the District's water repayment contract with the U.S. Bureau of Reclamation.

A U.S. Bureau of Reclamation contract was signed in 1950 providing an annual supply of 30,000 acre-feet of Class 1 water, and up to 141,000 acre-feet of Class 2 water from the Friant-Kern Canal. After the annexations of the "Kaweah" and "Packwood" lands and the commencement of the diversion of the Central Valley Project (CVP) water, the District proceeded with extensive improvements to the existing canals system, and the extension of the canal system to serve annexed areas. This work consisted of enlarging and/or relocating canals, construction diversion structures, road crossings, checkgates, siphons, installing pipelines, etc. The majority of this work occurred between 1951-1964.

Since the completion of Terminus Dam in 1962, Kaweah River water rights owners have benefited by the regulation of the natural river flows - temporary storage of flood waters, uniform downstream releases, and options on the time and quantity of irrigation diversions.

The Kaweah Delta Water Conservation District (KDWCD) and TID formed a joint-power authority in 1982 - the Kaweah River Power Authority (KRPA). The KRPA filed for a license to construct a 17MW hydroelectric plant at Terminus Dam and Lake Kaweah. KRPA proceeded with design and construction of the plant, and the plant went online in 1992 delivering power to Southern California Edison Company. The District and KDWCD sold the power plant at Terminus Dam in 2020. This sale resulted in a one-time revenue back to the District for the sale. However, with the sale, the District will no longer receive annual power revenue which also increases the need for a new assessment structure.

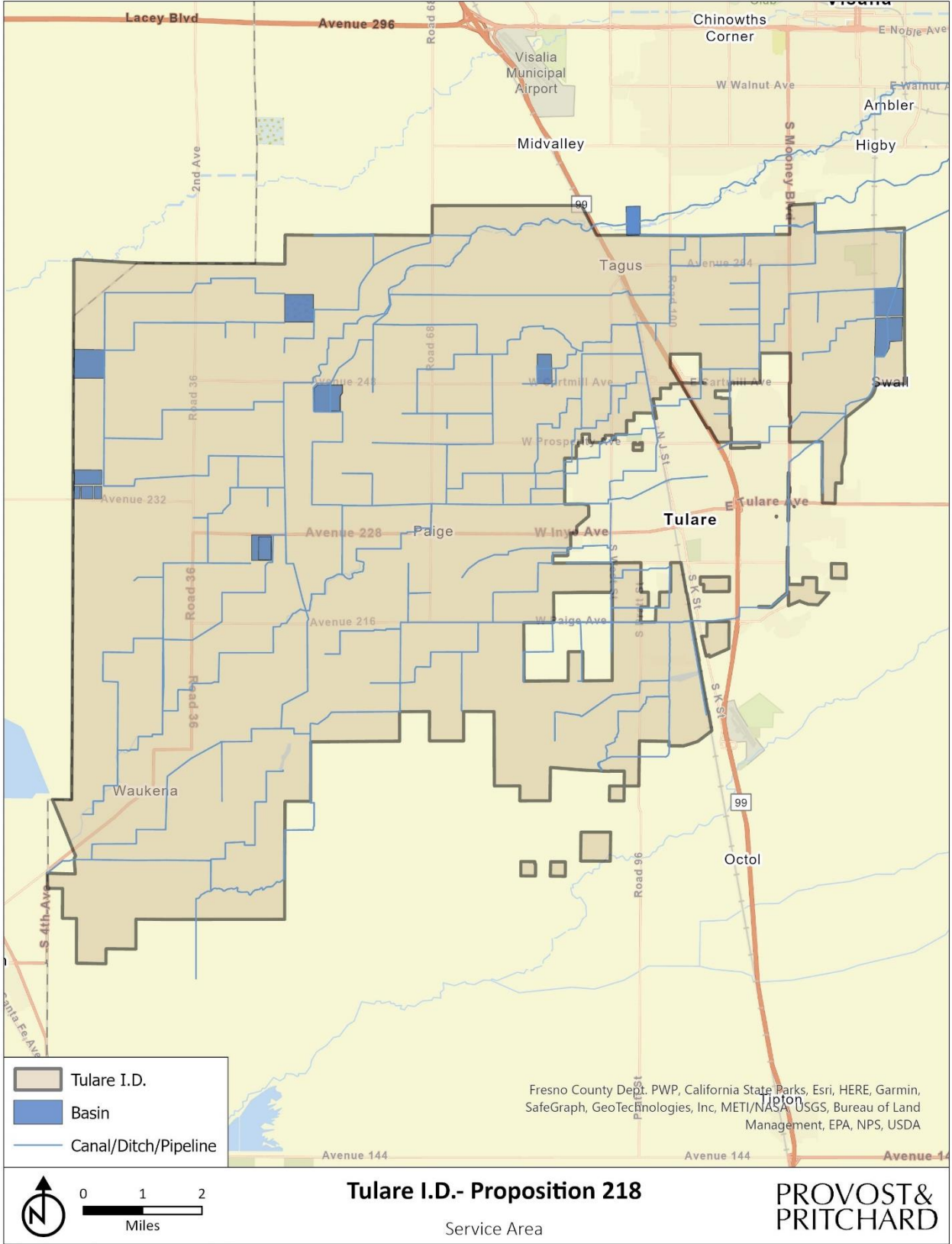


Figure 2-1 District Location and Facilities Map

2.4. Environmental Settings

2.4.1. Climate

The climate in the area served by TID is typical of the San Joaquin Valley. During the summer months the days are generally hot and dry with daytime temperatures typically exceeding 90 degrees Fahrenheit (°F) and during the winter months the days are generally mild and damp with daytime temperatures typically averaging 45 °F. The mean annual temperature at Tulare is 63.1 °F. The average minimum and maximum temperatures are 49.3 °F and 77 °F, respectively.

The average seasonal rainfall for the District area is approximately 9 inches. The rain falls principally during the October through April period. The average annual evaporation for the area is approximately 50.5 inches with the greatest evaporation occurring during the months of May through August.

2.4.2. Terrain and Soils

TID is located on the western side of Tulare County and is generally characterized as having fairly flat sloping land. The District generally slopes from northeast to southwest at an average of 6.2 feet per mile. Soils in the district are primarily a loam and sandy loam, which are compatible with the crops grown in the district.

2.4.3. Cropping Patterns

The climate and soils in the service area provide ideal conditions for the establishment of a vibrant agricultural industry with many varieties of annual and perennial crops. The crops in TID are mostly row crops that support the local dairy industry. The major crop categories grown within the district are as follows:

Field/Nursery Crops	(42%),
Pasture/Grains	(45%), and
Permanent Plantings	(12%),

2.5. Water Supply

2.5.1. Surface Water

Currently, the water supply for landowners within the District is derived from the following four sources:

1. Groundwater pumped from grower owned wells,
2. CVP Friant Division contract entitlement,
3. Surplus Friant Division Central Valley Project supplies, and
4. Kaweah River appropriated water rights.

For the 25-year period between Water Years 1997 and 2021, the District's average annual surface water supply is approximately 153,000 AF. Imported surface water supply

from CVP makes up approximately 40% of the average annual total and surface water supply from the Kaweah River makes up the remaining approximately 60%.

Table 2-1 District 25 Year (1997-2021) Surface Water History

Water Supply	Average Annual (AF/Year)	Percentage of Total (%)
Total Diversions	153,000	
Deliveries to Growers	75,000	49%
Deliveries to Others	1,700	1%
Spills out of District	1,600	1%
Basin Recharge	40,000	26%
Canal Seepage	34,700	23%

2.5.2. Groundwater

The District does not have any groundwater extraction facilities to deliver groundwater; therefore, each landowner must provide his own well(s) to sustain irrigation during periods when the District does not have surface water available. Groundwater is found in the unconfined and confined aquifers underlying the District. Groundwater is pumped by many private irrigation deep wells. Surface water is used conjunctively with groundwater so that water users stabilize their water supply by maximizing the surface supply when it is available.

District staff measure groundwater levels at multiple wells semiannually in March and October and the levels are used to generate groundwater contours. Groundwater levels have historically decreased in the District. **Figure 2-2** depicts the depth to groundwater as of Spring 2022 with depths ranging from about 100 to 225 feet below the ground surface based on measurements made by the District staff. **Figure 2-3** shows the Spring 2022 Groundwater Elevation contours, with gradients generally toward the southwestern boundary of the District.

2.5.3. Groundwater Recharge Activities

The District recharges groundwater through means of its unlined canals and recharge basins. **Table 2-2** summarizes the approximate area and capacity of the recharge basins that the District employs. On average, between Water Years 1997 – 2021 the District has recharged through its distribution facilities approximately 34,700 AFY and 40,000 AFY in its recharge basins.

Table 2-2. District Recharge Basins

Recharge Basin Name	Capacity (AF/Day)	Approximate Parcel Area (Ac)
Abercrombie	5	20
Anderson	45	167
Creamline	85	153
Doris	7	21
Enterprise	20	80
Guinn	50	162
Martin	20	18
Swall	100	138
Tagus	40	120
Watte	10	19
K.D.W.C.D. #3	65	155
K.D.W.C.D. #6	65	155
K.D.W.C.D. #8	40	118
Total	552	1,326

The District continues to investigate additional recharge opportunities and funding opportunities that could supplement District construction costs. TID recently secured 20 acres northeast of the community of Okieville for a new recharge basin. The project design and California Environmental Quality Act processes are aiming for completion by mid-2022 with potential construction starting in the Fall of 2022. The District is also pursuing new opportunities such as on-farm recharge and vadose zone injections wells to do direct recharge above the groundwater aquifer.

2.6. Municipal Water Use

In addition to groundwater used for agriculture, there are communities within the District's boundaries that also use groundwater from the aquifer that the District recharges. Water for most uses within the City of Tulare and communities of Okieville and Waukena are derived from water pumped from the groundwater aquifer by the City and public utility districts for the benefit of their customers. There are rural households that rely on private wells to meet their domestic needs, their pumping volume is considered negligible. Municipal groundwater pumping within the TID boundary is estimated to be approximately 14,000 AFY.

Groundwater conditions have been improved or stabilized as a result of the District's imported surface water, which is used primarily by farmers using surface water when it is available in lieu of pumping groundwater, thus conserving groundwater for use by urban users and others, and during times of drought. The activities of the District enhance groundwater supplies through direct recharge activities, surface water losses in the District distribution system, and return flows from irrigation activities. This conjunctive use of surface water and groundwater has enhanced, and stabilized water supplies for urban, rural domestic users, and disadvantaged communities (DACs) within the District absent these activities.

2.7. Existing Facilities

The TID distribution system primarily consists of natural channels or unlined earthen canals with some piped facilities. The District maintains approximately 330 miles of canals and 30 miles of pipelines and culverts. TID also maintains approximately 1,330 acres of groundwater recharge ponds. The District's Main Intake Canal is the largest facility which conveys water from the Friant-Kern Canal and Kaweah River for 14 miles to get into the District Boundary. Generally, TID's canals run from the northeast to the southwest. The District's distribution system and recharge facilities are shown in **Figure 2-1**.

The District delivers surface water to approximately 215 customers and encompasses approximately 68,300 acres. The District annually assesses approximately 65,000 acres.

The District does not have any groundwater extraction facilities; therefore, each landowner must provide his own wells to sustain irrigation during periods when the District does not have surface water available.

2.7.1. District Water Rates

The District's water rates partially cover the costs associated to the District's purchasing of water, District operations and maintenance, and District administrative costs. The District's revenues historically fluctuated greatly due to the source water costs and availability of water purchased. The District currently has the ability to charge up to \$55 per acre-foot of water delivered to District users. Historically the District kept the water rate at approximately \$33 per acre-foot and during the last drought from 2012 to 2016 the District passed a maximum rate increase to \$55 per acre-foot. The current rate set by the Board of Directors for surface water from the District is \$52 per acre-foot. **This assessment increase does not intend to impact or adjust the maximum water rate and it shall remain at \$55 per acre-foot unless the District seeks to increase water rates further through a separate Prop 218 proceeding.**

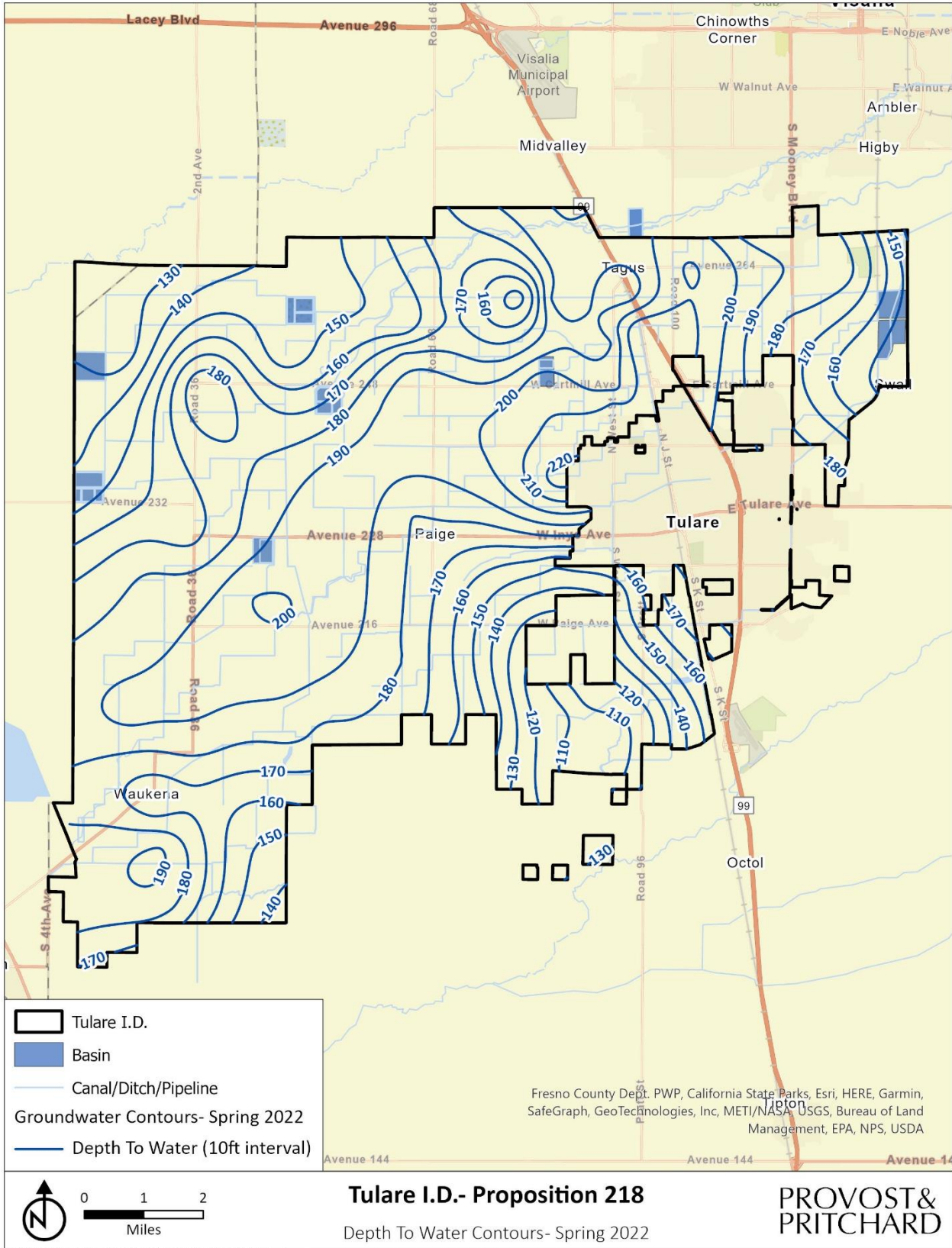


Figure 2-2 Spring 2020 Depth to Groundwater Contours

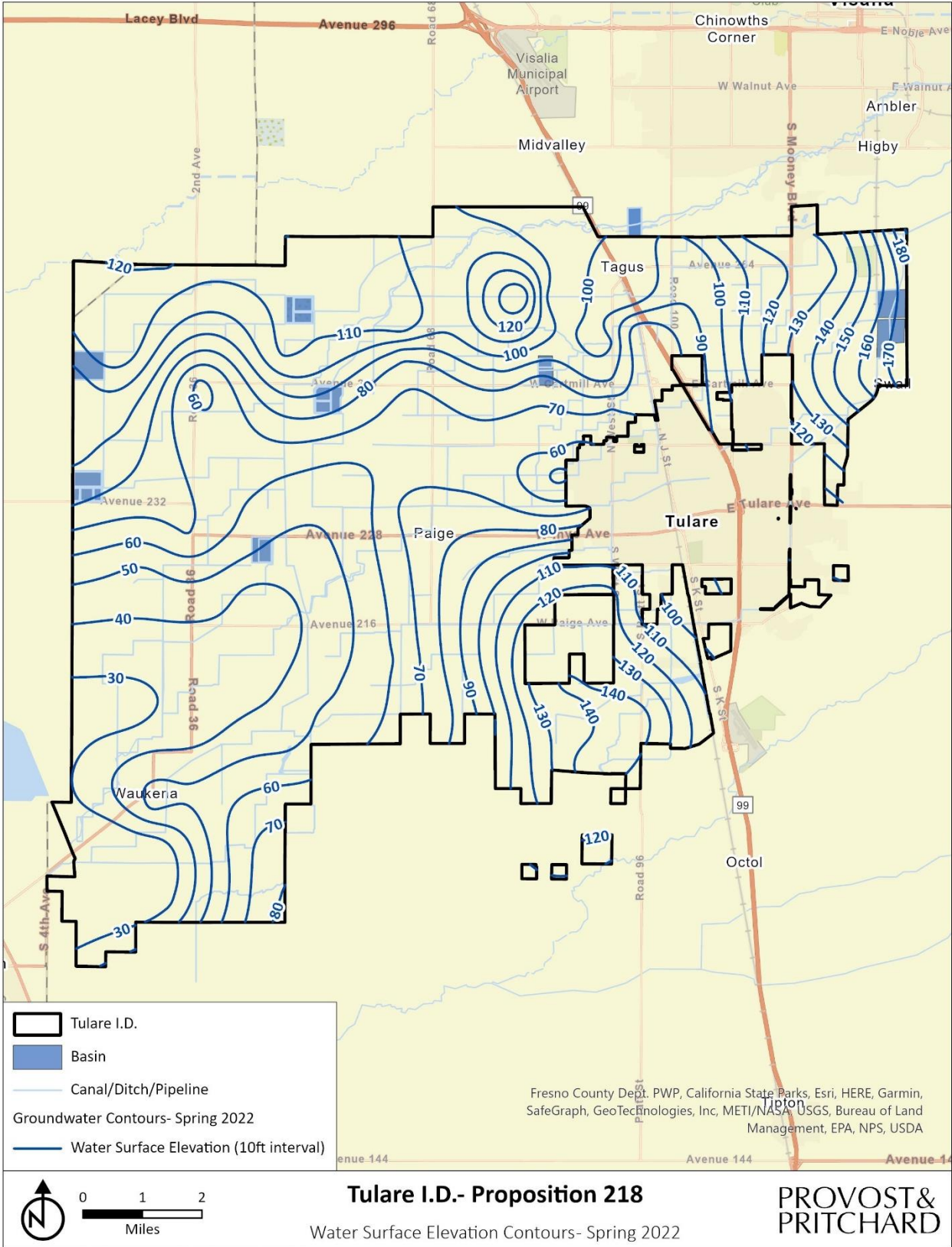


Figure 2-3 Spring 2020 Groundwater Elevation Contours

3. DISTRICT FINANCIAL INFORMATION

The District currently operates on an average budget of approximately \$8.5 million per year. This total is based on the average of the operating expenses from 2016 to 2020 and includes water supply costs, transmission and distribution, and administrative and general District functions. Revenue sources include water sales, assessments, and sales of assets, grants, and investment income. Operating expenses ranged from about \$7.6 to \$10.6 million per year during that period. The largest variable from year to year is water purchases for the Source of Supply.

3.1. District Rate Information

3.1.1. Historical District Rates

The District has been charging landowners assessments since prior to the passage of Proposition 218 by the California voters in 1996, to fund a portion of the District's administrative costs outside of the water charges. District costs are currently collected from landowners and/or water users through assessments and/or volumetric water charges. For 2020, the relative value of services has been determined to be as depicted in **Table 3-1** below. The rates utilized by the District reflect the value of service and assessment charges determined by the Board of Directors. The water charges fluctuate year by year and vary depending on water supply availability, the time of year, and price.

Table 3-1. Rate Classification and Value of Service

Rate Classification	Relative Value of Service
Surface Water Supply	
District Water Rates – (toll charges)	
Winter Irrigation	\$25/AF
Summer Irrigation	\$52/AF
Assessment	
Ad Avlorem Assessment	0.8% of valuation
Minimum Assessment	\$31.15/parcel

3.1.2. Water Rate

Water rates are set on an annual basis by the Board of Directors. The Board takes into consideration the hydrologic conditions, seasonal considerations, status of District reserves and price of water available for sale. In some years, the rate will vary depending on the time of year, spring, summer or fall. The Board of Directors cannot set the water rate above \$55 per AF without conducting Prop 218 proceedings.

3.1.3. District Assessment Rates

The Board of Directors established the current assessment valuation rates for the District prior to 1996. Each year the District's Board of Directors meets as the District's Board of Equalization as per the state water code to evaluate the value of the USBR classes of land within the District. At this meeting, they adopt a resolution that modifies or

perpetuates the assessments levied within the District. The ad valorem general assessment was set at a rate of 0.8% per valuation of land. Additionally there is an Environmental Charge of \$16.00 per acre. The District has set a minimum \$32.00 assessment and is charged to properties where the 0.8% assessment per valuation and Environmental Charge is at or below \$32.00. These two assessment components (Ad Valorem and Environmental Charge) generate about \$2 Million per year in revenue.

The District currently collects benefit assessments from approximately 65,070 acres of land within the District. **Table 3.5** summarizes the USBR land classifications including the percentage of the lands within the District that fall into the different classifications, their current valuation, and their description. **Figure 3-1** is the USBR District map showing the land classifications within the District by color. The current assessment averages about \$31.15/acre across the assessed acreage. Assessments are due in two installments, December 20 and June 20 and collected by TID Staff.

Table 3-2. USBR Land Classification

Land Class	Classification	Valuation per Acre	Assessment/Acre for 0.8% Ad Valorem	Approximate Percentage of Total Area (%)
1	Land capable of producing high yields of any climatically adapted crop at minimum cost.	\$2,000.00	16.00	17
2	Slight to moderate restriction in productivity or ease of management because of minor limitations in soil, topography, or drainage.	\$1,900.00	15.20	44
3	Moderate to severe limitations in soil, topography, or drainage.	\$1,750.00	14.00	36
4	Unsuitable for general cropping because of severe limitations but has limited utility for special crops.	\$1,400.00	11.20	<1
6	Unsuitable for irrigation because of extreme limitations.	\$1,400.00	11.20	<1
	Parcels between 1 to 5 acres	varies	varies	2
	Small Lots (<1 acre)	\$32/lot	-	<1
			Total	100

If the proposed new assessment is approved by the landowners in the District, the existing ad valorem assessment will be eliminated. However, if the proposed assessment is not approved, the existing assessment will remain.

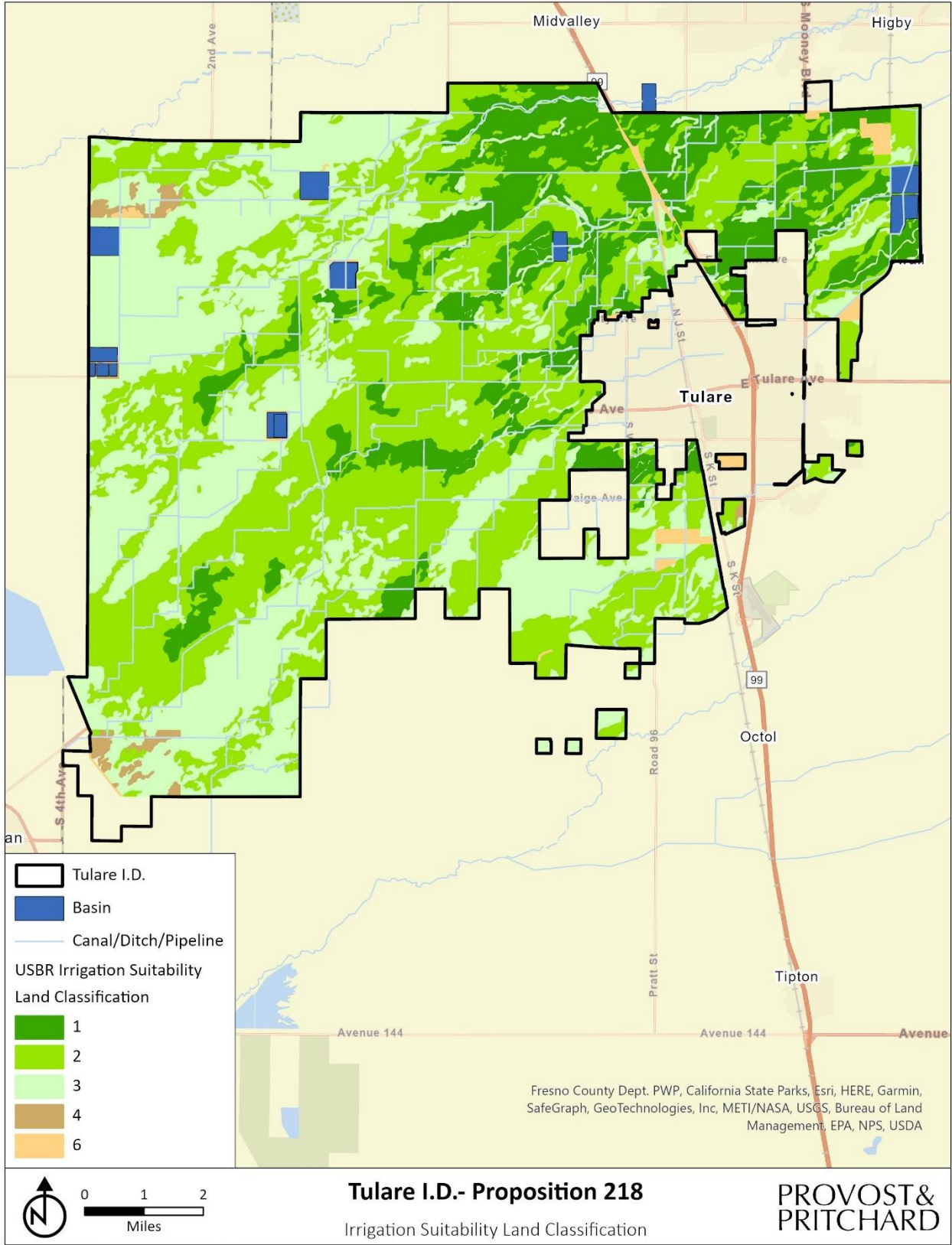


Figure 3-1 USBR Land Classification Map

3.2. Fiscal Year 2022 Adopted Budget

The District establishes an operating budget on an annual basis. The fiscal (calendar) year 2022 budget developed by the District was reviewed for this report. A summary of the budget by major categories is depicted in **Table 3-3**. To date, there have been no amendments to the adopted budget. At slightly over \$8.1 million, the budget for fiscal year 2022 shows the costs necessary to maintain basic operations of the District and purchase surface water or otherwise required by law. Note there are line items for upcoming efforts with the San Luis & Delta-Mendota Water Authority (SLDMWA). No additional costs are forecasted in 2022, but significant costs are anticipated to increase in future years.

Table 3-3. Summary of District's Adopted General Budget (2022)

DESCRIPTION	AMOUNT
GENERAL & ADMINISTRATION	
Salaries and Wages	854,356
Employee Benefits	1,503,651
Equipment Maintenance	90,837
Materials and Supplies	48,986
Utilities and Telephone	25,914
Fuel	128,441
Insurance	158,317
Professional Services	436,294
Association Dues	16,286
Office and General	170,692
Uncollectible Accounts	30,836
SUB TOTAL	3,464,609
TRANSMISSION & DISTRIBUTION	
Water Service	
Salaries and Wages	88,295
Utilities	38,643
System Maintenance	
Salaries and Wages	541,289
Repairs and Supplies	136,854
Weed and Pest Control	219,835
Equipment Rental	81,697
SUB TOTAL	1,106,612
SOURCE OF SUPPLY	
Water Purchases	600,000
Water Purchases - Other sources	0
Conveyance & O&M expenses	2,419,246
Extraordinary O&M (Friant / SLDMWA)	0
SLTP Estimated Additional Costs	0
Friant General Membership Dues	101,044
Storage Charges	0
Water Stock Assessments	237,382
FKC Costs (O&M)	0
Water Rights Fees	206,983
SUB TOTAL	3,564,655
GRAND TOTAL	8,135,876

3.2.1. District Revenues

The majority of District revenues are from the water sales or water transfers/exchanges to others, representing on average a little over 60% of the District's total revenue (for 2016 to 2020). The balance of the District's revenue is generated from assessments, surcharges, property taxes, and other non-water sales and services. A summary of the revenues is included in the statement of income/loss from District financial reports summarized in **Table 3-4** for years 2016 to 2020.

Table 3-4. Statement of Income (Loss) 2016-2020

DESCRIPTION	2016	2017	2018	2019	2020	AVERAGE
<i>OPERATING REVENUE</i>						<i>(2016-2020)</i>
Irrigation Water Sales	1,439,279	5,928,241	2,469,632	6,296,149	1,207,027	3,468,066
Water transfers/exchanges to others	576,801	1,693,392	1,333,466	3,623,832	2,176,744	1,880,847
Current Assessment	986,507	986,299	986,460	986,413	986,086	986,353
U.S. Environmental Surcharge	1,054,037	1,053,799	1,053,975	1,053,956	1,053,601	1,053,874
Non-water sales and services	1,249,031	1,576,007	965,275	881,446	1,143,619	1,163,076
Total Operating Revenue	5,305,655	11,237,738	6,808,808	12,841,796	6,567,077	8,552,215
<i>OPERATING EXPENSE</i>						
Source of Supply	3,887,861	5,234,697	4,590,063	6,421,375	3,671,753	4,761,150
Transmission and Distribution	959,937	1,320,370	1,204,700	1,211,043	1,063,773	1,151,965
General & Administrative	2,837,958	2,864,956	2,722,525	2,968,756	2,968,985	2,872,636
Total Operating Expenses	7,685,756	9,420,023	8,517,288	10,601,174	7,704,511	8,785,750
Total (Loss) from Operations	(2,380,101)	1,287,715	(1,708,480)	2,240,622	(1,137,434)	(339,536)

<i>NON-OPERATING REVENUE (LOSS)</i>						
Assessment penalties and fees	10,318	23,380	16,767	24,186	19,057	18,742
Property Taxes	287,899	253,478	260,230	242,922	315,147	271,935
Interest and Investment Income	159,209	150,396	178,894	192,762	215,183	179,289
Joint Venture Income (Loss)	301,455	979,312	10,727	944,482	(2,265,849)	(5,975)
Interest on long-term Debt	(302,532)	(287,558)	(268,492)	(266,235)	(230,825)	(271,128)
Capitalized equipment charges	N/A	N/A	N/A	318,341	104,743	211,542
Gain (Loss) on sale of capital assets	5,530	3,171	5,494	423	(173)	2,889
Grant Income	57,471	85,821	40,700	27,674	0	42,333
Other Revenues (Expenses)	12,443	29,742	119,874	107,003	231,510	100,114
Total Non-Operating Revenue (Expenses)	531,793	1,237,742	364,194	1,591,558	(1,611,207)	422,816

Net Income (Loss)	(1,848,308)	2,525,457	(1,344,286)	3,832,180	(2,748,641)	189,280
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NOTE: The source for the amounts shown is the audited financial statements from years 2016 – 2020.

The audited financial reports show that the total District operating revenues have averaged nearly \$8.5 Million in operating revenue for the 2016 to 2020 fiscal years. The

water sales revenue has fluctuated greatly depending on hydrology and growers demand where the existing land-based assessments and environmental surcharges are stable at about \$2 million per year. Between 2016 and 2020 water sales revenue ranged from a maximum of nearly \$6.3 Million in 2019 to a minimum of \$1.2 million in 2020.

3.2.2. District Expenses

Total District expenses in 2020 were approximately \$7.7 million, based on the audited 2020 Financial Statement and have averaged about \$8.7 million for 2016 to 2020. District expenses include both operational expenses and non-operational expenses. District operating expenses include Source of Supply, Transmission and Distribution (often called Operation & Maintenance or O&M) and G&A expenses. Operational expenses vary widely from year to year, largely due to the amount and cost associated with Friant Division CVP water available to be purchased (Source of Supply). The District has also identified several upcoming expenses associated with costs from Friant Water Authority for operations and maintenance activities both on the Friant-Kern Canal and the costs associated with operations and maintenance of the San Luis & Delta-Mendota Water Authority.

Source of Supply – These expenses are the costs associated with the CVP water supply and any costs associated with water purchases that occur each year. For 2016 to 2020, source of supply was as low as \$3.7 million, to as high \$6.4 million in 2019, with an average of \$4.8 million per year for the five-year period.

Transmission & Distribution - Besides water supply purchases, facilities O&M expenses include water operations, include administrative, engineering, water operations and maintenance salaries, chemicals, O&M supplies, system repairs, water system operation expenses, weed control, fuel and oil, equipment rental, etc. These expenses represent a majority of the O&M expenses required for District facilities. Transmission and distribution costs are the cost to move surface water from the source to the grower.

In the past, transmission and distribution costs to the District were thought to vary every year due to the varying water supply and the source of water purchases, generally through the Friant Division CVP that is dependent upon hydrological conditions and willing sellers. However, these expenses have been fairly stable in recent years with routine maintenance and upkeep. This can be seen in the 2016 – 2020 financials as the expense ranged from \$960,000 to \$1.3 million, which were dry years in all but 2017 and 2019. Through this review, though there is some variance, these costs are generally fixed.

General & Administrative (G&A) - These expenses include the expenses not attributable directly to transmission and distribution but are necessary for the district's operations, which include the salaries of supervisors and management, employee benefits, Board of Directors, consultants, safety, insurance, and general office expenses and supplies. Salaries and payroll related expenses represent a significant portion of the G&A expenses. G&A expenses averaged approximately \$2.87 million per year during the 2016 through 2020 period. As shown in the table above, these costs have remained relatively static over the period with a slight increasing trend. Increases near the end of the period

are likely costs associated with administering and managing the MKGSA in response to SGMA. With SGMA implementation, the G&A costs are anticipated to remain closer to the more recent costs than the previous years.

Reserve Funds – The District has established and adopted a ‘Reserve Fund’ policy to set aside District funds for meeting its operating, capital, and debt service obligations. The Policy is reviewed on an annual basis and can be amended only by action of the Board of Directors. Although these funds are placed in reserve, they are not restricted, and the Board may utilize the funds for any purpose if needed. As of December 31, 2021, the following reserve categories and amounts were set aside:

Building/O&M Yard Improvements	\$100,000.00
Construction Equipment Replacement	\$100,000.00
Water Stock Acquisitions	\$58,000.00
Terminus Dam & Power Plant Facilities	\$50,000.00
Infrastructure Rehabilitation	\$250,000.00
General Operations	\$1,500,000.00
<u>CVP Environmental Charges</u>	<u>\$5,273,819.07</u>

Restricted Funds – The Board has restricted some funds to set aside District funds for debt obligations like the CVP capital repayment costs. The Restricted Funds can be amended only by action of the Board of Directors. In 2021, the District had no funds allocated for debt service in its restricted funds.

Unrestricted Funds – The Board has set aside reserves that are unrestricted to meet needs related to water purchases so that water sale rates are not subject to extreme fluctuations and for ready access for furtherance of groundwater recharge activities. As of December 31, 2021, the following unrestricted categories and amounts were set aside:

Water Sale Rate Stabilization	\$1,981,297.52
Groundwater Replenishment	\$121,711.39
<u>Dry-Year Water Purchase</u>	<u>\$1,000,000.00</u>

4. PROPOSAL TO RESTRUCTURE AND INCREASE ASSESSMENTS

4.1. General

The District requires additional revenues in order to maintain the level of services that the property owners have historically been accustomed to receiving and to maintain the groundwater supply for future use. The existing ad valorem assessment that has been in place since before 1996 provides limited revenue for the District, covering about 25% of the average TID revenue, with water sales and exchanges providing most of the remaining revenue for the District at a little more than 60%. The restructuring of revenue sources should help provide the District greater financial security during times of drought by maintaining a stable revenue for the District's fixed costs, while keeping the water rate at a reasonable cost and reducing the need to participate in exchanges and transfers of surface water to provide revenue. The change to land-based assessments will also help the District to acquire outside financing for the identified projects in the Capital Improvements Plan (CIP). Assessments are proposed to fund the following three general areas:

- District Fixed Costs – General & Administrative
- Surface Water Supply
- Capital Projects

Therefore, the District intends to restructure its assessment collection on land-based assessments and thereby increase the general property assessment. This section lays out the District's proposed plans for addressing the necessary assessment increase associated with this effort.

It should be noted that if the proposed new assessment is authorized, the existing ad valorem assessment will be eliminated. However, if the proposed assessment is not approved, the existing assessment will remain in place.

4.2. Change in Assessments

Through this Proposition 218 Election, the District is proposing to restructure its land-based rates away from the historical Ad Valorem methodology that has been in place for decades. The proposed structure aims to move to flat rates across all District lands instead of the valuation per USBR Land Classification. The estimated budgets associated for each category is intended to justify a maximum assessment amount. Also included in the proposal is the ability for the Board to increase assessments related to inflationary adjustments in the future without having to incur the expense of repeating the Proposition 218 process. Inflationary adjustments would be based relative to annual Western US Cities Average Consumer Price Index (CPI) adjustments according to the methodology outlined in **Attachment B. Approval of this Proposition 218 election would authorize maximum assessment rates to be implemented at the discretion of the Board of Directors. The maximum assessment will be implemented over a 5-year period on prescribed increments each year for the first five years. The Board may elect to**

impose assessments at lower than the maximum assessments in the future without need for a Proposition 218 election.

4.2.1. Special Benefit Assessment – District Fixed Costs – G&A

The existing property assessments include a 0.8% ad valorem general assessment fee. This assessment is based on the land classifications designated by the USBR through a land classification map that was last published in 1995. The valuation per acre is associated with either the land class of a parcel or a minimum \$16.00 assessment if the valuation is less than \$16.00. The District also has an Environmental Charge at \$16.00 per acre. The minimum assessment charged by the District is \$32.00 when a parcel's assessment is at or below \$32.00 as described in greater detail in **Section 3.2.2** above. This existing assessment structure has generated on average about \$2 million per year in revenue from years 2016 – 2020.

However, the District's fixed costs over the same period has averaged approximately \$4 million, about 4 times greater than the existing assessment revenue. Fixed costs under the G&A Assessment are listed below and are averages for the 2016 – 2020 time period.

- \$1.152 million per year on average for transmission and distribution (operations) expenses for District facilities;
- \$2.873 million for District general and administrative expenses for staffing and running the District;
- \$174,100 for water rights fees. These are the costs associated with water rights on the Kaweah River;
- \$249,400 for the annual Friant membership dues. These are costs associated with membership in the Friant Water Authority (FWA) which operates the Friant-Kern Canal on the behalf of the Friant Contractors.

The District is proposing a new flat assessment across all assessed acres to generate revenue to cover these expenses. The existing Ad Valorem assessment would be eliminated and replaced by this assessment. This Assessment category would be \$67.00 per acre. The proposed rate is calculated based on the average G&A expenses (\$4,448,169) over all assessed acreage in the District (65,070). This calculation would result in a rate of \$68.36 per acre, however the District has decided to set the rate at \$67.00. The District also intends to increase the minimum assessment charge for parcels smaller than one (1) acre. The District is proposing to have these parcels pay the G&A assessment. Therefore, the minimum assessment would go from \$32.00 to \$67.00. This budget item is proposed to be escalated yearly due to inflation as represented by no more than the annual Western US Cities Average CPI (**Attachment B**).

4.2.2. Special Benefit Assessment – Surface Water Supply

As previously discussed in **Section 2.5.1**, the District's average annual surface water supply is approximately 153,000 AFY made up of imported CVP surface water supply (40%) and Kaweah River Entitlement (60%) between the Water Years of 1997 through

2021. Through operation of the system, approximately half of the average annual surface water supply (74,700 AFY) is recharged through dedicated recharge basins or seepage in the open channels. The District is proposing to have the cost of recharging water be paid by all landowners of larger than one (1) acre. The District intends to then utilize these funds to pay other water supply expenses, such as those planned with the SLDMWA, or have the ability to buy additional surface water supplies to bring into the District for landowner delivery and/or recharge.

To derive the assessment rate for this funding category, the District evaluated its costs associated with the buying and delivering surface water. The average annual costs for surface water supply for the 2016 – 2020 time period was approximately \$4.338 million. The line items that make up this total are listed below.

- \$2.753 million per year for water purchases, primarily from Friant CVP and the Kaweah River;
- \$1.276 million for conveyance and O&M charges. This is primarily generated from the costs of operating and maintaining the Friant-Kern Canal, which is paid by the Friant Contractors;
- \$44,100 for storage charges. These are the costs associated storing water in Lake Kaweah behind Terminus Dam;
- \$264,300 for water stock assessments. These are the assessments paid to different ditch companies on the Kaweah River system for which the District owns water stock.

The District is proposing to have half (50%) of these costs shift from the volumetric water rate, where they have typically been paid, to the land-based assessment to provide a dedicated source of revenue related to these costs. The District is proposing a new flat assessment across parcels greater than one (1) acre to generate the proposed revenue. The Surface Water Supply Assessment would be \$35.00 per acre. The proposed rate is calculated based on 50% of the average annual cost associated with the surface water supply costs (\$2,168,791) over the parcels larger than one acre (64,980). The calculation results in a total of \$33.38, however the District would prefer to round the Water Supply Assessment to \$35.00 per acre rate on the anticipation that surface water rates are going up across the State.

This assessment is also proposed to be escalated yearly due inflation as represented by no more than the annual Western US Cities Average CPI (**Attachment B**).

4.2.3. Special Benefit Assessment – Capital Improvements Plan Projects

TID is proposing a new flat assessment across parcels to generate revenue to support capital improvement projects, and existing debt obligations, that are intended to generally improve water supply delivery and reliability within the District. For the purposes of this report, budgets are developed based on the projects listed in **Table 4-1**, however, the District wishes to keep funding flexible related to project specifics. Due to the large number of Capital Improvements Plan (CIP) Projects envisioned by the District for

improving water supply delivery and reliability, the detailed descriptions of the projects can be found in **Attachment C**. These budgets are based on general concepts from feasibility studies, as projects develop the District will be looking at ways to either reduce project costs or gain more benefit (i.e. water supply). ***The District will be limited by the maximum assessment dollars associated with this report and could not assess for more without further approval from landowners through a Proposition 218 process.***

The District envisions breaking the projects into funding blocks that would result in the District selling bonds or obtaining loans to pay for the associated capital costs for the block of projects. These bonds or loans would then be repaid by the annual assessment for the term of the financing. For this report it was assumed that the District would issue debt with 10 year terms at an interest rate of 5.5%. The Board of Directors and District staff will strive to obtain more favorable terms depending on a multitude of factors including but not limited to, interest rates, repayment terms, and investor demand than those estimated for the purposes of this report. The strategy is to gradually take on debt to complete a set of projects and as one project block financing terms sunset or construction of the block of projects is completed, or as more favorable terms arise, the District would look to do another block of projects utilizing the rate associated with this CIP Projects Special Benefit Assessment. As currently envisioned, two to four (2-4) funding blocks at up to \$15 million are proposed with the current proposal. The CIP Projects Assessment would be \$38.00 per acre, prior to any escalation due to CPI inflation. This is generated by adding the financing of \$15 million (likely through two debt issuances, not all at one time) over a 10-year term with an estimated 5.5% interest rate, which adds approximately \$1.943 million to the existing debt the District has already outstanding (\$573,000) for a total of slightly over \$2.5 million applied to the parcels larger than one acre (64,980). The calculation results in a total of nearly \$39.00, however the District is choosing to set the CIP Projects Assessment to \$38.00 per acre rate. These assessments are proposed to be escalated yearly due inflation as represented by no more than the annual Western US Cities Average CPI (**Attachment B**).

Table 4-1 Capital Improvements Plan Projects List

Project Description	Project Cost [2022 Dollars]	Anticipated Benefit
FKC Fix	3,100,000	0.88 AF/ac/Yr
Installation of Monitoring Wells	1,000,000	SGMA Compliance
Area 18	2,475,000	0.14 AF/ac/Yr
Liberty at Railroad	510,000	0.41 AF/ac/Yr
Area 11/12	2,500,000	0.008 AF/ac/Yr
#3 Basin Redesign	1,145,000	0.03 AF/ac/Yr
Creamline Basin Redesign	1,500,000	0.074 AF/ac/Yr
St. Johns & Kaweah River Siphon Design and Permitting	200,000	-
St. Johns & Kaweah River Siphon Construction	25,000,000	0.95 AF/ac/Yr
City Pump Pipeline	1,000,000	0.014 AF/ac/Yr
Area 10	1,450,000	0.02 AF/ac/Yr
Area 7	550,000	0.01 AF/ac/Yr
Liberty Pipeline at Ave 264	1,020,000	0.02 AF/ac/Yr
TIC Siphon Replacement	405,000	0.10 AF/ac/Yr
Main Canal/North Branch Parshall Flumes	750,000	1.77 AF/ac/Yr
Crocker Cut Improvements	200,000	1.11 AF/ac/Yr
Seaborn Reservoir	6,700,000	0.025 AF/ac/Yr
McKay Point Reservoir	2,000,000	0.013 AF/ac/Yr
Annual Capital Replacements	5,500,000	0.12 AF/ac/Yr
CIP Totals	57,005,000	

Landowners paying this assessment category can anticipate that long-term through these projects and efforts by the District, surface water and groundwater supply will be more reliable. This will be developed through a combination of rehabilitation to existing infrastructure (reliability of average annual surface water deliveries) and new supply (new construction projects) to make more water available to landowners (i.e. Seaborn and McKays Point Projects).

5. BENEFIT DETERMINATION

5.1. General

Proposition 218 makes a distinction between general and special benefits provided by a project or service. A “general benefit” is defined as something that benefits the general public, such as libraries or ambulance services. A “special benefit” is defined as a particular benefit to land and buildings. TID provides special benefits to the parcels within the District by delivering surface water supplies and recharging the groundwater supplies to lands in the District. The groundwater is recharged directly through intentional recharge basins and seepage through conveyance facilities and indirectly through on-farm deliveries. The services do not accrue to the public at large and are not considered general benefits.

This report’s proposed assessment is an increase to the existing special benefit assessment and as such this report shall identify all parcels which will have a special benefit conferred upon them and upon which the recommended assessment will be imposed if adopted. Additionally, this report identifies the proportionate special benefit derived by each parcel in relationship to the entirety of the capital cost of the public improvement, the maintenance and operation expense of the public improvement and the cost of providing the service to the property assessed.

The rate structure sought by the Board of Directors is designed to achieve and maintain equity between landowners who rely on District surface water deliveries and those who enjoy, in whole or in part, the benefits and availability of groundwater made possible by District surface water service to other growers. The District’s objective, which is paramount in providing available water supplies to the service area, is to provide the necessary services to maintain and operate the water conveyance systems and entitlements in an equitable manner and at a reasonable cost to its landowners.

5.2. Determination of Benefits

The purpose of this section is to identify the benefits each parcel is to receive within the District in relation to each other. Section 4(a) of Proposition 218 specifies that assessments may not “exceed the reasonable cost of the proportional special benefit conferred on that parcel”. The District is entitled to levy assessments of different values on different classes of land to better reflect the proportional benefits those classes of land receive from the assessments pursuant the California Constitution Article 13D, Government Code Sections 53000, *et al*, Water Code Appendix Sections 143-101, *et al.*, and Water Code Sections 10730, *et al*. For the activities covered in this proposed assessment, the Board intends to levy assessments across all of its acreage, with a minimum charge applied to those parcels less than 1 acre. The rationale is that the benefits, largely those related to water supplies and groundwater use, are improved by operations of the District to increase water supply into the District as all landowners are reliant on at least some amount of groundwater for their use. Additionally, operation of the District offers benefit to all landowners within its boundaries, particularly with regulatory compliance activities performed by the District. Although some properties

might not presently utilize surface water, all parcels have overlying groundwater rights and policies in place by the District provide recharged water available to each landowner on a current and future basis, the potential for additional groundwater recharge, and allow them to be directly represented through the District and the MKGSA formed to meet the requirements of SGMA.

This section provides a justification breakdown of the benefits that are to be attributed to landowners throughout the District if the proposed assessments are approved. Although the District encompasses 68,300 acres of land, it assesses 65,070 acres. Within the District's boundary, there are some non-assessed parcels. The District has historically not assessed federal properties, Tulare County properties or school districts. However, there are some parcels that have been identified as having no potential groundwater or surface water use based on a review by the District. These parcels that receive no special benefit from the District's operations and importation of water supplies are parcels such as water conveyance facilities not owned by the District, access lanes or roadways, storm water ponds, excavated pits or other ponds, railroads, utilities, etc. Also, all District-owned property is not assessed. For the purpose of this report and determining rates per acre, **Table 5-1** summarizes the acreages used in the analyses.

Table 5-1. Assessable Acres

Description	Acres
Total Gross District area	68,339
Less non-assessed parcels	- 3,269
Net Assessable Area by TID	- 65,070
Assessable Acreage Breakdown	
Parcels <1 Acre	90
Non-Irrigated Parcels	64,980

There are multiple benefits provided by the District to the lands located within the service area. These benefits include entitlement to Kaweah River supplies and Friant Division CVP contract supplies, benefits of being within a district, the benefits from the District's operation and maintenance activities, and the benefits of recharge and storage of groundwater within the service area.

5.2.1. District Fixed Costs – G&A

The District Fixed Costs are in two areas – the Operations & Maintenance and the General & Administrative and the associated benefits are described below.

5.2.1.1. District Operations & Maintenance Benefit

There is a special benefit that is conferred upon those parcels in the District that use or have the potential to use water, as well as the ability to pump groundwater that has been recharged through District facilities. This benefit includes the value of the District's distribution system and infrastructure, the benefit derived from the annual operation of the District, ability to acquire grants, and the benefit of on-going maintenance of the delivery

system. The benefit is determined by comparing the difference in benefits to landowners if the District were not operated to current levels or at all. The District diverts approximately 153,000 AF of surface water into the District and approximately 74,700 AF is recharged into the groundwater aquifer.

5.2.1.1. District General & Administrative Benefit

This component represents the benefit derived from the basic functioning of the District (i.e., being within an irrigation district versus being outside an irrigation district, even without a water allocation). This component is required by the District to perform the minimum responsibilities necessary to maintain a functioning district without water use. Basic functions include items such as conducting a number of board meetings each year, preparing the annual audit and financial statements, and performing accounting, management, and legal services to maintain a functioning district, assuming no water deliveries were made. It also includes the benefit of the District funding the MKGSA and the implementation of the GSP for compliance with the Sustainable Groundwater Management Act. Per the MKGSA GSP in the Kaweah Subbasin, the landowners in the District have an estimated 0.82 AF/acre per year of groundwater sustainable yield. As the various GSPs are implemented by the GSAs in the Kaweah Subbasin, the estimated sustainable yield estimated is likely to change as data collection and monitoring occurs and the estimate is refined.

5.2.2. Surface Water Supply Benefit

The District is proposing to have half (50%) of the average annual costs associated with surface water supply shift from the volumetric water rate, where they have typically been paid, to the land-based assessment to better handle these costs. The proposed \$35.00 per acre for the surface water supply is anticipated to garner a benefit of 1.15 AF per acre. This derived by the average annual amount of water supply recharged either in dedicated recharge basins or channel seepage applied the assessed acreage greater than one (1) acre (74,700 AF / 64,980 Acres assessed = 1.15 AF/acre).

5.2.3. Capital Improvements Plan Projects Benefit

The Capital Improvements Plan Projects Benefits are detailed in **Attachment C** for each of projects currently envisioned by the District.

5.3. Proposed Budget Funding

In conformance with this Engineer's Report, the District is seeking land-based assessment revenues to fund the District Fixed Costs, purchasing surface water supplies and CIP projects. **Table 5-2** below summarizes the proposed budget and total assessments needed to fund the District efforts for the initial revenue that would be generated from the assessment year and the equivalent per acre cost for the approximately 65,000 assessed acres on the District roll (**Attachment A**). The assessments will continue well into the future up to the maximum amount as long as the Board of Directors sees the need for the assessment. However, the bulk of the CIP

Projects assessment will begin when a financing term is realized and will only continue until the financing is paid off. A portion of this capital assessment will be assessed initially, if successful, due to existing debt service already incurred by the District. If this proposition effort is unsuccessful, the existing debt service will be paid through the existing ad valorem assessment.

Table 5-2. Estimated Expenses and Proposed Revenue and Rate for 2023

	Paying Acreage	Revenue (\$)	Rate (\$/acre)
District Fixed Costs – G&A	65,070	4,359,690.00	67.00
Water Supply	64,980	2,274,300.00	35.00
CIP Projects	64,980	2,469,240.00	38.00
Total		9,103,230.00	140.00

While the District would like to follow the rates as proposed, the District would also like the flexibility to shift assessment dollars from the CIP Projects Assessment category to cover increased costs beyond CPI inflation in the G&A and Water Supply Assessment categories should, for some reason, the assumptions in these two categories not meet costs. Should this scenario arise, the District requests the ability to move up to 50%, or \$19, of the CIP Projects Assessment to cover unforeseen costs in the G&A and Water Supply Assessments. In this scenario, the landowners would not see an additional rate increase beyond the current proposal, however the District would forgo some CIP projects. However, the capital special assessment can not be reduced or changed after the incurrence of additional debt by the District. These assessments are proposed to be escalated yearly due inflation as represented by no more than the annual Western US Cities Average CPI (**Attachment B**).

The proposed Assessment structure represents a substantial increase to the land-based assessments compared to the current average of \$31.15/acre. For this reason, the District is proposing to ramp up the assessment over the next 5 years. The District proposes to increase the assessment by a percentage of the proposed increase (\$109.00). The District is proposing to increase the land-based assessment by 33% in Year 1, 23% in Year 2, and 15% in Years 3 – 5. This aims to take the current assessment to the maximum \$140.00 per acre plus Western US Cities Average CPI over a gradual and planned time period for its landowners. **Table 5-3** below is a table summarizing how the maximum rates over the next seven (7) years with the 5-year ramp up and the potential inflationary adjustments. The escalation rate was assumed at 2.71% for this example, which is the 10-year average (2013 – 2022) for the Western US Cities Average CPI.

Table 5-3 Potential Assessment Schedule for Assessment Years 2023 - 2029

Year	Base	Increment	CPI	Assessment
2023	\$67.00	-	-	\$67.00
2024	\$67.00	\$25.00	\$2.49	\$94.49
2025	\$94.49	\$16.00	\$2.99	\$113.49
2026	\$113.49	\$16.00	\$3.51	\$133.00
2027	\$133.00	\$16.00	\$4.04	\$153.03
2028	\$153.03	\$0.00	\$4.15	\$157.18
2029	\$157.18	\$0.00	\$4.26	\$161.44

5.3.1. Assessment Structure Comparison

Error! Reference source not found. compares the Proposed Assessment to the current which uses the land classification and valuation from the Ad Valorem tax basis. On average, the average annual assessment under current structure is \$31.15 per acre. The Proposed Assessment could be up to \$140.00 at full buildout with the ability to escalate over time with respect to the Western US Cities Average CPI (**Attachment B**). The main drivers of the increase are new assessment categories to fund water supply purchases and respective allocation program and funds for capital projects. Also inclusive of the increase is the increase assessment related to increased G&A expenses.

5.3.2. Proposed Assessment Roll

Attachment A is the proposed TID assessment roll, which would serve as the basis for providing notice to each landowner in the District, identifying each landowner, the parcels they own as reflected in District records, the assessable acreage and the proposed assessment for each parcel.

The roll also documents the weighted voting for the proposed assessment. The voting is directly related to the maximum annual assessment rate per acre multiplied by the acreage of each parcel as determined by Tulare County Assessor; the votes (maximum annual assessment) are shown for each parcel. Thus, the voting is based on the proposed assessment for each parcel as a proportionate share of the total. For this Proposition 218 to pass, 50% plus one vote of the total amount of the returned ballots is required

5.3.3. Calculation of Charges

The increased annual assessment would allow for collection of approximately \$9.1 Million per year for District fixed costs (G&A), surface water supply costs, and development of capital projects. The roll for assessment is based on the current 65,070 assessed acres (**Attachment A**) in the District, most of which are irrigated. To lessen the impacts from the change in current assessment average \$31.15/acre to the proposed \$140.00/acre in one year, the assessment is proposed to be gradually increased over the initial five years.

This rate is comparable to assessment rates charged by other districts in the area:

- Lower Tule River ID \$136.14 per acre (after 5-year ramp up);
- Pixley ID \$160.59 per acre (after 5-year ramp up);
- North Kern WSD \$139 - \$145 per acre;
- Shafter-Wasco ID \$66.81 - \$154.11 per acre;
- Delano-Earlimart ID \$142.41 per acre;
- Arvin-Edison WSD \$165.00 per acre.

5.3.4. Rate Proportionality

Section 4(a) of Proposition 218 specifies that assessments may not “exceed the reasonable cost of the proportional special benefit conferred on that parcel.” Primary

benefits from the District are related to water supply/delivery and compliance related to State programs, the biggest at this time largely being SGMA.

Now that the District is proposing to provide a new asset to the majority of landowners in the form of a water allocation, all lands within the District are believed to receive a benefit through District activities. Further, since all groundwater within the District is believed to be connected, surface water delivery and recharge efforts in areas like basins or creeks with high recharge rates benefit the reliability and groundwater levels for all groundwater users in the District (that being all landowners since the District does not provide year-round irrigation supplies). Therefore, the differences in benefits are already accounted for within the proposed assessment rate structure.

5.4. Conclusion

The primary objectives of the Board of Directors relative to the revenues are to ensure that the needs being considered for adoption are truly necessary and that the costs are allocated in a fair and equitable manner. Based on these objectives, the District proposes to restructure the assessment methodology away from the ad valorem structure to a flat rate structure. The District also proposes to increase assessments to cover budget shortfall and fund new projects and programs to raise upwards of \$9 million per year.

The District believes this restructure and increase of the land-based assessment provides a variety of benefits for the assessed lands. The District's activities related to solidifying surface water supplies, maintaining and operating its distribution system and constructing new facilities, and providing oversight and guidance in SGMA compliance, are believed to set District landowners ahead of those not in the District boundary. All assessed landowners benefit from the surface waters delivered by the District to growers and to recharge. This view is reasonable since groundwater is the only stable supply of water available to landowners within the District and all surface water importation and use increases the reliability of limited groundwater resources. Further, since all groundwater within the District is connected, efforts through District facilities benefit conditions and increase available supplies throughout the District's service area.

The Engineer's Report concludes that this restructured and increased assessment provides an equitable and special benefit to the affected properties.

6. IMPLEMENTATION PROCEDURES

6.1. Implementation

Based on an examination of procedural options available to the District's Board of Directors, it is the Engineer's opinion that the increased assessment offers an equitable procedure to the District to have revenues directed towards the identified General & Administrative Costs, Water Supply and Capital Projects. The District intends to proceed with an election process complying with the provisions of Article XIII D of the California Constitution to allow for the collection of a supplemental land-based assessment.

Upon acceptance of the Engineers Report, the District will hold a public hearing upon the proposed assessment increase in which the District will disclose its intentions and justifications as to why it is pursuing a Proposition 218 election. During the public hearing, the District will take into consideration the protests against the proposed increase. In July, the District will assemble the roll of the landowners affected by the new assessment and mail out ballots to these landowners informing them of their proposed assessment increase along with their voting documents. The votes will be tallied near the end of August upon which a passing vote for the assessment increase will set in motion the new assessment implementation procedures.

Upon the passing of the 218 election, the TID Board of Directors will have the authority to implement the assessments annually at its discretion, not to exceed the Maximum Assessment Rate set per the scheduled ramp up and appropriate CPI escalation. The Board will annually consider the need for the proposed capital projects assessment and financing of projects. The financing repayment will be through the collection of the approved land-based assessments that were approved by the landowners through the process set forth by Article XIII D of the California Constitution. This assessment for 2023 assessment would be mailed in November 2022 to those on the approved roll.

7. REFERENCES

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

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State of California (2014). *Sustainable Groundwater Management Act, and related provisions, effective January 1, 2016*. Retrieved February 28, 2020 from <https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management>

Tulare County Information and Communications Technology Department. (October 2021). *Parcel Shapes and Ownership*.

Tulare Irrigation District. District Profile. Retrieved February 15, 2022 from <https://tulareid.org/district-profile>

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8. ATTACHMENTS

Attachment A
Assessment Roll for TID

Attachment B
Inflation Index Methodology



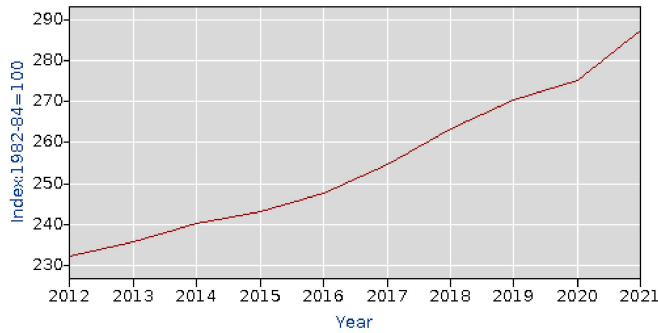
Databases, Tables & Calculators by Subject

Change Output Options: From: 2012 To: 2022 [GO](#)
 include graphs include annual averages [More Formatting Options](#)

Data extracted on: July 9, 2022 (4:30:15 PM)

CPI for All Urban Consumers (CPI-U)

Series Id: CUUR0400SA0, CUUS0400SA0
 Not Seasonally Adjusted
Series Title: All items in West urban, all urban consumers, not seasonally adjusted
Area: West
Item: All items
Base Period: 1982-84=100



Download: [xlsx](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2012	228.980	229.995	232.039	232.561	233.053	232.701	231.893	233.001	234.083	234.966	233.206	232.029	232.376	231.555	233.196
2013	232.759	234.595	235.511	235.488	235.979	236.227	236.341	236.591	237.146	237.000	236.153	236.096	235.824	235.093	236.555
2014	236.707	237.614	239.092	239.808	241.350	241.616	241.850	241.660	241.920	241.650	240.220	239.095	240.215	239.365	241.066
2015	238.318	239.748	241.690	242.302	244.227	244.332	245.040	244.737	244.257	244.341	243.749	243.434	243.015	241.770	244.260
2016	244.600	244.821	245.404	246.589	247.855	248.228	248.375	248.498	249.234	249.897	249.448	249.516	247.705	246.250	249.161
2017	250.814	252.252	252.949	253.806	254.380	254.469	254.708	255.282	256.504	257.223	257.126	257.347	254.738	253.112	256.365
2018	258.638	259.986	260.994	262.037	263.240	263.732	263.971	264.395	265.105	266.195	265.658	265.209	263.263	261.438	265.089
2019	265.624	266.215	267.370	269.522	270.880	270.957	271.029	271.264	272.102	273.524	273.128	272.584	270.350	268.428	272.272
2020	273.340	274.412	273.995	272.913	273.062	274.155	275.597	276.443	276.422	276.876	276.875	276.593	275.057	273.646	276.468
2021	277.238	278.702	280.625	283.507	285.793	288.263	289.863	290.393	291.053	293.397	294.986	296.102	287.494	282.355	292.632
2022	298.705	301.158	305.082	307.145	309.645										

Attachment C
Capital Improvements Plan (CIP) Projects Description

Technical Memorandum

To: Tulare Irrigation District

From: Provost & Pritchard Consulting Group

Subject
: Capital Improvement Project Assessment – Project Benefits

Date: July 2022

Introduction

Tulare Irrigation District (District or TID) is seeking to restructure its land-based rates away from the historical Ad Valorem methodology, which has been in place prior to the passing of Proposition 218 in 1996, to a flat rate across all District lands. Through the Proposition 218 Election process, the District proposes new rates, describes the corresponding special benefit, and then allows the landowners to vote on the proposal. This memorandum serves as a discussion of the benefits anticipated to be gained by the projects included in the Capital Improvements Plan (CIP) Projects Assessment category. A successful Proposition 218 would allow the District a means to fund the various Projects laid out below. The corresponding benefits from the Projects would be the anticipated return, primarily in the form of additional water supplies, which landowners will receive once the Projects are complete and operating.

Friant-Kern Canal Fix

The Friant-Kern Canal is a gravity-fed facility. Due to land subsidence caused by decades of groundwater overdraft near the canal, the canal is unable to convey full water deliveries. In 2021 the Bureau of Reclamation gave environmental clearance to repair a 33-mile stretch of the canal in southern Tulare County which has lost more than half of its original capacity to convey water due to the land subsidence (Water Education Foundation, 2022). The District is a long-term contractor of the Central Valley Project (CVP) Friant Division with a Class 1 contract of 30,000 AF and a Class 2 contract of 141,000 AF. Fixing the Friant-Kern Canal provides additional reliability to the system. All Friant Contractors are paying a proportion of the Fix based on contract supply.

The total estimated cost of the project is \$3,100,000 (based on Friant Contractor proportion)

The anticipated benefit of the project is 0.88 AF/acre/year. This is derived based on the assumption that 37% of the District's average diversion comes from the Friant CVP supply. The average District diversion is 153,000 AF/year (based on the period from 1997-2021); thus, the benefit is derived from 57,000 AF/year over 64,980 acres.

Installation of Monitoring Wells

There has been a long history of monitoring groundwater levels within TID which dates to the late 1940's. Historically, the District has relied upon using landowner deep wells to obtain depth to groundwater readings. The District has installed five dedicated monitoring wells in the District and is currently working on identifying locations and designs for future installations of dedicated monitoring wells. The District will use information from the current monitoring network to identify

locations such that the new wells will alleviate monitoring data gaps. With the implementation of the Sustainable Groundwater Management Act (SGMA), the District needs to augment its monitoring network to improve its ability to evaluate groundwater level responses to different groundwater management actions. Over time it is envisioned that this monitoring requirement will need to be met through dedicated monitoring wells instead of the continued use of private irrigation deep wells. This will include monitoring wells screened to measure groundwater levels above and below the Corcoran Clay. The District envisions installing approximately 10 new dedicated monitoring wells.

The total estimated cost of the project is \$1,000,000 (At an estimated \$100,000 per well)

The anticipated benefit of the project is more accurately described as a compliance benefit. Landowners will not directly receive a water benefit from this project. The benefit is in the ability to share costs with other landowners to comply with State law (SGMA). Individual landowners or smaller subsets of landowners would likely be required to install new monitoring wells to track groundwater levels without the coordination and installation of new wells by the District.

Area 18 Pipeline

The Area 18 pipeline was constructed in 1963 and consists of a 36" reinforced concrete pipe (RCP) gravity line that runs from an adjacent canal 2,700 ft to an existing pump setup; from this point, irrigation pipe emanates outward to cover a service area of approximately 700 acres. This irrigation pipe has diameters ranging from 14 to 20 inches and is almost entirely cast-in-place pipe (CP) except for a 50-foot run of 15-inch reinforced concrete pipe. The Area 18 system has a capacity of eight CFS, which is not enough to serve all landowners at the same time, but it has sufficient capacity to serve landowners on a rotating schedule within normal peak month irrigation rotation. Leaks in the pipeline have become an operations and maintenance issue for the District requiring frequent costly repairs and outages. Due to the fragile pipe repairs often result in future leaks and repairs.

This project will improve approximately 12,700 feet of pipeline in the District, southwest of the City of Tulare. The new pipeline will range from 12-inch to 24-inch diameter PVC Pipe as well as 36-inch reinforced concrete pipe. The existing pump setup will be replaced with two new pump stations at different locations to maximize efficiency, capacity, and operational flexibility. The new capacity of the pipeline will increase to approximately 25 CFS to meet grower demands.

The total estimated cost of the project is \$2,475,000

The anticipated benefit of the project is .014 AF/acre/year. This is derived based on the assumption that the average irrigation season for the District is three months, from May through July; from District records, 689 acre-feet were delivered to this service area on average, while the crop demand is 1,624 acre-feet per year, which the proposed system can deliver, allowing for an improvement of 935 acre-feet per year. Improvement and better management of the water delivered by this project allows for an in-kind amount of water to be shared across the District via groundwater. The landowners in this service area can take the surface water in-lieu of groundwater allowing others access to it, if necessary. Thus, the benefit is derived by spreading that quantity over 64,980 acres (935 acre-feet / 64,980 acres).

Liberty Railroad Pipeline

The Liberty Pipeline culvert crossing under the Union Pacific Railroad tracks along J St in the City of Tulare consists of two 21-inch corrugated metal pipes of unknown age and very poor condition. The existing culvert has also failed just upstream of the railroad tracks and the District has applied a temporary fix. This culvert must be in service to carry a design flow of 15 CFS so that the Liberty Pipeline can be operated to serve irrigation customers. The District has received a design and estimate to fill and abandon the existing pipes and replace them with a single 36" steel pipe bored under the railroad tracks per Union Pacific Railroad specifications. Union Pacific Railroad has permitted the design, and so the District will need to hire a contractor to complete the work with the oversight of a construction manager chosen by the Union Pacific Railroad.

The total estimated cost of the project is \$510,000.

The anticipated benefit of the project is .041 AF/acre/year. The anticipated benefit of the project is associated with the loss of capacity (15 CFS) and the added liability and costs associated with a failure under the Union Pacific Railroad. Assuming the District was unable to deliver 15 CFS for an average irrigation season (May through July) the District would require growers to pump approximately 2,700 acre-feet of groundwater instead of using surface water. Ability to maintain surface water deliveries allows for an in-kind amount of water to be shared across the District via groundwater. The landowners in this service area can take the surface water in-lieu of groundwater allowing others access to it, if necessary. Thus, the benefit is derived by spreading that quantity over 64,980 acres (2,700 acre-feet / 64,980 acres)

Area 11/12 Pipeline

The existing pipe was built in 1962 with pipe diameters ranging from 16 to 24 inches and an existing capacity of nine and eight CFS. The Area 11/12 system does not have enough capacity to serve all landowners at the same time but has sufficient capacity to serve landowners on a rotating schedule within normal peak month irrigation rotation. Leaks in the older pipeline have become an operations and maintenance issue for the District.

This project will improve approximately 14,220 feet of pipeline in the District. The new pipeline will range from 16-inch to 24-inch diameter pipe and serve approximately 740 acres. The new capacity of the pipeline will increase to approximately 20 CFS.

The total estimated cost of the project is \$2,500,000

The anticipated benefit of the project is 0.008 AF/acre/year. This is derived based on the assumption that the total capacity of the system will be upgraded from 17 CFS to 20 CFS, so for an average three-month irrigation season this would increase total deliveries by 542 acre-feet. Improvement and better management of the water delivered by this project allows for an in-kind amount of water to be shared across the District via groundwater. The landowners in this service area can take the surface water in-lieu of groundwater allowing others access to it, if necessary. Thus, the benefit is derived by spreading that quantity over 64,980 acres (542 acre-feet / 64,980 acres).

Basin #3 Re-design

The #3 Basin is a 134-acre basin in the western portion of Tulare Irrigation District which currently receives tertiary treated recycled water from the Visalia Wastewater Treatment Plant. This water

must currently be run through the Basin to reach downstream canals with grower turnouts. The District has proposed to construct a canal diversion around #3 Basin that would allow the recycled water to be delivered directly to growers during dry periods while incoming surface water can be emptied into the basin cells during wet periods. Additionally, the bottoms of the cells can be regraded, and fine sediment lenses removed to increase recharge rates.

The total estimated cost of the project is \$1,145,000

The anticipated benefit of the project is 0.03 AF/ac/year, from a benefit of 1,920 AF/year spread over the District area of 64,980 AF/year. 1,920 AF/year was arrived at by taking the percolation rate of the running cell which the recycled water moves through times 8 months, which is the expected season in which recycled water would be delivered through the area exclusively (excepting three months surface water irrigation season and one month maintenance). This water would be delivered directly to growers instead of being lost to percolation. Improvement and better management of the water delivered by this project allows for an in-kind amount of water to be shared across the District via groundwater. The landowners in this service area can take the surface water in-lieu of groundwater allowing others access to it, if necessary. Thus, the benefit is derived by spreading that quantity over 64,980 acres (1,920 acre-feet / 64,980 acres).

Creamline Basin Re-design

The District currently owns, operates, and maintains the Creamline Recharge Basin along with the Swall Basin to the south of the Creamline Recharge Basin. The District has proposed to connect the Creamline Recharge Basin to the Swall Basin to create a system of basins that allow for the cleanest water (devoid of sediment) to reach the Swall Basin. The District has experienced significant sedimentation in very wet years that impact the recharge rates in the Swall Basin. The District proposes to move water through the northern cells of the Creamline Basin to the southern cells by way of overpour structures that allow for sediment to settle out in the northern cells. After the water has entered the southern cells of Creamline Basin, the District intends to create another set of overpour structures that move water under Avenue 256 to the Swall Basin. Again, the southern cells of Creamline basin will settle out any sediment and water that has limited sediment will be used to recharge Swall Basin.

The benefit of the project is to only conduct recharge in Swall Basin with the cleanest water possible, avoiding sedimentation and reduction in recharge rates. This will keep the recharge rates at higher rates throughout the recharge operations. Also, allowing sediments to settle out in the Creamline Recharge basin northern cells allows for water to be conserved during periods of irrigation demand, as those cells are used as a regulation reservoir to meet irrigation demand and any seepage losses in those cells is unavailable for delivery to downstream users.

The total estimated cost of the project is \$1,500,000

The anticipated benefit of the project is 0.074 ace-feet per acre in a wet year. The Swall Basin has traditionally seen peak sustainable recharge rates of 0.75 acre-feet per acre per day, which declines to approximately 0.5 acre-feet per acre per day. The decline in recharge rates is due to the sediment accumulation in the basins. This project aims to reduce the sediment in the Swall Basin and maintain a recharge rate of 0.75 acre-feet per acre per day. If the average wet year recharge period lasts nine months, and recharge rates are traditionally reduced for half of that period, the District anticipates that added groundwater to the aquifer underlying the district would be approximately $(0.25 \text{ acre-feet per acre} * 142 \text{ acres} * 135 \text{ days}) / 64,980 \text{ acres}$

St Johns and Kaweah River Siphon Design, Permitting, and Construction

TID is pursuing the replacement of two reinforced concrete box siphons, each connecting to its primary intake canal, maximum capacity is approximately 900 cubic feet per second (CFS) at each siphon. The inverted siphon structures each convey water under a river, the St. Johns River and the Lower Kaweah River, both located about five miles east of Visalia. The reinforced concrete siphons have been badly cracked due to erosive forces and internal head pressures and air entrainment. They are visible (from the riverbeds during low flows), and are believed to have significant, leakage from the siphons that should be eliminated if at all possible.

The design and permitting is estimated at \$200,000 with the construction estimated at \$25,000,000.

The anticipated benefit of the project is 0.95 AF/acre/year. This is derived based on the assumption that the District could utilize other channels to divert water to the District, but this would limit the District to approximately 80% of the current delivery capacity and the District would see an increase in upstream channel losses of approximately 17,000 AF per year. The losses upstream would require landowners to turn to groundwater to meet their irrigation needs and use approximately 0.26 AF/acre (17,000 AF / 64,980 acres). Additionally, during wet years, the District would not be able to recharge groundwater at its current rate and it is estimated that the District could lose approximately 45,000 AF of recharge or 0.69 AF/acre of groundwater (45,000 AF / 64,980 acres).

City Pump Pipeline

The existing pipe was built in 1963 with pipe diameters ranging from 14 to 20 inches and an existing capacity of 7 CFS. The City Pump system does not have enough capacity to serve all landowners at the same time but has sufficient capacity to serve landowners on a rotating schedule within normal peak month irrigation rotation. Leaks in the older pipeline have become an operations and maintenance issue for the District.

This project will improve approximately 9,680 feet of pipeline in the District. The pipeline route will be modified to only serve areas west of the housing subdivision along E Street, while areas on the east side of this subdivision served by the existing pipeline will be served by a separate line running north from Main Canal. The new capacity of the system, including the line emanating from Main Canal will increase to approximately 12 CFS.

The total estimated cost of the project is \$1,000,000

The anticipated benefit of the project is 0.014 AF/acre/year. This is derived based on the assumption that the total capacity of the system will be upgraded from 7 CFS to 12 CFS, so for an average three-month irrigation season this would increase total deliveries by 903 acre-feet. Improvement and better management of the water delivered by this project allows for an in-kind amount of water to be shared across the District via groundwater. The landowners in this service area can take the surface water in-lieu of groundwater allowing others access to it, if necessary. Thus, the benefit is derived by spreading that quantity over 64,980 acres (903 acre-feet / 64,980 acres).

Area 10 Pipeline

The existing pipe was built in 1962 with pipe diameters ranging from 14 to 20 inches and an existing capacity of 12 CFS. The Area 10 system does not have enough capacity to serve all landowners at the same time but has sufficient capacity to serve landowners on a rotating schedule within normal peak month irrigation rotation. Leaks in the older pipeline have become an operations and maintenance issue for the District.

This project will improve approximately 9,800 feet of pipeline in the District. The new pipeline will range from 16-inch to 24-inch diameter pipe and serve approximately 520 acres. The new capacity of the pipeline will increase to approximately 20 CFS.

The total estimated cost of the project is \$1,450,000

The anticipated benefit of the project is 0.02 AF/acre/year. This is derived based on the assumption that capacity will be upgraded from 12 CFS to 20 CFS, so for an average three-month irrigation season this would increase total deliveries by 1,450 acre-feet. Improvement and better management of the water delivered by this project allows for an in-kind amount of water to be shared across the District via groundwater. The landowners in this service area can take the surface water in-lieu of groundwater allowing others access to it, if necessary. Thus, the benefit is derived by spreading that quantity over 64,980 acres (1,450 acre-feet / 64,980 acres).

Area 7 Pipeline

The existing pipe was built in 1962 with pipe diameters ranging from 14 to 24 inches and an existing capacity of 8 CFS. Leaks in the older pipeline have become an operations and maintenance issue for the District.

This project will improve approximately 7,185 feet of pipeline in the District. The new pipeline will range from 14-inch to 24-inch diameter pipe and serve approximately 250 acres. The new capacity of the pipeline will increase to approximately 12 CFS.

The total estimated cost of the project is \$550,000

The anticipated benefit of the project is 0.01 AF/acre/year. This is derived based on the assumption that capacity will be upgraded from 8 CFS to 12 CFS, so for an average three-month irrigation season this would increase total deliveries by 720 acre-feet. Improvement and better management of the water delivered by this project allows for an in-kind amount of water to be shared across the District via groundwater. The landowners in this service area can take the surface water in-lieu of groundwater allowing others access to it, if necessary. Thus, the benefit is derived by spreading that quantity over 64,980 acres (720 acre-feet / 64,980 acres).

Liberty Pipeline along Avenue 264

The Liberty Pipeline is a one-mile-long pipeline that runs west along Avenue 264 from one-quarter mile east of Mooney Boulevard. It carries a capacity of 30 CFS. The majority of the pipeline is 36-inch cast-in-place concrete pipe (CP) installed in 1962, however the pipeline most urgently needing replacement is just west of Mooney Boulevard for approximately ¼ mile and is constructed of 48-inch corrugated metal (CMP) installed in 1962. Over the years, the District has discovered that the corrugated metal culverts and pipelines installed with greater than 50-years

of service have been failing due to corrosion. The goal of this project is to remove the existing corrugated metal and cast-in-place pipeline and install a new 36-inch reinforced concrete pipeline.

The anticipated benefit of the project is the ability to continue to service the growers downstream of the pipeline of concern and the potentially reduced maintenance costs associated with repairing pipe under pavement, driveways, and landscaping.

The total estimated cost of the project is \$1,020,000

The anticipated benefit of the project is more accurately described as a liability benefit, in that it will not improve capacity so much as it will protect the District and its landowners from the repercussions of the existing pipeline failing and therefore incurring damages to roadways, roadway shoulder, driveways and farm ground, while simultaneously cutting off use of the Liberty Pipeline in this location.

TIC Siphon Replacement

The age of several key facilities in the District indicates that plans to rehabilitate/replace these facilities need to be made now before they begin to be at risk of failure. The TIC Siphon needs to be replaced to ensure its usefulness to the district for the next 50 years. 4.2% of the District's intake capacity is supported by the TIC canal. Replacing the siphon will secure the reliability of this facility and the water supply that is derived through this facility.

The total estimated cost of the project is \$405,000

The anticipated benefit of the project is 0.10 AF/acre/year. This is derived based on the 4.2% of District intake capacity that is carried through the TIC canal and siphon (50 CFS out of 1200 CFS). This percentage applied to the District's average 153,000 AF/year diversion is distributed over the 64,980 District acres.

Main Intake Canal/North Branch Parshall Flumes

The Main Intake Canal carries the majority of the District's total intake capacity at 900 CFS; where it arrives at the northwest corner of the District's service area, it splits into two canals: Main Canal and North Branch. Main Canal at this location has a capacity of 550 CFS and North Branch has a capacity of 350 CFS. A Parshall flume is situated on each of the two canals at this location. These two flumes are critical to measure the quantity of water entering the District and being diverted in two different directions to reach users in different parts of the District downstream. Both flumes are reaching their design lives and are therefore in need of replacement.

The total estimated cost of the project is \$750,000

The anticipated benefit of the project is an operational benefit in that the flumes need to be operational for the District to be able to measure the majority of its incoming surface water. Roughly three-quarters of all District surface water moves through this canal split, or roughly 114,800 acre-feet per year, equivalent to 1.77 AF/acre/year spread over the District's area (72,000 AF over 64,980 acres).

Crocker Cut Improvements

The Crocker Cut channel is an existing, overgrown channel that is two miles long connecting the Kaweah River to the District's Main Intake Canal (MIC) which is the primary facility to bring water into the District boundaries. The plan for the Crocker Cut Project will be to rehabilitate the channel along with adding a structure in the Kaweah River to shunt water into the Crocker Cut. The weeds and trees that have grown in the channel will be removed to increase the capacity in the channel and the channel will be re-shaped. Performing these tasks will create a larger flow area and reduce losses through the channel. A concrete check structure is planned for the structure in the Kaweah River. This structure will allow for checking up the water level in the river to allow for more head for water to flow through Crocker Cut. Currently, water can only be diverted to Crocker Cut when there are high flows in the Kaweah River. When water in the river does flow high enough to divert down to the Crocker Cut, the maximum flow is 200 CFS. With the channel modifications and new structure, it is expected the District will be able to divert up to 600 CFS. By increasing the capacity, the District will have much more reliability to get water into the District boundaries since the District will have the opportunity to divert water from more than just the St. Johns River at Rocky Ford on a more consistent basis. These improvements will also create an opportunity for relief in the event that the siphons in the St. Johns and Kaweah Rivers have issues that arise.

The total estimated cost of the project is \$200,000

The anticipated benefit of the project is conditional on Crocker Cut needing to be used because of Main Intake Canal being out of service, most likely because of the St. Johns and/or Kaweah siphons failing. If this were to occur, the full capacity of Crocker Cut would be used, and so the addition of 400 CFS amalgamated over a three-month irrigation season translates to 72,000 acre-feet, or 1.11 AF/acre/year spread over the District's area (72,000 AF over 64,980 acres).

Seaborn Reservoir

The Seaborn Reservoir Project will create an earthen reservoir capable of storing 8,000 AF of Kaweah River water along the north side of the St. Johns River roughly two miles to the southeast of the center of Woodlake, California. The existing site consists of a gravel excavation pit which will be modified to create a deep basin surrounded by earthen levees capable of intaking water through the Kaweah River and discharging water to either the Lower Kaweah River or the St. Johns River using a pump station and pipeline which would be capable of splitting water between the two rivers. The benefit created by the project will be approximately 3,300 AF/year, however the District is a 50% partner in the project and anticipates the benefits to District growers would be approximately 1,650 AF per year.

Total costs, including grant preparation, project management, environmental clearances, design and bidding, construction, construction management, and grant completion report are estimated at \$22,968,351. Of that portion, FEMA is expected to pay \$15,358,056 if the grant is to be awarded, while the remainder of the cost, \$7,610,295, will be split between the owners of the completed project, Tulare Irrigation District, and Consolidated Peoples Ditch Company. There will also be an estimated annual maintenance cost of \$70,000.

The anticipated benefit of the project is 0.025 AF/acre/year (1,650 AF over 64,980 acres per year)

McKay Point Reservoir

The McKay Point Reservoir is a partnership between TID, Visalia & Kaweah Water Co., and the Consolidated Peoples Ditch Co. to construct a 4,000 AF off-stream storage reservoir adjacent to the St. Johns River at McKay Point. TID will have access to at least one-third of the available storage space, about 1,500 AF, based on the joint ownership of the property and project. The reservoir will be used to manage and regulate Kaweah River water that would otherwise be lost to flood water releases. This reservoir would also be utilized to meet irrigation needs and groundwater recharge operations under appropriation by the owners of the project. For TID, the reservoir would also allow flood water to be captured at the McKay Point Reservoir while supplies from the Friant-Kern Canal can be diverted into the District for groundwater recharge and once the reservoir is at capacity imported Friant supply diversions would be reduced or eliminated and releases from the reservoir would convey water into recharge facilities within the District. A letter of intent has been executed with an aggregate processing contractor, West Coast Sand and Gravel, Inc., to excavate the site to reservoir design specifications. The benefit created by the project will be approximately 2,500 AF/year, however because the district is a partner the benefits estimated for the District are 833 AF/year.

The total estimated cost for TID's portion of the project is approximately \$4,500,000. Much of this cost will be offset by payments from the excavation contractor for its access to aggregate materials to be processed and sold to the local construction industry. This project will also have an annual operations and maintenance cost of approximately \$10,000/ year

The anticipated benefit of the project is 0.0128 AF/acre/year (833 AF over 64,980 acres per year).

Annual Capital Replacements

The District has many existing facilities and components that need to be replaced and/or maintained each year. The ability to keep the facilities operational allows the District the ability to better deliver surface water across the District service areas when water is available. Replacements envisioned include, but are not limited to, leaking pipeline replacement, check structure replacements and retrofits, pump station rehabilitation, electrical equipment updates, and culvert crossing improvements.

The total estimated cost of the project is \$5,500,000. This is estimated by setting a \$500,000 annual budget for the District to use for facility improvement and replacement.

The anticipated benefit of the project is 0.12 AF/acre/year. This is derived based on the assumption that each year the replacements and improvements will secure the reliability of 10% of the District's water supply delivered to growers. The average surface water deliveries to landowners are 75,000 AF/year, thus the benefit is derived from 7,500 AF/year over 64,980 acres.