

# LEUCADIA WASTEWATER DISTRICT

## **Wastewater Financial Plan Study**

Final Report / June 6, 2018







June 6, 2018

Mr. Richard Duffey  
Administrative Services Manager  
Leucadia Wastewater District  
1960 La Costa Avenue  
Carlsbad, CA 92009

**Subject: Financial Plan Study Report**

Dear Mr. Duffey,

Raftelis Financial Consultants, Inc. (Raftelis) is pleased to provide this Financial Plan Study Report (Report) for Leucadia Wastewater District (District), which develops a financial plan for the District's wastewater enterprise and reviews the financial health of the recycled water enterprise for fiscal years 2019 to 2038. This Report includes a comprehensive review of the District's financial plan, incorporates the capital improvement plan, and examines reserves in both the short-term and the long-term planning horizon.

The major objectives of the study include the following:

- Develop a financial plan for the wastewater enterprise to ensure financial sufficiency, meet operation and maintenance (O&M) costs, ensure sufficient funding for capital replacement and refurbishment (R&R) needs, and maintain the strong financial health of the enterprise
- Review the financial position of the recycled water enterprise
- Develop sound and sufficient reserve fund targets

The Report summarizes the key findings and recommendations related to the development of the financial plans for the Wastewater and Recycled Water enterprises.

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

Sincerely,

A handwritten signature in black ink that reads 'Andrea Boehling'.

**Andrea Boehling**  
Project Manager

# Table of Contents

<b>1.</b>	<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
1.1.	BACKGROUND .....	1
1.2.	PROCESS.....	1
1.3.	RESULTS AND RECOMMENDATIONS .....	2
<b>2.</b>	<b>INTRODUCTION .....</b>	<b>5</b>
2.1.	BACKGROUND .....	5
2.2.	FINANCIAL HEALTH OF THE ENTERPRISE .....	5
<b>3.</b>	<b>KEY ASSUMPTIONS .....</b>	<b>7</b>
<b>4.</b>	<b>WASTEWATER UTILITY – FINANCIAL PLAN.....</b>	<b>9</b>
4.1.	CURRENT REVENUE.....	9
4.2.	O&M EXPENSES.....	10
4.3.	CAPITAL IMPROVEMENT PLAN.....	12
4.4.	RESERVE REQUIREMENTS.....	14
4.5.	FINANCIAL OUTLOOK AT CURRENT RATES .....	14
4.6.	RECOMMENDATIONS AND PROPOSED FINANCIAL PLAN.....	16
4.7.	PROPOSED RATES .....	21
4.8.	RATE COMPARISON .....	21
<b>5.</b>	<b>RECYCLED WATER UTILITY – FINANCIAL PLAN .....</b>	<b>23</b>
5.1.	REVENUE .....	23
5.2.	O&M EXPENSES.....	23
5.3.	CAPITAL IMPROVEMENT PLAN.....	24
5.4.	RESERVE REQUIREMENTS.....	24
5.5.	FINANCIAL OUTLOOK .....	25

# List of Tables

Table 1-1: Proposed Monthly Service Charge (\$ / EDU) .....	2
Table 3-1: Revenue Assumptions.....	7
Table 3-2: Escalation Factor Assumptions .....	8
Table 4-1: Current Wastewater Rate Revenue .....	9
Table 4-4: Projected Wastewater Revenues (Based on Current Rates).....	10
Table 4-5: Projected Wastewater O&M Expenses.....	11
Table 4-6: Wastewater Enterprise Capital Improvement Plan.....	13
Table 4-7: Proposed Wastewater Financial Plan .....	19
Table 4-8: Proposed Monthly Service Charge (\$ / EDU) .....	21
Table 5-1: Projected Recycled Water Revenues .....	23
Table 5-2: Projected Recycled Water O&M Expenses.....	24
Table 5-3: Recycled Water Utility Capital Improvement Plan.....	24

# List of Figures

Figure 1: Operating Financial Position with Proposed Revenue Adjustments.....	3
Figure 2: Proposed Wastewater Capital Improvement Plan and Funding Source .....	3
Figure 3: Projected Ending Wastewater Reserves at Projected Rates .....	4
Figure 4: Projected Wastewater Monthly Service Charge per EDU.....	4
Figure 5: Wastewater Operating Financial Position at Current Rates.....	15
Figure 6: Wastewater Capital Improvement Plan and Funding Source .....	15
Figure 7: Projected Ending Wastewater Reserves at Current Rates.....	16
Figure 8: Recommended Wastewater Revenue Adjustments.....	17
Figure 9: Operating Financial Position with Proposed Revenue Adjustments.....	20
Figure 10: Proposed Wastewater Capital Improvement Plan and Funding Source .....	20
Figure 11: Projected Ending Wastewater Reserves at Projected Rates .....	21
Figure 12: Projected Monthly Service Charge (\$ / EDU) .....	22
Figure 13: Recycled Water Operating Financial Position at Current Rates.....	25
Figure 14: Recycled Water Capital Improvement Plan and Funding Source .....	26
Figure 15: Projected Ending Recycled Water Reserves .....	26

# List of Appendices

APPENDIX A: Detailed Financial Plan

This page intentionally left blank to facilitate two-sided printing.

# 1. Executive Summary

## 1.1. Background

In January 2018, Leucadia Wastewater District (District) engaged Raftelis Financial Consultants, Inc. (Raftelis) to develop a Financial Plan Study (Study) for the District's wastewater enterprise and to review the financial health of the recycled water enterprise for fiscal years (FY) 2019 to 2038. The District utilizes a long-term financial planning process to project future financial conditions, provide guidance in the decision-making process, and ultimately to ensure the financial stability of the District. The District typically performs major financial plan updates every five years and minor updates based on actual financials on an annual basis. Performing annual updates ensures the District is aware of any major deviations from projections and allows the District to make any necessary adjustments in a timely manner.

## 1.2. Process

Raftelis worked closely with District staff on an ongoing basis via scheduled in-person meetings, workshops, and webinars. During the kick-off meeting, the major drivers for the study were determined and key information was reviewed and discussed. Raftelis used the knowledge gained during the kick-off meeting in conjunction with historical financial information, economic and demographic characteristics, industry standards, engineering planning documents (such as the Asset Management Plan), cost-sharing based on the District's ownership in Encina, and assumptions defined by District Staff to develop a long-term financial plan.

Raftelis hosted a financial plan workshop with District staff to present the preliminary results of the financial plan, receive feedback from District Management, and determine the scenarios to present to the Board. During the staff workshop key inputs, assumptions, revenues, and expenditures were reviewed. In addition, capital improvement scenarios, debt funding scenarios, and revenue adjustment options were evaluated. Working collaboratively with District Management, Raftelis refined the financial plan model and presented two scenarios to the District Board. Raftelis incorporated feedback on policies and objectives from the District Board and developed a financial plan to meet the following criteria:

- Continue with the current rate pattern of 3 years of increases followed by 3 years of no increases
- Positive net operating cash income each FY of the planning period
- Fully fund capital projects through Pay-As-You-Go (PAYGO) or cash on hand
- Establish and meet reserves targets through the majority of the study period

This Financial Plan Study Report (Report) includes a twenty-year financial plan, incorporates the capital improvement plan, examines reserves in both the short-term and the long-term planning horizon, proposes wastewater rate adjustments for the Study Period of FY 2019 to FY 2023, and projects wastewater revenue adjustments for the remaining years of the planning period (FY 2024 – FY 2038). The major objectives of the study include the following:

- Develop a financial plan for the wastewater enterprise to maintain the strong financial health of the enterprise
- Incorporate the recently completed Asset Management Plan Update and near term projected capital expenditures
- Evaluate the impacts of issuing debt to fund capital expenditures
- Review the financial position of the recycled water enterprise

- Develop sound and sufficient reserve fund targets

### 1.3. Results and Recommendations

The District is currently in a strong financial position, has healthy reserves, and the current wastewater rate of \$28.64 per month is well below the County average of \$48.97 per month. Based on the strong financial position, the District will be able to fund planned wastewater capital projects and maintain healthy reserves with reasonable revenue adjustments.

Table 1-1 shows the proposed monthly service charge per EDU through FY 2023 based on the proposed revenue adjustments. Although the table shows proposed revenue adjustments for FY 2021 through FY 2023, the District will review and confirm the needed revenue adjustments on an annual basis. Additionally, the proposed revenue adjustments are intended to ensure that the District maintains their strong financial position moving forward. All rates are rounded up to the nearest penny.

**Table 1-1: Proposed Monthly Service Charge (\$ / EDU)**

	FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	Proposed FY 2023
Revenue Adjustment		0%	0%	10%	10%	10%
Monthly Service Charge per EDU	\$28.64	\$28.64	\$28.64	\$31.50	\$34.65	\$38.12
Yearly Service Charge per EDU	\$343.68	\$343.68	\$343.68	\$378.05	\$415.85	\$457.44

Overall, the proposed financial plan for the wastewater system aims to strike a balance between ensuring a strong financial position and, to the extent possible, minimizing rate increases to its customers through a multi-year measured approach. As shown in Table 1-1, it is recommended that the District maintains its current approach of three years of rate adjustments followed by three years of no rate adjustments. Additionally, Raftelis recommends fully funding capital projects through PAYGO.

The following figures illustrate the proposed wastewater financial plan over the planning period. The proposed financial plan assumes 7% revenue adjustments in FY 2027 through FY 2029 and 6% revenue adjustments in FY 2033 through FY 2035. Figure 1 illustrates the operating position of the wastewater enterprise, where expenses and net cashflow are shown by stacked bars and the total revenues at both current rates and proposed rates are shown by the horizontal trend lines. Figure 2 summarizes the projected CIP and its funding sources (100% PAYGO). Figure 3 displays the ending total reserve balance for the wastewater enterprise, inclusive of operating, capital, and emergency funds. The horizontal trend line indicates the target reserve balance and the bars indicate projected ending reserve balance. No new debt is proposed to be issued as part of the proposed 20-year financial plan. Figure 4 shows the projected monthly service charge per EDU based on the recommended revenue adjustments in the financial plan. The 2018 San Diego County wastewater average rate per EDU of \$48.97 is also shown in this figure as an orange line on the graph. This median figure was provided by the District from their recent Sewer Rate Survey of Cities and Special Districts in San Diego County and indicates that even with the proposed and recommended revenue adjustments, the District’s rates will remain below the County average at least until FY 2033 and likely beyond as other agencies increase their rates.

Figure 1: Operating Financial Position with Proposed Revenue Adjustments

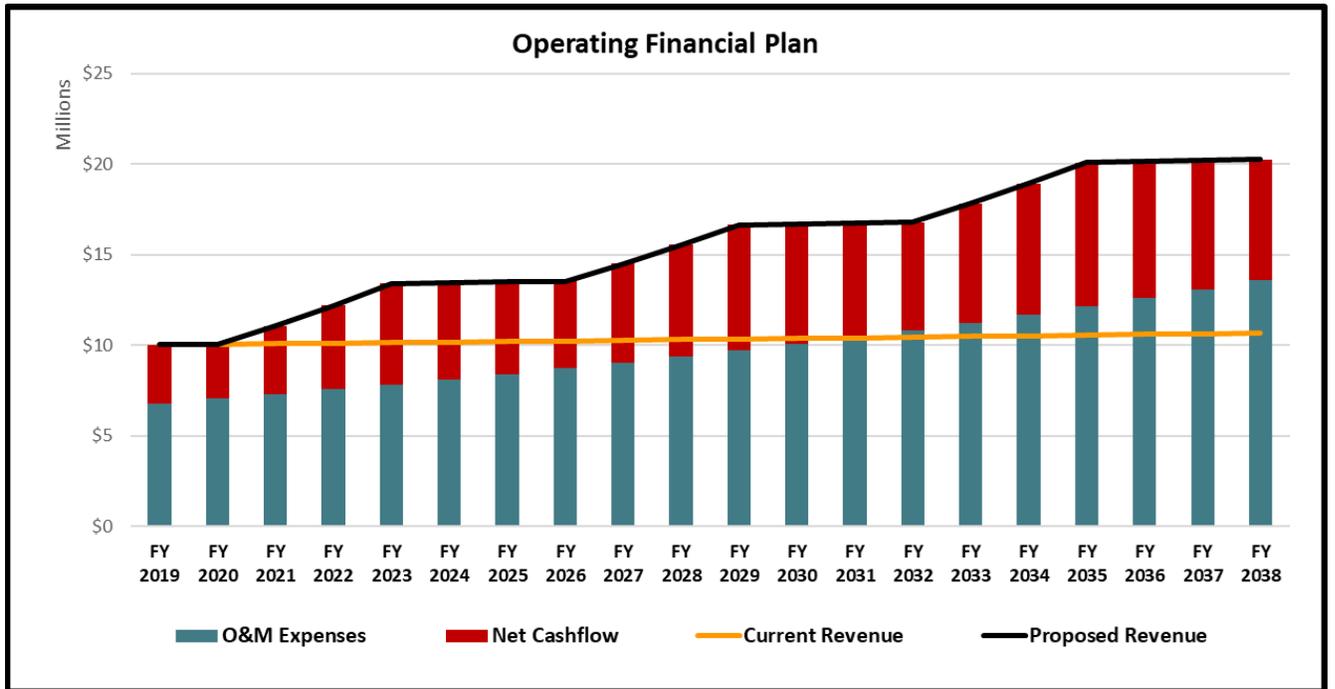


Figure 2: Proposed Wastewater Capital Improvement Plan and Funding Source

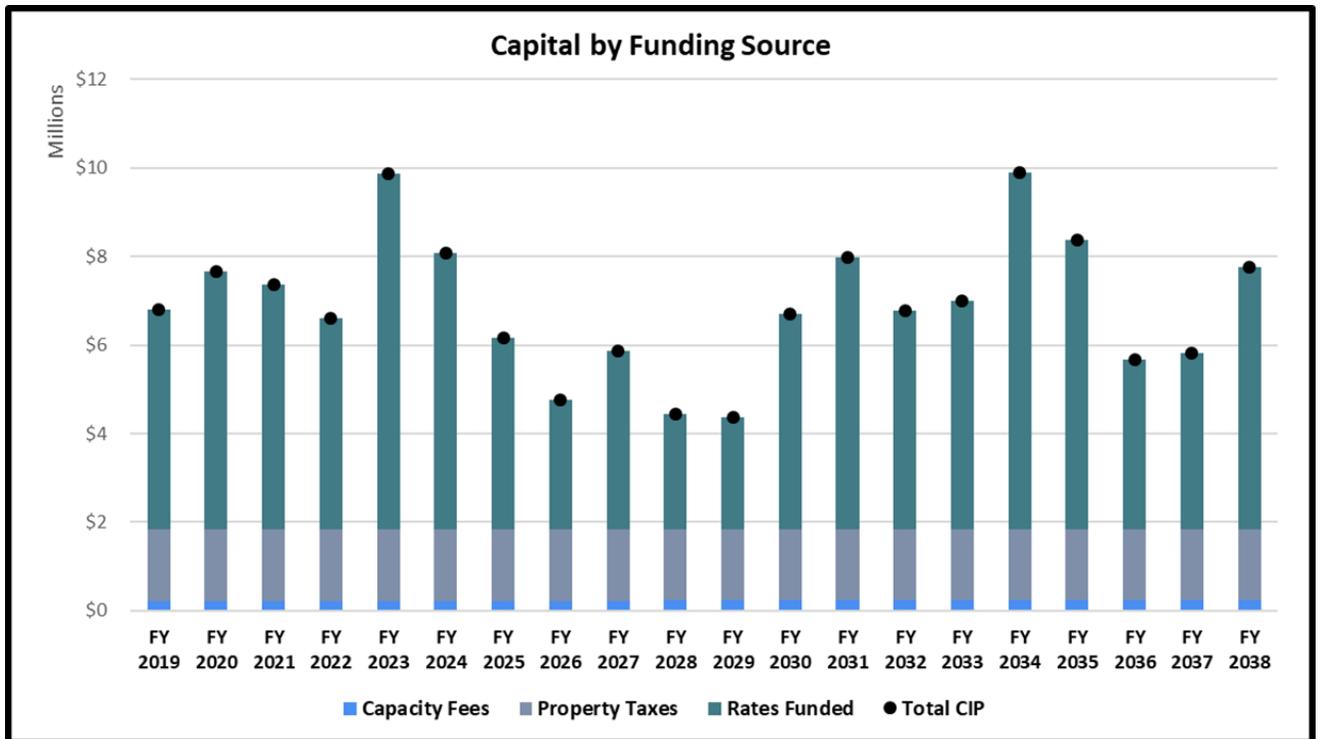


Figure 3: Projected Ending Wastewater Reserves at Projected Rates

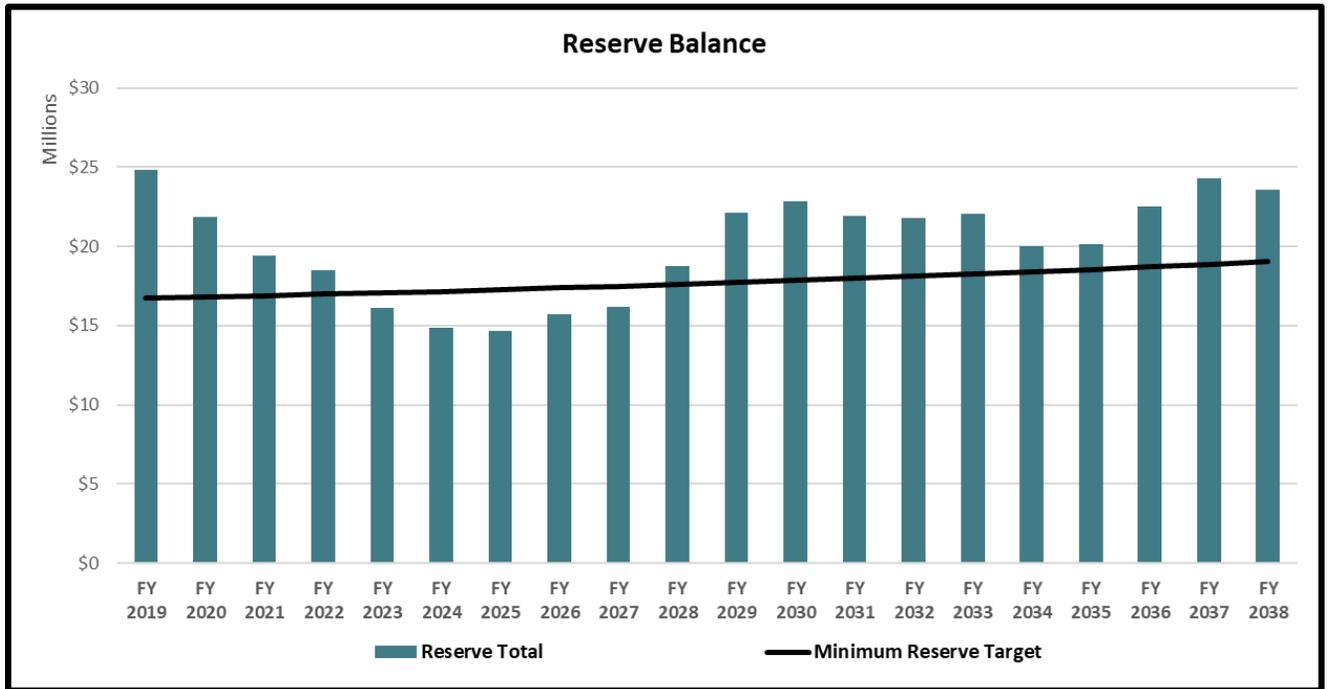
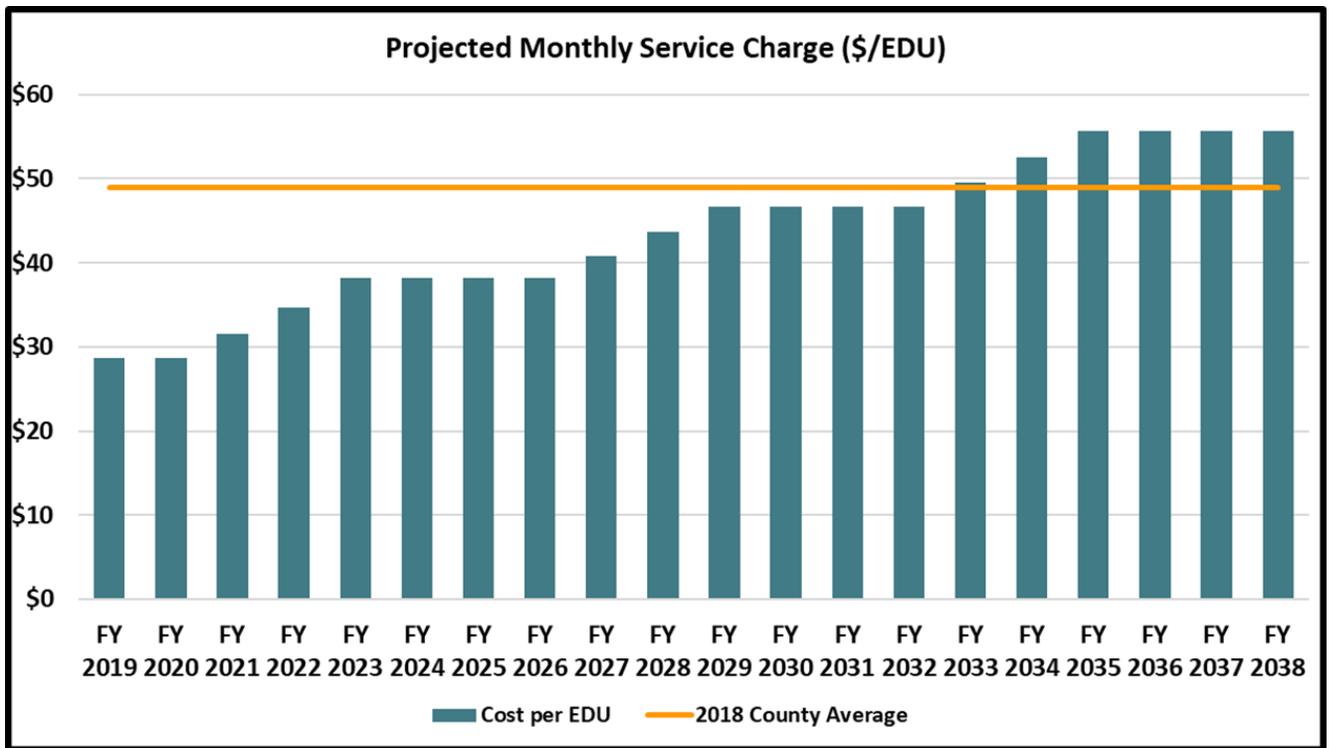


Figure 4: Projected Wastewater Monthly Service Charge per EDU



## 2. Introduction

### 2.1. Background

Leucadia Wastewater District (District) collects and treats approximately four million gallons of wastewater effluent generated by approximately 63,000 residents in the Leucadia and Village Park communities in Encinitas and the La Costa community in Carlsbad. Flows from these customers are conveyed through 202 miles of pipeline, 16 miles of force mains, and 10 pump stations where it is then transferred to the Encina Water Pollution Control Facility in Carlsbad for treatment. Leucadia is a member of the Encina Joint Powers Authority with an approximate 17% share of the system. The District currently provides recycled water to the Omni La Costa Resort & Spa for irrigation of the facility's south golf course. Recycled water is produced at the Gafner Water Recycling Facility and is sourced from secondary effluent from the Encina Water Pollution Control Facility. The water recycling facility's design capacity is one million gallons per day.

Raftelis worked closely with District staff on an ongoing basis via scheduled in-person meetings, workshops, and webinars to develop a long-term financial plan which projects revenues and expenses, incorporates capital expenditures, sets forth proposed reserve targets, and recommends total revenue adjustments for the five-year Study Period (Fiscal Year (FY) 2019 to FY 2023). Where possible, Raftelis incorporated feedback on policies and objectives from the District and developed a financial plan to meet the following criteria:

- Continue with the current rate pattern of 3 years of increases followed by 3 years of no increases
- Positive net operating cash income each FY of the planning period
- Fully fund capital projects through Pay-As-You-Go (PAYGO) or cash on hand
- Establish and meet reserves targets through the majority of the study period

Raftelis presented the Financial Plan forecasts to the District's Board of Directors and received their input. Based on the Financial Plan forecast and input from the District's Board, Raftelis proposes 10% revenue increases for FY 2021 through FY 2023, and recommends 7% revenue increases for FY 2027 through 2029, and 6% revenue increases in FY 2033 through FY 2035. The proposed revenue adjustments are necessary to meet the projected operating and capital expenses, to maintain the minimum reserve targets identified during the Study Period, and to ensure the financial stability of the District.

### 2.2. Financial Health of the Enterprise

As part of the financial plan development, Raftelis first reviewed the District's projected revenue requirements over a 20-year planning horizon to determine the financial health of the wastewater enterprise over the short-term and long-term to determine if the current rates could support the revenue needs.

In FY 2018, the District's total beginning reserve balance for the wastewater enterprise is estimated at approximately \$30.9 million. These reserves have been built up over time and were intended to fund the necessary upcoming capital projects totaling approximately \$37.5 million during the next 5 years. Based on the District's revenue requirements, reserve policies, capital planning schedule, and current revenues, the existing wastewater rates will:

- Result in a positive net operating cash income of approximately \$3.4 million for FY 2018

- Fully fund capital projects through PAYGO for FY 2018 through FY 2025
- However, without revenue adjustments, the enterprise will fully deplete reserves by FY 2026 and will no longer be able to fund capital projects.

In FY 2018, the District's total beginning reserve balance for the recycled water enterprise is estimated at approximately \$1.75 million. These reserves have been built up over time and were intended to help fund the necessary upcoming capital projects totaling approximately \$4.3 million during the next 5 years. Based on the District's revenue requirements, reserve policies, capital planning schedule, and current revenues, the existing recycled water rates will:

- Result in a positive net operating cash income of approximately \$147,117 for FY 2018
- Fully fund capital projects through PAYGO<sup>1</sup> for FY 2018 through FY 2019
- Be unable to meet the minimum reserve targets during the study period
- The enterprise will fully deplete reserves by FY 2020 and will no longer be able to fund planned capital projects without additional sources of revenue

---

<sup>1</sup> Pay-As-You-Go or PAYGO means capital projects will be funded through cash on hand (rates or reserves) as opposed to issuing debt

### 3. Key Assumptions

The Study uses the District’s proposed FY 2018 budget as the base year and projects the District’s revenue requirements through FY 2038. The proposed wastewater rates herein are for FY 2019 through FY 2023, however, the financial plan also projects revenue adjustments for FY 2024 to FY 2038. The District will perform an updated study and continue taking a measured approach to determine rates outside of the Study Period. Certain assumptions related to revenue projections were incorporated into the Study to adequately forecast future revenues. Table 3-1 summarizes the revenue assumptions utilized in the financial plan.

**Table 3-1: Revenue Assumptions**

	FY 2018	FY 2019	FY 2020	FY 2021	FY2022	FY 2023
EDU Growth	0%	0.2%	0.2%	0.2%	0.2%	0.2%
Projected EDU's	28,470	28,527	28,584	28,641	28,698	28,756
<b>Inflationary Factors</b>						
Non-Rate Revenue	0%	2%	2%	2%	2%	2%
Reserve Interest Rate	1%	1%	1%	1%	1%	1%
<b>Revenue Offsets</b>						
Development Services	100%	100%	100%	100%	100%	100%
Batiquitos/Encinitas Op	20%	20%	20%	20%	20%	20%
Batiquitos/Encinitas Capital	22.14%	22.14%	22.14%	22.14%	22.14%	22.14%

As shown in the Table 3-1, the financial plan projects minimal growth. This is reasonable given the District is nearly built out with mostly in-fill projects remaining. Based on the minimal growth, the financial plan will include projected capacity fee revenues which will help fund capital repairs and replacements. Conservative inflationary factors were applied to both non-rate revenues and reserve interest earnings to ensure the District is not relying on these other revenues to occur to meet revenue requirements. In addition, certain expenditures will be fully or partially offset by revenues as shown in the table. For example, all of the development services expenditures (or 100%) will be offset by developer revenues, therefore, there will be zero impact from these expenditures to the District’s rate payers.

Similar to the revenue assumptions, certain cost escalation assumptions and inputs were incorporated into the Study to adequately model expected future costs and are presented in Table 3-2.

**Table 3-2: Escalation Factor Assumptions**

	FY 2018	FY 2019	FY 2020	FY 2021	FY2022	FY 2023
General	0%	2%	2%	2%	2%	2%
Salary	0%	4.5%	4.5%	4.5%	4.5%	4.5%
Benefits	0%	5%	5%	5%	5%	5%
Utilities	0%	5%	5%	5%	5%	5%
Capital	0%	2.8%	2.8%	2.8%	2.8%	2.8%
Non-Inflated	0%	0%	0%	0%	0%	0%

These assumptions were based on discussions with and/or directions from District staff. The salary escalation factor is based on a 5-year annual average based on historical information provided by the District. The capital inflation factor is based on the Engineering News-Record Construction Cost Index (ENR CCI) 20-Cities 20-year annual average to account for increased construction costs in future years. EDU growth is based on anticipated growth of approximately 50 EDU's per year as provided by the District.

## 4. Wastewater Utility – Financial Plan

This section describes the development of the wastewater utilities financial plan, the results of which were used to determine the revenue adjustments needed to meet ongoing expenses and provide fiscal sustainability to the District. The review involves analysis of projected annual operating revenues under the current rates, O&M expenses, capital expenditures, transfers between funds, and reserve requirements.

### 4.1. Current Revenue

The current wastewater rate structure consists of a monthly service charge per EDU for both residential and non-residential customers. Table 4-1 summarizes the projected number of EDUs, monthly service charge, and the projected revenues for the Study Period.

**Table 4-1: Current Wastewater Rate Revenue**

	FY 2018	FY 2019	FY 2020	FY 2021	FY2022	FY 2023
Monthly Svc Charge per EDU	\$28.64	\$28.64	\$28.64	\$28.64	\$28.64	\$28.64
Assessed EDU's	28,470	28,527	28,584	28,641	28,698	28,756
Projected FY Revenue	\$9,784,504	\$9,804,073	\$9,823,681	\$9,843,329	\$9,863,015	\$9,882,742

Using account growth and other revenue assumptions from Table 3-1, Raftelis projected the revenues for the wastewater enterprise<sup>2</sup>. Table 4-2 summarizes the rate revenue (service charge revenue) from Table 4-1 and other revenues. As shown in the table, the rate revenue increases slightly during the Study Period due to the 0.2% growth assumption. Other Revenues consist of capacity fees, property taxes, miscellaneous non-operating revenues, developer fees, Encinitas Operating Revenue, and Encinitas Capital. As mentioned previously, capacity fee revenues are determined based on the assumed incremental growth of approximately 50 EDU's per year and help fund upcoming capital projects. Developer Fees completely offset Development Services expenses. Batiquitos/Encinitas Operating Revenue and Batiquitos/Encinitas Capital Revenue offset Batiquitos/Encinitas Operating and Capital expenses, respectively by 20% and 22.14%. Additionally, Other Revenues include property taxes, investment income, and miscellaneous non-operating revenue. Property taxes and miscellaneous non-operating revenue were held constant as these revenues may not necessarily increase and are not considered a reliable revenue source for financial planning purposes. Investment income was calculated at a constant rate of return of 1% of reserve balances during the 20-year period.

<sup>2</sup> Only five years of the Study Period are shown here; however, Raftelis projected the revenues through FY 2038.

**Table 4-2: Projected Wastewater Revenues (Based on Current Rates)**

Revenues	FY 2018	FY 2019	FY 2020	FY 2021	FY2022	FY 2023
<b>Service Charge</b>	\$9,784,504	\$9,804,073	\$9,823,681	\$9,843,329	\$9,863,015	\$9,882,742
<b>Other Revenues</b>						
Capacity Fees	\$400,600	\$228,100	\$228,556	\$229,013	\$229,471	\$229,930
Property Taxes	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000
Misc. Non-Operating	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Development Services	\$118,102	\$123,425	\$128,988	\$134,802	\$140,877	\$147,227
Encinitas Operating	\$87,200	\$90,269	\$93,922	\$97,738	\$101,723	\$105,887
Encinitas Capital	\$210,800	\$35,203	\$469,811	\$9,742	\$9,742	\$895,342
<b>Total Revenue</b>	\$12,206,206	\$11,886,070	\$12,349,958	\$11,919,623	\$11,949,829	\$12,866,127

## 4.2. O&M Expenses

The District’s FY 2018 budget values and the assumed escalation factors (Table 3-2) for the study period were used as the basis for projecting O&M costs beyond FY 2018. Table 4-3 shows the total projected O&M expenses for FY 2019 through FY 2023<sup>3</sup>. As shown in the table, the wastewater enterprise tracks its expenses based on different departments or operations. These include: Development Services, Leucadia Operations, Encina Operations, Batiquitos Operations, and Capital Services.

<sup>3</sup> Only five years of the Study Period are shown here, however, Raftelis projected the revenues through FY 2038.

**Table 4-3: Projected Wastewater O&M Expenses**

Expenditure	Escalation Factor	FY 2019	FY 2020	FY 2021	FY2022	FY 2023
<b>Development Services Exp.</b>						
Salaries	Salary	\$2,637	\$2,755	\$2,879	\$3,009	\$3,144
Employee Benefits	Benefits	\$1,763	\$1,851	\$1,944	\$2,041	\$2,143
Professional Services	Salary	\$119,026	\$124,382	\$129,979	\$135,828	\$141,940
<b>Subtotal Develop. Serv. Exp.</b>		<b>\$123,425</b>	<b>\$128,988</b>	<b>\$134,802</b>	<b>\$140,877</b>	<b>\$147,227</b>
<b>Leucadia Op Exp.</b>						
Salaries	Salary	\$1,078,407	\$1,126,935	\$1,177,647	\$1,230,641	\$1,286,020
Employee Benefits	Benefits	\$587,582	\$616,961	\$647,809	\$680,200	\$714,210
Gas, Oil & Fuel	Utilities	\$42,000	\$44,100	\$46,305	\$48,620	\$51,051
Office Expense	General	\$97,410	\$99,358	\$101,345	\$103,372	\$105,440
Operating Supplies	General	\$161,466	\$164,695	\$167,989	\$171,349	\$174,776
Professional Services	Salary	\$79,943	\$83,540	\$87,299	\$91,228	\$95,333
Rents & Leases	General	\$3,570	\$3,641	\$3,714	\$3,789	\$3,864
Repairs & Maintenance	General	\$335,886	\$342,604	\$349,456	\$356,445	\$363,574
Monitoring & Permits	General	\$21,624	\$22,056	\$22,498	\$22,948	\$23,407
Utilities	Utilities	\$237,930	\$249,827	\$262,318	\$275,434	\$289,205
Encina Operating Expense	General	\$1,899,036	\$1,937,017	\$1,975,757	\$2,015,272	\$2,055,578
Admin O/H Allocated	General	\$1,682,051	\$1,753,825	\$1,828,803	\$1,907,132	\$1,988,966
<b>Subtotal Leucadia Op Exp.</b>		<b>\$6,226,904</b>	<b>\$6,444,559</b>	<b>\$6,670,941</b>	<b>\$6,906,429</b>	<b>\$7,151,423</b>
<b>Batiquitos Op. Exp.</b>						
Salaries	Salary	\$54,560	\$57,016	\$59,581	\$62,263	\$65,064
Employee Benefits	Benefits	\$30,872	\$32,416	\$34,036	\$35,738	\$37,525
Gas, Oil & Fuel	Utilities	\$1,050	\$1,103	\$1,158	\$1,216	\$1,276
Office Expense	General	\$5,100	\$5,202	\$5,306	\$5,412	\$5,520
Professional Services	Salary	\$10,450	\$10,920	\$11,412	\$11,925	\$12,462
Repairs & Maintenance	General	\$100,470	\$102,479	\$104,529	\$106,620	\$108,752
Monitoring & Permits	General	\$5,406	\$5,514	\$5,624	\$5,737	\$5,852
Utilities	Utilities	\$155,190	\$162,950	\$171,097	\$179,652	\$188,634
Admin O/H Allocated	General	\$88,245	\$92,011	\$95,944	\$100,054	\$104,347
<b>Subtotal Batiquitos Op. Exp.</b>		<b>\$451,344</b>	<b>\$469,610</b>	<b>\$488,688</b>	<b>\$508,616</b>	<b>\$529,433</b>
<b>Capital Services Exp.</b>						
Salaries	Salary	\$188,214	\$196,684	\$205,534	\$214,783	\$224,449
Employee Benefits	Benefits	\$85,152	\$89,409	\$93,880	\$98,574	\$103,503
Gas, Oil & Fuel	Utilities	\$0	\$0	\$0	\$0	\$0
Professional Services	Salary	\$0	\$0	\$0	\$0	\$0
Repairs & Maintenance	General	\$0	\$0	\$0	\$0	\$0
Capital Acquisitions	Capital	\$405,132	\$416,476	\$428,137	\$440,125	\$452,449
Construction Costs	Capital	\$0	\$0	\$0	\$0	\$0
Encinitas Capital Reimb	Capital	\$0	\$0	\$0	\$0	\$0
Admin O/H Allocated	General	\$161,184	\$168,062	\$175,247	\$182,753	\$190,595
Capitalized Constr Costs	Capital	\$0	\$0	\$0	\$0	\$0
<b>Subtotal Capital Serv. Exp.</b>		<b>\$839,682</b>	<b>\$870,631</b>	<b>\$902,798</b>	<b>\$936,235</b>	<b>\$970,995</b>
<b>Total O &amp; M Expenses</b>		<b>\$7,641,356</b>	<b>\$7,913,788</b>	<b>\$8,197,229</b>	<b>\$8,492,158</b>	<b>\$8,799,078</b>

### **4.3. Capital Improvement Plan**

The District provided the projected capital expenditures by project name to address future wastewater capital improvement project (CIP) needs. Raftelis worked closely with District staff to adjust the CIP to reflect a measured multi-year approach and to more closely reflect the anticipated level of annual CIP projects. For example, \$6.1 million associated with the Drainage Basin #1 VCP Line Replacement project were spread equally over FY 2024 through FY 2031. This was done to mitigate the impact to customers and avoid drastic rate adjustments in the first year. Table 4-4 shows the anticipated CIP by project name, the cumulative inflationary factor<sup>4</sup>, and the resulting total anticipated CIP costs. Raftelis indexed the capital expenditures by the 2.8% inflationary compounding rate discussed in Section 3 and shown in Table 3-2 to account for increased construction costs in future years.

---

<sup>4</sup> Note, the cumulative inflationary factors used in the Financial Plan Model were determined based on an annual inflationary factor of 2.8% and were not rounded to the nearest whole percentage. There may be differences due to rounding.

**Table 4-4: Wastewater Enterprise Capital Improvement Plan**

	FY 2018	FY 2019	FY 2020	FY 2021	FY2022	FY 2023
<b>Gravity Pipelines &amp; Manholes</b>						
FY 2016 Gravity Pipeline Rehab.	\$92,903					
Orchard Wood Rd Sewer Rehab.		\$194,700				
FY17/FY18 CIPP Project	\$800,000					
La Costa Alteration & Quebrada	\$475,000					
Pipeline Repair - CIPP			\$675,000			
Pipeline Repair - Open Trench				\$675,000		
Pipeline Repair - CIPP					\$675,000	
Pipeline Repair - Open Trench						\$675,000
Misc. Pipeline/Manhole Rehab.	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000
Asset Management Plan Update	\$100,000					\$125,000
HQ Build. Metering Switchboard	\$69,918					
Lateral Repl./Backflow Preventer	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000
<b>Total Gravity Pipelines &amp; Manholes</b>	<b>\$1,802,821</b>	<b>\$459,700</b>	<b>\$940,000</b>	<b>\$940,000</b>	<b>\$940,000</b>	<b>\$1,065,000</b>
<b>Pump Stations &amp; Force Mains</b>						
Avocado PS Upgrade Project			\$452,250			
Batiquitos Generator Repl.			\$700,000			
Batiquitos Pump Station Rehab.						\$4,000,000
Diana PS Upgrade Project			\$600,750			
Encinitas Estates PS Repl.		\$1,195,000				
Leucadia PS Rehab.	\$3,670,000					
Rancho Verde Improvements				\$371,250		
Village Park No. 5 PS Repl.	\$814,587					
Village Park No. 7 PS Rehab					\$625,000	
L07 Meter Relocation		\$20,000				
Pump Station Condition Assess.		\$30,000				
L1 West Section Replacement	\$100,000					
Force Main Corrosion Control	\$35,000					
L1 Final Replacement				\$2,880,000		
B3 Rehab/Replace Project - Ph 1		\$115,000	\$1,378,000			
General Pump Station Projects		\$1,670,750	\$0	\$576,000	\$1,601,125	\$0
Avocado Emergency Overflow			\$348,750			
Diana Emergency Generator		\$350,000				
Diana Emergency Overflow					\$900,000	
<b>Total Pump Stations &amp; Force Mains</b>	<b>\$4,619,587</b>	<b>\$3,380,750</b>	<b>\$3,479,750</b>	<b>\$3,827,250</b>	<b>\$3,126,125</b>	<b>\$4,000,000</b>
<b>Jointly-Owned Gravity Sewers</b>						
Poinsettia Station Gravity Pipe	\$714,400					
General Lanikai Replacement	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
General Occidental Repl.	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000
<b>Total Jointly-Owned Gravity Sewers</b>	<b>\$758,400</b>	<b>\$44,000</b>	<b>\$44,000</b>	<b>\$44,000</b>	<b>\$44,000</b>	<b>\$44,000</b>
<b>District Share of Encina CIP</b>	<b>\$1,875,134</b>	<b>\$2,725,632</b>	<b>\$2,779,434</b>	<b>\$1,970,388</b>	<b>\$1,802,556</b>	<b>\$3,492,216</b>
<b>Total Wastewater CIP</b>	<b>\$9,055,942</b>	<b>\$6,610,082</b>	<b>\$7,243,184</b>	<b>\$6,781,638</b>	<b>\$5,912,681</b>	<b>\$8,601,216</b>
Cumulative Inflationary Factor	100%	103%	106%	109%	112%	115%
<b>Inflated CIP</b>	<b>\$9,055,942</b>	<b>\$6,795,164</b>	<b>\$7,654,481</b>	<b>\$7,367,395</b>	<b>\$6,603,237</b>	<b>\$9,874,734</b>

## 4.4. Reserve Requirements

For FY 2018, the District's projected total beginning reserve balance for the wastewater enterprise is approximately \$30.9 million.

**Operating Reserve** – The operating reserve ensures sufficient resources are available to pay budgeted operating and maintenance expenses. The existing and recommended operating reserve is 33% of the next fiscal year's operating expenses, since the majority of operating revenues are received over two short periods during the fiscal year from the tax rolls and operating expenses are incurred regularly throughout the year. Maintaining this level of reserves also provides liquid funds for the continued ongoing operations of the enterprise in the event of unforeseen costs or interruption with the enterprise.

**Capital Replacement Reserve** – The capital replacement reserve provides funds to finance capital replacement and refurbishment of existing facilities. The twenty-year average CIP was selected as the minimum target balance for this reserve to ensure that the District is able to fund replacements as they are scheduled or needed.

**Capital Improvement Reserve** – The capital improvement reserve provides funds to finance future expansion/growth related capital facilities. This reserve is currently being depleted as the District is nearing build-out. The District has built a system that can serve the anticipated future growth and additional facilities are not needed to serve that growth. This reserve does not have a minimum target balance.

**Emergency Reserve**– The emergency reserve is intended to provide the initial funds to accomplish emergency repairs to the system in the event of an unanticipated major failure or natural disaster such as a flood, earthquake, or fire. This reserve is maintained at a level of \$7.5 million at the discretion of the Board of Directors.

## 4.5. Financial Outlook at Current Rates

Based on the District's revenue requirements, reserve policies, capital planning schedule, and current revenues, the existing wastewater rates will:

- Result in a positive net operating cash income of approximately \$3.4 million for FY 2018
- Fully fund capital projects through PAYGO for FY 2018 through FY 2025
- Without revenue adjustments the enterprise will fully deplete reserves by **FY 2026** and will no longer be able to fully fund planned capital projects.

Figure 5 illustrates the operating position of the wastewater enterprise, where expenses and net cashflow are shown by stacked bars and the total revenues at current rates are shown by the horizontal orange trend line. Figure 6 summarizes the baseline CIP and its funding sources by fiscal year. As shown in Figure 6, the District is currently 100% PAYGO with the majority of capital projects currently being funded by rate revenue. Property taxes and capacity fees fund a portion of capital projects. Figure 7 displays the ending total reserve balance by FY for the wastewater enterprise.

Figure 5: Wastewater Operating Financial Position at Current Rates

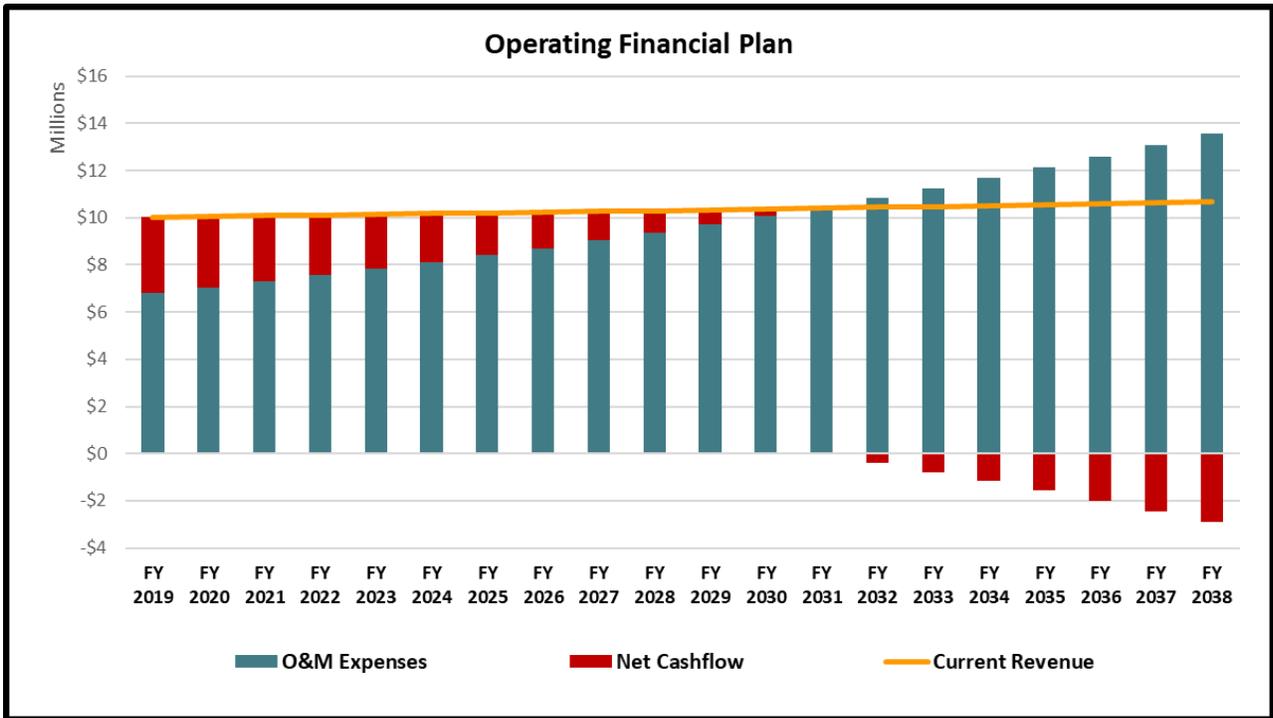
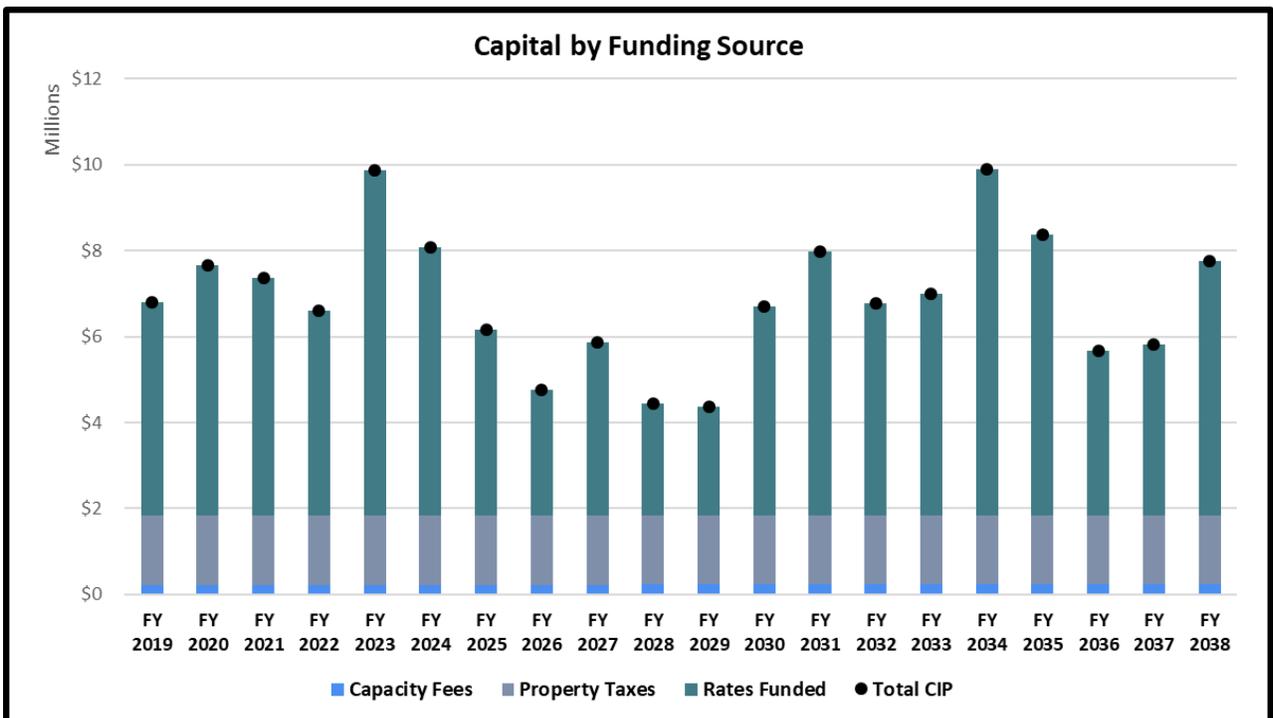
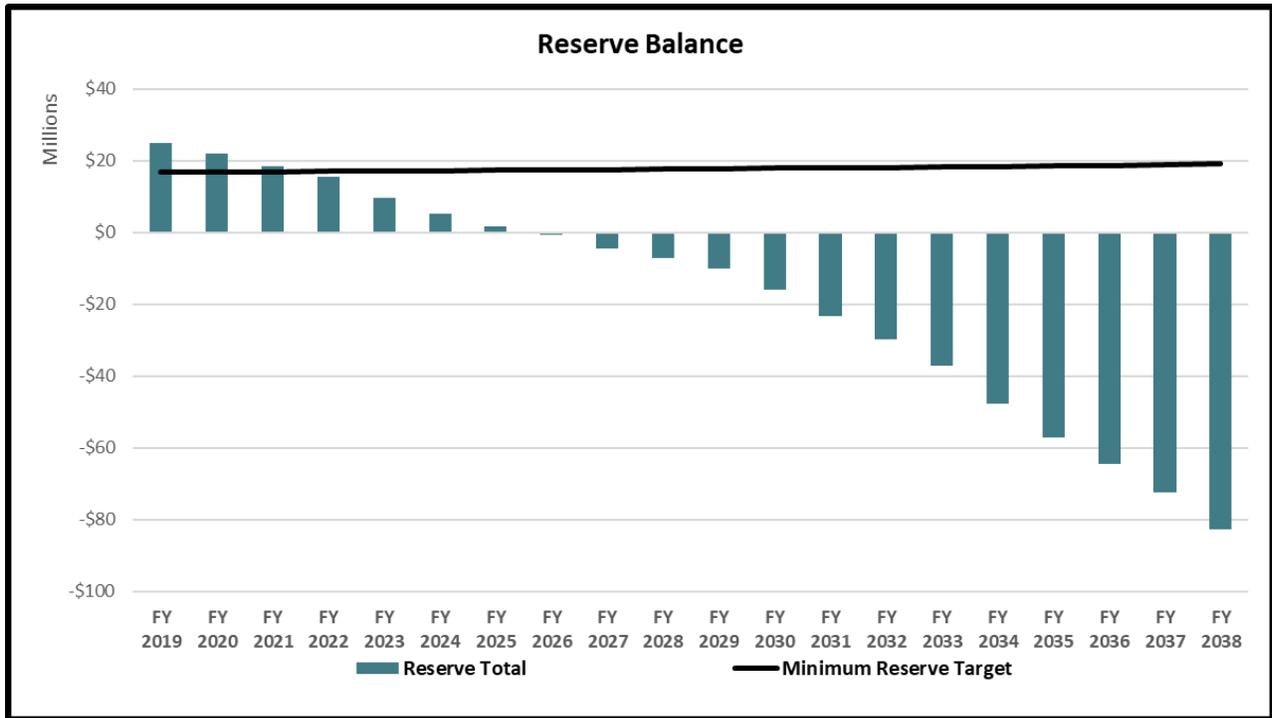


Figure 6: Wastewater Capital Improvement Plan and Funding Source



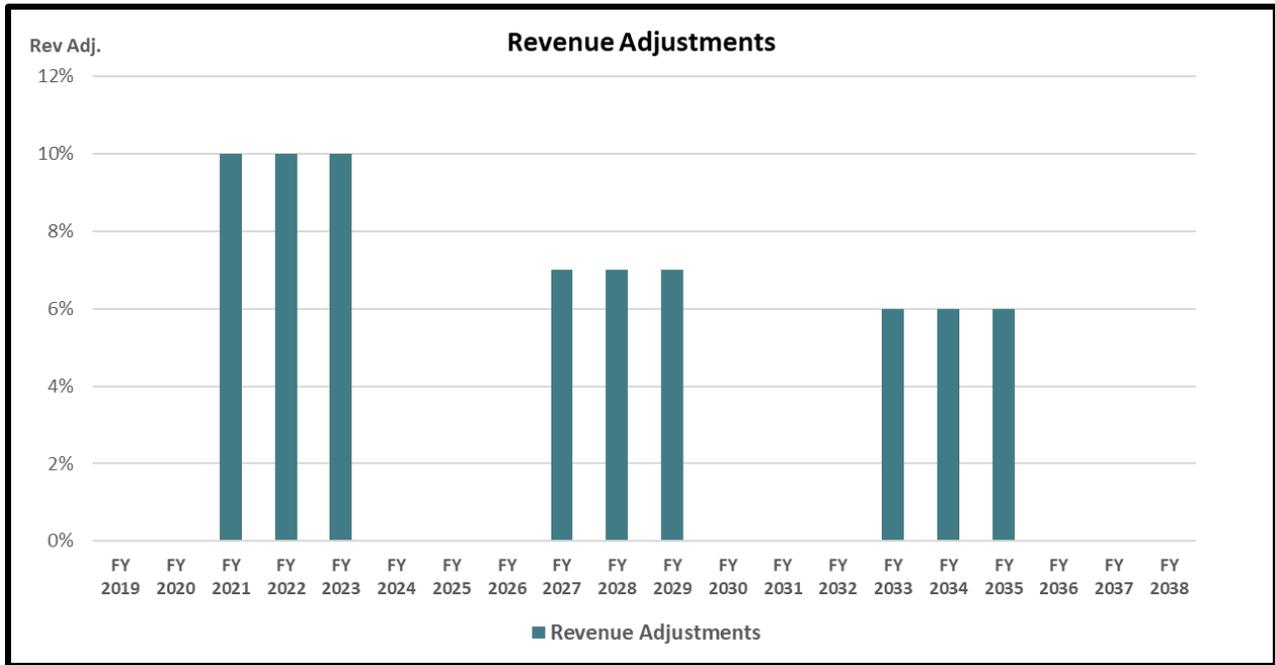
**Figure 7: Projected Ending Wastewater Reserves at Current Rates**



## 4.6. Recommendations and Proposed Financial Plan

Overall, the proposed financial plan for the wastewater system aims to strike a balance between ensuring a strong financial position and, to the extent possible, minimizing rate increases to its customers through a multi-year measured approach. It is recommended that the District maintains its current approach of three years of rate adjustments followed by three years of no rate adjustments and fully funding capital projects through PAYGO. The District’s customers are accustomed to this approach; however, this does result in higher adjustments every three years than if the District increased rates annually. The recommended financial plan includes proposed rate adjustments of 10% for three years starting in FY 2021, and recommended revenue adjustments of 7% for three years starting in FY 2027 and 6% for three years starting in FY 2033. Each three-year rate adjustment period is followed by three years with no rate increases. This three years on and three years off pattern can be seen in Figure 8.

**Figure 8: Recommended Wastewater Revenue Adjustments**



After reviewing the District’s revenue requirements, reserve policies, capital planning schedule, and current revenues, a financial plan was developed to meet the following criteria:

- Positive net operating cash income each FY of the planning period
- Fully fund capital projects through Pay-As-You-Go (PAYGO) or cash on hand
- Establish and meet reserves targets through the majority of the study period

### CIP Adjustments

As discussed in Section 4.3, Raftelis worked closely with District Staff to adjust the CIP to reflect a measured multi-year approach and to more closely reflect the anticipated level of CIP funding. It is recommended that capital projects continue to be funded through rate revenues and reserves. While this requires a higher level of reserves, it will be more cost effective for the District in the long-term. Table 4-4 summarizes the CIP which has been inflated using capital inflationary factor of 2.8% from Table 3-2 to account for the decreased purchasing power of the dollar. No other adjustments were made to the projected CIP for the proposed financial plan.

### Recommended Reserves

Raftelis recommends establishing the reserves as outlined in the District’s “Resolution Number 2242 Reserve Fund Policy” and discussed above in Section 4.4. The proposed financial plan shows the District’s reserves dipping below the minimum reserve target in FY 2023 through FY 2027; however, this is due to the fact that the District is using its reserves to fund anticipated capital projects. Funds are built up in the years where capital projects are less than the average and used in the years where capital project costs are above average. This rise and fall of the reserve levels is typical of funding capital through reserves and the rate revenues will replenish the reserves through the proposed revenue adjustments beginning in FY 2027. Additionally, the reserve balance exceeds the minimum reserve target by FY 2028 in the proposed financial plan.

## **Proposed Financial Plan**

Under the proposed plan, the District will maintain a positive net income and will maintain a strong financial position. Table 4-5 summarizes the proposed financial plan (see Appendix A for a detailed financial plan)<sup>5</sup>. Figure 9 illustrates the projected operating position of the wastewater enterprise, where expenses and net cashflow are shown by stacked bars and the total revenues at both current rates and projected rates are shown by the horizontal trend lines. Figure 10 summarizes the projected CIP and its funding sources (100% PAYGO). Figure 11 displays the ending total reserve balance for the wastewater enterprise, inclusive of operating, capital, and emergency funds. The horizontal trend line indicates the minimum target reserve balance and the bars indicate ending reserve balance. No new debt is proposed to be issued as part of the proposed 20-year financial plan.

---

<sup>5</sup> May be slight differences due to rounding.

**Table 4-5: Proposed Wastewater Financial Plan**

Line #		FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1	<b>Revenues</b>						
2	Rate Revenues	\$9,784,504	\$9,804,073	\$9,823,681	\$10,827,662	\$11,934,249	\$13,153,929
3	Other Revenues	\$210,302	\$218,694	\$227,910	\$237,539	\$247,601	\$258,114
4	<b>Total Revenues</b>	<b>\$9,994,806</b>	<b>\$10,022,767</b>	<b>\$10,051,591</b>	<b>\$11,065,201</b>	<b>\$12,181,849</b>	<b>\$13,412,043</b>
5	<b>Less: Expenditures</b>						
6	Total Operating Expenditures	\$6,570,196	\$6,801,673	\$7,043,157	\$7,294,430	\$7,555,922	\$7,828,083
7	<b>Total Expenditures</b>	<b>\$6,570,196</b>	<b>\$6,801,673</b>	<b>\$7,043,157</b>	<b>\$7,294,430</b>	<b>\$7,555,922</b>	<b>\$7,828,083</b>
8	<b>Net Cashflow (Line 4 – Line 7)</b>	<b>\$3,424,610</b>	<b>\$3,221,094</b>	<b>\$3,008,434</b>	<b>\$3,770,771</b>	<b>\$4,625,927</b>	<b>\$5,583,959</b>
9	<b>Operating Reserve</b>						
10	Beginning Balance	\$2,224,673	\$2,244,552	\$2,324,242	\$2,407,162	\$2,493,454	\$2,583,267
11	Net Cashflow (Line 8)	\$3,424,610	\$3,221,094	\$3,008,434	\$3,770,771	\$4,625,927	\$5,583,959
12	Investment Income	\$61,070	\$22,844	\$23,657	\$24,503	\$25,384	\$26,300
13	Transfers In/Out - Capital Replacement Reserve	(\$3,465,801)	(\$3,164,248)	(\$2,949,171)	(\$3,708,981)	(\$4,561,497)	(\$5,516,771)
14	<b>Ending Balance</b>	<b>\$3,424,610</b>	<b>\$3,221,094</b>	<b>\$3,008,434</b>	<b>\$3,770,771</b>	<b>\$4,625,927</b>	<b>\$2,676,756</b>
15	<b>Capital Replacement Reserve</b>						
16	Beginning Balance	\$20,531,522	\$17,369,634	\$14,999,182	\$11,931,261	\$9,390,412	\$8,415,680
17	Transfers - Operating Reserve (Line 13)	\$3,465,801	\$3,164,248	\$2,949,171	\$3,708,981	\$4,561,497	\$5,516,771
18	Transfers - Capital Improvement Reserve	\$645,049	\$0	\$0	\$0	\$0	\$0
19	Capacity Fees	\$400,600	\$228,100	\$228,556	\$229,013	\$229,471	\$229,930
20	Property Taxes	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000
21	Encinitas Capital	\$210,800	\$35,203	\$469,811	\$9,742	\$9,742	\$895,342
22	Capital Projects (Table 4-4)	(\$9,055,942)	(\$6,795,164)	(\$7,654,481)	(\$7,367,395)	(\$6,603,237)	(\$9,874,734)
23	Capital Services Expenses	(\$681,127)	(\$839,682)	(\$870,631)	(\$902,798)	(\$936,235)	(\$970,995)
24	Investment Income	\$137,812	\$161,467	\$134,275	\$106,231	\$88,654	\$71,496
25	Automatic Transfers – Emergency (Line 30)	\$115,118	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377
26	<b>Ending Balance</b>	<b>\$17,369,634</b>	<b>\$14,999,182</b>	<b>\$11,931,261</b>	<b>\$9,390,412</b>	<b>\$8,415,680</b>	<b>\$5,958,867</b>
27	<b>Emergency Reserve</b>						
28	Beginning Balance	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000
29	Investment Income (Interest)	\$115,118	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377
30	Automatic Transfers – Capital Replacement Reserve	(\$115,118)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)
31	<b>Ending Balance</b>	<b>\$7,500,000</b>	<b>\$7,500,000</b>	<b>\$7,500,000</b>	<b>\$7,500,000</b>	<b>\$7,500,000</b>	<b>\$7,500,000</b>

Figure 9: Operating Financial Position with Projected Revenue Adjustments

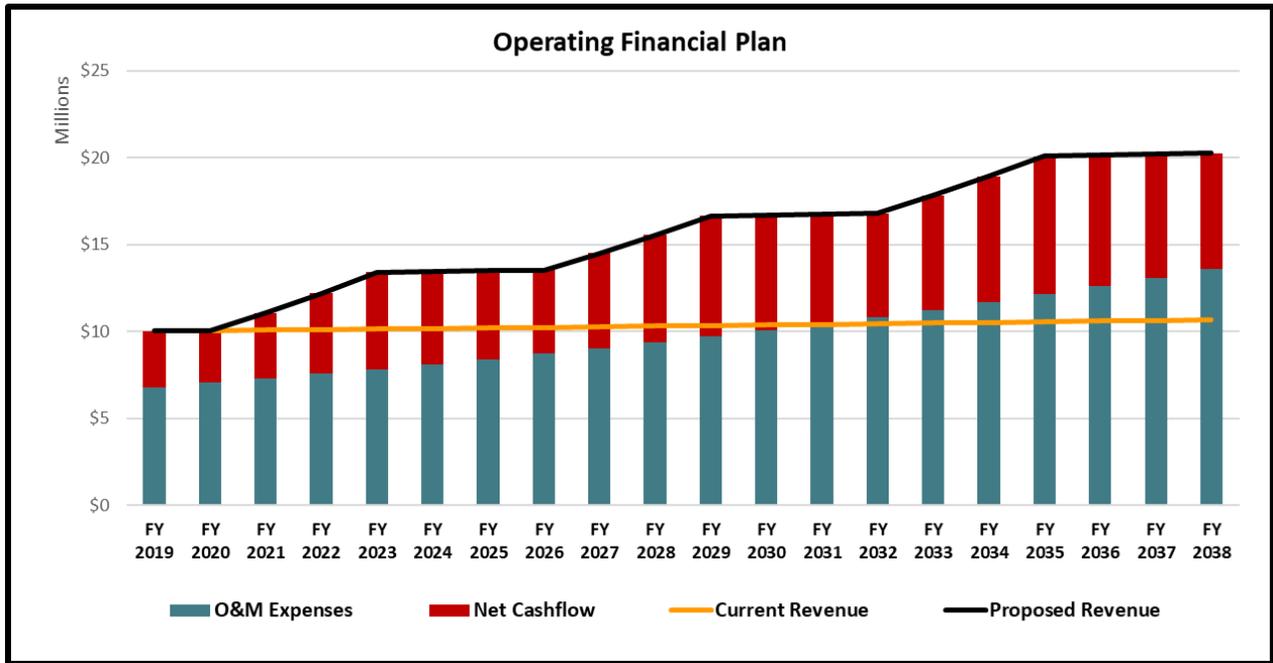
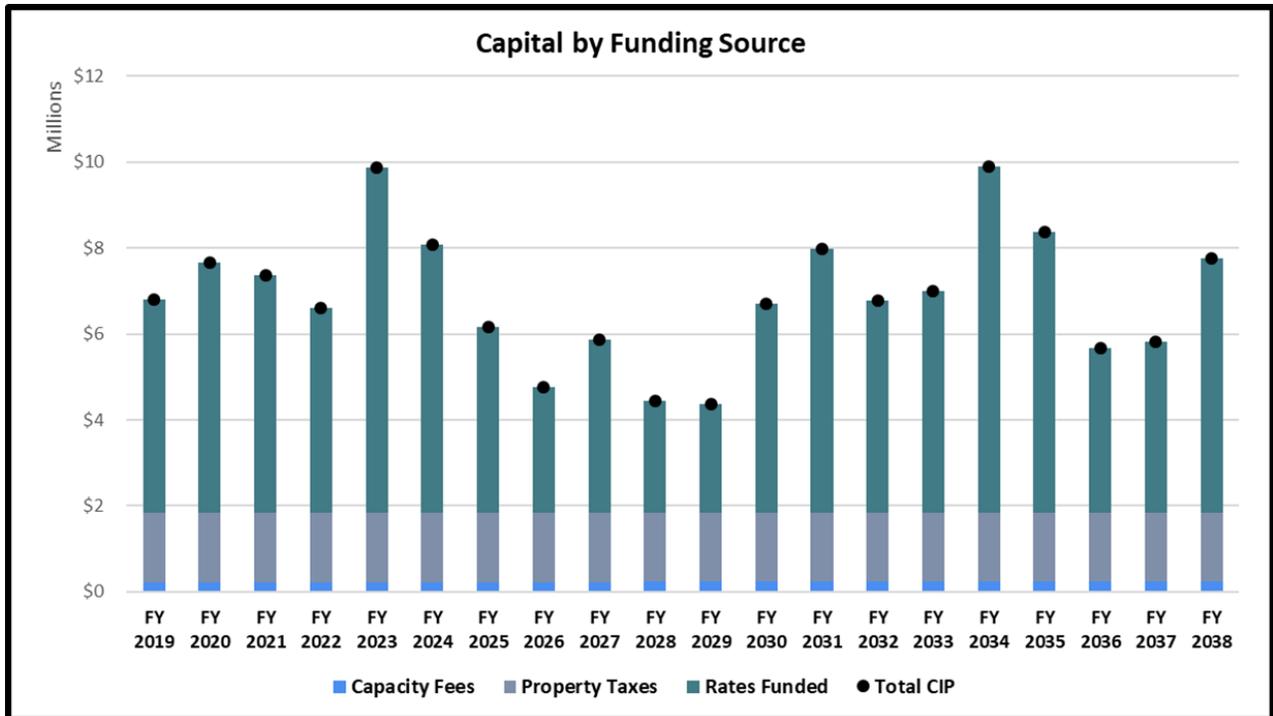
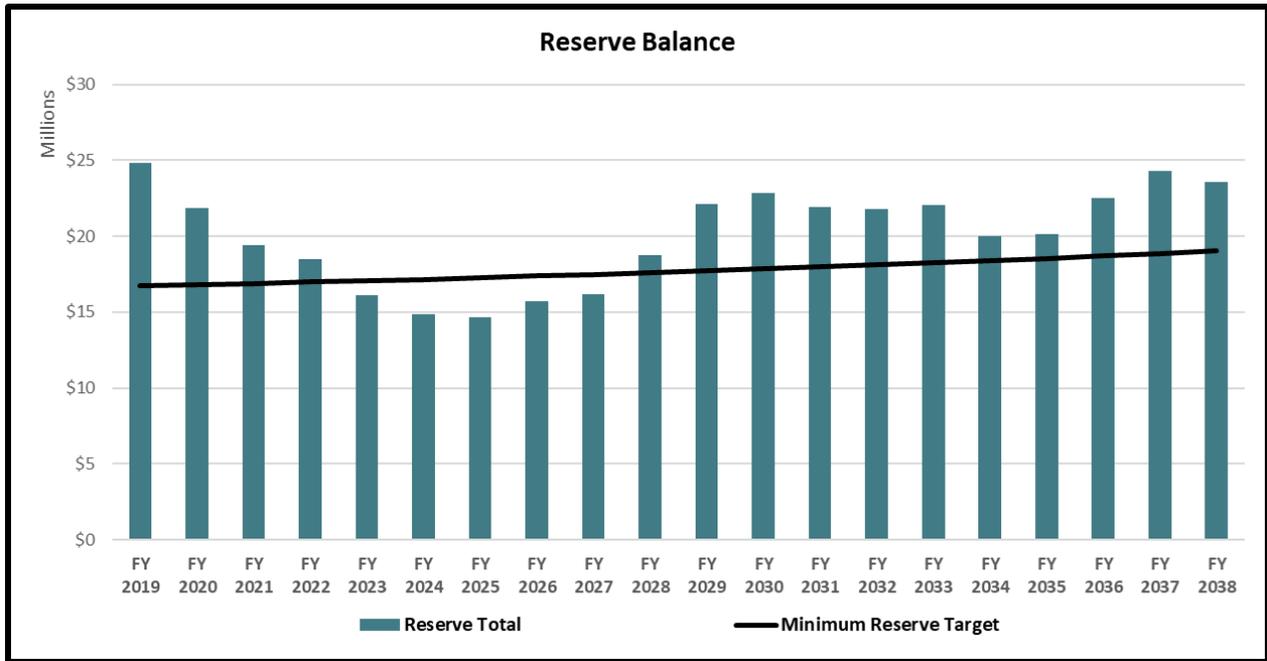


Figure 10: Projected Wastewater Capital Improvement Plan and Funding Source



**Figure 11: Projected Ending Wastewater Reserves**



## 4.7. Proposed Rates

Table 4-6 shows proposed monthly service charge per EDU through FY 2023. The existing rate structure and approach of three years of rate adjustments followed by three years of no rate adjustments are maintained by the financial plan. The proposed rate adjustments of 10% begin in FY 2021. In addition to the proposed rates adjustments, the financial plan recommends revenue adjustments of 7% beginning in FY 2027 and 6% adjustments beginning in FY 2033. It should be noted that District staff will update the financial plan model on an annual basis and will evaluate whether the full revenue adjustments are required. All rates are rounded up to the nearest penny.

**Table 4-6: Proposed Monthly Service Charge (\$ / EDU)**

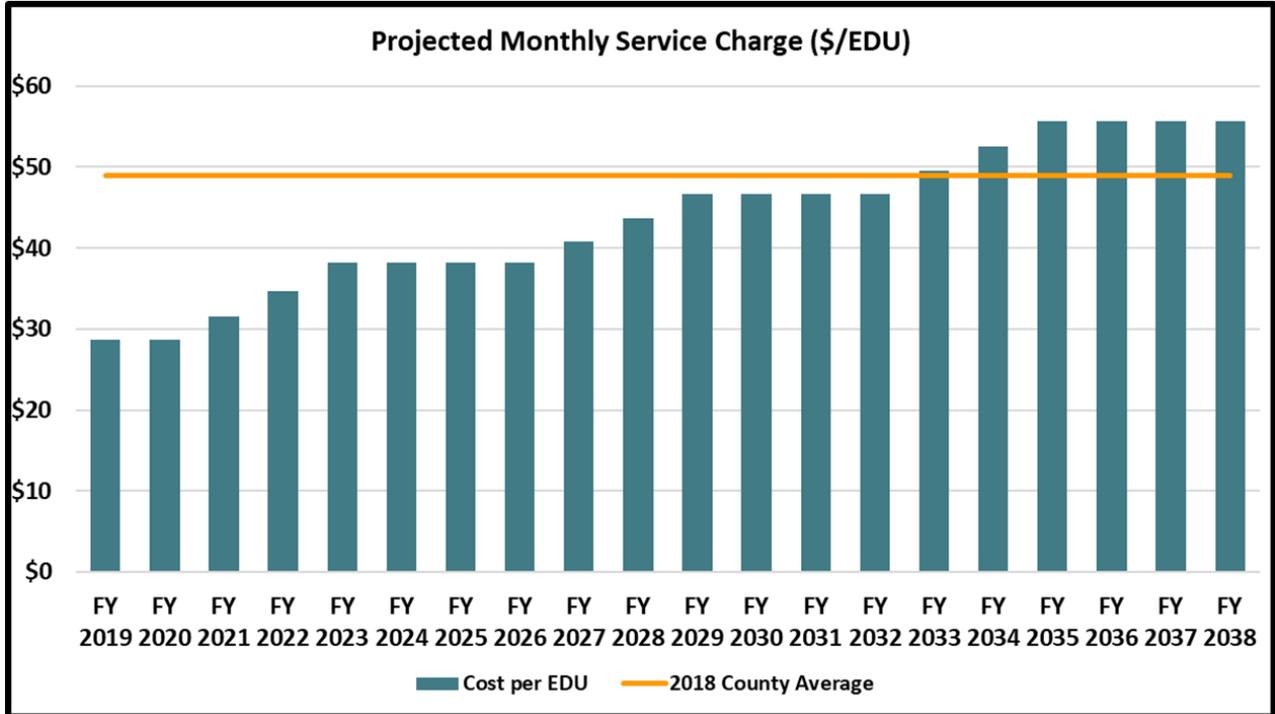
	FY 2018	FY 2019	FY 2020	Proposed FY 2021	Proposed FY 2022	Proposed FY 2023
Revenue Adjustment	0%	0%	0%	10%	10%	10%
Monthly Service Charge per EDU	\$28.64	\$28.64	\$28.64	\$31.50	\$34.65	\$38.12
Yearly Service Charge per EDU	\$343.68	\$343.68	\$343.68	\$378.05	\$415.85	\$457.44

## 4.8. Rate Comparison

Figure 12 shows the projected monthly service charge per EDU for the 20-year planning period taking into account the recommended revenue adjustments outlined above in Section 4.6 and shown in Figure 8. The orange line on the graph is the average San Diego County rate per EDU of \$48.97. This data was provided by the District from their recent Sewer Rate Survey of Cities and Special Districts in San Diego County. Even with the recommended revenue adjustments, the District’s monthly service charge per EDU is well

below the county average and does not exceed the average until FY 2033. Additionally, by the time the District's monthly service charge exceeds today's county average, it is very likely that the county average will have increased as well and, therefore, the District's service charge will continue to be below average.

**Figure 12: Projected Monthly Service Charge (\$ / EDU)**



## 5. Recycled Water Utility – Financial Plan

This section describes the current recycled water enterprise financial plan. The review involves analysis of projected annual operating revenues under the current rates, O&M expenses, capital expenditures, transfers between funds, and reserve requirements.

The District currently has a contract with the City of Carlsbad to provide recycled water for irrigation of the Omni La Costa Resort & Spa’s golf course. The current contract is set to expire in September of 2018.

### 5.1. Revenue

Using revenue assumptions from Table 3-1, Raftelis projected the revenues for the recycled water enterprise<sup>6</sup>. Table 5-1 summarizes the rate revenue consisting of the recycled water sales revenues and miscellaneous non-operating revenues. These other revenues are not available after FY 2018.

**Table 5-1: Projected Recycled Water Revenues**

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Recycled Water Utility Revenues						
<b>Recycled Water Sales</b>	\$272,000	\$334,100	\$334,100	\$340,782	\$347,598	\$354,550
<b>Misc. Non-Operating Revenues</b>	\$75,600	\$0	\$0	\$0	\$0	\$0
<b>Total Revenues</b>	<b>\$347,600</b>	<b>\$334,100</b>	<b>\$334,100</b>	<b>\$340,782</b>	<b>\$347,598</b>	<b>\$354,550</b>

### 5.2. O&M Expenses

The District’s FY 2018 budget values and the assumed inflation factors (Table 3-2) for the study period were used as the basis for projecting O&M costs beyond FY 2018. Table 5-2 shows the total projected O&M expenses for FY 2018 through FY 2023<sup>7</sup>.

<sup>6</sup> Only five years of the Study Period are shown here, however, Raftelis projected the revenues through FY 2038.

<sup>7</sup> Only five years of the Study Period are shown here, however, Raftelis projected the revenues through FY 2038.

**Table 5-2: Projected Recycled Water O&M Expenses**

Expenditures	Escalation Factor	FY 2018	FY 2019	FY 2020	FY2021	FY 2022	FY 2023
Salaries	Salary	\$22,087	\$23,081	\$24,120	\$25,205	\$26,339	\$27,524
Employee Benefits	Benefits	\$13,287	\$13,951	\$14,649	\$15,381	\$16,150	\$16,958
Office Expense	General	\$3,300	\$3,366	\$3,433	\$3,502	\$3,572	\$3,643
Operating Supplies	General	\$44,000	\$44,880	\$45,778	\$46,693	\$47,627	\$48,580
Professional Services	Salary	\$12,500	\$13,063	\$13,650	\$14,265	\$14,906	\$15,577
Repairs & Maintenance	General	\$22,500	\$22,950	\$23,409	\$23,877	\$24,355	\$24,842
Monitoring & Permits	General	\$34,200	\$34,884	\$35,582	\$36,293	\$37,019	\$37,760
Utilities	Utilities	\$17,500	\$18,375	\$19,294	\$20,258	\$21,271	\$22,335
Admin O/H Allocated	General	\$31,109	\$35,880	\$37,411	\$39,011	\$40,682	\$42,427
<b>Total Operating Expenses</b>		<b>\$200,483</b>	<b>\$210,430</b>	<b>\$217,326</b>	<b>\$224,486</b>	<b>\$231,922</b>	<b>\$239,646</b>

### 5.3. Capital Improvement Plan

The District provided the projected capital expenditures by project to address future recycled water capital improvement project (CIP) needs. Raftelis worked closely with District staff to adjust the CIP to reflect a smoothed, measured multi-year approach. This was done to mitigate the impact to reserve balances. Table 5-3 summarizes the anticipated CIP, the cumulative inflationary factor<sup>8</sup>, and the resulting total anticipated CIP costs. Raftelis indexed the capital expenditures by a 2.8% inflationary compounding rate from Table 3-2 to account for increased construction costs in future years.

**Table 5-3: Recycled Water Utility Capital Improvement Plan**

Line #		FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1	Anticipated CIP Projects	\$867,300	\$832,040	\$789,360	\$789,360	\$789,360	\$789,360
2	Cumulative Inflationary Factor	100%	103%	106%	109%	112%	115%
3	<b>Inflated CIP</b>	<b>\$867,300</b>	<b>\$855,337</b>	<b>\$834,183</b>	<b>\$857,540</b>	<b>\$881,551</b>	<b>\$906,234</b>

### 5.4. Reserve Requirements

For FY 2018, the District’s projected total beginning reserve balance for the recycled water enterprise is approximately \$1.9 million.

<sup>8</sup> Note, the cumulative inflationary factors used in the Rate Model were determined based on an annual inflationary factor of 2.8% and were not rounded to the nearest whole percentage. There may be differences due to rounding.

**Recycled Water Reserve** – The recycled water reserve funds capital improvements and replacement of water recycling facilities. Additionally, it funds operating expenses when there is a deficit of recycled water sales revenue to operating expenses.

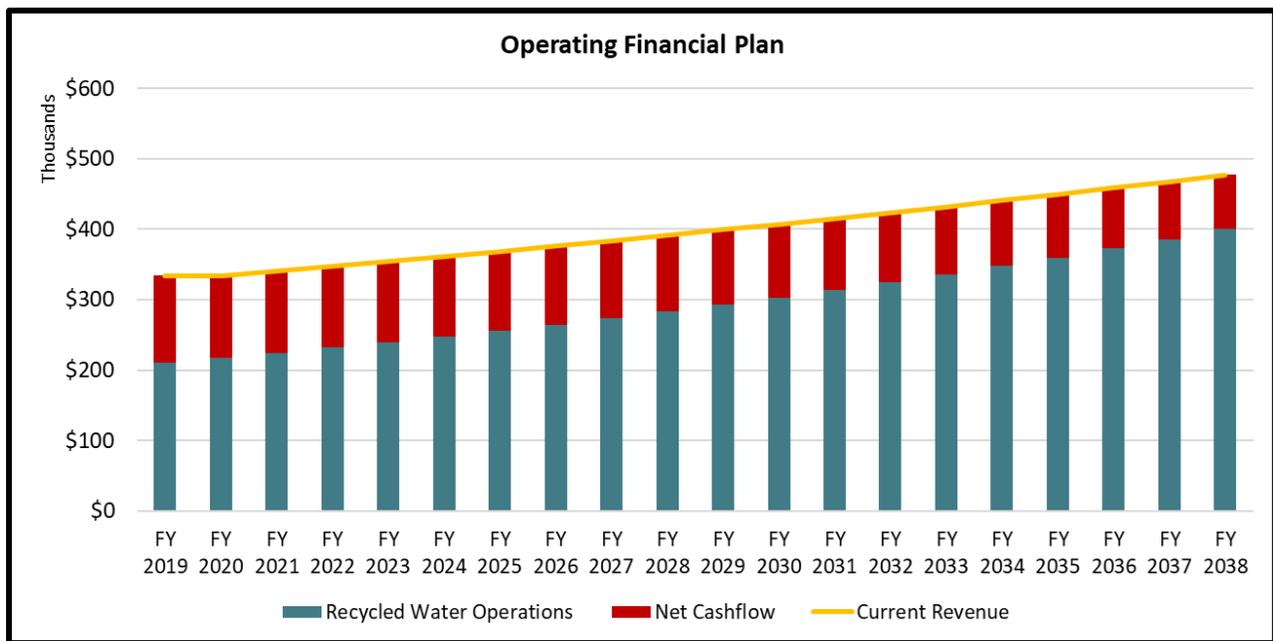
## 5.5. Financial Outlook

Based on the District’s revenue requirements, reserve policies, capital planning schedule, and current revenues, the existing recycled water rates will:

- Result in a positive net operating cash income of approximately \$147,117 for FY 2018
- Fully fund capital projects through PAYGO<sup>9</sup> for FY 2018 through FY 2019
- Be unable to meet the minimum reserve targets during the study period
- Without additional revenue the enterprise will fully deplete reserves by **FY 2020** and will no longer be able to fully fund planned capital projects.

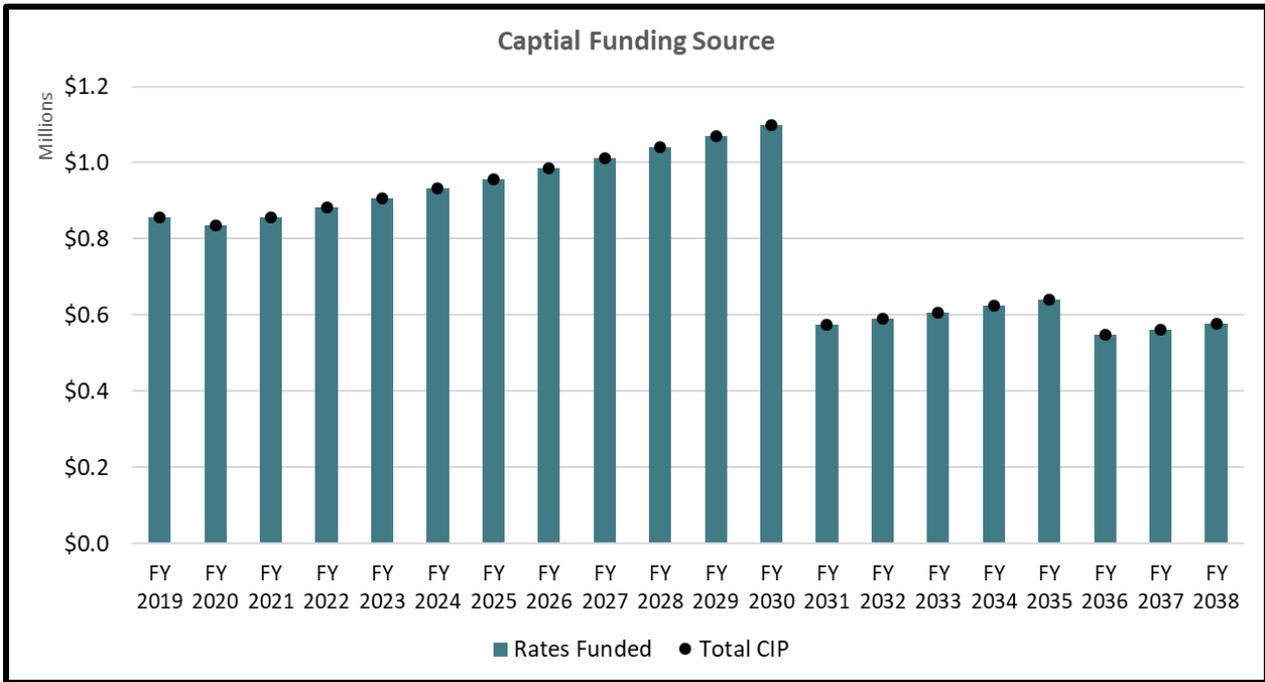
Figure 13 illustrates the operating position of the recycled water enterprise, where expenses and net cashflow are shown by stacked bars and the total revenues at current rates are shown by the horizontal orange trend line. Figure 14 summarizes the smoothed CIP and its funding sources by fiscal year (currently 100% PAYGO). Figure 15 displays the ending total reserve balance by FY for the recycled water enterprise.

**Figure 13: Recycled Water Operating Financial Position at Current Rates**

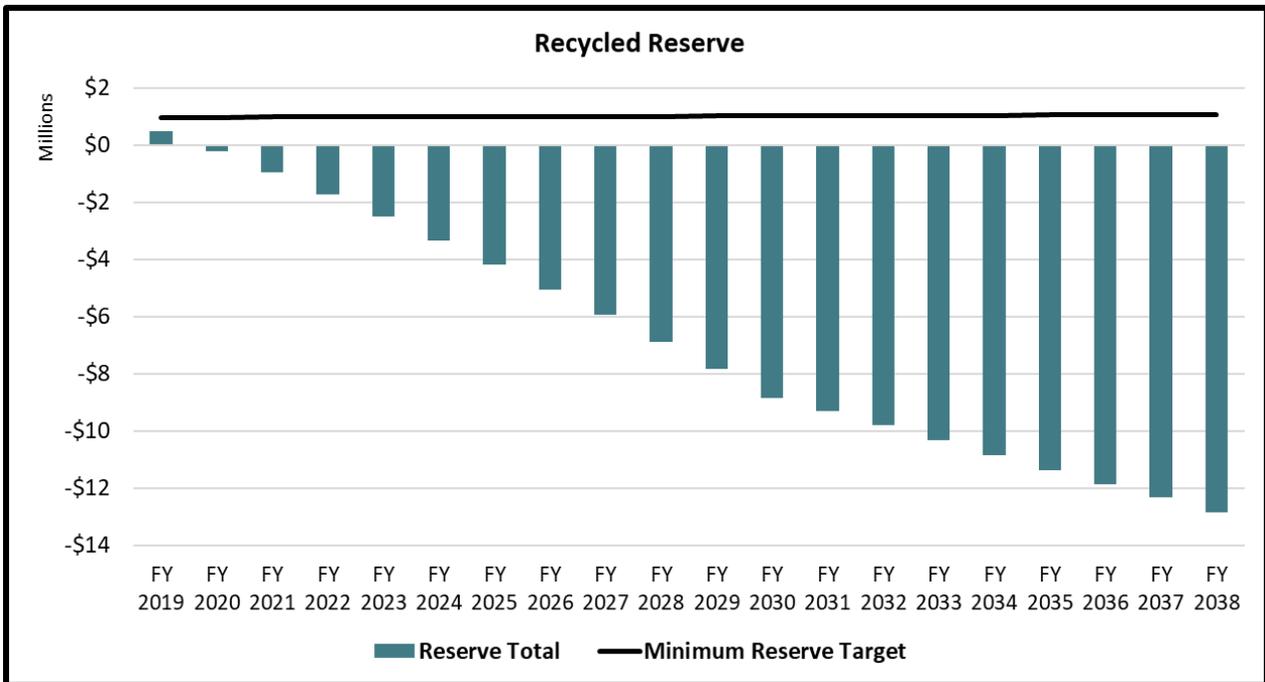


<sup>9</sup> Pay-As-You-Go or PAYGO means capital projects will be funded through cash on hand (rates or reserves) as opposed to issuing debt

**Figure 14: Recycled Water Capital Improvement Plan and Funding Source**



**Figure 15: Projected Ending Recycled Water Reserves**



APPENDIX A:  
**Detailed Financial Plan**

# Wastewater Enterprise Detailed Financial Plan

## Net Cashflow FY 2018 to FY 2028

Revenues	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Projected Rate Revenue</b>	\$9,784,504	\$9,804,073	\$9,823,681	\$10,827,662	\$11,934,249	\$13,153,929	\$13,180,237	\$13,206,597	\$13,233,010	\$14,187,640	\$15,211,136
<b>Other Revenues</b>											
Misc Non Op R	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Development Services	\$118,102	\$123,425	\$128,988	\$134,802	\$140,877	\$147,227	\$153,863	\$160,798	\$168,046	\$175,620	\$183,536
Encinitas Operating	\$87,200	\$90,269	\$93,922	\$97,738	\$101,723	\$105,887	\$110,236	\$114,781	\$119,530	\$124,492	\$129,678
<b>Subtotal Other Revenues</b>	<b>\$210,302</b>	<b>\$218,694</b>	<b>\$227,910</b>	<b>\$237,539</b>	<b>\$247,601</b>	<b>\$258,114</b>	<b>\$269,099</b>	<b>\$280,579</b>	<b>\$292,575</b>	<b>\$305,112</b>	<b>\$318,214</b>
<b>Total Revenues</b>	<b>\$9,994,806</b>	<b>\$10,022,767</b>	<b>\$10,051,591</b>	<b>\$11,065,201</b>	<b>\$12,181,849</b>	<b>\$13,412,043</b>	<b>\$13,449,336</b>	<b>\$13,487,176</b>	<b>\$13,525,586</b>	<b>\$14,492,752</b>	<b>\$15,529,350</b>
Expenditures	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Operating Expenses by Department</b>											
Development Services	\$118,102	\$123,425	\$128,988	\$134,802	\$140,877	\$147,227	\$153,863	\$160,798	\$168,046	\$175,620	\$183,536
Leucadia Operations	\$4,154,361	\$4,327,868	\$4,507,542	\$4,695,184	\$4,891,157	\$5,095,845	\$5,309,649	\$5,532,986	\$5,766,295	\$6,010,036	\$6,264,688
Encina Operating	\$1,861,800	\$1,899,036	\$1,937,017	\$1,975,757	\$2,015,272	\$2,055,578	\$2,096,689	\$2,138,623	\$2,181,395	\$2,225,023	\$2,269,524
Batiquitos Operations	\$435,933	\$451,344	\$469,610	\$488,688	\$508,616	\$529,433	\$551,182	\$573,905	\$597,648	\$622,460	\$648,389
<b>Total Operating Expenses</b>	<b>\$6,570,196</b>	<b>\$6,801,673</b>	<b>\$7,043,157</b>	<b>\$7,294,430</b>	<b>\$7,555,922</b>	<b>\$7,828,083</b>	<b>\$8,111,382</b>	<b>\$8,406,312</b>	<b>\$8,713,385</b>	<b>\$9,033,139</b>	<b>\$9,366,138</b>
<b>Debt Service</b>											
Existing Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Proposed Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Debt Service</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Expenses</b>	<b>\$6,570,196</b>	<b>\$6,801,673</b>	<b>\$7,043,157</b>	<b>\$7,294,430</b>	<b>\$7,555,922</b>	<b>\$7,828,083</b>	<b>\$8,111,382</b>	<b>\$8,406,312</b>	<b>\$8,713,385</b>	<b>\$9,033,139</b>	<b>\$9,366,138</b>
<b>Net Cashflow</b>	<b>\$3,424,610</b>	<b>\$3,221,094</b>	<b>\$3,008,434</b>	<b>\$3,770,771</b>	<b>\$4,625,927</b>	<b>\$5,583,959</b>	<b>\$5,337,954</b>	<b>\$5,080,865</b>	<b>\$4,812,201</b>	<b>\$5,459,613</b>	<b>\$6,163,213</b>

## Net Cashflow FY 2029 to FY 2038

Revenues	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038
<b>Projected Rate Revenue</b>	\$16,308,468	\$16,341,084	\$16,373,767	\$16,406,514	\$17,425,687	\$18,508,171	\$19,657,898	\$19,697,214	\$19,736,608	\$19,776,082
<b>Other Revenues</b>										
Misc Non Op R	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Development Services	\$191,809	\$200,455	\$209,490	\$218,933	\$228,802	\$239,115	\$249,894	\$261,158	\$272,931	\$285,234
Encinitas Operating	\$135,098	\$140,763	\$146,685	\$152,876	\$159,348	\$166,116	\$173,191	\$180,590	\$188,328	\$196,420
<b>Subtotal Other Revenues</b>	<b>\$331,907</b>	<b>\$346,218</b>	<b>\$361,176</b>	<b>\$376,809</b>	<b>\$393,150</b>	<b>\$410,231</b>	<b>\$428,085</b>	<b>\$446,749</b>	<b>\$466,258</b>	<b>\$486,654</b>
<b>Total Revenues</b>	<b>\$16,640,375</b>	<b>\$16,687,303</b>	<b>\$16,734,942</b>	<b>\$16,783,324</b>	<b>\$17,818,837</b>	<b>\$18,918,402</b>	<b>\$20,085,983</b>	<b>\$20,143,963</b>	<b>\$20,202,867</b>	<b>\$20,262,735</b>
Expenditures	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038
<b>Operating Expenses by Department</b>										
Development Services	\$191,809	\$200,455	\$209,490	\$218,933	\$228,802	\$239,115	\$249,894	\$261,158	\$272,931	\$285,234
Leucadia Operations	\$6,530,754	\$6,808,761	\$7,099,260	\$7,402,826	\$7,720,065	\$8,051,607	\$8,398,114	\$8,760,280	\$9,138,827	\$9,534,517
Encina Operating	\$2,314,914	\$2,361,213	\$2,408,437	\$2,456,606	\$2,505,738	\$2,555,852	\$2,606,969	\$2,659,109	\$2,712,291	\$2,766,537
Batiquitos Operations	\$675,490	\$703,817	\$733,427	\$764,381	\$796,742	\$830,578	\$865,956	\$902,951	\$941,639	\$982,099
<b>Total Operating Expenses</b>	<b>\$9,712,968</b>	<b>\$10,074,246</b>	<b>\$10,450,614</b>	<b>\$10,842,746</b>	<b>\$11,251,347</b>	<b>\$11,677,153</b>	<b>\$12,120,934</b>	<b>\$12,583,498</b>	<b>\$13,065,688</b>	<b>\$13,568,386</b>
<b>Debt Service</b>										
Existing Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Proposed Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Debt Service</b>	<b>\$0</b>									
<b>Total Expenses</b>	<b>\$9,712,968</b>	<b>\$10,074,246</b>	<b>\$10,450,614</b>	<b>\$10,842,746</b>	<b>\$11,251,347</b>	<b>\$11,677,153</b>	<b>\$12,120,934</b>	<b>\$12,583,498</b>	<b>\$13,065,688</b>	<b>\$13,568,386</b>
<b>Net Cashflow</b>	<b>\$6,927,407</b>	<b>\$6,613,057</b>	<b>\$6,284,328</b>	<b>\$5,940,577</b>	<b>\$6,567,490</b>	<b>\$7,241,249</b>	<b>\$7,965,049</b>	<b>\$7,560,465</b>	<b>\$7,137,179</b>	<b>\$6,694,349</b>

## Scheduled Capital Improvement Plan FY 2018 to FY 2028

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
FY 2016 Gravity Pipeline Rehab.	\$92,903										
Orchard Wood Rd. Sewer Rehab.		\$194,700									
FY17/FY18 CIPP Project	\$800,000										
La Costa Alteration and Quebrada	\$475,000										
Pipeline Repair Priority List - CIPP			\$675,000								
Pipeline Repair Priority List - Open Trench				\$675,000							
Pipeline Repair Priority List - CIPP					\$675,000						
Pipeline Repair Priority List - Open Trench						\$675,000					
Drainage Basin #1 VCP Line/Replace							\$762,500	\$762,500	\$762,500	\$762,500	\$762,500
Misc. Pipeline/Manhole Rehab.	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000
Buildout-Capacity Based Projects											
<i>General Pipeline and Manhole Replacement Project</i>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Additional Pipeline and Manhole Projects</i>											
Asset Management Plan Update	\$100,000					\$125,000					\$150,000
HQ Building Metering Switchboard Install.	\$69,918										
Lateral Repl./Backflow Preventer Prog.	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000
Avocado PS Upgrade Project			\$452,250								
Batiquitos Generator Replacement			\$700,000								
Batiquitos Pump Station Rehabilitation						\$4,000,000					
Diana PS Upgrade Project			\$600,750								
Encinitas Estates PS Replacement		\$1,195,000									
La Costa Pump Station Replacement											
Leucadia PS Rehabilitation	\$3,670,000										
Rancho Verde Improvements				\$371,250							
Village Park No. 5 PS Replacement	\$814,587										
Village Park No. 7 PS Rehab Project					\$625,000						
L07 Meter Relocation		\$20,000									
Pump Station Condition Assessment		\$30,000									
Leucadia (L1) West Section Replacement	\$100,000										
Force Main Corrosion Control	\$35,000										
L1 Final Replacement				\$2,880,000							
L2 Metallic Section Evaluation											
B2 Metallic Section Evaluation									\$100,000		
B3 Metallic Section Evaluation									\$100,000		
B3 Rehab/Replace Project - Phase 1		\$115,000	\$1,378,000								
B3 Rehab/Replace Project - Phase 2							\$1,992,000				
<i>General Pump Station Projects</i>	\$0	\$1,670,750	\$0	\$576,000	\$1,601,125	\$0	\$917,625	\$1,913,625	\$403,450	\$603,450	\$603,450
Avocado Emergency Overflow			\$348,750								
Diana Emergency Generator		\$350,000									
Diana Emergency Overflow					\$900,000						
Poinsettia Station Gravity Pipeline Project (Lani)	\$714,400										
General Lanikai Replacement (District Share)	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
General Occidental Replacement (District Share)	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000
<b>District Share of Encina CIP</b>	<b>\$1,875,134</b>	<b>\$2,725,632</b>	<b>\$2,779,434</b>	<b>\$1,970,388</b>	<b>\$1,802,556</b>	<b>\$3,492,216</b>	<b>\$2,857,554</b>	<b>\$2,095,758</b>	<b>\$2,137,716</b>	<b>\$2,907,240</b>	<b>\$1,540,806</b>
<b>Total Wastewater Programs</b>	<b>\$9,055,942</b>	<b>\$6,610,082</b>	<b>\$7,243,184</b>	<b>\$6,781,638</b>	<b>\$5,912,681</b>	<b>\$8,601,216</b>	<b>\$6,838,679</b>	<b>\$5,080,883</b>	<b>\$3,812,666</b>	<b>\$4,582,190</b>	<b>\$3,365,756</b>

### Scheduled Capital Improvement Plan FY 2029 to FY 2037<sup>10</sup>

	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037
Drainage Basin #1 VCP Line/Replace	\$762,500	\$762,500	\$762,500						
Misc. Pipeline/Manhole Rehab.	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000	\$163,000
Buildout-Capacity Based Projects									
<i>General Pipeline and Manhole Replacement Project</i>	\$0	\$0	\$0	\$550,790	\$550,790	\$550,790	\$550,790	\$550,790	\$550,790
<i>Additional Pipeline and Manhole Projects</i>									
Asset Management Plan Update					\$175,000				
Lateral Repl./Backflow Preventer Prog.	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000
La Costa Pump Station Replacement							\$2,835,000		
<i>General Pump Station Projects</i>	\$603,450	\$2,204,575	\$2,958,825	\$2,197,950	\$2,041,200	\$3,954,825	\$0	\$1,047,600	\$1,047,600
General Lanikai Replacement (District Share)	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
General Occidental Replacement (District Share)	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000	\$34,000
<b>District Share of Encina CIP</b>	<b>\$1,540,806</b>								
<b>Total Wastewater Programs</b>	<b>\$3,215,756</b>	<b>\$4,816,881</b>	<b>\$5,571,131</b>	<b>\$4,598,546</b>	<b>\$4,616,796</b>	<b>\$6,355,421</b>	<b>\$5,235,596</b>	<b>\$3,448,196</b>	<b>\$3,448,196</b>

<sup>10</sup> Capital plan provided through FY 2037, model assumed a 10-year average CIP for FY 2038

## Reserves FY 2018 to FY 2028

Operating Reserve	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Beginning Balance</b>	\$2,224,673	\$2,244,552	\$2,324,242	\$2,407,162	\$2,493,454	\$2,583,267	\$2,676,756	\$2,774,083	\$2,875,417	\$2,980,936	\$3,090,825
Transfers In (Net Cashflow)	\$3,424,610	\$3,221,094	\$3,008,434	\$3,770,771	\$4,625,927	\$5,583,959	\$5,337,954	\$5,080,865	\$4,812,201	\$5,459,613	\$6,163,213
Investment Income	\$61,070	\$22,844	\$23,657	\$24,503	\$25,384	\$26,300	\$27,254	\$28,247	\$29,282	\$30,359	\$31,481
Transfers In/Out - Capital Replace Res.	(\$3,465,801)	(\$3,164,248)	(\$2,949,171)	(\$3,708,981)	(\$4,561,497)	(\$5,516,771)	(\$5,267,881)	(\$5,007,778)	(\$4,735,964)	(\$5,380,082)	(\$6,080,239)
<b>Ending Balance</b>	<b>\$2,244,552</b>	<b>\$2,324,242</b>	<b>\$2,407,162</b>	<b>\$2,493,454</b>	<b>\$2,583,267</b>	<b>\$2,676,756</b>	<b>\$2,774,083</b>	<b>\$2,875,417</b>	<b>\$2,980,936</b>	<b>\$3,090,825</b>	<b>\$3,205,279</b>
O&M Reserve Target	\$3,400,837	\$3,521,578	\$3,647,215	\$3,777,961	\$3,914,042	\$4,055,691	\$4,203,156	\$4,356,692	\$4,516,570	\$4,683,069	\$4,856,484
Capital Replacement Reserve (R&R)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Beginning Balance</b>	\$20,531,522	\$17,369,634	\$14,999,182	\$11,931,261	\$9,390,412	\$8,415,680	\$5,958,867	\$4,557,292	\$4,315,923	\$5,220,881	\$5,572,005
Transfers - Operating Reserve	\$3,465,801	\$3,164,248	\$2,949,171	\$3,708,981	\$4,561,497	\$5,516,771	\$5,267,881	\$5,007,778	\$4,735,964	\$5,380,082	\$6,080,239
Transfers - Capital Improvement Res	\$645,049	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capacity Fees	\$400,600	\$228,100	\$228,556	\$229,013	\$229,471	\$229,930	\$230,390	\$230,851	\$231,313	\$231,775	\$232,239
Property Taxes	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000
Encinitas-Capital	\$210,800	\$35,203	\$469,811	\$9,742	\$9,742	\$895,342	\$450,770	\$9,742	\$54,022	\$9,742	\$9,742
Capital Projects	(\$9,055,942)	(\$6,795,164)	(\$7,654,481)	(\$7,367,395)	(\$6,603,237)	(\$9,874,734)	(\$8,071,066)	(\$6,164,403)	(\$4,755,254)	(\$5,875,044)	(\$4,436,227)
Capital Services Expenses	(\$681,127)	(\$839,682)	(\$870,631)	(\$902,798)	(\$936,235)	(\$970,995)	(\$1,007,131)	(\$1,044,703)	(\$1,083,771)	(\$1,124,396)	(\$1,166,645)
Investment Income	\$137,812	\$161,467	\$134,275	\$106,231	\$88,654	\$71,496	\$52,204	\$43,989	\$47,307	\$53,588	\$67,655
Transfers - Recycled	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	<b>\$17,254,516</b>	<b>\$14,923,805</b>	<b>\$11,855,884</b>	<b>\$9,315,035</b>	<b>\$8,340,303</b>	<b>\$5,883,490</b>	<b>\$4,481,915</b>	<b>\$4,240,546</b>	<b>\$5,145,504</b>	<b>\$5,496,628</b>	<b>\$7,959,008</b>
Automatic Transfers - Emergency	\$115,118	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377
<b>Ending Balance</b>	<b>\$17,369,634</b>	<b>\$14,999,182</b>	<b>\$11,931,261</b>	<b>\$9,390,412</b>	<b>\$8,415,680</b>	<b>\$5,958,867</b>	<b>\$4,557,292</b>	<b>\$4,315,923</b>	<b>\$5,220,881</b>	<b>\$5,572,005</b>	<b>\$8,034,385</b>
<b>Selected Target</b>	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554
Emergency Reserve	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Beginning Balance</b>	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000
Emergency Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Income (Interest)	\$115,118	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377
Subtotal	<b>\$7,615,118</b>	<b>\$7,575,377</b>									
Automatic Transfers - Capital Replace Res	(\$115,118)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)
<b>Ending Balance</b>	<b>\$7,500,000</b>										
Emergency Reserve Target	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000
<b>Total Ending Reserves</b>	<b>\$27,114,186</b>	<b>\$24,823,424</b>	<b>\$21,838,422</b>	<b>\$19,383,866</b>	<b>\$18,498,948</b>	<b>\$16,135,623</b>	<b>\$14,831,375</b>	<b>\$14,691,340</b>	<b>\$15,701,817</b>	<b>\$16,162,830</b>	<b>\$18,739,664</b>

## Reserves FY 2029 to FY 2038

Operating Reserve	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038
<b>Beginning Balance</b>	\$3,205,279	\$3,324,501	\$3,448,703	\$3,578,106	\$3,712,944	\$3,853,460	\$3,999,908	\$4,152,554	\$4,311,677	\$4,477,568
Transfers In (Net Cashflow)	\$6,927,407	\$6,613,057	\$6,284,328	\$5,940,577	\$6,567,490	\$7,241,249	\$7,965,049	\$7,560,465	\$7,137,179	\$6,694,349
Investment Income	\$32,649	\$33,866	\$35,134	\$36,455	\$37,832	\$39,267	\$40,762	\$42,321	\$43,946	\$45,640
Transfers In/Out - Capital Replace Res.	(\$6,840,834)	(\$6,522,722)	(\$6,190,059)	(\$5,842,194)	(\$6,464,807)	(\$7,134,068)	(\$7,853,165)	(\$7,443,663)	(\$7,015,235)	(\$6,567,026)
<b>Ending Balance</b>	<b>\$3,324,501</b>	<b>\$3,448,703</b>	<b>\$3,578,106</b>	<b>\$3,712,944</b>	<b>\$3,853,460</b>	<b>\$3,999,908</b>	<b>\$4,152,554</b>	<b>\$4,311,677</b>	<b>\$4,477,568</b>	<b>\$4,650,531</b>
O&M Reserve Target	\$5,037,123	\$5,225,307	\$5,421,373	\$5,625,673	\$5,838,576	\$6,060,467	\$6,291,749	\$6,532,844	\$6,784,193	\$7,046,259
Capital Replacement Reserve (R&R)	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038
<b>Beginning Balance</b>	\$8,034,385	\$11,321,660	\$11,912,780	\$10,853,956	\$10,599,981	\$10,699,713	\$8,504,999	\$8,476,960	\$10,696,765	\$12,288,629
Transfers - Operating Reserve	\$6,840,834	\$6,522,722	\$6,190,059	\$5,842,194	\$6,464,807	\$7,134,068	\$7,853,165	\$7,443,663	\$7,015,235	\$6,567,026
Transfers - Capital Improvement Res	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capacity Fees	\$232,703	\$233,169	\$233,635	\$234,102	\$234,571	\$235,040	\$235,510	\$235,981	\$236,453	\$236,926
Property Taxes	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000
Encinitas-Capital	\$9,742	\$9,742	\$9,742	\$9,742	\$9,742	\$9,742	\$9,742	\$9,742	\$9,742	\$0
Capital Projects	(\$4,357,198)	(\$6,709,394)	(\$7,977,262)	(\$6,768,994)	(\$6,986,142)	(\$9,886,308)	(\$8,372,382)	(\$5,668,498)	(\$5,827,216)	(\$7,760,690)
Capital Services Expenses	(\$1,210,586)	(\$1,256,290)	(\$1,303,832)	(\$1,353,289)	(\$1,404,743)	(\$1,458,278)	(\$1,513,984)	(\$1,571,951)	(\$1,632,277)	(\$1,695,062)
Investment Income	\$96,403	\$115,795	\$113,457	\$106,893	\$106,122	\$95,647	\$84,533	\$95,492	\$114,550	\$118,218
Transfers - Recycled	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$11,246,283</b>	<b>\$11,837,403</b>	<b>\$10,778,579</b>	<b>\$10,524,604</b>	<b>\$10,624,336</b>	<b>\$8,429,623</b>	<b>\$8,401,583</b>	<b>\$10,621,389</b>	<b>\$12,213,252</b>	<b>\$11,355,047</b>
Automatic Transfers - Emergency	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377
<b>Ending Balance</b>	<b>\$11,321,660</b>	<b>\$11,912,780</b>	<b>\$10,853,956</b>	<b>\$10,599,981</b>	<b>\$10,699,713</b>	<b>\$8,504,999</b>	<b>\$8,476,960</b>	<b>\$10,696,765</b>	<b>\$12,288,629</b>	<b>\$11,430,424</b>
<b>Selected Target</b>	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554	\$6,895,554
Emergency Reserve	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038
<b>Beginning Balance</b>	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000
Emergency Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Income (Interest)	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377	\$75,377
<b>Subtotal</b>	<b>\$7,575,377</b>									
Automatic Transfers - Capital Replace Res	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)	(\$75,377)
<b>Ending Balance</b>	<b>\$7,500,000</b>									
Emergency Reserve Target	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000
<b>Total Ending Reserves</b>	<b>\$22,146,161</b>	<b>\$22,861,483</b>	<b>\$21,932,062</b>	<b>\$21,812,925</b>	<b>\$22,053,174</b>	<b>\$20,004,908</b>	<b>\$20,129,514</b>	<b>\$22,508,442</b>	<b>\$24,266,196</b>	<b>\$23,580,954</b>

# Recycled Water Enterprise Financial Plan

## Net Cashflow FY 2018 to FY 2028

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Projected Recycled Rate Revenue</b>	\$272,000	\$334,100	\$334,100	\$340,782	\$347,598	\$354,550	\$361,641	\$368,873	\$376,251	\$383,776	\$391,451
<b>Total Revenues</b>	<b>\$347,600</b>	<b>\$334,100</b>	<b>\$334,100</b>	<b>\$340,782</b>	<b>\$347,598</b>	<b>\$354,550</b>	<b>\$361,641</b>	<b>\$368,873</b>	<b>\$376,251</b>	<b>\$383,776</b>	<b>\$391,451</b>
<b>Recycled Water Services Expenses</b>											
Salaries	\$22,087	\$23,081	\$24,120	\$25,205	\$26,339	\$27,524	\$28,763	\$30,057	\$31,410	\$32,823	\$34,300
Employee Benefits	\$13,287	\$13,951	\$14,649	\$15,381	\$16,150	\$16,958	\$17,806	\$18,696	\$19,631	\$20,612	\$21,643
Office Expense	\$3,300	\$3,366	\$3,433	\$3,502	\$3,572	\$3,643	\$3,716	\$3,791	\$3,866	\$3,944	\$4,023
Operating Supplies	\$44,000	\$44,880	\$45,778	\$46,693	\$47,627	\$48,580	\$49,551	\$50,542	\$51,553	\$52,584	\$53,636
Professional Services	\$12,500	\$13,063	\$13,650	\$14,265	\$14,906	\$15,577	\$16,278	\$17,011	\$17,776	\$18,576	\$19,412
Repairs & Maintenance	\$22,500	\$22,950	\$23,409	\$23,877	\$24,355	\$24,842	\$25,339	\$25,845	\$26,362	\$26,890	\$27,427
Monitoring & Permits	\$34,200	\$34,884	\$35,582	\$36,293	\$37,019	\$37,760	\$38,515	\$39,285	\$40,071	\$40,872	\$41,690
Utilities	\$17,500	\$18,375	\$19,294	\$20,258	\$21,271	\$22,335	\$23,452	\$24,624	\$25,855	\$27,148	\$28,506
Admin O/H Allocated	\$31,109	\$35,880	\$37,411	\$39,011	\$40,682	\$42,427	\$44,251	\$46,157	\$48,148	\$50,228	\$52,402
<b>Total Recycled Water Services Expenses</b>	<b>\$200,483</b>	<b>\$210,430</b>	<b>\$217,326</b>	<b>\$224,486</b>	<b>\$231,922</b>	<b>\$239,646</b>	<b>\$247,671</b>	<b>\$256,008</b>	<b>\$264,673</b>	<b>\$273,678</b>	<b>\$283,039</b>
<b>Debt Service</b>											
Existing Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Proposed Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Debt Service</b>	<b>\$0</b>										
<b>Total Expenses</b>	<b>\$200,483</b>	<b>\$210,430</b>	<b>\$217,326</b>	<b>\$224,486</b>	<b>\$231,922</b>	<b>\$239,646</b>	<b>\$247,671</b>	<b>\$256,008</b>	<b>\$264,673</b>	<b>\$273,678</b>	<b>\$283,039</b>
<b>Net Cashflow</b>	<b>\$147,117</b>	<b>\$123,670</b>	<b>\$116,774</b>	<b>\$116,296</b>	<b>\$115,676</b>	<b>\$114,903</b>	<b>\$113,970</b>	<b>\$112,865</b>	<b>\$111,578</b>	<b>\$110,098</b>	<b>\$108,413</b>

## Net Cashflow FY 2029 to FY 2038

	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038
<b>Projected Recycled Rate Revenue</b>	\$399,280	\$407,266	\$415,411	\$423,720	\$432,194	\$440,838	\$449,655	\$458,648	\$467,821	\$477,177
<b>Total Revenues</b>	<b>\$399,280</b>	<b>\$407,266</b>	<b>\$415,411</b>	<b>\$423,720</b>	<b>\$432,194</b>	<b>\$440,838</b>	<b>\$449,655</b>	<b>\$458,648</b>	<b>\$467,821</b>	<b>\$477,177</b>
<b>Recycled Water Services Expenses</b>										
Salaries	\$35,844	\$37,457	\$39,142	\$40,904	\$42,745	\$44,668	\$46,678	\$48,779	\$50,974	\$53,268
Employee Benefits	\$22,725	\$23,862	\$25,055	\$26,307	\$27,623	\$29,004	\$30,454	\$31,977	\$33,576	\$35,254
Office Expense	\$4,103	\$4,185	\$4,269	\$4,354	\$4,441	\$4,530	\$4,621	\$4,713	\$4,807	\$4,904
Operating Supplies	\$54,708	\$55,803	\$56,919	\$58,057	\$59,218	\$60,403	\$61,611	\$62,843	\$64,100	\$65,382
Professional Services	\$20,286	\$21,199	\$22,152	\$23,149	\$24,191	\$25,280	\$26,417	\$27,606	\$28,848	\$30,146
Repairs & Maintenance	\$27,976	\$28,535	\$29,106	\$29,688	\$30,282	\$30,888	\$31,505	\$32,136	\$32,778	\$33,434
Monitoring & Permits	\$42,523	\$43,374	\$44,241	\$45,126	\$46,029	\$46,949	\$47,888	\$48,846	\$49,823	\$50,819
Utilities	\$29,931	\$31,427	\$32,999	\$34,649	\$36,381	\$38,200	\$40,110	\$42,116	\$44,222	\$46,433
Admin O/H Allocated	\$54,674	\$57,048	\$59,528	\$62,121	\$64,831	\$67,663	\$70,623	\$73,717	\$76,951	\$80,331
<b>Total Recycled Water Services Expenses</b>	<b>\$292,770</b>	<b>\$302,889</b>	<b>\$313,412</b>	<b>\$324,356</b>	<b>\$335,741</b>	<b>\$347,585</b>	<b>\$359,908</b>	<b>\$372,732</b>	<b>\$386,079</b>	<b>\$399,971</b>
<b>Debt Service</b>										
Existing Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Proposed Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Debt Service</b>	<b>\$0</b>									
<b>Total Expenses</b>	<b>\$292,770</b>	<b>\$302,889</b>	<b>\$313,412</b>	<b>\$324,356</b>	<b>\$335,741</b>	<b>\$347,585</b>	<b>\$359,908</b>	<b>\$372,732</b>	<b>\$386,079</b>	<b>\$399,971</b>
<b>Net Cashflow</b>	<b>\$106,510</b>	<b>\$104,377</b>	<b>\$101,999</b>	<b>\$99,363</b>	<b>\$96,453</b>	<b>\$93,253</b>	<b>\$89,747</b>	<b>\$85,916</b>	<b>\$81,742</b>	<b>\$77,206</b>

### Reserves FY 2018 to FY 2028

Recycled Reserve	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Beginning Balance</b>	\$1,936,073	\$1,228,890	\$505,897	(\$210,032)	(\$951,276)	(\$1,717,151)	(\$2,508,482)	(\$3,326,121)	(\$4,170,950)	(\$5,043,881)	(\$5,945,859)
Transfers - (Net Cashflow)	\$147,117	\$123,670	\$116,774	\$116,296	\$115,676	\$114,903	\$113,970	\$112,865	\$111,578	\$110,098	\$108,413
Transfers - WW	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Projects	(\$867,300)	(\$855,337)	(\$834,183)	(\$857,540)	(\$881,551)	(\$906,234)	(\$931,609)	(\$957,694)	(\$984,509)	(\$1,012,076)	(\$1,040,414)
Interest Income	\$13,000	\$8,674	\$1,479	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$1,228,890</b>	<b>\$505,897</b>	<b>(\$210,032)</b>	<b>(\$951,276)</b>	<b>(\$1,717,151)</b>	<b>(\$2,508,482)</b>	<b>(\$3,326,121)</b>	<b>(\$4,170,950)</b>	<b>(\$5,043,881)</b>	<b>(\$5,945,859)</b>	<b>(\$6,877,859)</b>
<b>Target</b>	<b>\$972,184</b>	<b>\$975,632</b>	<b>\$979,212</b>	<b>\$982,930</b>	<b>\$986,792</b>	<b>\$990,804</b>	<b>\$994,973</b>	<b>\$999,305</b>	<b>\$1,003,808</b>	<b>\$1,008,488</b>	<b>\$1,013,354</b>

### Reserves FY 2029 to FY 2038

Recycled Reserve	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038
<b>Beginning Balance</b>	(\$6,877,859)	(\$7,840,895)	(\$8,836,010)	(\$9,308,200)	(\$9,799,103)	(\$10,309,443)	(\$10,839,974)	(\$11,391,477)	(\$11,852,981)	(\$12,333,986)
Transfers - (Net Cashflow)	\$106,510	\$104,377	\$101,999	\$99,363	\$96,453	\$93,253	\$89,747	\$85,916	\$81,742	\$77,206
Transfers - WW	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Projects	(\$1,069,545)	(\$1,099,493)	(\$574,189)	(\$590,266)	(\$606,794)	(\$623,784)	(\$641,250)	(\$547,420)	(\$562,747)	(\$578,504)
Interest Income	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>(\$7,840,895)</b>	<b>(\$8,836,010)</b>	<b>(\$9,308,200)</b>	<b>(\$9,799,103)</b>	<b>(\$10,309,443)</b>	<b>(\$10,839,974)</b>	<b>(\$11,391,477)</b>	<b>(\$11,852,981)</b>	<b>(\$12,333,986)</b>	<b>(\$12,835,284)</b>
<b>Target</b>	<b>\$1,018,413</b>	<b>\$1,023,675</b>	<b>\$1,029,147</b>	<b>\$1,034,839</b>	<b>\$1,040,761</b>	<b>\$1,046,923</b>	<b>\$1,053,335</b>	<b>\$1,060,008</b>	<b>\$1,066,954</b>	<b>\$1,074,186</b>