

## Donner Summit Public Utility District

### Wastewater Rate Study



March 29, 2018

HEC No. 170240

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## Section 1: INTRODUCTION AND SUMMARY

### 1.1 INTRODUCTION TO THE DISTRICT

The Donner Summit Public Utility District (District) is a California special district that provides water and wastewater services to the community of Soda Springs and the larger Donner Summit area, including several ski resorts. The District's service territory comprises approximately 13 square miles encompassing the I-80 corridor and communities of Norden and Soda Springs in the Donner Summit area, with customers located within both Nevada and Placer Counties. The District also provides wastewater treatment services to the Sierra Lakes County Water District (SLCWD) by way of agreement.

The District owns and operates the Wastewater Treatment Plant (WWTP), and as the holder of the NPDES Permit, it is responsible for ensuring water quality compliance is met. After a multi-year planning and construction effort, the WWTP was improved and expanded, and the new plant put into service July 2015.

The District last adopted a five-year schedule of wastewater rate increases in 2011, which were effective January 1, 2012. The last rate increase, pursuant to that rate schedule, was effective July 1, 2015 and rates have remained at this level for the last three years. During the three fiscal years since rates were last increased, the improved WWTP has become fully operational. Now that operations costs with the improved plant are known, and the District has a new amortization schedule for repayment of its State Clean Water State Revolving Fund (CWSRF) loan (which was used to fund the WWTP improvement costs), the District needs to evaluate the adequacy of its wastewater rates and determine if adjustments are necessary to continue to support the operations of the wastewater system.

### 1.2 PURPOSE OF THE STUDY

Support tables are provided in **Appendix A**. The study determines the level of funding required to adequately operate the wastewater system in a safe manner and provide the residents and businesses of the District wastewater service that meets State and Federal regulatory requirements.

This report provides an explanation and justification of the calculated wastewater rates and charges through fiscal year ending June 30<sup>th</sup>, 2023, and documents adherence to the law regarding the setting of rates by a special district. Specifically, the rates were designed in compliance with California Constitution Article 13D (commonly referred to as Proposition 218), which requires that the rates for wastewater service fees and charges shall not be extended, imposed, or increased by any agency unless they meet all of the following requirements:

- (1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

- (2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
- (3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
- (4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted.
- (5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.

### **1.3 METHODOLOGY**

This report was prepared using the principles established by the Water Environment Federation Manual of Practice No. 27 and guidelines prepared by the California State Water Resources Control Board for State Revolving Fund financing. This Study uses the functional cost allocation methodology to determine rates<sup>1</sup>.

The following four steps outline how wastewater rates are calculated such that the monthly wastewater rates meet California's legal requirements.

- 1. Establish the Wastewater Customer Base and User Characteristics** – The wastewater customer base includes residential and commercial accounts. Because of the small size of the District and lack of industrial users, it was determined that the rate model would be based on flow only.
- 2. Project Wastewater System Annual Costs and Non-Rate Revenue** – Annual costs include treatment operations and maintenance (O&M), collection O&M, debt service, capital improvement, and depreciation.
- 3. Determine Projected Revenue Requirement and Allocate based on Flow** – Revenue requirement is allocated based on flow only in this model. All EDUs have a peak week average day flow of 417.1 gallons; therefore, allocating the revenue requirement based on number of EDUs or flow equates to the same calculation.
- 4. Determine Revenue Requirement per EDU** – Per EDU revenue requirement for each projected year is determined by dividing the allocated revenue requirement by the demand (expressed in number of EDUs). Total annual charges are divided by 12 to calculate the monthly charge per unit.

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<sup>1</sup> Chapter 6, pages 110-120, Financing and Charges for Wastewater Systems, Manual of Practice No. 27.

## 1.4 MAJOR ASSUMPTIONS

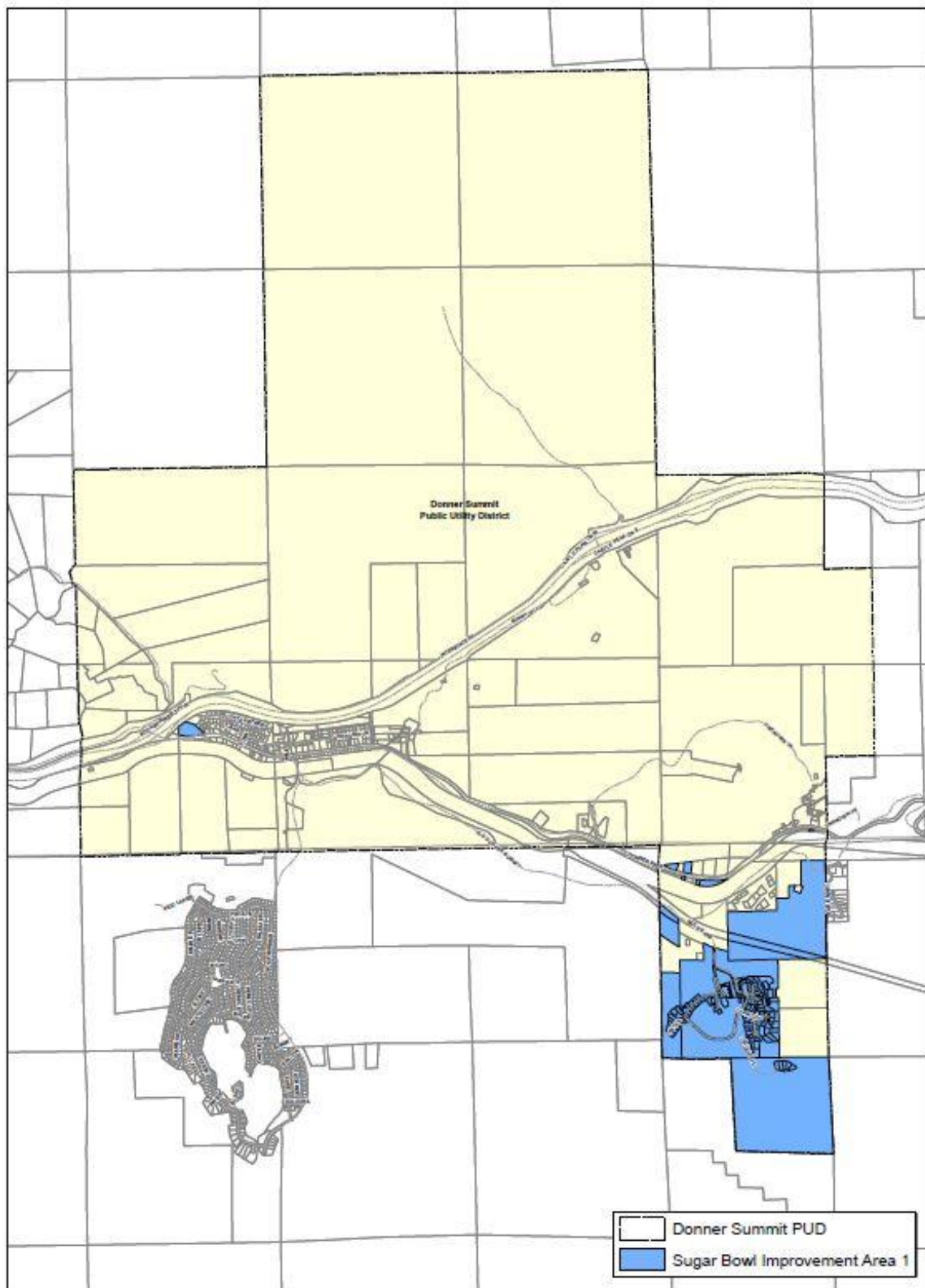
Several major assumptions influence the scope of the report and findings herein. They are summarized here:

- **The District's new debt service repayment schedule is incorporated into rates and charges.** In December 2017, the District was successful in a loan renegotiation with the State. The CWSRF loan, which had been used to improve the WWTP, was amended. The interest rate was reduced from 2.20% to 0.75%. This change results in a savings of \$3.5 million to the District over the length of the repayment.
- **System rehabilitation costs for the WWTP are incorporated into rates.** If the District were to not perform any system rehabilitation but were to continue collecting 20% of annual depreciation on the wastewater system assets, the rates should include approximately \$78,000 each year for that purpose. In the rate study, it is assumed that the District annually spends \$100,000 on lift station replacement and \$25,000 for pipeline replacement and collects \$12,000 each year for a membrane replacement at the WWTP, which is scheduled in fiscal year 2025.
- **Sierra Lakes County Water District (SLCWD) continues to pay the District for wastewater services under the terms of their operations and maintenance agreement.** The District has an agreement with SLCWD for service that specifies how SLCWD will reimburse the District for routine operating and maintenance expenses each year, how SLCWD will pay the District for its share of rehabilitation of major infrastructure, and how SLCWD will pay for its share of capital project costs.
- **District customers are either "Inside CFD No. 1" or "Outside CFD No. 1".** The District formed Community Facilities District<sup>2</sup> (CFD) No. 1 and the election was canvassed September 20<sup>th</sup>, 2011. All properties within the District were included in the CFD boundary in three areas. The ballot results approved taxation in areas 1 and 3 of the District, but not area 2. As a result, properties are either Inside the CFD or Outside the CFD with differing rates. Inside CFD No. 1 customers pay for debt service associated with upgrades to the WWTP with special taxes. Outside CFD No. 1, customers pay for the upgraded WWTP debt service with wastewater rates. **Maps 1 through 3** on the following pages depict the three CFD areas.
- **New growth.** It is assumed that there are 9 new connections per year. The additional revenue from the new connections are accounted for in the revenue requirement; however, they are not shown in the projection of EDUs in the fee calculation tables because the District does not know whether these EDUs will be located Inside CFD No. 1 or Outside FCD No. 1.

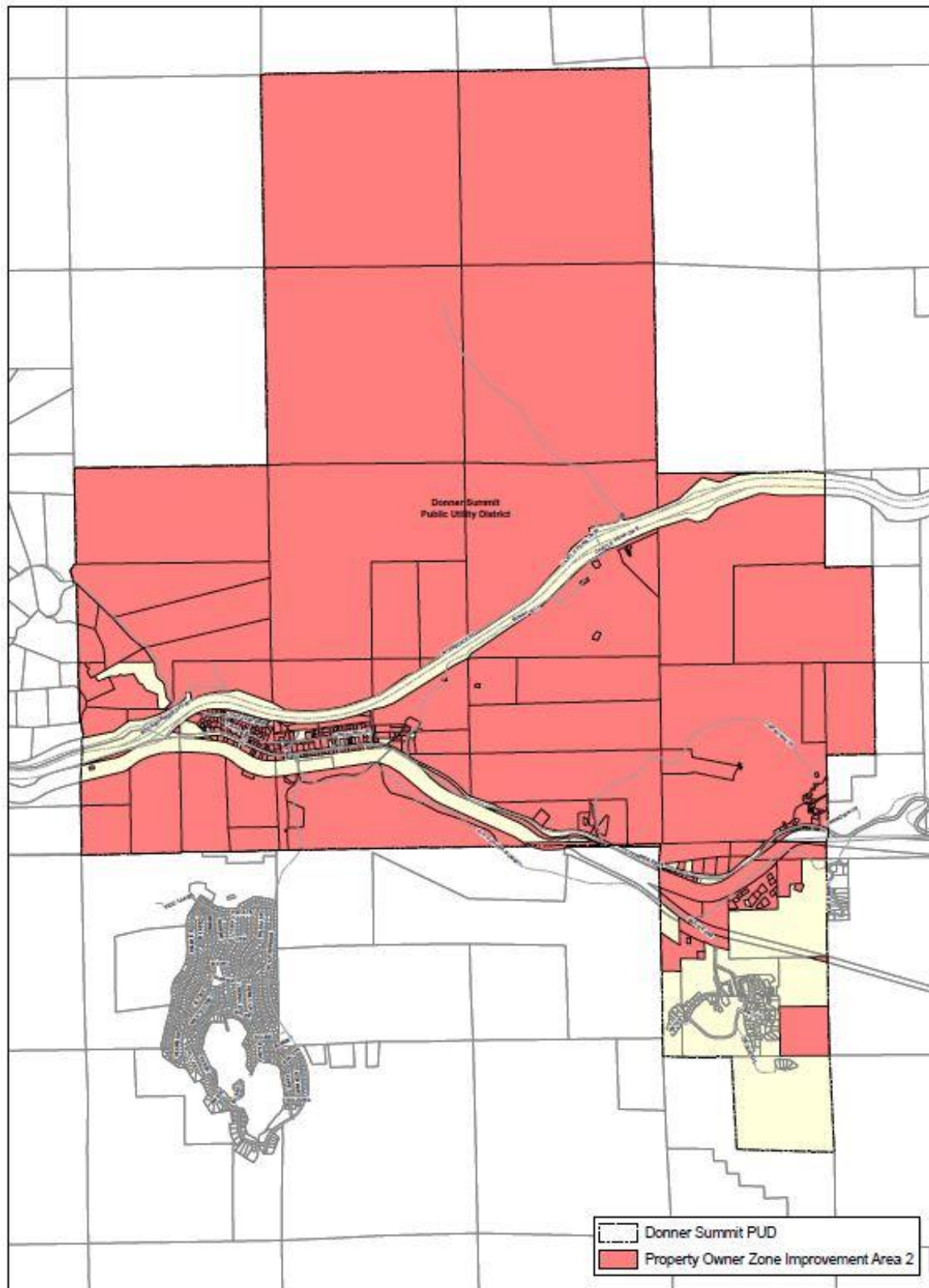
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<sup>2</sup> The Mello-Roos Act of 1982 allows any county, city, special district, school district or joint powers authority to establish a Mello-Roos Community Facilities District (CFD) which allows for financing of public improvements and services.

**Map 1**  
**Area No. 1 - Inside CFD No. 1 Parcels (Shaded)**

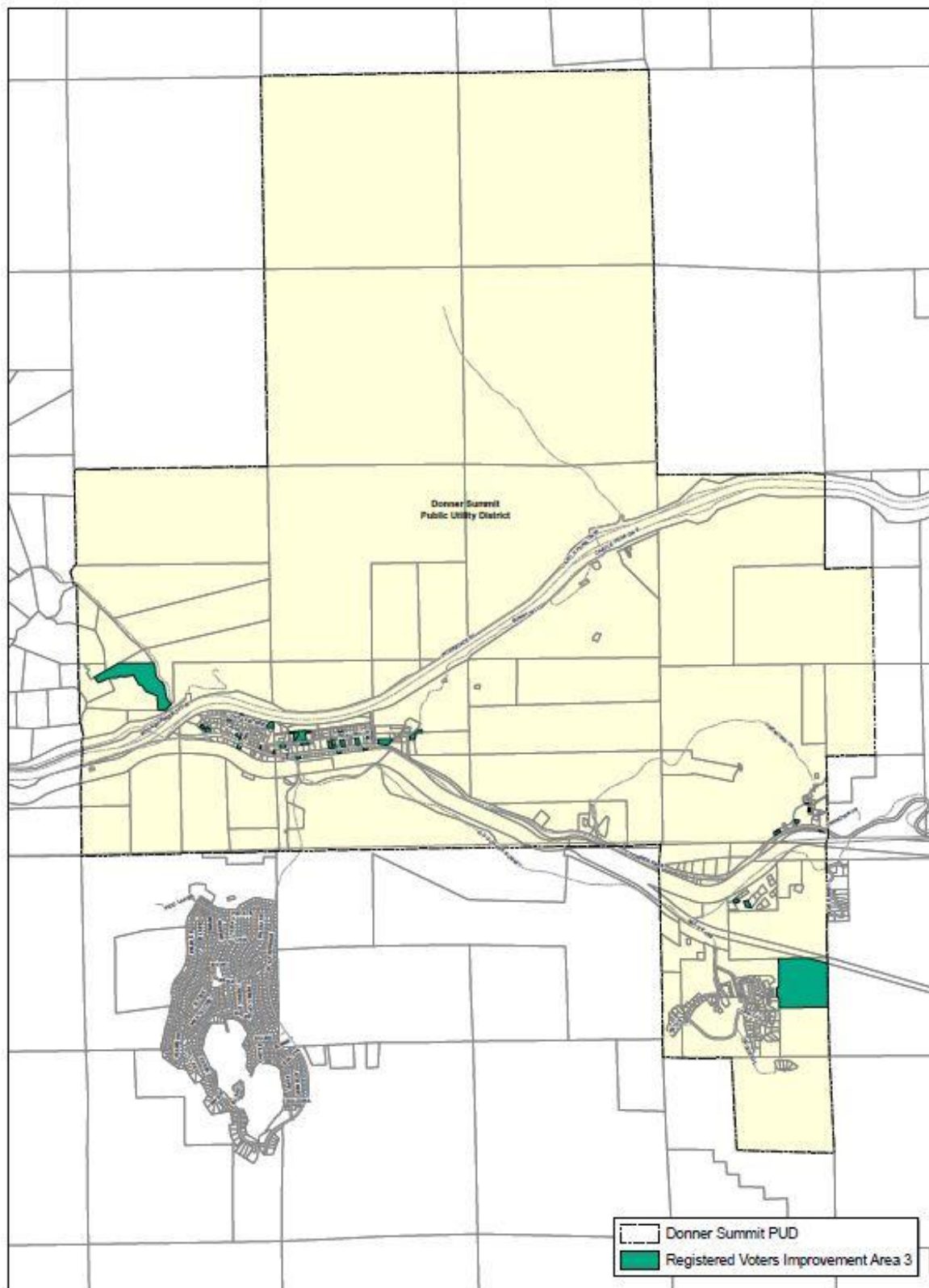


**Map 2**  
**Area No. 2 - Outside CFD No. 1 Parcels (Shaded)**





**Map 3**  
**Area No. 3 - Inside CFD No. 1 Parcels (Shaded)**



## SECTION 2: SUMMARY OF FINDINGS

### 2.1 SUMMARY OF CALCULATED RATES, CHARGES AND SPECIAL TAXES

#### User Definitions

The following definitions are used to describe the types of customers that pay wastewater rates. An EDU refers to an 'equivalent dwelling unit'. One EDU is the typical wastewater characteristic of one residence.

**Existing EDUs** means EDUs that are currently connected to the WWTP. These customers pay full rates.

**Future EDUs** means EDUs that have been purchased by property owners in order to connect to the WWTP in the future and for which there is capacity in the WWTP. Future customers pay reduced rates to cover their share of debt service and a portion of operations and maintenance expenses.

Calculated wastewater rates through June 2023 (the next five fiscal years) are shown below in **Table 1**. Wastewater rates are calculated on a per EDU basis for Inside CFD No. 1 customers and Outside CFD No. 1 customers. Note that CalTrans paid its share of debt service for the WWTP in one lump sum in fiscal year ending 2013; therefore, CalTrans wastewater rates are lower than for other existing customers.

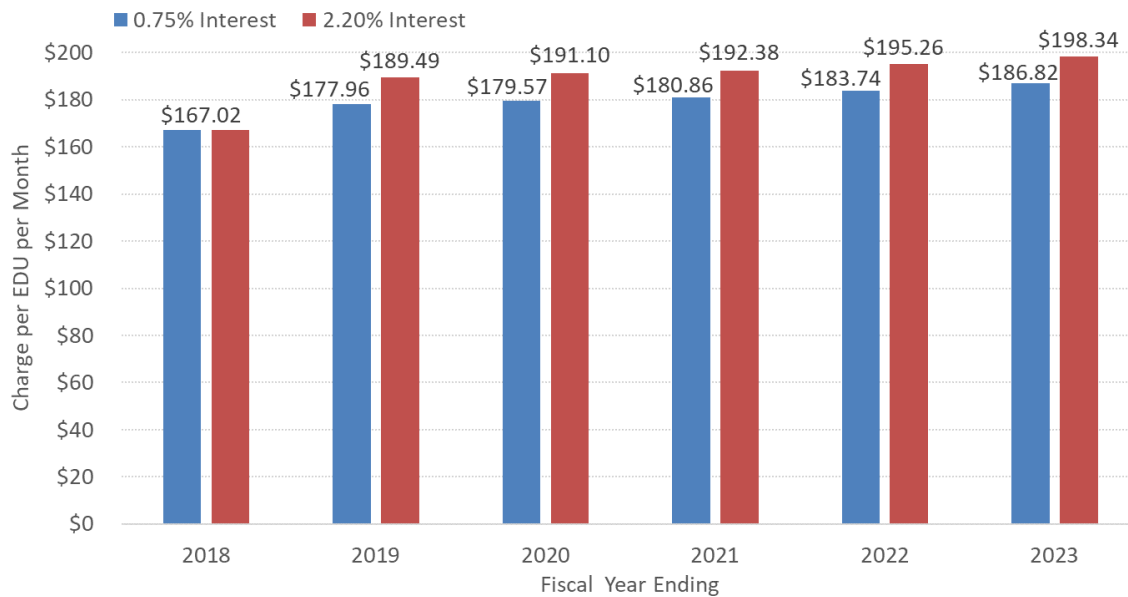
**Table 1**  
**Calculated Wastewater Rates**

Rates by Customer	Current	Calculated Rates				
	2018	2019	2020	2021	2022	2023
	<i>Effective Date</i>	<i>7/1/2018</i>	<i>7/1/2019</i>	<i>7/1/2020</i>	<i>7/1/2021</i>	<i>7/1/2022</i>
<b>Existing Customers</b>		<b>Monthly Charge (Rates) per EDU</b>				
Inside CFD No. 1	\$117.58	\$128.55	\$130.16	\$131.44	\$134.33	\$137.40
Outside CFD No. 1	\$167.02	\$177.96	\$179.57	\$180.86	\$183.74	\$186.82
CalTrans	\$117.58	\$117.69	\$119.30	\$120.59	\$123.47	\$126.55
<b>Future Customers</b>						
Inside CFD No. 1	\$49.13	\$67.99	\$68.77	\$69.39	\$70.79	\$72.29
Outside CFD No. 1	\$98.58	\$117.40	\$118.18	\$118.81	\$120.21	\$121.70
		<b>Special Taxes per EDU</b>				
Inside CFD No. 1 - All EDUs	\$49.42	\$49.42	\$49.42	\$49.42	\$49.42	\$49.42

Source: HEC.

The wastewater rate increases are less than they would have been if the District had not renegotiated its debt service with the State. **Figure 1** shows the difference in rates over the next five years under the old and the new loan terms.

**Figure 1**  
**Comparison of Charges under Old and New State CWSRF Loan Terms**



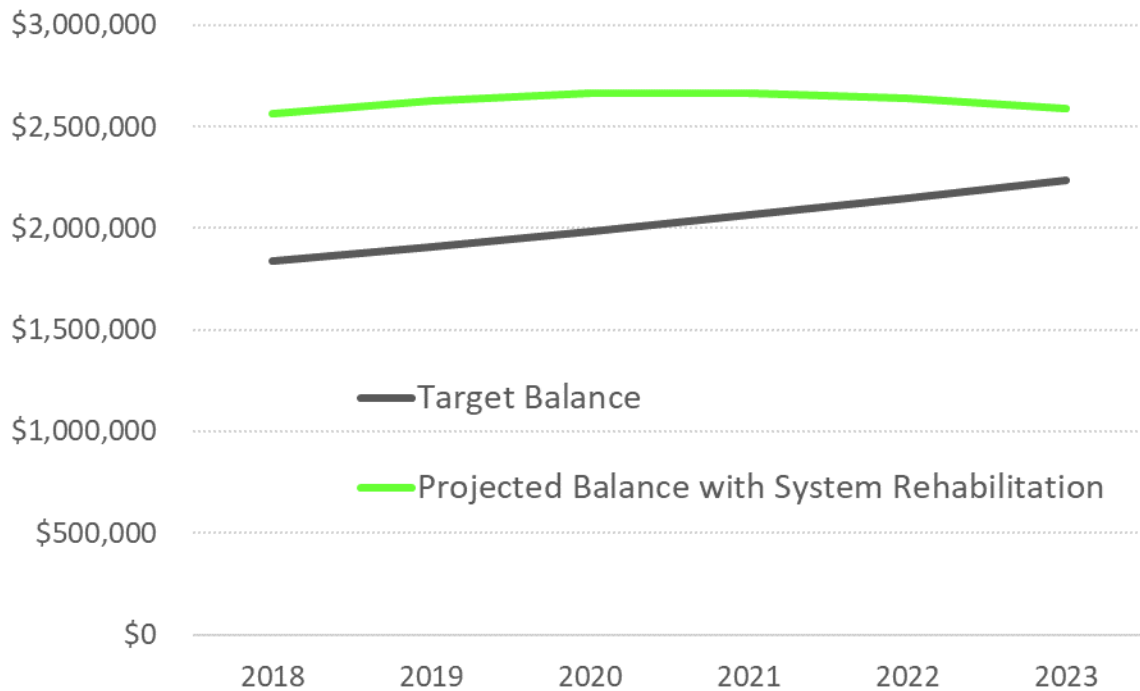
## 2.2 PROJECTED NET REVENUES AND CASH BALANCES

After accounting for one year of debt service, which is to be restricted per the terms of the CWSRF loan with the State, it is projected that the wastewater fund will have a cash balance of approximately \$2.5 million at the end of fiscal year 2018. The projection of the wastewater fund's cash balance over the next five years, as well as a target cash balance, is shown in **Figure 2**. The target cash balance is one year of operating expenses, and it is based on industry practices.

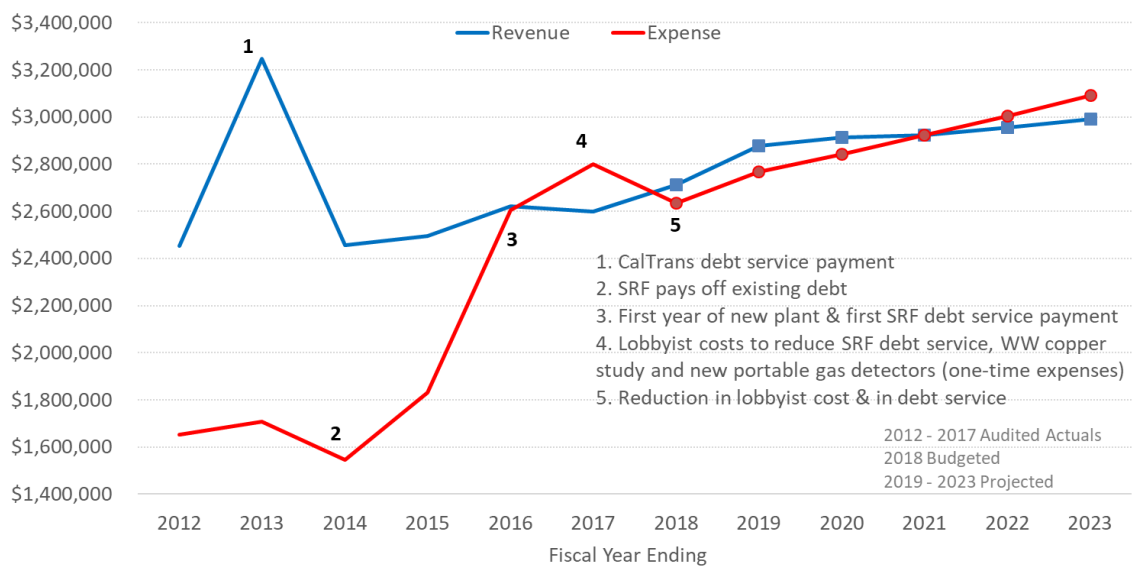
As is shown in **Figure 2**, the cash balance is estimated to decrease. The decreasing cash balance assumes system rehabilitation of approximately \$137,000 each year; to minimize the impact of improvement costs on ratepayers, \$75,000 of cash reserves is projected to be used in fiscal years 2022 and 2023.

Historical and projected revenues and expenses are shown in **Figure 3**. The use of cash reserves is illustrated in fiscal years 2022 and 2023. Revenues are projected to be higher than expenses in the first three fiscal years to meet debt service coverage requirements. The District is not currently meeting the 1.10 debt service coverage requirement of its loan agreement with the State. Key drivers of changes to revenues and expenses are noted in the figure.

**Figure 2**  
**Projected Ending Cash Balances**



**Figure 3**  
**Historical and Projected Wastewater Revenues and Expenses**



## 2.3 IMPACT TO RESIDENTIAL WASTEWATER CUSTOMERS

As demonstrated in **Table 2**, customer costs will increase from \$167.00 per month per EDU to \$177.96 per month per EDU for all existing customers in July 2018, and continue to increase each year thereafter.

**Table 2**  
**Wastewater Service Costs per Residential Customer**

Effective Date	<i>Current</i>	<i>7/1/2018</i>	<i>7/1/2019</i>	<i>7/1/2020</i>	<i>7/1/2021</i>	<i>7/1/2022</i>
<b>Existing Residential Customers</b>						
Monthly Sewer Rate	\$117.58	\$128.55	\$130.16	\$131.44	\$134.33	\$137.40
CFD No. 1 Special Tax [1]	\$49.42	\$49.42	\$49.42	\$49.42	\$49.42	\$49.42
<b>Estimated Total Monthly Cost</b>	<b>\$167.00</b>	<b>\$177.96</b>	<b>\$179.57</b>	<b>\$180.86</b>	<b>\$183.74</b>	<b>\$186.82</b>
<b>Percentage Change</b>		<b>6.6%</b>	<b>0.9%</b>	<b>0.7%</b>	<b>1.6%</b>	<b>1.7%</b>

Source: HEC.

[1] Special tax only applies to properties inside CFD No. 1; all other properties pay the same amount, but through rates.

## SECTION 3: WASTEWATER FUND FINANCIAL PROJECTION

### 3.1 CUSTOMER BASE AND EXISTING RATES

The District's customer base includes residential users, several ski resorts, the CalTrans rest stops along I-80, and various other commercial activity. The District does not have any industrial users. Currently, the District serves 879.9 existing and 205.5 future wastewater EDUs, plus wastewater flow from SLCWD. **Table 3** below shows the number of EDUs that are inside and outside of CFD No. 1. The District anticipates that about 9 new EDUs will connect to the wastewater system each year over the next 5 years.

**Table 3**  
**Total Number of DSPUD Wastewater EDUs**

EDU Type	2018
<b>Inside CFD No. 1</b>	
Existing	349.0
Caltrans Existing	91.0
Future	139.4
<b>Total Inside CFD No. 1 EDUs</b>	<b>579.4</b>
<b>Outside CFD No. 1</b>	
Existing	439.9
Future	66.1
<b>Total Outside CFD No. 1 EDUs</b>	<b>506.0</b>
<b>Total Rate-payers</b>	
Existing	879.9
Future	205.5
<b>Total Rate-paying EDUs</b>	<b>1,085.4</b>

Source: DSPUD March 2018.

As the District serves a small community with no industrial users, it has a simplified rate structure based on flow per equivalent dwelling unit (EDU). One EDU is estimated to have a flow just over 417 gallons per day. Each Existing EDU (the EDU holder/customer is connected and sends wastewater flow to the WWTP) is currently charged a flat fee of \$167.02 per month if they are outside CFD No. 1, and \$117.58 if they are inside CFD No. 1. Customers inside CFD No. 1 also pay a special tax of \$49.42 per month; in total all existing customers pay the same amount per EDU each month. Future customers pay 100% of debt service and a portion of operation and maintenance costs. Customers are billed each quarter.

### 3.2 HISTORICAL OPERATING COSTS AND REVENUES

Detailed historical budgeted operating costs for the wastewater collection system and WWTP, and actual costs since 2012, are provided in **Appendix A Tables A-1 and A-2**.

Between 2012 and 2017, operating expenses increased at an average of 4.3% per year with the exclusion of costs for utilities, communications, professional services, and other. These costs were excluded from the calculation because they increased at a higher rate due to one-time expenses that are not anticipated to continue in the future. For example, professional services included retention of a lobbyist to reduce the debt with the State; other costs included costs for a wastewater copper study and new portable gas detectors.

The District's average annual percentage increase in costs is about one percent greater than the construction cost and consumer price indices, also shown in **Appendix Table A-2**.

### 3.3 PROJECTED WASTEWATER SYSTEM EXPENSES AND REVENUES

The calculated rates are based on a projection of annual wastewater costs and revenues for operations and maintenance and capital costs of wastewater operations. The projection of costs by year uses 2018 as the base year. Base year 2018 financials and assumptions for projecting each expense and revenue category through 2023 are shown in **Table 4** on the following page.

All operating expenses are projected by applying an average annual increase of 4.0%. Non-rate revenue, which includes property tax and SLCWD charges, are projected independently. Property tax is estimated to increase 2.0% per year, which is the maximum increase on existing properties, assuming they do not change ownership. SLCWD charges are collected according to the agreement for service between the District and SLCWD. As shown in **Table 5**, SLCWD pays the District for approximately 39% of operating expenses; the actual share of costs fluctuates from year to year. SLCWD also pays a 14% charge for administration costs. **Appendix Table A-3** shows detail of the projected costs paid by SLCWD.

**Appendix Table A-4** shows the projection of administration revenues and costs, which are added to operating costs.

#### System Rehabilitation Costs

The District has been collecting for 20% of its depreciation costs in its rates since 2012; it is one of the primary reasons why the District has increased its cash reserves. Because the WWTP is so new, the District has not yet had to spend much on system rehabilitation. Other portions of the wastewater system do require maintenance, in particular lift stations and collection pipes. In addition, the membranes at the WWTP are scheduled to be replaced in 2025.

The District's current wastewater system assets and annual depreciation are demonstrated in **Appendix Table A-5**. At 20% of total depreciation the District would include \$78,173 each

year (see **Appendix Table A-6**) in the rates. The rate study includes the cost of estimated lift station, pipe replacement, and membrane replacement in lieu of collecting \$78,173 each year.

**Table 4**  
**Revenues and Expenses Projections Assumptions**

Revenues and Expenses	2018 Budget	2018 Wastewater Budget		Total 2018	Projection Assumptions
		Operations	Admin		
<b>Revenues</b>					
Sewer Service Charges	\$1,364,515	na	na	na	Determined by revenue requirement
Sierra Lakes CWD charges	\$459,546	na	na	na	Share of op. expense plus 14% admin.
<b>Non-Operating Revenue</b>			[1]		
Property tax	\$99,450	\$99,450	\$0	<b>\$99,450</b>	2018 budget, increase by 2% per year
Other	\$11,310	\$0	\$11,310	<b>\$11,310</b>	2018 budget, hold constant
Interest	\$0	\$0	\$0	<b>\$0</b>	None anticipated
Connection fees	\$0	\$0	\$0	<b>\$0</b>	Applied to applicant share of total cost
<b>Operating Expense</b>					
Salaries	\$686,454	\$419,046	\$267,408	<b>\$686,454</b>	Inflated by 4.0% per year
Employee Benefits	\$235,436	\$168,621	\$66,815	<b>\$235,436</b>	Inflated by 4.0% per year
Board Expense	\$37,658	\$20,973	\$16,686	<b>\$37,658</b>	Inflated by 4.0% per year
Professional fees	\$111,358	\$43,108	\$68,250	<b>\$111,358</b>	Inflated by 4.0% per year
Dues and Subscriptions	\$4,906	\$697	\$4,209	<b>\$4,906</b>	Inflated by 4.0% per year
Fees, permits, certifications, leases	\$33,587	\$20,745	\$12,843	<b>\$33,587</b>	Inflated by 4.0% per year
Training, education, travel	\$5,243	\$2,903	\$2,340	<b>\$5,243</b>	Inflated by 4.0% per year
Insurance	\$56,794	\$67,500	\$7,500	<b>\$75,000</b>	Inflated by 4.0% per year
Office supplies	\$2,927	\$1,336	\$1,591	<b>\$2,927</b>	Inflated by 4.0% per year
Utilities, communications	\$298,048	\$276,115	\$21,933	<b>\$298,048</b>	Inflated by 4.0% per year
Chemicals and lab supplies	\$122,700	\$122,700	\$0	<b>\$122,700</b>	Inflated by 4.0% per year
Lab testing	\$50,000	\$50,000	\$0	<b>\$50,000</b>	Inflated by 4.0% per year
Equipment maintenance / repair	\$65,700	\$60,786	\$4,914	<b>\$65,700</b>	Inflated by 4.0% per year
Small equipment and rental	\$6,168	\$6,168	\$0	<b>\$6,168</b>	Inflated by 4.0% per year
Operating supplies	\$4,750	\$4,750	\$0	<b>\$4,750</b>	Inflated by 4.0% per year
Infiltration - Inflow	\$25,000	\$25,000	\$0	<b>\$25,000</b>	Inflated by 4.0% per year
Sludge removal	\$14,000	\$14,000	\$0	<b>\$14,000</b>	Inflated by 4.0% per year
Fleet maintenance	\$40,999	\$40,999	\$0	<b>\$40,999</b>	Inflated by 4.0% per year
Facilities maintenance	\$37,471	\$31,902	\$5,569	<b>\$37,471</b>	Inflated by 4.0% per year
<b>Non-Operating Expense</b>					
Land leases [2]	\$20,250	\$20,250	\$0	<b>\$20,250</b>	Held constant

Source: HEC.

[1] Non-operating revenue allocated to sewer operations.

[2] Spray irrigation lease amortization under wastewater operations, administration lease costs allocated to wastewater operations.

**Table 5**  
**Operating Expenses Allocation Between DSPUD and SLCWD**

Entity	Fiscal Year Ending						Total / Average
	2012	2013	2014	2015	2016	2017	
DSPUD	\$487,314	\$485,227	\$488,153	\$544,395	\$579,298	\$630,313	<b>\$3,214,700</b>
SLCWD	\$278,802	\$277,608	\$289,947	\$353,707	\$403,067	\$426,637	<b>\$2,029,768</b>
<b>Total</b>	<b>\$766,116</b>	<b>\$762,835</b>	<b>\$778,100</b>	<b>\$898,102</b>	<b>\$982,365</b>	<b>\$1,056,950</b>	<b>\$5,244,468</b>
SLCWD as a % of Total	36.4%	36.4%	37.3%	39.4%	41.0%	40.4%	<b>38.7%</b>

Source: DSPUD audited financials.



## **Debt Service**

The annual debt service due to the State is \$719,191 per year, as shown in **Appendix Table A-7**.

### **3.4 REVENUE REQUIREMENT**

**Table 6** on the following page provides the projection of annual costs and revenues and the resulting revenue requirement (amount of revenues generated through wastewater charges) through June 30, 2023. Total revenue requirement is projected to increase from a 2018 base of \$2.16 million to \$2.22 million by fiscal year ending 2023. Excluding debt service, which is allocated to customers differently based on the location of their property inside or outside of CFD No. 1 and having Future EDUs pay 100% of debt service, the total amount to be raised through rates increases from \$1.44 million in 2018 to \$1.50 million in fiscal year 2023.

**Table 6**  
**Projected Revenue Requirement**

Item	Annual Increase	Source / Other	Base 2018	Projected				
				Year 1 2019	Year 2 2020	Year 3 2021	Year 4 2022	Year 5 2023
Operating Expenses								
Salaries	4.0%	Table A-3	\$419,046	\$435,800	\$453,200	\$471,300	\$490,200	\$509,800
Benefits	4.0%	Table A-3	\$168,621	\$175,400	\$182,400	\$189,700	\$197,300	\$205,200
Professional Services	4.0%	Table A-3	\$43,108	\$44,800	\$46,600	\$48,500	\$50,400	\$52,400
Fleet, Equipment, Facilities Replacement & Ref	4.0%	Table A-3	\$133,687	\$139,000	\$144,600	\$150,400	\$156,400	\$162,700
Operating supplies	4.0%	Table A-3	\$4,750	\$4,900	\$5,100	\$5,300	\$5,500	\$5,700
Insurance	4.0%	Table A-3	\$67,500	\$70,200	\$73,000	\$75,900	\$78,900	\$82,100
Utilities, communications	4.0%	Table A-3	\$276,115	\$287,200	\$298,700	\$310,600	\$323,000	\$335,900
Chemicals, lab supplies	4.0%	Table A-3	\$122,700	\$127,600	\$132,700	\$138,000	\$143,500	\$149,200
Lab testing	4.0%	Table A-3	\$50,000	\$52,000	\$54,100	\$56,300	\$58,600	\$60,900
Inflow / Infiltration and sludge removal	4.0%	Table A-3	\$39,000	\$40,600	\$42,200	\$43,900	\$45,700	\$47,500
Other	4.0%	Table A-3	\$31,849	\$33,100	\$34,400	\$35,800	\$37,200	\$38,700
Administration Department Costs Allocated		Table A-4	\$480,058	\$499,260	\$519,230	\$539,999	\$561,599	\$584,063
Total Operating Expenses	a		\$1,836,433	\$1,909,860	\$1,986,230	\$2,065,699	\$2,148,299	\$2,234,163
Debt Service								
SRF loan for Project C-06-7670-210	b	Table A-7	\$719,191	\$719,191	\$719,191	\$719,191	\$719,191	\$719,191
Subtotal Debt Service	c		\$719,191	\$719,191	\$719,191	\$719,191	\$719,191	\$719,191
System Rehabilitation								
Lift Station Rehabilitation [2]			\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Pipeline Replacement [3]			\$0	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Membrane at WWTP			\$0	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
Subtotal Rehabilitation	d		\$0	\$137,000	\$137,000	\$137,000	\$137,000	\$137,000
General Rehabilitation	e	Table A-6	\$78,173	\$0	\$0	\$0	\$0	\$0
Subtotal System Rehabilitation	e		\$78,173	\$137,000	\$137,000	\$137,000	\$137,000	\$137,000
Change in Reserves	f		\$0	\$56,000	\$35,000	\$0	(\$25,000)	(\$50,000)
Non-Operating Credits (Expenses)								
Lease of Land	constant	Table 4	(\$20,250)	(\$20,250)	(\$20,250)	(\$20,250)	(\$20,250)	(\$20,250)
Administration Department Revenues Allocated		Table A-4	\$11,310	\$11,310	\$11,310	\$11,310	\$11,310	\$11,310
Property tax	2.0%	[1]	\$99,450	\$101,400	\$103,400	\$105,500	\$107,600	\$109,800
Connection fees [4]			\$0	\$82,962	\$91,107	\$91,107	\$91,107	\$91,107
Estimate of New Customer Rates [4]			\$0	\$14,040	\$14,040	\$14,040	\$14,040	\$14,040
Total Non-operating Credits (expenses)	g		\$90,510	\$189,462	\$199,607	\$201,707	\$203,807	\$206,007
Sierra Lakes CWD								
Operating Expenses		Table A-3	\$459,546	\$501,097	\$520,783	\$541,257	\$562,550	\$584,695
System Rehabilitation [5]		Table A-6	\$0	\$28,805	\$28,805	\$28,805	\$28,805	\$28,805
Total Sierra Lakes CWD Revenue	h		\$459,546	\$529,902	\$549,588	\$570,062	\$591,355	\$613,500
Total Revenue Requirement	j = a+c+d+e-f+g+h		\$2,161,915	\$2,102,687	\$2,128,226	\$2,150,121	\$2,184,328	\$2,220,848
Revenue Requirement All Customers	k = j - b		\$1,442,724	\$1,383,496	\$1,409,035	\$1,430,930	\$1,465,137	\$1,501,656

Source: DSPUD and HEC.

- [1] Property taxes may only be increased by a maximum of 2% per year in California until the property is sold, at which time the new market value is established.  
[2] Lift station rehabilitation estimated at approximately \$650,000 per station (some will be much more, and some less) with a lifespan of 50 years. There are 8 lift stations.  
[3] Estimate by DSPUD staff.  
[4] Estimate based on 9 new EDUs per year.  
[5] Sierra Lakes CWD will not pay in these increments. Sierra Lakes CWD will pay for their share (about 38.7%) of capital improvements needed for wastewater plant and disposal facilities.

## Section 4: WASTEWATER RATES ANALYSIS

### 4.1 CALCULATED WASTEWATER RATES

**Table 7** presents the calculated rates per EDU for all customers (Inside and Outside CFD No. 1) excluding debt service. By fiscal year 2023 existing customer rates are projected to increase to \$126.55 per month, and future customer rates are projected to increase to \$61.43 per month.

Historically, the District has charged Future EDUs at 41% of the rate of Existing EDUs. This percentage was fixed a long time ago and there are no records currently documenting how this weighting was determined. HEC conducted an analysis of a new weighting, which is shown in footnote [1] of **Table 7** below. The new analysis calculates a weighting of 49%. The new weighting is used in the rate calculations for this rate study.

**Table 7**  
**Calculated Monthly Rates per EDU (All Customers) – Excludes Debt Service**

Cost	Fiscal Year Ending				
	2019	2020	2021	2022	2023
<b>Revenue Requirement (no debt service)</b>	<b>\$1,383,496</b>	<b>\$1,409,035</b>	<b>\$1,430,930</b>	<b>\$1,465,137</b>	<b>\$1,501,656</b>
<b>Rate-payers</b>					
Existing EDUs	879.85	888.85	897.85	897.85	897.85
Future EDUs	205.50	196.50	187.50	187.50	187.50
Future EDUs weighted [1] 49%	99.75	95.39	91.02	91.02	91.02
<b>Total Existing plus Weighted Future EDUs</b>	<b>979.60</b>	<b>984.24</b>	<b>988.87</b>	<b>988.87</b>	<b>988.87</b>
<b>Projected Cost per Existing EDU</b>	<b>\$1,412</b>	<b>\$1,432</b>	<b>\$1,447</b>	<b>\$1,482</b>	<b>\$1,519</b>
<b>Monthly Service Charge per Existing EDU</b>	<b>\$117.69</b>	<b>\$119.30</b>	<b>\$120.59</b>	<b>\$123.47</b>	<b>\$126.55</b>
<b>Projected Cost per Future EDU</b>	<b>\$686</b>	<b>\$695</b>	<b>\$702</b>	<b>\$719</b>	<b>\$737</b>
<b>Monthly Service Charge per Future EDU</b>	<b>\$57.13</b>	<b>\$57.91</b>	<b>\$58.54</b>	<b>\$59.94</b>	<b>\$61.43</b>

Source: HEC

[1] Calculation of weighting as follows: future EDUs pay for fixed costs of running the system as itemized below for 2018 and the next 5 fiscal years, and receive a credit for administration revenue, property tax, and connection fees.

Wastewater Administration Costs	\$3,184,210
Insurance	\$447,600
Fleet, Equipment (minor capital repair)	\$886,787
System Rehabilitation	\$763,173
Administration Rev. & Property Tax	(\$1,091,100)
<b>Total Costs to be Share with Future EDUs</b>	<b>\$4,190,670</b>
Total Revenue Requirement	\$8,632,978
<b>Percentage Cost Share for Future EDU</b>	<b>49%</b>

Additional rates to cover debt service are calculated in **Tables 8** through **Table 10**.

**Table 8****Allocation of Debt Service between Inside CFD No. 1 and Outside CFD No. 1 Customers**

Calculation	2019	2020	2021	2022	2023
<b>Number of EDUs</b>					
Inside CFD No. 1	488.40	488.40	488.40	488.40	488.40
Outside CFD No. 1	505.95	505.95	505.95	505.95	505.95
CalTrans [1]	91.00	91.00	91.00	91.00	91.00
<b>Total Number of EDUs</b>	<b>1,085.35</b>	<b>1,085.35</b>	<b>1,085.35</b>	<b>1,085.35</b>	<b>1,085.35</b>
<b>Annual CWSRF Debt Service for Project</b>	<b>\$719,191</b>	<b>\$719,191</b>	<b>\$719,191</b>	<b>\$719,191</b>	<b>\$719,191</b>
Inside CFD No. 1	\$353,249	\$353,249	\$353,249	\$353,249	\$353,249
Outside CFD No. 1	\$365,942	\$365,942	\$365,942	\$365,942	\$365,942

Source: DSPUD and HEC.

[1] CalTrans has already contributed its share of the SRF debt service with the exception of change order costs.

The maximum special tax paid by Inside CFD No. 1 customers does not entirely cover their portion of debt service; it covers about 82% of their share of total debt service. Approximately \$63,600 each year must be collected through rates. In **Table 9**, the amount of debt service to be collected from Inside CFD No. 1 customers through rates, is calculated. Divided amongst all Inside CFD No. 1 EDUs this equates to \$10.86 per EDU per month. **Table 10** shows the Inside CFD No. 1 and Outside CFD No. 1 debt service to be paid through rates. Outside CFD No. 1 EDUs each pay \$60.27 in rates for their share of debt service.

**Table 9****Calculation of Inside CFD No. 1 Customers Debt Paid through Rates**

Item	Fiscal Year Ending				
	2019	2020	2021	2022	2023
<b>Taxable EDUs</b>	<b>488.4</b>	<b>488.4</b>	<b>488.4</b>	<b>488.4</b>	<b>488.4</b>
Annual Maximum Special Tax per EDU	\$593	\$593	\$593	\$593	\$593
<b>Total Maximum Special Taxes</b>	<b>\$289,621</b>	<b>\$289,621</b>	<b>\$289,621</b>	<b>\$289,621</b>	<b>\$289,621</b>
<b>Inside CFD No.1 Debt Service</b>	<b>\$353,249</b>	<b>\$353,249</b>	<b>\$353,249</b>	<b>\$353,249</b>	<b>\$353,249</b>
<i>Special Tax Revenue as a % of Debt Share</i>	<i>82%</i>	<i>82%</i>	<i>82%</i>	<i>82%</i>	<i>82%</i>
<b>Revenue</b>					
CFD No. 1 Special Tax Revenue	\$289,621	\$289,621	\$289,621	\$289,621	\$289,621
Outside CFD No. 1 Rate Revenue	\$365,942	\$365,942	\$365,942	\$365,942	\$365,942
<b>Special Taxes and Outside CFD Rates for Project</b>	<b>\$655,563</b>	<b>\$655,563</b>	<b>\$655,563</b>	<b>\$655,563</b>	<b>\$655,563</b>
Inside CFD No. 1 Debt Service paid by Rates	\$63,628	\$63,628	\$63,628	\$63,628	\$63,628
<b>Total Revenues for Project Debt Service</b>	<b>\$719,191</b>	<b>\$719,191</b>	<b>\$719,191</b>	<b>\$719,191</b>	<b>\$719,191</b>

Source: HEC.

**Table 10**  
**Additional Monthly Rates per EDU for CWSRF Debt Service**

Calculation	Projected				
	2019	2020	2021	2022	2023
<b>Inside CFD No. 1</b>					
<i>Inside CFD No. 1 Additional Rates for Project Debt</i>					
<b>Net Debt Service Share</b>	<b>\$353,249</b>	<b>\$353,249</b>	<b>\$353,249</b>	<b>\$353,249</b>	<b>\$353,249</b>
Maximum Special Tax Revenue	\$289,621	\$289,621	\$289,621	\$289,621	\$289,621
<b>Debt Service Paid with Rates</b>	<b>\$63,628</b>	<b>\$63,628</b>	<b>\$63,628</b>	<b>\$63,628</b>	<b>\$63,628</b>
<b>Rate-paying EDUs</b>					
Existing	358.00	367.00	367.00	367.00	367.00
Future	130.40	121.40	121.40	121.40	121.40
Rate-paying EDUs weighted [1]	100%	488.40	488.40	488.40	488.40
<b>Annual Cost per Existing EDU</b>	<b>\$130.28</b>	<b>\$130.28</b>	<b>\$130.28</b>	<b>\$130.28</b>	<b>\$130.28</b>
<b>Annual Cost per Future EDU</b>	<b>\$130.28</b>	<b>\$130.28</b>	<b>\$130.28</b>	<b>\$130.28</b>	<b>\$130.28</b>
<b>Monthly Charge per EDU for Debt Service</b>	<b>\$10.86</b>	<b>\$10.86</b>	<b>\$10.86</b>	<b>\$10.86</b>	<b>\$10.86</b>
<b>Outside CFD No. 1</b>					
<i>Outside CFD No. 1 Additional Rates for Project Debt</i>					
<b>Debt Service Share</b>	<b>\$365,942</b>	<b>\$365,942</b>	<b>\$365,942</b>	<b>\$365,942</b>	<b>\$365,942</b>
<b>Rate-paying EDUs</b>					
Existing	439.85	439.85	439.85	439.85	439.85
Future	66.10	66.10	66.10	66.10	66.10
Rate-paying EDUs weighted [1]	100%	505.95	505.95	505.95	505.95
<b>Annual Cost per Existing EDU</b>	<b>\$723.28</b>	<b>\$723.28</b>	<b>\$723.28</b>	<b>\$723.28</b>	<b>\$723.28</b>
<b>Annual Cost per Future EDU</b>	<b>\$723.28</b>	<b>\$723.28</b>	<b>\$723.28</b>	<b>\$723.28</b>	<b>\$723.28</b>
<b>Monthly Charge per EDU</b>	<b>\$60.27</b>	<b>\$60.27</b>	<b>\$60.27</b>	<b>\$60.27</b>	<b>\$60.27</b>

Source: SWRCB, DSPUD, and HEC.

[1] Future EDUs pay the same as existing EDUs for SRF debt service.

## 4.2 PROJECTED CASH FLOW AND DEBT SERVICE COVERAGE

The projected annual cash flow for the District is shown in **Table 11** on the following page. The target cash balance is one year of operating expenses, and it is based on industry practices.

The cash flow shows debt service coverage increasing from 0.93 to 1.28 next fiscal year and then decreasing to 1.12 by fiscal year ending 2023. The District must maintain at least 1.10 debt service coverage per its loan agreement with the State. It is best practice to maintain at least 1.25 debt service coverage. Most other lending agencies require a minimum 1.20 debt service coverage.

**Table 11**  
**Projected Wastewater Operations Cash Flow**

Revenues and Expenses	Budget 2018	Fiscal Year				
		2019	2020	2021	2022	2023
Revenues						
CFD No. 1 Special Taxes	\$289,621	\$289,621	\$289,621	\$289,621	\$289,621	\$289,621
Sewer Service Charges	\$1,662,766	\$1,819,606	\$1,845,235	\$1,860,500	\$1,894,707	\$1,931,226
Sierra Lakes CWD	\$459,546	\$529,902	\$549,588	\$570,062	\$591,355	\$613,500
Total Charges	\$2,411,933	\$2,639,129	\$2,684,444	\$2,720,183	\$2,775,683	\$2,834,347
Non-Operating Revenues	\$90,510	\$189,462	\$199,607	\$201,707	\$203,807	\$206,007
Total Revenues	\$2,502,443	\$2,828,591	\$2,884,051	\$2,921,890	\$2,979,490	\$3,040,354
Total Expenses	\$1,836,433	\$1,909,860	\$1,986,230	\$2,065,699	\$2,148,299	\$2,234,163
Net Revenues before Debt Service and System Rehab.	\$666,010	\$918,732	\$897,821	\$856,191	\$831,191	\$806,191
Debt Service	\$719,191	\$719,191	\$719,191	\$719,191	\$719,191	\$719,191
Debt Service Coverage	0.93	1.28	1.25	1.19	1.16	1.12
Net Revenues	(\$53,181)	\$199,541	\$178,630	\$137,000	\$112,000	\$87,000
Beginning Fund Balance [1]						
Net Revenues	\$3,412,023	\$3,280,668	\$3,343,209	\$3,384,839	\$3,384,839	\$3,359,839
System Rehabilitation	(\$53,181)	\$199,541	\$178,630	\$137,000	\$112,000	\$87,000
	(\$78,173)	(\$137,000)	(\$137,000)	(\$137,000)	(\$137,000)	(\$137,000)
Ending Fund Balance	\$3,280,668	\$3,343,209	\$3,384,839	\$3,384,839	\$3,359,839	\$3,309,839
Designated	\$719,191	\$719,191	\$719,191	\$719,191	\$719,191	\$719,191
Undesignated Fund Balance	\$2,561,477	\$2,624,018	\$2,665,648	\$2,665,648	\$2,640,648	\$2,590,648
Target Undesignated Cash Reserves [2]	\$1,836,433	\$1,909,860	\$1,986,230	\$2,065,699	\$2,148,299	\$2,234,163

Source: HEC and DSPUD.

[1] Cash balance as of July 1, 2017, as provided by DSPUD staff March 9, 2018.

[2] One year of operating expenses.

# APPENDIX A

## SUPPORTING TABLES

### TABLE

A-1	Historical Fiscal Year Wastewater Operating Budget Excluding Operating Revenues
A-2	Comparison of Historical Operating Expenses to Standard Indices
A-3	Projection of Wastewater Operating Costs and SLCWD's Share of Treatment Plant Operating Costs
A-4	Projection of the Wastewater Fund's Administration Revenues and Expenses
A-5	Estimated Annual Depreciation of Existing Facilities
A-6	Summary of Estimated System Rehabilitation Funding Needs
A-7	SRF Loan Repayment Schedule for Project C-06-7670-210





Table A-1  
Donner Summit PUD 2018 Wastewater Rate Study  
Historical Fiscal Year Wastewater Operating Budget  
Excluding Operating Revenues

Revenues and Expenses	2012				2013				2014				2015			
	Collection	Plant	Admin	Total	Collection	Plant	Admin	Total	Collection	Plant	Admin	Total	Collection	Plant	Admin	Total
<b>Non-Operating Revenue</b>			78%				78%				78%				78%	
Property tax	\$24,883	\$109,618	\$0	\$134,501	\$20,931	\$92,211	\$0	\$113,142	\$17,027	\$75,013	\$0	\$92,040	\$17,072	\$75,013	\$0	\$92,085
GO Bond revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Late charges and other	\$0	\$0	\$7,176	\$7,176	\$0	\$0	\$7,176	\$7,176	\$0	\$0	\$6,240	\$6,240	\$0	\$0	\$6,240	\$6,240
Station 97 Utilities	\$0	\$0	\$5,850	\$5,850	\$0	\$0	\$5,850	\$5,850	\$0	\$0	\$5,070	\$5,070	\$0	\$0	\$5,070	\$5,070
Connection fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Revenues</b>	<b>\$24,883</b>	<b>\$109,618</b>	<b>\$13,026</b>	<b>\$147,527</b>	<b>\$20,931</b>	<b>\$92,211</b>	<b>\$13,026</b>	<b>\$126,168</b>	<b>\$17,027</b>	<b>\$75,013</b>	<b>\$11,310</b>	<b>\$103,350</b>	<b>\$17,072</b>	<b>\$75,013</b>	<b>\$11,310</b>	<b>\$103,395</b>
<b>EXPENSES</b>																
<b>Operating Expense</b>																
Salaries	\$69,976	\$225,058	\$235,143	\$530,178	\$68,167	\$219,240	\$242,198	\$529,605	\$70,927	\$228,116	\$247,886.34	\$546,929	\$79,161	\$254,598	\$260,887	\$594,646
Employee Benefits	\$27,781	\$89,351	\$46,595	\$163,727	\$26,274	\$84,502	\$51,096	\$161,872	\$32,666	\$105,060	\$57,833.10	\$195,559	\$36,576	\$117,637	\$63,481	\$217,694
Board Expense	\$0	\$0	\$15,189	\$15,189	\$0	\$0	\$15,492	\$15,492	\$0	\$0	\$16,685.76	\$16,686	\$0	\$0	\$16,686	\$16,686
Professional fees	\$2,000	\$10,000	\$58,500	\$70,500	\$2,040	\$10,200	\$58,500	\$70,740	\$2,040	\$10,200	\$62,400.00	\$74,640	\$2,040	\$10,200	\$62,400	\$74,640
Dues and Subscriptions	\$0	\$660	\$3,346	\$4,006	\$0	\$673	\$3,413	\$4,086	\$0	\$673	\$4,208.88	\$4,882	\$0	\$673	\$1,869	\$2,542
Fees, permits, certifications, leases	\$3,000	\$18,771	\$14,478	\$36,249	\$3,060	\$19,147	\$14,767	\$36,974	\$3,060	\$16,127	\$12,842.70	\$32,030	\$3,060	\$16,127	\$12,843	\$32,030
Training, education, travel	\$250	\$2,500	\$0	\$2,750	\$255	\$2,550	\$0	\$2,805	\$255	\$2,550	\$2,340.00	\$5,145	\$255	\$2,550	\$2,340	\$5,145
Insurance	\$12,000	\$30,000	\$4,680	\$46,680	\$12,240	\$30,600	\$4,774	\$47,614	\$12,240	\$30,600	\$4,773.60	\$47,614	\$12,240	\$30,600	\$4,774	\$47,614
Office supplies	\$500	\$750	\$1,560	\$2,810	\$510	\$765	\$1,591	\$2,866	\$510	\$765	\$1,591.20	\$2,866	\$510	\$765	\$1,591	\$2,866
Utilities, communications	\$23,500	\$138,000	\$19,344	\$180,844	\$24,205	\$142,140	\$19,924	\$186,269	\$24,205	\$142,140	\$19,924.32	\$186,269	\$24,205	\$188,490	\$19,924	\$232,619
Chemicals and lab supplies	\$500	\$119,156	\$0	\$119,656	\$500	\$119,156	\$0	\$119,656	\$500	\$119,156	\$0.00	\$119,656	\$500	\$119,156	\$0	\$119,656
Lab testing	\$9,000	\$89,330	\$0	\$98,330	\$0	\$91,117	\$0	\$91,117	\$0	\$91,117	\$0.00	\$91,117	\$0	\$91,117	\$0	\$91,117
Equipment maintenance / repair	\$200	\$17,000	\$780	\$17,980	\$9,180	\$17,340	\$796	\$27,316	\$9,180	\$17,340	\$795.60	\$27,316	\$9,180	\$22,440	\$796	\$32,416
Small equipment and rental	\$0	\$1,500	\$0	\$1,500	\$204	\$1,530	\$0	\$1,734	\$204	\$1,530	\$0.00	\$1,734	\$1,125	\$4,475	\$0	\$5,600
Operating supplies	\$2,000	\$2,500	\$0	\$4,500	\$2,040	\$2,550	\$0	\$4,590	\$2,040	\$2,550	\$0.00	\$4,590	\$2,040	\$2,550	\$0	\$4,590
Infiltration - Inflow	\$15,000	\$0	\$0	\$15,000	\$15,000	\$0	\$0	\$15,000	\$25,000	\$0	\$0.00	\$25,000	\$25,000	\$0	\$0	\$25,000
Sludge removal	\$2,000	\$5,000	\$0	\$7,000	\$2,000	\$5,000	\$0	\$7,000	\$2,000	\$5,000	\$0.00	\$7,000	\$2,000	\$5,000	\$0	\$7,000
Fleet maintenance	\$3,451	\$33,125	\$0	\$36,576	\$3,520	\$33,788	\$0	\$37,308	\$3,520	\$33,788	\$0.00	\$37,308	\$3,520	\$33,788	\$0	\$37,308
Facilities maintenance	\$17,000	\$8,000	\$5,460	\$30,460	\$17,340	\$8,160	\$5,569	\$31,069	\$17,340	\$8,160	\$5,569.20	\$31,069	\$17,340	\$8,160	\$5,569	\$31,069
<b>Total Operating Expense</b>	<b>\$188,158</b>	<b>\$790,701</b>	<b>\$405,075</b>	<b>\$1,383,934</b>	<b>\$186,535</b>	<b>\$788,458</b>	<b>\$418,121</b>	<b>\$1,393,114</b>	<b>\$205,687</b>	<b>\$814,872</b>	<b>\$436,851</b>	<b>\$1,457,410</b>	<b>\$218,752</b>	<b>\$908,326</b>	<b>\$453,159</b>	<b>\$1,580,237</b>
<b>Non-Operating Expense</b>																
Land lease amortization	\$0	\$0	\$1,622	\$1,622	\$0	\$0	\$1,622	\$1,622	\$0	\$0	\$0	\$0	\$0	\$20,400	\$0	\$20,400
Long term debt payments	\$0	\$238,428	\$0	\$238,428	\$0	\$795,859	\$0.00	\$795,859	\$0	\$795,859	\$0	\$795,859	\$0	\$201,404	\$0	\$201,404
<b>Total Non-Operating Expenses</b>	<b>\$0</b>	<b>\$238,428</b>	<b>\$1,622</b>	<b>\$240,050</b>	<b>\$0</b>	<b>\$795,859</b>	<b>\$1,622</b>	<b>\$797,481</b>	<b>\$0</b>	<b>\$795,859</b>	<b>\$0</b>	<b>\$795,859</b>	<b>\$0</b>	<b>\$221,804</b>	<b>\$0</b>	<b>\$221,804</b>
<b>Total Expenses</b>	<b>\$188,158</b>	<b>\$1,029,129</b>	<b>\$406,697</b>	<b>\$1,623,984</b>	<b>\$186,535</b>	<b>\$1,584,317</b>	<b>\$419,742</b>	<b>\$2,190,594</b>	<b>\$205,687</b>	<b>\$1,610,731</b>	<b>\$436,851</b>	<b>\$2,253,269</b>	<b>\$218,752</b>	<b>\$1,130,130</b>	<b>\$453,159</b>	<b>\$1,802,041</b>
<b>Net Revenues (Loss)</b>	<b>(\$163,275)</b>	<b>(\$919,511)</b>	<b>(\$393,671)</b>	<b>(\$1,476,457)</b>	<b>(\$165,604)</b>	<b>(\$1,492,106)</b>	<b>(\$406,716)</b>	<b>(\$2,064,426)</b>	<b>(\$188,660)</b>	<b>(\$1,535,718)</b>	<b>(\$425,541)</b>	<b>(\$2,149,919)</b>	<b>(\$201,680)</b>	<b>(\$1,055,117)</b>	<b>(\$441,849)</b>	<b>(\$1,698,646)</b>

Source: DSPUD.

**Table A-1**  
**Donner Summit PUD 2018 Wastewater Rate Study**  
**Historical Fiscal Year Wastewater Operating Budget**  
**Excluding Operating Revenues**

Revenues and Expenses	2016				2017				2018			
	Collection	Plant	Admin	Total	Collection	Plant	Admin	Total	Collection	Plant	Admin	Total
<b>Non-Operating Revenue</b>			78%				78%				78%	
Property tax	\$18,038	\$79,463	\$0	\$97,501	\$18,398	\$81,052	\$0	\$99,450	\$18,398	\$81,052	\$0	\$99,450
GO Bond revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Late charges and other	\$0	\$0	\$6,240	\$6,240	\$0	\$0	\$6,240	\$6,240	\$0	\$0	\$6,240	\$6,240
Station 97 Utilities	\$0	\$0	\$5,070	\$5,070	\$0	\$0	\$5,070	\$5,070	\$0	\$0	\$5,070	\$5,070
Connection fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Revenues</b>	<b>\$18,038</b>	<b>\$79,463</b>	<b>\$11,310</b>	<b>\$108,811</b>	<b>\$18,398</b>	<b>\$81,052</b>	<b>\$11,310</b>	<b>\$110,760</b>	<b>\$18,398</b>	<b>\$81,052</b>	<b>\$11,310</b>	<b>\$110,760</b>
<b>EXPENSES</b>												
<b>Operating Expense</b>												
Salaries	\$79,410	\$255,400	\$267,408	\$602,218	\$85,561	\$275,184	\$278,817	\$639,562	\$94,036	\$302,440	\$289,978	\$686,454
Employee Benefits	\$38,948	\$125,266	\$66,815	\$231,029	\$35,989	\$115,749	\$60,899	\$212,637	\$40,107	\$128,992	\$66,337	\$235,436
Board Expense	\$0	\$0	\$16,686	\$16,686	\$0	\$0	\$16,686	\$16,686	\$0	\$0	\$37,658	\$37,658
Professional fees	\$2,040	\$10,200	\$68,250	\$80,490	\$2,111	\$38,557	\$68,250	\$108,918	\$2,111	\$42,557	\$66,690	\$111,358
Dues and Subscriptions	\$0	\$673	\$4,209	\$4,882	\$0	\$697	\$4,209	\$4,906	\$0	\$697	\$4,209	\$4,906
Fees, permits, certifications, leases	\$3,060	\$1,612	\$12,843	\$17,515	\$3,262	\$16,528	\$12,865	\$32,655	\$3,262	\$16,528	\$13,797	\$33,587
Training, education, travel	\$255	\$2,550	\$2,340	\$5,145	\$264	\$2,639	\$2,340	\$5,243	\$264	\$2,639	\$2,340	\$5,243
Insurance	\$15,600	\$39,000	\$6,084	\$60,684	\$12,000	\$30,000	\$4,680	\$46,680	\$14,600	\$36,500	\$5,694	\$56,794
Office supplies	\$510	\$765	\$1,591	\$2,866	\$544	\$792	\$1,591	\$2,927	\$544	\$792	\$1,591	\$2,927
Utilities, communications	\$24,205	\$272,950	\$21,933	\$319,088	\$25,553	\$250,000	\$21,933	\$297,486	\$25,553	\$250,000	\$22,495	\$298,048
Chemicals and lab supplies	\$500	\$119,156	\$0	\$119,656	\$544	\$122,156	\$0	\$122,700	\$544	\$122,156	\$0	\$122,700
Lab testing	\$0	\$60,000	\$0	\$60,000	\$0	\$50,000	\$0	\$50,000	\$0	\$50,000	\$0	\$50,000
Equipment maintenance / repair	\$9,180	\$36,720	\$4,914	\$50,814	\$9,786	\$46,000	\$4,914	\$60,700	\$9,786	\$51,000	\$4,914	\$65,700
Small equipment and rental	\$2,792	\$3,167	\$0	\$5,959	\$2,890	\$3,278	\$0	\$6,168	\$2,890	\$3,278	\$0	\$6,168
Operating supplies	\$2,040	\$2,550	\$0	\$4,590	\$2,111	\$2,639	\$0	\$4,750	\$2,111	\$2,639	\$0	\$4,750
Infiltration - Inflow	\$25,000	\$0	\$0	\$25,000	\$25,000	\$0	\$0	\$25,000	\$25,000	\$0	\$0	\$25,000
Sludge removal	\$2,000	\$5,000	\$0	\$7,000	\$2,000	\$12,000	\$0	\$14,000	\$2,000	\$12,000	\$0	\$14,000
Fleet maintenance	\$3,520	\$33,788	\$0	\$37,308	\$3,648	\$37,351	\$0	\$40,999	\$3,648	\$37,351	\$0	\$40,999
Facilities maintenance	\$17,340	\$8,160	\$5,569	\$31,069	\$0	\$13,000	\$5,569	\$18,569	\$17,947	\$13,000	\$6,524	\$37,471
<b>Total Operating Expense</b>	<b>\$226,400</b>	<b>\$976,957</b>	<b>\$478,642</b>	<b>\$1,681,999</b>	<b>\$211,263</b>	<b>\$1,016,570</b>	<b>\$482,753</b>	<b>\$1,710,586</b>	<b>\$244,403</b>	<b>\$1,072,569</b>	<b>\$522,228</b>	<b>\$1,839,200</b>
<b>Non-Operating Expense</b>												
Land lease amortization	\$0	\$20,400	\$0	\$20,400	\$0	\$20,250	\$0	\$20,250	\$0	\$20,250	\$0	\$20,250
Long term debt payments	\$0	\$244,972	\$0	\$244,972	\$0	\$274,023	\$0	\$274,023	\$0	\$275,210	\$0	\$275,210
<b>Total Non-Operating Expenses</b>	<b>\$0</b>	<b>\$265,372</b>	<b>\$0</b>	<b>\$265,372</b>	<b>\$0</b>	<b>\$294,273</b>	<b>\$0</b>	<b>\$294,273</b>	<b>\$0</b>	<b>\$295,460</b>	<b>\$0</b>	<b>\$295,460</b>
<b>Total Expenses</b>	<b>\$226,400</b>	<b>\$1,242,329</b>	<b>\$478,642</b>	<b>\$1,947,371</b>	<b>\$211,263</b>	<b>\$1,310,843</b>	<b>\$482,753</b>	<b>\$2,004,859</b>	<b>\$244,403</b>	<b>\$1,368,029</b>	<b>\$522,228</b>	<b>\$2,134,660</b>
<b>Net Revenues (Loss)</b>	<b>(\$208,362)</b>	<b>(\$1,162,866)</b>	<b>(\$467,332)</b>	<b>(\$1,838,560)</b>	<b>(\$192,865)</b>	<b>(\$1,229,791)</b>	<b>(\$471,443)</b>	<b>(\$1,894,099)</b>	<b>(\$226,005)</b>	<b>(\$1,286,977)</b>	<b>(\$510,918)</b>	<b>(\$2,023,900)</b>

Source: DSPUD.

history

**Table A-2**  
**Donner Summit PUD 2018 Wastewater Rate Study**  
**Comparison of Historical Operating Expenses to Standard Indices (combined District funds)**

Operating Expense	Fiscal Year Ending						Total Change	Avg. Ann. % Change
	2012	2013	2014	2015	2016	2017		
<b>Personnel Expense</b>								
Salaries	\$621,949	\$646,447	\$650,861	\$693,762	\$800,205	\$887,603	\$265,654	7.4%
Benefits	\$273,243	\$285,156	\$291,429	\$305,015	\$264,611	\$288,196	\$14,953	1.1%
<b>Subtotal Personnel</b>	<b>\$895,192</b>	<b>\$931,603</b>	<b>\$942,290</b>	<b>\$998,777</b>	<b>\$1,064,816</b>	<b>\$1,175,799</b>	<b>\$280,607</b>	<b>5.6%</b>
<b>Other Operating Expense</b>								
Board expense	\$20,604	\$17,762	\$17,457	\$18,883	\$23,047	\$28,369	\$7,765	6.6%
Professional services	\$92,206	\$83,494	\$83,390	\$100,761	\$203,998	\$260,451	\$168,245	23.1%
Fleet, Equipment & Repairs	\$138,616	\$141,578	\$160,626	\$149,497	\$261,427	\$172,189	\$33,573	4.4%
Operating supplies	\$9,222	\$10,137	\$8,651	\$11,043	\$26,753	\$26,398	\$17,176	23.4%
Insurance	\$56,521	\$56,420	\$53,248	\$56,017	\$55,338	\$59,664	\$3,143	1.1%
Utilities, communications	\$197,124	\$170,961	\$234,782	\$277,640	\$318,387	\$366,726	\$169,602	13.2%
Chemicals, lab supplies	\$196,636	\$220,936	\$178,849	\$221,469	\$148,590	\$162,240	(\$34,396)	-3.8%
Inflow / Infiltration and sludge removal	\$15,308	\$19,611	\$10,544	\$21,722	\$15,483	\$16,625	\$1,317	1.7%
Other [1]	\$70,496	\$51,446	\$63,871	\$75,382	\$97,516	\$141,582	\$71,086	15.0%
<b>Subtotal Other Operating Expense [2]</b>	<b>\$796,733</b>	<b>\$772,345</b>	<b>\$811,418</b>	<b>\$932,414</b>	<b>\$1,150,539</b>	<b>\$1,234,244</b>	<b>\$437,511</b>	<b>9.1%</b>
<b>Total Operating Expenses</b>	<b>\$1,691,925</b>	<b>\$1,703,948</b>	<b>\$1,753,708</b>	<b>\$1,931,191</b>	<b>\$2,215,355</b>	<b>\$2,410,043</b>	<b>\$718,118</b>	<b>7.3%</b>
<b>Total Without Utilities, Communications, Professional Services, and Other [3]</b>	<b>\$1,332,099</b>	<b>\$1,398,047</b>	<b>\$1,371,665</b>	<b>\$1,477,408</b>	<b>\$1,595,454</b>	<b>\$1,641,284</b>	<b>\$309,185</b>	<b>4.3%</b>
<b>Engineering News Record</b>	<i>June 2012</i>	<i>June 2013</i>	<i>June 2014</i>	<i>June 2015</i>	<i>June 2016</i>	<i>June 2017</i>		
ENR Construction Cost Index 20-City	9,291.00	9,542.00	9,800.00	10,039.00	10,337.05	10,702.81	1,411.81	<b>2.9%</b>
ENR Construction Cost Index San Francisco	10,385.54	10,388.84	10,899.59	11,155.07	11,548.40	11,722.15	1,336.61	<b>2.5%</b>
<b>Bureau of Labor Statistics</b>								
Consumer Price Index - California	237.80	241.90	247.23	250.40	255.68	262.29	24.49	<b>2.0%</b>
Consumer Price Index - San Francisco	239.81	245.94	253.32	259.12	266.04	275.30	35.50	<b>2.8%</b>

Source: HEC, California Department of Finance, and the Engineering News Record.

indices

[1] Increased costs for Other attributed to extra sludge testing, wastewater copper study and drinking water copper and lead testing and new portable gas detectors.

[2] Excludes depreciation, interest, and amortization of land lease.

[3] Utilities and communications costs excluded because of the new treatment plant construction and completion. In future years these costs are anticipated to increase at about the same rate as most other costs. Professional services excluded because of a significant decrease in professional services following completion of the wastewater treatment plant loan renegotiation.

**Table A-3**  
**Donner Summit PUD 2018 Wastewater Rate Study**  
**Projection of Wastewater Operating Costs and SLCWD's Share of Treatment Plant Operating Costs**

Operating Expenses		2018 (Budget)		2019		2020		2021		2022		2023	
		Collection	Plant	Collection	Plant	Collection	Plant	Collection	Plant	Collection	Plant	Collection	Plant
Salaries	4.0%	\$94,036	\$302,440	\$97,797	\$314,538	\$101,709	\$327,119	\$105,778	\$340,204	\$110,009	\$353,812	\$114,409	\$367,965
Employee Benefits	4.0%	\$40,107	\$128,992	\$41,711	\$134,152	\$43,380	\$139,518	\$45,115	\$145,098	\$46,920	\$150,902	\$48,796	\$156,938
Board Expense	4.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Professional fees	4.0%	\$2,111	\$42,557	\$2,195	\$44,259	\$2,283	\$46,030	\$2,375	\$47,871	\$2,470	\$49,786	\$2,568	\$51,777
Dues and Subscriptions	4.0%	\$0	\$697	\$0	\$725	\$0	\$754	\$0	\$784	\$0	\$815	\$0	\$848
Fees, permits, certifications, leases	4.0%	\$3,262	\$16,528	\$3,392	\$17,189	\$3,528	\$17,877	\$3,669	\$18,592	\$3,816	\$19,335	\$3,969	\$20,109
Training, education, travel	4.0%	\$264	\$2,639	\$275	\$2,745	\$286	\$2,854	\$297	\$2,969	\$309	\$3,087	\$321	\$3,211
Insurance	4.0%	\$14,600	\$36,500	\$15,184	\$37,960	\$15,791	\$39,478	\$16,423	\$41,058	\$17,080	\$42,700	\$17,763	\$44,408
Office supplies	4.0%	\$544	\$792	\$566	\$824	\$588	\$857	\$612	\$891	\$636	\$927	\$662	\$964
Utilities, communications	4.0%	\$25,553	\$250,000	\$26,575	\$260,000	\$27,638	\$270,400	\$28,744	\$281,216	\$29,893	\$292,465	\$31,089	\$304,163
Chemicals and lab supplies	4.0%	\$544	\$122,156	\$566	\$127,042	\$588	\$132,124	\$612	\$137,409	\$636	\$142,905	\$662	\$148,621
Lab testing	4.0%	\$0	\$50,000	\$0	\$52,000	\$0	\$54,080	\$0	\$56,243	\$0	\$58,493	\$0	\$60,833
Equipment maintenance / repair	4.0%	\$9,786	\$51,000	\$10,177	\$53,040	\$10,585	\$55,162	\$11,008	\$57,368	\$11,448	\$59,663	\$11,906	\$62,049
Small equipment and rental	4.0%	\$2,890	\$3,278	\$3,006	\$3,409	\$3,126	\$3,545	\$3,251	\$3,687	\$3,381	\$3,835	\$3,516	\$3,988
Operating supplies	4.0%	\$2,111	\$2,639	\$2,195	\$2,745	\$2,283	\$2,854	\$2,375	\$2,969	\$2,470	\$3,087	\$2,568	\$3,211
Infiltration - Inflow	4.0%	\$25,000	\$0	\$26,000	\$0	\$27,040	\$0	\$28,122	\$0	\$29,246	\$0	\$30,416	\$0
Sludge removal	4.0%	\$2,000	\$12,000	\$2,080	\$12,480	\$2,163	\$12,979	\$2,250	\$13,498	\$2,340	\$14,038	\$2,433	\$14,600
Fleet maintenance	4.0%	\$3,648	\$37,351	\$3,794	\$38,845	\$3,946	\$40,399	\$4,104	\$42,015	\$4,268	\$43,695	\$4,438	\$45,443
Facilities maintenance	4.0%	\$17,947	\$13,000	\$18,665	\$13,520	\$19,411	\$14,061	\$20,188	\$14,623	\$20,995	\$15,208	\$21,835	\$15,816
Land lease amortization		\$0	\$20,250	\$0	\$20,250	\$0	\$20,250	\$0	\$20,250	\$0	\$20,250	\$0	\$20,250
<b>Total Expenses less long-term Debt</b>		<b>\$244,403</b>	<b>\$1,092,819</b>	<b>\$254,179</b>	<b>\$1,135,722</b>	<b>\$264,346</b>	<b>\$1,180,341</b>	<b>\$274,920</b>	<b>\$1,226,744</b>	<b>\$285,917</b>	<b>\$1,275,004</b>	<b>\$297,354</b>	<b>\$1,325,194</b>
<b>Sierra Lakes CWD Share of Expenses [1]</b>			<b>\$482,168</b>		<b>\$501,097</b>		<b>\$520,783</b>		<b>\$541,257</b>		<b>\$562,550</b>		<b>\$584,695</b>

Source: HEC.

op proj

[1] Calculation of Sierra Lakes CWD Share of Treatment Plant Operations is total expenses less long term debt payment multiplied by cost allocation factors (from Table A-6):

Percentage of expenses 39%  
Administrative expenses 14%

Table A-4

## Donner Summit PUD 2018 Wastewater Rate Study

## Projection of the Wastewater Fund's Administration Revenues and Expenses

Revenues and Expenses	Assumptions	2018	Estimated				
			2019	2020	2021	2022	2023
<b>Revenue</b>		<b>Base Year</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Other (late charges, Station 97 utilities)		\$11,310	\$11,310	\$11,310	\$11,310	\$11,310	\$11,310
<b>Total Revenues</b>		<b>\$11,310</b>	<b>\$11,310</b>	<b>\$11,310</b>	<b>\$11,310</b>	<b>\$11,310</b>	<b>\$11,310</b>
<b>Expenses</b>		<i>See Table 4</i>					
Salaries	4.0%	\$267,408	\$278,105	\$289,229	\$300,798	\$312,830	\$325,343
Employee Benefits	4.0%	\$66,815	\$69,487	\$72,267	\$75,158	\$78,164	\$81,290
Board Expense	4.0%	\$16,686	\$17,353	\$18,047	\$18,769	\$19,520	\$20,301
Professional fees	4.0%	\$68,250	\$70,980	\$73,819	\$76,772	\$79,843	\$83,037
Dues and Subscriptions	4.0%	\$4,209	\$4,377	\$4,552	\$4,734	\$4,924	\$5,121
Fees, permits, certifications, leases	4.0%	\$12,843	\$13,356	\$13,891	\$14,446	\$15,024	\$15,625
Training, education, travel	4.0%	\$2,340	\$2,434	\$2,531	\$2,632	\$2,737	\$2,847
Insurance	4.0%	\$7,500	\$7,800	\$8,112	\$8,436	\$8,774	\$9,125
Office supplies	4.0%	\$1,591	\$1,655	\$1,721	\$1,790	\$1,861	\$1,936
Utilities, communications	4.0%	\$21,933	\$22,810	\$23,723	\$24,671	\$25,658	\$26,685
Chemicals and lab supplies	4.0%	\$0	\$0	\$0	\$0	\$0	\$0
Lab testing	4.0%	\$0	\$0	\$0	\$0	\$0	\$0
Equipment maintenance / repair	4.0%	\$4,914	\$5,111	\$5,315	\$5,528	\$5,749	\$5,979
Small equipment and rental	4.0%	\$0	\$0	\$0	\$0	\$0	\$0
Operating supplies	4.0%	\$0	\$0	\$0	\$0	\$0	\$0
Infiltration - Inflow	4.0%	\$0	\$0	\$0	\$0	\$0	\$0
Sludge removal	4.0%	\$0	\$0	\$0	\$0	\$0	\$0
Fleet maintenance	4.0%	\$0	\$0	\$0	\$0	\$0	\$0
Facilities maintenance	4.0%	\$5,569	\$5,792	\$6,024	\$6,265	\$6,515	\$6,776
<b>Total Operating Expense</b>		<b>\$480,058</b>	<b>\$499,260</b>	<b>\$519,230</b>	<b>\$539,999</b>	<b>\$561,599</b>	<b>\$584,063</b>

Source: DSPUD and HEC.

admin reall

**Table A-5**  
**Donner Summit PUD 2018 Wastewater Rate Study**  
**Estimated Annual Depreciation of Existing Facilities**

Item	Year Const.	Total Life, yrs	Years Spent	Remaining Life in 2018	Original Value	Current Value	Annual Depreciation
<b>Treatment Plant and Disposal Facilities</b>							
New Water Treatment Plant	2014	60	2	56	\$22,290,322	\$21,547,311	\$371,505
Disposal Facilities	1974	40	42	0	\$906,248	\$0	\$0
Force Main	2004	30	12	16	\$18,720	\$11,232	\$624
Irrigation Pump	2007	10	9	0	\$10,453	\$0	\$0
Turbidity Meter	1998	10	18	0	\$1,769	\$0	\$0
Filter Media	2005	10	11	0	\$8,435	\$0	\$0
Water Discharge Permit	2009	5	7	0	\$131,863	\$0	\$0
Shinmaywa Submersible Waste Water Pump	2010	5	6	0	\$7,111	\$0	\$0
<b>Total Treatment Plant and Disposal Facilities</b>						<b>\$21,558,543</b>	<b>\$372,129</b>
<b>Rodding Machine</b>	1983	5	33	0	\$2,099	\$0	\$0
<b>Sewer Collection System</b>							
Collection System	1974	40	42	0	\$407,168	\$0	\$0
Phases 1,2,3	1981	25	35	0	\$107,075	\$0	\$0
Paving - Ski Town	1986	5	30	0	\$24,264	\$0	\$0
Norden Line Extension	1987	20	29	0	\$1,678,587	\$0	\$0
Ski Town Sewer	1988	20	28	0	\$6,253	\$0	\$0
88 Norden Extension	1989	20	27	0	\$93,889	\$0	\$0
Sewer Extension - Donner Dr	1993	20	23	0	\$20,763	\$0	\$0
Sewer Extension - Highway 40	1994	20	22	0	\$8,895	\$0	\$0
Norden Pumphouse	1998	10	18	0	\$90,207	\$0	\$0
Nash Elmo Generator	2005	15	11	2	\$21,123	\$5,633	\$1,408
SCADA/Telemetry	2009	15	7	6	\$185,814	\$99,101	\$12,388
<b>Total Sewer Collection System</b>						<b>\$104,734</b>	<b>\$13,796</b>
<b>Water and Sewer Assets</b>							
<b>Water and Sewage Equipment</b>							
Thawer	1978	10	38	0	\$244	\$0	\$0
Parts Washer	1986	5	30	0	\$530	\$0	\$0
Building Addition	1978	20	38	0	\$184,500	\$0	\$0
Sewer Camera	2002	10	14	0	\$7,793	\$0	\$0
Storage Containers	2002	10	14	0	\$3,000	\$0	\$0
Furnace	2003	10	13	0	\$3,763	\$0	\$0
Building Addition (Slab)	2004	20	12	6	\$8,784	\$3,514	\$439
Telemetry System Project	2007	3	9	0	\$50,741	\$0	\$0
Roof - Administrative Office	2010	20	6	12	\$18,175	\$12,723	\$909
Vloc-5000 Leak Detector	2014	5	2	1	\$6,434	\$3,860	\$1,287
<b>Vehicles</b>							
2005 Toyota Tacoma 4x4	2012	5	4	0	\$21,574	\$0	\$0
2011 Polaris Ranger Crew 800EFI	2012	5	4	0	\$15,277	\$0	\$0
2013 Ford F250	2013	5	3	0	\$25,297	\$0	\$0
2013 Ford F150	2013	5	3	0	\$21,437	\$0	\$0
305 Cat Excavator	2014	5	2	1	\$18,500	\$11,100	\$3,700
<b>Office Furniture and Equipment</b>							
Mom Software	1993	3	23	0	\$6,499	\$0	\$0
Board Room Furniture	2001	5	15	0	\$4,450	\$0	\$0
Carpet Office	2006	5	10	0	\$7,923	\$0	\$0
Dell Optiplex 780, 20" Monitor	2010	5	6	0	\$1,144	\$0	\$0
Dell Optiplex 780, 20" Monitor	2010	5	6	0	\$1,144	\$0	\$0
Dell Optiplex 780, 20" Monitor	2010	5	6	0	\$1,144	\$0	\$0
Dell PowerEdge T110 File Server 2008	2010	5	6	0	\$2,413	\$0	\$0
<b>Total Shared Assets</b>						<b>\$31,197</b>	<b>\$6,335</b>
<b>Water and Sewer Assets Allocated</b>	<b>78% of shared assets</b>					<b>\$24,333</b>	<b>\$4,941</b>
<b>Total Existing Facilities (rounded)</b>						<b>\$21,687,610</b>	<b>\$390,866</b>

Source: DSPUD.

exist depr

**Table A-6**  
**Donner Summit PUD 2018 Wastewater Rate Study**  
**Summary Estimated System Rehabilitation Funding Needs**

<b>Asset Type</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Wastewater Plant & Disposal	\$372,129	\$372,129	\$372,129	\$372,129	\$372,129
Sewer Collection	\$13,796	\$13,796	\$13,796	\$13,796	\$13,796
Vehicles and Equipment	\$4,941	\$4,941	\$4,941	\$4,941	\$4,941
<b>Estimated Annual Depreciation</b>	<b>\$390,866</b>	<b>\$390,866</b>	<b>\$390,866</b>	<b>\$390,866</b>	<b>\$390,866</b>
Percentage of Depreciation included in Rates	20%	20%	20%	20%	20%
<b>System Rehabilitation Funding in Rates</b>	<b>\$78,173</b>	<b>\$78,173</b>	<b>\$78,173</b>	<b>\$78,173</b>	<b>\$78,173</b>
DSPUD Share	\$49,368	\$49,368	\$49,368	\$49,368	\$49,368
SLCWD Share [1]	\$28,805	\$28,805	\$28,805	\$28,805	\$28,805

Source: Donner Summit PUD Audited Financial Statements 2017 and HEC.

tot depr

[1] SLCWD will not pay in these increments. It is assumed that SLCWD pays for 38.7% of capital improvements to the wastewater treatment plant and disposal facilities.

Table A-7

## Donner Summit PUD 2018 Wastewater Rate Study

## SRF Loan Repayment Schedule for Project C-06-7670-210

Year	Payment No.	Beginning Balance [1]	Principal Due	Interest Due [2]	Total Payment	Ending Balance
2018	4	\$15,742,478	\$601,122	\$118,069	\$719,191	\$15,141,355
2019	5	\$15,141,355	\$605,631	\$113,560	\$719,191	\$14,535,724
2020	6	\$14,535,724	\$610,173	\$109,018	\$719,191	\$13,925,551
2021	7	\$13,925,551	\$614,749	\$104,442	\$719,191	\$13,310,802
2022	8	\$13,310,802	\$619,360	\$99,831	\$719,191	\$12,691,442
2023	9	\$12,691,442	\$624,005	\$95,186	\$719,191	\$12,067,436
2024	10	\$12,067,436	\$628,685	\$90,506	\$719,191	\$11,438,751
2025	11	\$11,438,751	\$633,400	\$85,791	\$719,191	\$10,805,351
2026	12	\$10,805,351	\$638,151	\$81,040	\$719,191	\$10,167,200
2027	13	\$10,167,200	\$642,937	\$76,254	\$719,191	\$9,524,263
2028	14	\$9,524,263	\$647,759	\$71,432	\$719,191	\$8,876,504
2029	15	\$8,876,504	\$652,617	\$66,574	\$719,191	\$8,223,887
2030	16	\$8,223,887	\$657,512	\$61,679	\$719,191	\$7,566,375
2031	17	\$7,566,375	\$662,443	\$56,748	\$719,191	\$6,903,931
2032	18	\$6,903,931	\$667,412	\$51,779	\$719,191	\$6,236,520
2033	19	\$6,236,520	\$672,417	\$46,774	\$719,191	\$5,564,103
2034	20	\$5,564,103	\$677,460	\$41,731	\$719,191	\$4,886,643
2035	21	\$4,886,643	\$682,541	\$36,650	\$719,191	\$4,204,101
2036	22	\$4,204,101	\$687,660	\$31,531	\$719,191	\$3,516,441
2037	23	\$3,516,441	\$692,818	\$26,373	\$719,191	\$2,823,623
2038	24	\$2,823,623	\$698,014	\$21,177	\$719,191	\$2,125,609
2039	25	\$2,125,609	\$703,249	\$15,942	\$719,191	\$1,422,361
2040	26	\$1,422,361	\$708,523	\$10,668	\$719,191	\$713,837
2041	27	\$713,837	\$713,837	\$5,354	\$719,191	\$0
<b>Total</b>			<b>\$15,742,478</b>	<b>\$1,518,107</b>	<b>\$17,260,585</b>	

Source: Donner Summit Public Utilities District

loan repay

[1] Draw Amount: 16,846,932

[2] Interest Rate: 0.75%