BUENA SANITATION DISTRICT

Wastewater Capacity Fee Study

Final Report / March 16, 2020

CITY OF VISTA
CALIFORNIA

RAFTELIS

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RAFTELIS

March 16, 2020

City of Vista
City Clerk's Office
Attn: Mr. Alfred Pedroza, PE
200 Civic Center Drive
Vista, CA 92084

Subject: Buena Sanitation District Capacity Fee Update

Dear Mr. Pedroza,

Raftelis Financial Consultants, Inc. (RFC) is pleased to provide this Wastewater Capacity Fee Report (Report) to the Buena Sanitation District. This report details the various methodologies used to compute capacity fees and summarizes the key findings and recommendations related to the development of the District's Wastewater Capacity Fees.

It has been a pleasure working with you, and we thank you and the City staff for the support provided during the course of this study.

Sincerely,

Sanjay Gaur
Vice President

Arisha Ashraf, PhD
Lead Analyst

445 S Figueroa Street, Suite 1925
Los Angeles, CA 90071
www.raftelis.com

Table of Contents

List of Tables

List of Figures

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1. Executive Summary

Raftelis Financial Consultants, Inc. was retained by the Buena Sanitation District ("District") to update the Wastewater Capacity Fee (Capacity Fee). This report provides a detailed summary of our analysis in which we determined updated Capacity Fees in accordance with Government Code Section 66013. This report serves as formal technical documentation in support of modifications to the Capacity Fees for the District.

Currently, the City's Fiscal Year (FY) 2019/20 Capacity Fee is $6,143 per single-family residence or one Equivalent Dwelling Unit (EDU). Based on the existing approach, an EDU represents the demand that is placed on the wastewater system by a single-family residence.

The analysis contained in this report uses the Equity Buy-In Method and justifies modifying the City's Capacity Fee to $6,405[1] per EDU. For non-residential properties, EDU's will be assigned case-by-case based on their expected flow as determined by the City.

1.1. OVERVIEW

The Buena system consists of approximately 100 miles of public mains and trunk sewers, serving approximately 5,360 parcels, and currently conveys an average of 1.8 million gallons per day (MGD). The Buena Outfall routes sewage approximately 5.5 miles through one pump station to the Encina Wastewater Authority (EWA) treatment facility.

Capacity Fees are one-time fees, collected as a condition of establishing a new connection to the City's wastewater system or the expansion of an already existing connection. The purpose of these fees is to pay for development's share of the costs of wastewater facilities. These fees are designed to be proportional to the demand placed on the system by the new or expanded connection. The recommended Capacity Fees for the District do not exceed the estimated reasonable costs of providing the facilities for which they are collected and are of proportional benefit to the property being charged. This report documents the data, methodology, and results of the Capacity Fee Study.

The primary objective of establishing a full cost-recovery Capacity Fee is to provide an equitable means by which new system users or existing customers requiring system capacity, contribute their fair-share towards the costs associated with the wastewater facilities required to serve them.

1.2. ECONOMIC AND LEGAL FRAMEWORK

For publicly owned wastewater systems, most of the assets are typically paid for by the contributions of existing customers through rates, charges, and taxes. In service areas that incorporate new customers, the infrastructure developed by previous customers is generally extended towards the service of new customers. Existing customers' investment in the existing system capacity allows newly connecting customers to take advantage of unused surplus capacity. To further financial equity among new and existing customers, new connectors will typically buy-in to the existing and pre-funded facilities based on the percentage of remaining available system capacity, effectively putting them on par with existing customers. In other words, the new users are buying into the

[1] The cost per EDU of $6,404.52 was rounded up to $6,405.

existing system through a payment for the portion of facilities that has already been constructed in advance of new development.

1.2.1. ECONOMIC FRAMEWORK

The basic economic philosophy behind Capacity Fees is that the costs of providing wastewater service should be paid for by those that are served by the utility. In order to effect fair distribution of the value of the system, the charge should reflect a reasonable estimate of the cost of providing capacity to new users, and not unduly burden existing users through a comparable rate increase. Accordingly, many utilities make this philosophy one of their primary guiding principles when developing their Capacity Fee structure.

The philosophy that service should be paid for by those that receive utility from the system is often referred to as "growth-should-pay-for-growth." For water utilities, the principal is summarized in the American Water Works Association (AWWA) Manual M26, Water Rates and Related Charges:

> "The purpose of designing customer-contributed-capital system charges is to prevent or reduce the inequity to existing customers that results when these customers must pay the increase in water rates that are needed to pay for added plant costs for new customers. Contributed capital reduces the need for new outside sources of capital, which ordinarily has been serviced from the revenue stream. Under a system of contributed capital, many water utilities are able to finance required facilities by use of a 'growth-pays-for-growth' policy."

This principle, in general, also applies to wastewater systems. In this excerpt, customer-contributed- capital system charges are equivalent to Capacity Fees.

1.2.2. LEGAL FRAMEWORK[2]

In establishing Capacity Fees, it is important to understand and comply with local laws and regulations governing the establishment, calculation, and implementation of Capacity Fees. The following sections summarize the regulations applicable to the development of Capacity Fees for the District.

1.2.2.1. CALIFORNIA GOVERNMENT CODE REQUIREMENTS

Capacity Fees must be established based on a reasonable relationship to the needs and benefits brought about by the development or expansion. Courts have long used a standard of reasonableness to evaluate the legality of development charges. The basic statutory standards governing Capacity Fees are embodied by California Government Code Sections 66013, 66016, 66022 and 66023. Government Code Section 66013, in particular, contains requirements specific to determining utility development charges:

> "Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount the fee or charge in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue."

[2] Raftelis does not practice law nor does it provide legal advice. The above discussion means to provide a general review of apparent state institutional constraints and is labeled "legal framework" for literary convenience only. The City should consult with its counsel for clarification and/or specific review of any of the above or other matters.

Section 66013 also includes the following general requirements:

- Local agencies must follow a process set forth in the law, making certain determinations regarding the purpose and use of the fee; they must establish a nexus or relationship between a development project and the public improvement being financed with the fee.
- The Capacity Fee revenue must be segregated from the general fund in order to avoid commingling of Capacity Fees and the General Fund.

2. Methodologies

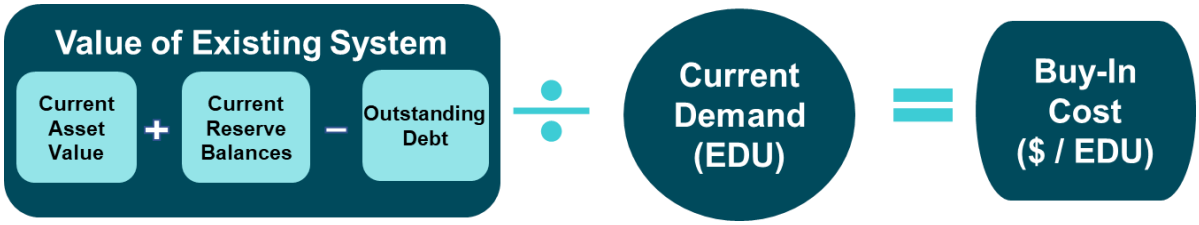
There are two primary steps in calculating Capacity Fees: (1) determining the cost of capital related to either new service connections or expansions that increase density or require additional service capacity, and (2) allocating those costs equitably to various types of connections. There are several available methodologies for calculating Capacity Fees. The various approaches have evolved largely around the basis of changing public policy, legal requirements, and the unique and special circumstances of every local agency. However, there are four general approaches that are widely accepted and appropriate for Capacity Fees. They are the equity buy-in, capacity buy-in, incremental cost, and hybrid methods.

2.1. EQUITY BUY-IN APPROACH

Equity buy-in, also known as the system buy-in approach, rests on the premise that new customers are entitled to service at the same price as existing customers. However, existing customers have already developed the facilities that will serve new customers, including the costs associated with financing those services. Under this approach, new customers pay only an amount equal to the net investment already made by existing users. This net equity investment, or value of the system, is then divided by the current demand of the system – number of EDU's – to determine the buy-in cost per equivalent dwelling unit.

For example, if the existing system has 100 units of average usage and the new connector uses an equivalent unit, then the new customer would pay 1/100 of the total value of the existing system. By contributing this Capacity Fee, the new connector has bought into the existing system. The user has effectively acquired a financial position on par with existing customers and will face future capital challenges on equal financial footing with those customers. This approach is suited for agencies that have capacity in their system and are essentially close to build-out. **Figure 2-1** shows the framework for calculating the equity buy-in Capacity Fee.

Figure 2-1 Equity Buy-In Approach



As shown in Figure 2-1, under this approach, the value of the system is increased by the balance of the reserves. Reserves are included because they represent the health of the utility and more specifically add value to the system as they may be used to maintain the system at the current level of service. Conversely, a utility with no reserves or a negative fund balance would reduce the value of the system as a whole since there is no assurance that the current level of service can be maintained.

Debt is also accounted for under the equity buy-in approach as it is an obligation that is secured by the value of the system. When debt is issued to finance capital improvements, the obligation is typically paid overtime by the existing water customers through water rates. To avoid double charging of these debts, the debt obligation is subtracted to determine the net value of the existing system.

2.1.1. ASSET VALUATION APPROACHES

As stated earlier, the first step is to determine the asset value of the capital improvements required to furnish services to new users. However, under the equity buy-in approach, the facilities have already been constructed, therefore the

goal is to determine the value of the existing system/facilities. To estimate the asset value of the existing facilities required to furnish services to new users, various methods are employed. The principal methods commonly used to value a utility's existing assets are original cost and replacement cost.

Original Cost (OC). The principal advantages of the original cost method lie in its relative simplicity and stability, since the recorded costs of tangible property are held constant. The major criticism levied against original cost valuation pertains to the disregard of changes in the value of money, which are attributable to inflation and other factors. As evidenced by history, prices tend to increase rather than to remain constant. Because the value of money varies inversely with changes in price, monetary values in most recent years have exhibited a definite decline; a fact not recognized by the original cost approach. This situation causes further problems when it is realized that most utility systems are developed over time on a piecemeal basis as demanded by service area growth. Consequently, each property addition was paid for with dollars of different purchasing power. When these outlays are added together to obtain a plant value the result can be misleading.

Replacement Cost (RC). Changes in the value of the dollar over time, at least as considered by the impacts of inflation, can be recognized by replacement cost asset valuation. The replacement cost represents the cost of duplicating the existing utility facilities (or duplicating its function) at current prices. Unlike the original cost approach, the replacement cost method recognizes price level changes that may have occurred since plant construction. The most accurate replacement cost valuation would involve a physical inventory and appraisal of plant components in terms of their replacement costs at the time of valuation. However, with original cost records available, a reasonable approximation of replacement cost plant value can most easily be ascertained by trending historical original costs. This approach employs the use of cost indices to express actual capital costs experienced by the utility in terms of current dollars. An obvious advantage of the replacement cost approach is that it gives consideration to changes in the value of money over time.

Original Cost Less Depreciation (OCLD) or Replacement Cost Less Depreciation (RCLD). Considerations of the current value of utility facilities may also be materially affected by the effects of age and depreciation. Depreciation takes into account the anticipated losses in plant value caused by wear and tear, decay, inadequacy, and obsolescence. To provide appropriate recognition of the effects of depreciation on existing utility facilities, both the original cost and reproduction cost valuation measures can also be expressed on an OCLD and RCLD basis. These measures are identical to the aforementioned valuation methods, with the exception that accumulated depreciation is computed for each asset account based upon its age or condition and deducted from the respective total original cost or replacement cost to determine the OCLD or RCLD measures of plant value.

2.2. CAPACITY BUY-IN APPROACH

The capacity buy-in approach is based on the same premise as that for the equity buy-in approach – that new customers are entitled to service at the same rates as existing customers. The difference between the two approaches is that for the capacity buy-in approach, for each major asset, the value is divided by its capacity. This approach has two major challenges. First, to determine the capacity of each major asset is problematic, as the system is designed for peak use and customer behavior fluctuates based on economics and water conservation. Second, it does not address the financial equity that the current user has contributed into reserves. For instance, all else equal, a larger operating reserve balance would be a positive benefit for a new user, since it would produce lower rates in the future. If this were not taken into account, current users would be subsidizing future user rates. **Figure 2-2** shows the framework for calculating the capacity buy-in Capacity Fee.

Figure 2-2: Capacity Buy-In Approach

2.3. INCREMENTAL COST APPROACH

The incremental method is based on the premise that new development (new users) should pay for the additional capacity and expansions necessary to serve the new development. This method is typically used where there is little or no capacity available to accommodate growth and expansion is needed to service the new development. Under the incremental method, growth-related capital improvements are allocated to new development based on their estimated usage or capacity requirements, irrespective of the value of past investments made by existing customers.

For instance, if it costs X dollars ($X) to provide 100 additional equivalent dwelling units of capacity for average usage and a new connector uses one of those equivalent dwelling units, then the new user would pay $X/100 to connect to the system. In other words, new customers pay the incremental cost of capacity. As with the equity buy-in approach, new connectors will effectively acquire a financial position that is on par with existing customers. Use of this method is generally considered to be most appropriate when a significant portion of the capacity required to serve new customers must be provided by the construction of new facilities. **Figure 2-3** shows the framework for calculating the incremental cost Capacity Fee.

Figure 2-3: Incremental Cost Approach

2.4. HYBRID APPROACH

The hybrid approach is typically used where some capacity is available to serve new growth, but additional expansion is still necessary to accommodate new development. Under the hybrid approach the Capacity Fee is based on the summation of the existing capacity and any necessary expansions.

In utilizing this methodology, it is important that system capacity costs are not double-counted when combining costs of the existing system with future costs from the Capital Improvement Program (CIP). CIP costs associated with repair and replacement of the existing system should not be included in the calculation, unless specific existing facilities which will be replaced through the CIP can be isolated and removed from the existing asset inventory and cost basis. In this case, the rehabilitative costs of the CIP essentially replace the cost of the relevant existing assets in the existing cost basis. Capital improvements that expand system capacity to serve future customers may be included

proportionally to the percentage of the cost specifically required for expansion of the system. **Figure 2-4** summarizes the framework for calculating the hybrid Capacity Fee.

Figure 2-4: Hybrid Approach

2.5. PROPOSED METHOD: EQUITY BUY-IN APPROACH

The District is nearly fully developed (built-out) and has available capacity from previous investments to the system. Therefore, new customers will largely be served by existing infrastructure which was purchased and maintained by existing customers. Recognizing these factors and taking into consideration the considerable economic investment by existing customers in the capital development of the system, an equity buy-in method was still determined to be the most appropriate methodology for the District.

3. Proposed Capacity Fees

3.1. VALUE OF THE SYSTEM

The first step under the Equity Buy-in Method is determining the value of the existing system. As mentioned above, there are several methods of determining the current value. Raftelis utilized Replacement Cost Less Depreciation (RCLD) to determine the value of the District's existing assets, and Original Cost Less Depreciation (OCLD) to value the District's investment in the Encina Wastewater Authority (EWA) treatment plant. Current reserves were added to the sum of District and EWA assets, and outstanding debt obligations were subtracted.

3.1.1. REPLACEMENT COST LESS DEPRECIATION ASSET VALUATION

Raftelis considered several factors, such as the age and condition of the system and the detail and availability of asset records, to determine which method would best reflect the value of the system. As with most wastewater systems, the District's wastewater system was constructed over the course of many years. Due to these factors, the RCLD method was used to determine the value of the wastewater system, exclusive of the District's obligation towards EWA assets. To accomplish this, the District provided fixed asset records on the original cost of the system. Replacement cost was then estimated by adjusting original costs to reflect what might be expected if a similar facility were constructed today. This is achieved by escalating the original construction costs by a construction cost index. Raftelis utilized the Engineering News-Record's average Construction Cost Index for 20-cities (ENR CCI) which reflects the average costs of a particular basket of construction goods over time. Raftelis used a CCI value of 11,281 for 2019 to estimate the replacement costs[3]. Using the straight-line method of depreciation, Raftelis determined the accumulated replacement cost depreciation. The accumulated depreciation was subtracted from the replacement cost to determine the current value of the assets using the RCLD methodology and appropriately reflects the use of the system by the existing customers. **Table 3-1** shows a summary of the District's wastewater system at original cost, escalated into 2019 dollars (replacement cost) using the ENR CCI – 20-Cities[4], and at the replacement cost less depreciation.

Table 3-1: Buena Sanitation District System Value

Asset Type / Category	Original Cost	Replacement Cost (2019 $)	Replacement Cost Less Depreciation
Building	$320,762	$556,617	$66,702
Developer Sewer Lines	$6,388,338	$9,398,070	$6,280,041
Improvements	$5,721,004	$9,291,703	$3,553,123
Machinery & Equipment	$1,552,614	$2,618,877	$763,037
Sewer Line	$36,183,385	$65,752,644	$34,414,273
Capital Projects*	$17,705,442	$17,705,442	$17,705,442
Total Wastewater System	**$67,871,544**	**$105,323,354**	**$62,782,618**

*Note: Capital Projects are in progress and expected to be completed by June 30,2020. Thus, these projects have not depreciated. Please see Appendix B for detail.

[3] To date, only January 2020 ENR CCI was available. In lieu of sufficient data for 2020, the full year of 2019 was used.
[4] **Appendix A** presents the ENR CCI 20-Cities and **Appendix B** presents the detailed calculation of the replacement cost value of the wastewater system.

3.1.2. BUENA SANITATION DISTRICT'S SHARE OF EWA TREATMENT PLANT

The assets summarized in **Table 3-2** only reflect part of the wastewater system. The District contributed towards the capital costs for the EWA Treatment Plant and has an ownership in the plant as a member agency. Buena Sanitation District's wastewater is treated at the EWA's Treatment Plant. Therefore, to better reflect the current value of the system, the District's total investment in the EWA's treatment plant was incorporated as a separate component to the current value of the District's assets. **Table 3-2** shows a summary of the District's share of the EWA treatment plant[5]. EWA solids capacity improvements will not be included in the calculation of the Capacity Fee because this is not a growth-related improvement. Rather, reduction in water use, which increases wastewater strength loading, is driving the EWA capacity improvements.

Table 3-2: Buena Sanitation District's Share of EWA Treatment Plant

Investment in Capital Assets	Accumulated Depreciation	District's Share of EWA TP
$18,194,785	**$11,561,753**	**$6,633,032**

3.1.3. PLUS WASTEWATER RESERVES BALANCE

Current reserves were established and paid for by existing customers through rates. Reserves are typically used to help pay for necessary capital improvements as well as any operating shortfalls or unforeseen expenditures. Adequate reserves can help mitigate the impacts from expenditure fluctuations on the wastewater customers. Both existing and future customers will benefit from the reserves, therefore, upon connection, new users should contribute their fair share in order to establish equity in the reserves. As of June 30th, 2019, the balance of the wastewater reserves totaled $19,975,479, listed in **Table 3-3.** The balance of the reserves was added to the current value of the assets.

3.1.4. VALUE OF THE EXISTING SYSTEM

The RCLD value of the system plus the District's share of EWA Treatment Plant less accumulated depreciation plus the reserve balances and less the outstanding principal nets the total 2019 value of the wastewater system of $89,391,129. The value of the existing system is summarized in **Table 3-3**.

Table 3-3: Value of Existing System

Description	In 2019 $
Assets (RCLD)	$62,782,618
Plus District's share of EWA TP	$6,633,032
Total Assets Value	$69,415,650
Plus Reserves	$19,975,479
Net Wastewater System Value	**$89,391,129**

3.2. CURRENT DEMAND

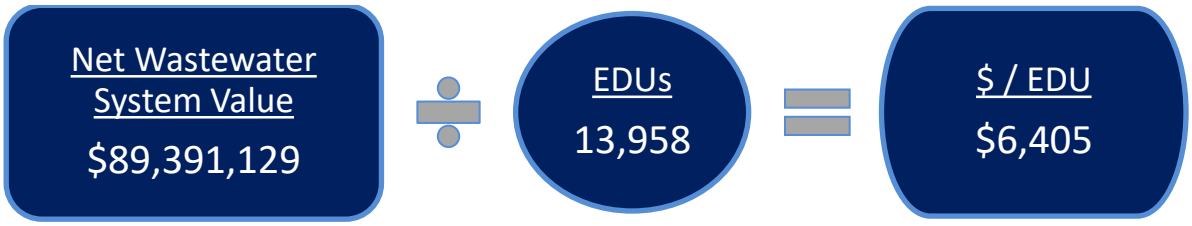
The second step in calculating the Capacity Fee is to determine the current demand or capacity of the system. The District currently has 13,958[6] EDUs comprising the current system demand.

[5] A detailed listing of the District's investments in the EWA Treatment Plant is shown in Appendix C
[6] The 13,957.5 total EDUs were rounded up to 13,958 EDUs.

3.3. EQUITY BUY-IN CHARGE ($ PER EDU)

The final step in determining the development charge for the District is to divide the total current value of the water system from Section 3.1.4 by the total EDUs from Section 3.2. In 2019 dollars, the total net value of the water system is $89,391,129. The value of the system is then divided by current demand expressed in total EDUs (13,958) to determine the per EDU cost of $6,405[7]. **Figure 3-1** summarizes the calculation of the cost per EDU. For non-residential properties, EDUs will be assigned on a case-by-case basis based on their expected flow as determined by the District.

Figure 3-1: Capacity Fee Calculation per EDU



3.4. CAPACITY CHARGE PROGRAM ADMINISTRATION

Raftelis recommends adopting the proposed fee of $6,405[8] to be implemented in January 2021. Raftelis also recommends the District adjust the capacity fee annually to keep pace with inflation. The District should also conduct a comprehensive review of its Capacity Fees every three to five years to ensure appropriate funding of capital projects and equity among customers.

[7] The cost per EDU of $6,404.52 was rounded up to $6,405.
[8] The cost per EDU of $6,404.52 was rounded up to $6,405.

APPENDICES

APPENDIX A: CONSTRUCTION COST INDEX

Table A - 1: Engineering News Record Construction Cost Index – 20 Cities

Year	20-city CCI
1920	251
1921	202
1922	174
1923	214
1924	215
1925	207
1926	208
1927	206
1928	207
1929	207
1930	203
1931	181
1932	157
1933	170
1934	198
1935	196
1936	206
1937	235
1938	236
1939	236
1940	242
1941	258
1942	276
1943	290
1944	299
1945	308
1946	346
1947	413
1948	461
1949	477
1950	510
1951	543
1952	569
1953	600

Year	20-city CCI
1954	628
1955	660
1956	692
1957	724
1958	759
1959	797
1960	824
1961	847
1962	872
1963	901
1964	936
1965	971
1966	1,019
1967	1,074
1968	1,155
1969	1,269
1970	1,381
1971	1,581
1972	1,753
1973	1,895
1974	2,020
1975	2,212
1976	2,401
1977	2,576
1978	2,776
1979	3,003
1980	3,237
1981	3,535
1982	3,825
1983	4,066
1984	4,146
1985	4,195
1986	4,295
1987	4,406

Year	20-city CCI
1988	4,519
1989	4,615
1990	4,732
1991	4,835
1992	4,985
1993	5,210
1994	5,408
1995	5,471
1996	5,620
1997	5,826
1998	5,920
1999	6,059
2000	6,221
2001	6,343
2002	6,538
2003	6,694
2004	7,115
2005	7,446
2006	7,751
2007	7,966
2008	8,310
2009	8,570
2010	8,802
2011	9,070
2012	9,308
2013	9,547
2014	9,807
2015	10,036
2016	10,339
2017	10,736
2018	11,062
2019	11,281

APPENDIX B: Replacement Cost Value

Table B - 1: Asset Listing and Replacement Cost Calculation

Asset Type	DESCRIPTION	DATE ACQ	EST USEFUL LIFE (Years)	OC	2019 CCI	Replacement Cost
Building	WASTEWATER ADMIN BUILDING	01/01/2000	20	$140,816.69	11,281	$255,353.33
Building	WASTEWATER ADMIN BUILDING	01/01/2003	20	$13,008.54	11,281	$21,922.52
Building	WASTWATER BUILDING B ADDON	01/01/2003	20	$13,017.41	11,281	$21,937.47
Building	WASTEWATER BUILD B REMODEL	01/01/2003	20	$133,993.02	11,281	$225,810.47
Building	WASTEWATER "D" BUILDING	06/30/2004	15	$19,926.10	11,281	$31,593.30
Improvements	ACCESS ROAD	01/01/1997	40	$16,956.69	11,281	$32,833.58
Improvements	ACCESS ROAD	01/01/1997	40	$64,406.01	11,281	$124,710.64
Improvements	SHADOWRIDGE PLANT UPGRADE	01/01/1998	40	$481,203.85	11,281	$916,969.70
Improvements	ACCESS ROAD & STORAGE POND	01/01/2002	40	$138,745.00	11,281	$239,397.73
Improvements	SEWER I & & WORK	01/01/2002	40	$7,125.00	11,281	$12,293.84
Improvements	PUMP STATION UPGRADE	01/01/2003	25	$4,042,820.69	11,281	$6,813,125.22
Improvements	COMPUTERIZED SEWER MAP PROGRAM	06/30/2010	5	$427,096.67	11,281	$547,571.03
Improvements	SEWER RELOCATIONS-NCTD-CIP 8086	06/30/2012	15	$3,209.36	11,281	$3,889.64
Improvements	BUENA OUTFALL F/M AIR VALVE CIP 8227	06/30/2014	15	$224,359.60	11,281	$258,107.35
Improvements	BUEAN CREEK PUMP STATION ELECTRIC #1876	06/30/2016	15	$300,831.39	11,281	$328,272.29
Improvements	INFOMASTER DESKTOP SEWER SOFTWARE	02/15/2018	7	$14,250.00	11,281	$14,532.11
Machinery & Equipment	SEWER SYSTEM	11/02/1994	7	$9,050.00	11,281	$18,660.77
Machinery & Equipment	36" COLOR TV CAMERA ON SKIDS	02/14/1995	7	$7,260.22	11,281	$14,970.31
Machinery & Equipment	SEWER SOFTWARE & EQP	04/12/1995	7	$6,521.31	11,281	$13,446.70
Machinery & Equipment	TRUCK, 1995	03/28/1995	10	$17,112.00	11,281	$35,284.31
Machinery & Equipment	VACTOR TRUCK BODY (1/2 OF COST)	06/10/1996	10	$54,869.60	11,281	$110,139.49
Machinery & Equipment	1996 CHEVY SUBURBAN	04/17/1997	10	$16,692.98	11,281	$32,322.95
Machinery & Equipment	RODER TRUCK	06/10/1997	10	$45,155.05	11,281	$87,434.62
Machinery & Equipment	10'X20' OFFICE TRAILER	07/01/1993	7	$9,188.92	11,281	$19,167.94
Machinery & Equipment	EQUIP @ ENCINA WASTEWATER	01/01/1964	7	$51,214.00	11,281	$617,249.07

Machinery & Equipment	AST 386 COMPUTER	07/01/1989	7	$7,110.45	11,281	$16,951.18
Machinery & Equipment	TRACKOR LOADER, 4WD 50%	03/10/1998	10	$20,500.00	11,281	$39,064.27
Machinery & Equipment	WORK MANAGEMENT SYSTEM	04/20/1999	5	$11,362.50	11,281	$21,155.37
Machinery & Equipment	WORKMAN VEHICLE	05/30/2000	7	$16,017.04	11,281	$29,044.88
Machinery & Equipment	SEWER VIDEO UNIT, 2001	06/30/2001	10	$99,670.31	11,281	$177,263.25
Machinery & Equipment	MINI SEWER JET RODDER	05/10/2001	10	$13,248.34	11,281	$23,562.12
Machinery & Equipment	PUMP SYSTEM & BASE SKID	11/30/2001	7	$5,229.88	11,281	$9,023.90
Machinery & Equipment	SEWER WATER PUMP WITH HOSES	02/17/2004	10	$4,530.44	11,281	$7,183.12
Machinery & Equipment	RICOH AFICIO 2022 COPIER	06/20/2005	5	$1,674.71	11,281	$2,537.26
Machinery & Equipment	SEWER CAMERA	03/28/2008	5	$18,432.52	11,281	$25,022.53
Machinery & Equipment	VACTOR 2009 INTL 7400 SEWER VACUUM TRUCK	06/19/2009	15	$342,713.97	11,281	$451,126.76
Machinery & Equipment	COPIER-CANON-COLOR-MODEL C3480I	07/28/2009	5	$3,113.30	11,281	$3,991.49
Machinery & Equipment	FORKLIFT-HYSTER 60FT CLASS 5	04/27/2010	10	$27,456.16	11,281	$35,200.93
Machinery & Equipment	SEWER RODDER INSTALLED ON '97 INTL TRUCK	09/14/2010	15	$140,575.25	11,281	$174,843.37
Machinery & Equipment	CCTV EQUIPMENT ON UNIT 566 CHASSIS	06/27/2013	10	$15,000.00	11,281	$17,724.42
Machinery & Equipment	VACTOR 2014 FREIGHTLINER-UNIT597	12/16/2013	10	$119,649.99	11,281	$137,647.52
Machinery & Equipment	DIESEL PUMP W/TRAILER	10/23/2015	10	$74,809.35	11,281	$81,633.22
Machinery & Equipment	CCTV SEWER CAMERA/EQUIP	06/12/2017	5	$49,514.14	11,281	$52,022.82
Machinery & Equipment	2017 FORD F150 SUPER 4X4 UNIT 436	07/18/2017	7	$13,215.86	11,281	$13,477.50
Machinery & Equipment	2019 FORD ESCAPE UNIT 113	03/25/2019	7	$8,159.92	11,281	$8,159.92
Machinery & Equipment	2019 FORD F150 F1C PEG W/LIGHTBAR #456	02/22/2019	7	$8,762.47	11,281	$8,762.47
Machinery & Equipment	2019 FORD F350 X3B 4X4 SUPERCAB #503A	04/22/2019	7	$14,150.90	11,281	$14,150.90
Machinery & Equipment	2019 FREIGHTLINER VACTOR TRUCK UNIT 607	10/17/2018	15	$125,095.00	11,281	$125,095.00
Machinery & Equipment	2019 FREIGHTLINER VACTOR TRUCK UNIT517B	10/17/2018	15	$125,095.00	11,281	$125,095.00
Machinery & Equipment	ASPHALT TILT TRAILER UNIT 534	04/08/2019	7	$2,573.40	11,281	$2,573.40
Machinery & Equipment	2018 FORD F350 W/WINCH UNIT 549	08/03/2018	7	$11,909.83	11,281	$11,909.83
Machinery & Equipment	TORO WORKMAN HDX-D UNIT 559	02/21/2019	10	$7,758.24	11,281	$7,758.24
Machinery & Equipment	EASEMENT CRAWLER MACHINE 3T UNIT 567A	04/08/2019	10	$16,760.35	11,281	$16,760.35
Machinery & Equipment	AIR COMPRESSOR TRAILER MOUNTED UNIT 569	01/09/2019	10	$7,452.30	11,281	$7,452.30
Machinery & Equipment	VOLVO CR30B ROLLER/COMPACTOR UNIT 579	04/08/2019	10	$15,873.60	11,281	$15,873.60
Machinery & Equipment	2019 ZIEMAN TRAILER UNIT 614	06/27/2019	7	$8,134.21	11,281	$8,134.21
Sewer Lines	6" SEWER LINE-13258.09 LIN. FT.	01/01/1976	50	$159,741.21	11,281	$750,537.52

Sewer Lines	8" SEWER LINE-307.0 LIN. FT.	01/01/1992	50	$8,476.27	11,281	$19,181.71
Sewer Lines	8" SEWER LINE-313130.94 LIN. FT.	01/01/1987	50	$6,159,447.17	11,281	$15,770,477.42
Sewer Lines	8" SEWER LINE-2280.0 LIN. FT.	01/01/1991	50	$77,200.80	11,281	$180,124.56
Sewer Lines	10" SEWER LINE-10126.86 LIN. FT	01/01/1964	50	$189,120.55	11,281	$2,279,347.14
Sewer Lines	12" SEWER LINE-48917.75 LIN. FT.	01/01/1964	50	$1,045,434.11	11,281	$12,599,938.24
Sewer Lines	15" SEWER LINE-2528.4 LIN. FT.	01/01/1989	50	$135,319.97	11,281	$330,778.89
Sewer Lines	18" SEWER LINE-1083.50 LIN. FT.	01/01/1989	50	$57,988.92	11,281	$141,749.30
Sewer Lines	8" SEWER LINE 8227.70 LIN FT.	01/01/1990	50	$269,045.79	11,281	$641,400.16
Sewer Lines	FORCE MAIN & TRUNK LINE	01/01/2002	40	$91,809.22	11,281	$158,412.33
Sewer Lines	228-238 LOBELIA SEWER #370	01/01/2002	40	$34,169.65	11,281	$58,958.06
Sewer Lines	SEWER MAIN REPLACEMENT	01/01/2003	40	$33,581.19	11,281	$56,592.38
Sewer Lines	BUENA FORCE MAIN PHASE II	06/30/2005	40	$836,908.25	11,281	$1,267,950.84
Sewer Lines	WATSON WAY SEWER	06/30/2005	40	$8,290.66	11,281	$12,560.70
Sewer Lines	HOLLYBERRY SEWER REALIGN	06/30/2006	40	$127,560.55	11,281	$185,654.83
Sewer Lines	S SANTA FE DESIGN & YORK	06/30/2007	40	$486,014.23	11,281	$688,265.95
Sewer Lines	BUENA OUTFALL FORCE MAIN PAHSE II	06/30/2007	40	$1,184,514.41	11,281	$1,677,442.51
Sewer Lines	YORK DRIVE SEWER BUENA CIP 8046	06/30/2009	40	$4,353,733.96	11,281	$5,730,976.99
Sewer Lines	BUENA OUTFALL FORCE MAIN #1 CIP 8050	06/30/2009	40	$14,947.80	11,281	$19,676.33
Sewer Lines	BUENA OUTFALL FORCE MAIN PHASE 3	06/30/2010	40	$70,327.63	11,281	$90,165.47
Sewer Lines	GRAVITY MAIN DUCTILE 09-10 - CIP 8178	06/30/2012	40	$15,158.27	11,281	$18,371.34
Sewer Lines	ENCINA EMERGENCY LINING-CIP 8226	06/30/2012	40	$167,179.31	11,281	$202,616.01
Sewer Lines	S.SANTA FE AVE SEWER-PHASE I-CIP 8087	06/30/2013	40	$628,969.07	11,281	$743,207.30
Sewer Lines	DUCTILE IRON PIPE FM REPLACE.-CIP 8173	06/30/2013	40	$1,564,374.64	11,281	$1,848,508.46
Sewer Lines	GRAVITY MAIN DUCTILE 08-09-CIP 8174	06/30/2013	40	$282,690.57	11,281	$334,035.02
Sewer Lines	B5-WATSON WAY UPSIZE & REALIGN CIP 8070	06/30/2014	40	$7,879,191.74	11,281	$9,064,364.88
Sewer Lines	SOUTH SANTA FE SEWER #2 CIP 8081	06/30/2014	40	$11,663.92	11,281	$13,418.38
Sewer Lines	AGE RELATED PIPELINE 08-09 #8175	06/30/2015	40	$2,976,704.56	11,281	$3,346,308.33
Sewer Lines	YORK DRIVE SEWER MITIGATION #8156	06/30/2016	40	$123,542.49	11,281	$134,811.65
Sewer Lines	AGE RELATED PIPELINE-YE3 #8207	06/30/2016	40	$1,331,262.70	11,281	$1,452,696.32
Sewer Lines	DWG 4026 8"PVC	06/30/2017	40	$8,160.13	11,281	$8,573.57
Sewer Lines	DWG 4084 8"PVC	06/30/2018	40	$18,193.40	11,281	$18,553.58
Sewer Lines	DWG 4037 18"PVC	06/30/2018	40	$129,812.11	11,281	$132,382.07

Sewer Lines	DWG 4090 8"PVC	06/30/2018	40	$643,527.21	11,281	$656,267.44
Sewer Lines	DWG 4090 8"DIP	06/30/2018	40	$19,805.00	11,281	$20,197.09
Sewer Lines	BUENA CREEK PUMP STATION WET WELL 8245	06/30/2018	40	$206,669.92	11,281	$210,761.47
Sewer Lines	PIPELINE REHAB CIPP PHASE 3 8274	06/30/2018	40	$1,166,557.55	11,281	$1,189,652.48
Sewer Lines	BUENA CREEK PUMP STATION REHAB STDY 8275	06/30/2018	40	$1,587,972.77	11,281	$1,619,410.67
Sewer Lines	B2-THIBODO TO WATSON WAY-CIP8202	06/30/2019	40	$2,078,317.00	11,281	$2,078,317.00
Developer Sewer Lines	DWG 3473	01/01/1995	40	$48,239.68	11,281	$99,468.44
Developer Sewer Lines	DWG 3366	01/01/1996	40	$35,140.05	11,281	$70,536.46
Developer Sewer Lines	DWG 3460	01/01/1996	40	$30,799.63	11,281	$61,823.95
Developer Sewer Lines	DWG 3502	01/01/1998	40	$19,773.45	11,281	$37,679.78
Developer Sewer Lines	DWG 3519	01/01/1998	40	$26,573.23	11,281	$50,637.26
Developer Sewer Lines	DWG3530	01/01/1999	40	$41,417.20	11,281	$77,112.96
Developer Sewer Lines	DWG3532	01/01/1999	40	$73,542.15	11,281	$136,925.07
Developer Sewer Lines	DWG3564	01/01/2000	40	$43,200.00	11,281	$78,337.76
Developer Sewer Lines	DWG3555	01/01/2000	40	$71,304.00	11,281	$129,300.82
Developer Sewer Lines	DWG3597	01/01/2000	40	$31,037.40	11,281	$56,282.42
Developer Sewer Lines	DWG3591	01/01/2000	40	$77,316.60	11,281	$140,203.92
Developer Sewer Lines	DWG3583	01/01/2000	40	$18,560.00	11,281	$33,656.22
Developer Sewer Lines	DWG3566	01/01/2001	40	$301,511.00	11,281	$536,236.10
Developer Sewer Lines	DWG3566	01/01/2001	40	$8,670.60	11,281	$15,420.63
Developer Sewer Lines	DWG3576	01/01/2001	40	$288,789.60	11,281	$513,611.14
Developer Sewer Lines	DWG3597	01/01/2001	40	$32,172.00	11,281	$57,217.77
Developer Sewer Lines	DWG3549	01/01/2002	40	$132,926.95	11,281	$229,358.97
Developer Sewer Lines	DWG3696	01/01/2003	40	$29,844.40	11,281	$50,294.99
Developer Sewer Lines	DWG3744	01/01/2003	40	$5,232.00	11,281	$8,817.18
Developer Sewer Lines	DWG3672	01/01/2003	40	$15,040.00	11,281	$25,346.02
Developer Sewer Lines	DWG3610 8"PVC	01/01/2004	40	$182,648.15	11,281	$289,592.94
Developer Sewer Lines	DWG3647 8" PVC	01/01/2004	40	$51,037.75	11,281	$80,921.55
Developer Sewer Lines	DWG3672 8" PVC	01/01/2004	40	$14,431.60	11,281	$22,881.64
Developer Sewer Lines	DWG3693 8" PVC	01/01/2004	40	$81,849.24	11,281	$129,773.90
Developer Sewer Lines	DWG3701 8" PVC	01/01/2004	40	$44,743.98	11,281	$70,942.63
Developer Sewer Lines	DWG3719 8" PVC	01/01/2004	40	$93,541.84	11,281	$148,312.79

Developer Sewer Lines	DWG3726 8" PVC	01/01/2004	40	$112,307.52	11,281	$178,066.22
Developer Sewer Lines	DWG3728 8" PVC	01/01/2004	40	$23,192.80	11,281	$36,772.73
Developer Sewer Lines	DWG3730 8" PVC	01/01/2004	40	$22,314.00	11,281	$35,379.37
Developer Sewer Lines	DWG3741 10" PVC	01/01/2004	40	$152,885.89	11,281	$242,404.18
Developer Sewer Lines	DWG3722 8" PVC	01/01/2005	40	$585,376.91	11,281	$886,870.39
Developer Sewer Lines	DWG3658 8" PVC	01/01/2006	40	$87,543.55	11,281	$127,413.08
Developer Sewer Lines	DWG3776 8" PVC	01/01/2006	40	$115,660.70	11,281	$168,335.49
Developer Sewer Lines	DWG3777 8" PVC	01/01/2006	40	$25,991.63	11,281	$37,828.87
Developer Sewer Lines	DWG3800 8" PVC	01/01/2006	40	$70,343.11	11,281	$102,379.13
Developer Sewer Lines	DWG3804 8" PVC	01/01/2006	40	$185,708.40	11,281	$270,284.67
Developer Sewer Lines	DWG3810 8" PVC	01/01/2006	40	$30,463.95	11,281	$44,338.00
Developer Sewer Lines	DEVEL SEWER LINE DWG 3743 8" PVC	06/30/2007	40	$26,454.62	11,281	$37,463.54
Developer Sewer Lines	DEVEL SEWER LINE DWG 3837 8" PVC	06/30/2007	40	$47,321.04	11,281	$67,013.39
Developer Sewer Lines	DEVEL SEWER LINE DWG 3799 8" PVC	06/30/2007	40	$67,456.22	11,281	$95,527.69
Developer Sewer Lines	DEVEL SEWER LINE DWG 3796	06/30/2007	40	$130,441.07	11,281	$184,723.29
Developer Sewer Lines	DEVEL SEWER LINE DWG 3645 8" PVC	06/30/2008	40	$184,396.46	11,281	$250,322.08
Developer Sewer Lines	DEVEL SEWER LINE DWG 3649 8" PVC	06/30/2008	40	$29,704.09	11,281	$40,323.93
Developer Sewer Lines	DEVEL SEWER LINE DWG 3859 8" PVC	06/30/2008	40	$51,740.69	11,281	$70,239.08
Developer Sewer Lines	DEVEL SEWER LINE DWG 3862 8" PVC	06/30/2008	40	$12,954.21	11,281	$17,585.61
Developer Sewer Lines	DEVEL SEWER LINE DWG 3862 18" PVC	06/30/2008	40	$99,616.53	11,281	$135,231.54
Developer Sewer Lines	DEVEL SEWER LINE DWG 3889 8" PVC	06/30/2008	40	$48,304.21	11,281	$65,573.98
Developer Sewer Lines	DEVEL SEWER LINE DWG 3887 8" PVC	06/30/2008	40	$36,785.85	11,281	$49,937.57
Developer Sewer Lines	DEVEL SEWER LINE DWG 3888 8" PVC	06/30/2008	40	$22,395.36	11,281	$30,402.17
Developer Sewer Lines	DEVEL SEWER LINE DWG 3822	06/30/2008	40	$69,278.24	11,281	$94,046.67
Developer Sewer Lines	DEVEL SEWER LINE DWG 3857 8" PVC	06/30/2008	40	$135,191.38	11,281	$183,525.15
Developer Sewer Lines	DEVEL SEWER LINE DWG 3882 8" PVC	06/30/2008	40	$20,234.62	11,281	$27,468.92
Developer Sewer Lines	DEVEL SEWER LINE DWG 3840 8" PVC	06/30/2008	40	$13,108.20	11,281	$17,794.66
Developer Sewer Lines	DEVEL SEWER LINE DWG 3835 8" PVC	06/30/2009	40	$67,118.51	11,281	$88,350.51
Developer Sewer Lines	DEVEL SEWER LINE DWG 3814 24" PVC	06/30/2009	40	$825,894.96	11,281	$1,087,155.31
Developer Sewer Lines	DEVEL SEWER LINE DWG 3814 8" HDPE	06/30/2009	40	$193,760.10	11,281	$255,053.41
Developer Sewer Lines	DEVEL SEWER LINE DWG 3821 14" HDPE	06/30/2009	40	$209,497.10	11,281	$275,768.59
Developer Sewer Lines	DEVEL SEWER LINE DWG 3964 8" PVC	06/30/2010	40	$10,190.76	11,281	$13,065.34

Developer Sewer Lines	DEVEL SEWER LINE DWG 3945 8" PVC	06/30/2012	40	$210,935.15	11,281	$255,646.69
Developer Sewer Lines	DEVEL SEWER LINE DWG 3996 8" PVC	06/30/2013	40	$39,275.36	11,281	$46,408.85
Developer Sewer Lines	DEVEL SEWER LINE DWG 4003 12" PVC	06/30/2013	40	$170,005.00	11,281	$200,882.62
Developer Sewer Lines	DEVEL SEWER LINE DWG 4003 20" PVC	06/30/2013	40	$344,311.10	11,281	$406,847.55
Developer Sewer Lines	DWG 4036 8"PVC	06/30/2016	40	$110,836.02	11,281	$120,946.13
Capital Projects	BUENA OUTFALL FORCE MAIN EXTENSION	In Progress	40	$17,705,442	NA	$17,705,442

APPENDIX C: BUENA SANITATION DISTRICT INVESTMENT IN EWA TREATMENT PLANT ASSETS

Table C - 1: Buena Sanitation District Investment in EWA Treatment Plant Assets

Asset	Buena
Plant	
Joint Wastewater Treatment (Unit 1 - Weighted)	$14,524,926
Joint Wastwater Disposal (Unit 1)	$1,304,286
Furnishings and Office Equipment (Unit 1)	$399,605
Buena Vista Pump Station (BVPS)	$0
Agua Hedionda Pump Station (AHSP)	$0
Carlsbad Water Reclamation Facility (CWRF)	$0
Buena Sanitation District Facilities (BSDF)	$539,825
Raceway Basin Pump Station (RBPS)	$0
Flow Metering System	$62,403
Subtotal Plant	**$16,831,045**
Real Property	
South Parcel (Unit 1)	$278,433
Encina Water Polution Control Facilities (Unit 1)	$15,178
Subtotal Real Property	**$293,611**
Construction In Progress	
Major Plant Rehab (Unit 1)	$1,070,129
Total Investment in Capital Assets	**$18,194,785**
Accumulated Depreciation	
Joint Wastewater Treatment (Unit 1 - Weighted)	($9,555,422)
Joint Wastwater Disposal (Unit 1)	($1,203,820)
Furnishings and Office Equipment (Unit 1)	($332,852)
Buena Vista Pump Station (BVPS)	$0
Agua Hedionda Pump Station (AHSP)	$0
Carlsbad Water Reclamation Facility (CWRF)	$0
Buena Sanitation District Facilities (BSDF)	($412,550)
Raceway Basin Pump Station (RBPS)	$0
Flow Metering System	($57,109)
Total Accumulated Depreciation	**($11,561,753)**
Investment in Capital Assets	**$6,633,032**