

GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

**WATER SYSTEM #910013
GEORGETOWN, CALIFORNIA**

**AUBURN LAKE TRAILS
TREATMENT PLANT PROJECT**

COST PER CONNECTION ANALYSIS

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Prepared by:



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1. Background

The Georgetown Divide Public Utility District (GDPUD) is a public utility district operating under the State of California Public Utility Code and Special District Codes & Procedures. It was formed in 1946 and currently provides irrigation water and treated water to residents in the unincorporated areas of western El Dorado County, as well as wastewater services to the Auburn Lake Trails subdivision. A number of small communities, most established during the Gold Rush, are scattered throughout the GDPUD; including Georgetown, Cool, Garden Valley, Kelsey, Greenwood, and Pilot Hill. The GDPUD maintains over 137 miles of treated water pipelines, two water treatment plants - the Walton Lake Water Treatment Plant (WLWTP) and the Auburn Lake Trails Water Treatment Plant (ALTWTP), numerous water storage tanks, reservoirs, and miles of open canals. The combined water treatment plants provide water service to nearly 3,900 connections.

The ALTWTP was constructed in 1974. In February 2004, The California State Department of Public Health (drinking water is now regulated under the State Water Resources Control Board) (SWRCB) issued a Compliance Order requiring the GDPUD to modify or replace the existing treatment process. GDPUD recruited Psomas, an engineering firm, to conduct a study, including required environment impact(s), and to propose alternatives to bringing ALTWTP into compliance. After much consideration and examination of different approaches to resolve the issue, it was determined that the most economically and environmentally feasible resolution is to build a new treatment plant. The Auburn Lake Trails WTP Project is deemed necessary to ensure the provision of continuous and reliably treated safe drinking water to the community. A copy of the complete engineers' report is available upon request to the GDPUD.

DISCLAIMER

The recommendations contained in this analysis are based on financial information provided to RCAC by GDPUD. Although every effort was made to assure the reliability of this information, no warranty is expressed or implied as to the correctness, accuracy or completeness of the information contained herein.

2. Purpose and Objective

Rural Community Assistance Corporation (RCAC) received a request from the SWRCB to conduct a financial analysis and rate study on GDPUD in May, 2014. In the course of those analyses, the GDPUD requested that an additional analysis be conducted to determine what the fees to the individual rate payers within the district would be based on estimated construction costs of \$12,026,268. The utility has already expended \$352,041 on the project from grants and will provide another \$1,081,559 from an EPA grant, leaving \$10,592,668 to pay from other

sources. At the time of this writing, GPUD had \$1,613,345 in Capital Facility Reserves and \$760,190 in Replacement Reserves for a total of \$2,373,535 in available reserves. Because an adequate amount of the reserves should be held in the bank as an available resource in the event of emergencies, decreases in revenue as a result of reduced revenue from commodity charges due the community’s conservation efforts and/or low cash flow because of slow customer payments, GPUD anticipates the need to borrow \$10,000,000 from the SWRCB at an interest rate of 1.663% for 20 years. This analysis is separate and distinct from the original rate study, which will be conducted upon receipt of current financial information, and includes only the cost of the ALTWTP.

Table 1: Loan Amount Impact on Reserves

Total Projected Costs	\$ 12,026,268
Less:	
Spent to Date	\$ (352,041)
Remaining EPA Grant	\$ (1,081,559)
Balance to Fund	\$ 10,592,668
20 Year Loan	\$ (10,000,000)
From Reserves	\$ 592,668
Reserve Funds:	
Beginning	
Capital Facility Charges	\$ 1,613,345
Replacement Reserve	\$ 760,190
Total Available Reserves	\$ 2,373,535
Less:	
Applied Toward Project	\$ (592,668)
Ending Reserve Balance	\$ 1,780,867

3. Funder Required Reserves

Debt Service Reserve

Water utilities that have issued debt to pay for capital assets will often have required reserves that are specifically defined to meet the legal covenants of the debt. Normally, debt service reserve represents an amount equal to one full annual loan payment and can be accumulated to this level over a period of five to ten years. The SWRCB reserve requirement is to fund one full annual loan payment over a ten year period. In each of the calculations in this document, this requirement has been included in the per connection fee.

Table 2 below provides an overview of the financing alternatives and the impact on individual rate payer’s annual and monthly rates.

Table 2: Impact on User Rates

Loan Amount	Annual Debt Service	Annual Debt Reserves (First 10 Years)	Total	Number of Connections	Annual Total Per Connection	Monthly Total Per Connection First 10 Years	Monthly Total Per Connection Second 10 Years
\$ 10,000,000	\$ 589,807.74	\$ 58,980.77	\$ 648,788.51	3,586	\$ 180.92	\$ 15.08	\$ 13.71

4. Conclusions and Recommendations

Key points to remember with any rate adjustment:

- Successful utilities are those that strive to be transparent. In day-to-day operations, GDPUD should strive to promote its services (highlights and the low points), and continuously educate its customers on why it is necessary to raise and adjust rates.
- The ability of the proposed ALTWTP loan rate structure to generate adequate revenue will depend on maintaining a vigorous collection and shut-off policy to keep delinquent accounts at a minimum.
- When the equipment has been put into service a Capital Improvement Reserve schedule should be developed that itemizes each piece of equipment, the purchase cost of it, the average life expectancy of each, a projected inflation rate for replacement of each piece of equipment and an annual reserve amount to be funded. RCAC can provide templates for this if requested.
- CIP reserves should be maintained in the highest interest bearing accounts available to offset inflation.
- GDPUD should establish policies for reserve accounts as recommended above and distribute existing unrestricted reserves accordingly.

Illustration 1: ALT Treatment Plant



The existing Auburn Lake Trails Water Treatment Plant provides service to the western half of the GDPUD service area which includes Pilot Hill, Cool, Cherry Acres, Meadowview Acres and portions of Greenwood. The plant is over 40 years old and is in need of modifications to make sure it continues to provide clean, reliable water to our community for another 40 years.

Loan Information Summary						
Loan Amount	10,000,000.00					
Annual Interest Rate	1.663%					
Term of Loan in Years	20					
First Payment Date	1/1/2017					
Payment Frequency	Semi-Annual			Rate (per period)	0.832%	
Compound Period	Semi-Annual			Number of Payments	40	
Payment Type	End of Period			Total Payments	11,796,154.64	
Annual Payment	589,807.74			Total Interest	1,796,154.64	
No.	Due Date	Payment	Interest	Principal	Balance	
					10,000,000.00	
1	1/1/17	294,903.87	83,150.00	211,753.87	9,788,246.13	
2	7/1/17	294,903.87	81,389.27	213,514.60	9,574,731.53	
3	1/1/18	294,903.87	79,613.89	215,289.98	9,359,441.55	
4	7/1/18	294,903.87	77,823.76	217,080.11	9,142,361.44	
5	1/1/19	294,903.87	76,018.74	218,885.13	8,923,476.31	
6	7/1/19	294,903.87	74,198.71	220,705.16	8,702,771.15	
7	1/1/20	294,903.87	72,363.54	222,540.33	8,480,230.82	
8	7/1/20	294,903.87	70,513.12	224,390.75	8,255,840.07	
9	1/1/21	294,903.87	68,647.31	226,256.56	8,029,583.51	
10	7/1/21	294,903.87	66,765.99	228,137.88	7,801,445.63	
11	1/1/22	294,903.87	64,869.02	230,034.85	7,571,410.78	
12	7/1/22	294,903.87	62,956.28	231,947.59	7,339,463.19	
13	1/1/23	294,903.87	61,027.64	233,876.23	7,105,586.96	
14	7/1/23	294,903.87	59,082.96	235,820.91	6,869,766.05	
15	1/1/24	294,903.87	57,122.10	237,781.77	6,631,984.28	
16	7/1/24	294,903.87	55,144.95	239,758.92	6,392,225.36	
17	1/1/25	294,903.87	53,151.35	241,752.52	6,150,472.84	
18	7/1/25	294,903.87	51,141.18	243,762.69	5,906,710.15	
19	1/1/26	294,903.87	49,114.29	245,789.58	5,660,920.57	
20	7/1/26	294,903.87	47,070.55	247,833.32	5,413,087.25	
21	1/1/27	294,903.87	45,009.82	249,894.05	5,163,193.20	
22	7/1/27	294,903.87	42,931.95	251,971.92	4,911,221.28	
23	1/1/28	294,903.87	40,836.80	254,067.07	4,657,154.21	
24	7/1/28	294,903.87	38,724.24	256,179.63	4,400,974.58	
25	1/1/29	294,903.87	36,594.10	258,309.77	4,142,664.81	
26	7/1/29	294,903.87	34,446.26	260,457.61	3,882,207.20	
27	1/1/30	294,903.87	32,280.55	262,623.32	3,619,583.88	
28	7/1/30	294,903.87	30,096.84	264,807.03	3,354,776.85	
29	1/1/31	294,903.87	27,894.97	267,008.90	3,087,767.95	
30	7/1/31	294,903.87	25,674.79	269,229.08	2,818,538.87	
31	1/1/32	294,903.87	23,436.15	271,467.72	2,547,071.15	
32	7/1/32	294,903.87	21,178.90	273,724.97	2,273,346.18	
33	1/1/33	294,903.87	18,902.87	276,001.00	1,997,345.18	
34	7/1/33	294,903.87	16,607.93	278,295.94	1,719,049.24	
35	1/1/34	294,903.87	14,293.89	280,609.98	1,438,439.26	
36	7/1/34	294,903.87	11,960.62	282,943.25	1,155,496.01	
37	1/1/35	294,903.87	9,607.95	285,295.92	870,200.09	
38	7/1/35	294,903.87	7,235.71	287,668.16	582,531.93	
39	1/1/36	294,903.87	4,843.75	290,060.12	292,471.81	
40	7/1/36	294,903.71	2,431.90	292,471.81	0.00	